

MEMORANDUM

Date: January 29, 2020

Project #: 22268

To: Sarah Figliozzi and Steve Hoyt-McBeth, Active Transportation, PBOT
Amanda Owings, PE & Bob Haley, PBOT
David Reese, David Ellis, Michel George & Denise King, Lewis & Clark

From: Julia Kuhn

Project: Lewis & Clark College (EA 19-115314)

Subject: Transportation Demand Management Plan (TDM)

As required by Title 17.107, the following report presents the Transportation Demand Management Plan (TDM) associated with the Transportation Impact Review (TIR) prepared for anticipated growth and development on the Lewis & Clark Campus. The format of this report follows Portland Bureau of Transportation's (PBOT) applicant checklist for TDM Plans in Campus Institutional (CI) Zones.

SECTION 1. CONTACT INFORMATION

Lewis & Clark College (herein referred to as "the College") is located at 0615 SW Palatine Hill Road in Portland. The College has been submitting bi-annual reporting on the status of its TDM plan since 2009 and will continue to do so in the future.

The contact person for ongoing monitoring is listed below.

- Transportation and Parking Service Manager
- *Phone:* 503-767-7857

The secondary contact information is:

- *Consultant:* Julia Kuhn, Kittelson & Associates, Inc.
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SECTION 2: PROPOSED CAMPUS DEVELOPMENT

As described below, the College is seeking the approval to enable the construction 385,058 square feet of new building space, plus 460 new parking spaces, to serve both existing students and employees and future enrollment growth. Prior to December 18, 2019, campus development was regulated per the Conditional Use Master Plan for the College, as approved by the City as part of LU 08-180498 CU MS (HO 4090017). Under the new Campus Institutional requirements, the new TDM and TIR will help guide the transportation and parking elements needed to facilitate continued campus development for the next ten years

During the next ten years, the College is planning for:

- A modest growth in student enrollment (approximately 200 students amongst the three schools (i.e., undergraduate, graduate and law school));
- A net increase of approximately 210 rooms (accommodating approximately 406 new students) on-campus, configured in a way to better attract upper-class and graduate students to live on campus.
- The addition of up to 460 parking spaces, although the net increase will be less as some parking will be eliminated when certain buildings are constructed or enlarged. It should be noted that the College currently has 200 fewer parking spaces than the maximum allowed by its expiring CUMP. As discussed later in the report, a net increase in 460 spaces would result in a total parking supply that equates to the minimum supply allowable per the CI zoning [33.266.110]. The College intends to provide the parking increase, in part, to help attract upper division undergraduate students to live in new residence hall space planned by the College. These students would not be commuting to and from school and would consequently reduce the impacts on at-capacity intersections.
- If all near term and long term development were to take place over the next 10 years, there would be a net increase in building size of approximately 385,058 square feet. Please refer to Appendix 1¹. The development shown in the graphic labeled “Near Term Development (0 to 5 years)” is very likely to occur in the next decade. Projects shown in the graphic “Long Term Development (5+ years or when funded)” may be developed during the next decade but are dependent upon donor funding.

¹ The precise location, size, programming and specific details of the buildings shown in Appendix 1 will be determined at time the projects are funded for construction. The full Master Plan prepared by Sasaki in 2017 on behalf of the College can be found at <https://www.lclark.edu/live/files/28399-2019-facilities-master-plan>.

Campus Vehicular Parking Supply

To support continued campus development, the College is anticipating increasing the number of vehicular parking spaces by 460 by the year 2029. Table 1 and Figure 1 summarize the existing parking supply on-campus today.

Table 1. Existing Parking Supply (Spaces)

Area	ADA	Visitor	Staff	Service	Carpool	Motorcycle	Electric Vehicle	Zipcar	Student	Total
Athletic Fields/North Campus	11	15	118	13	25	3	0	0	381	566
Law School	5	5	95	0	3	10	1	0	28	147
Undergraduate	15	11	88	9	3	6	2	5	355	494
Graduate	5	2	42	2	0	0	1	0	168	220
Facilities Yard*	0	1	0	29	0	0	0	0	0	30
Total	36	34	343	53	31	19	4	5	932	1,457

*Facilities yard not counted in Parking Demand Studies as is gated off and houses campus service vehicles.

Using 2018/2019 student enrollment, the existing parking supply ratio on-campus is identified below.

- Existing Parking Supply per Student = 0.44 (1,427 spaces²/3,214 students)

As proposed, a net increase of 460 parking spaces will be added to campus over the next ten years. At this same time, the enrollment is anticipated to increase to up to 3,405 students. This would change the parking supply ratio to:

- Future Parking Supply per Student = 0.55 (1,887 spaces¹/3,405 students)

At this point, the net increase in parking is contemplated to primarily occur near the Huston Sports Complex, in the Graduate Campus, and other renovations/additions in the main part of campus.

In addition to the on-campus parking supply, the College also leases 75 graveled/paved spaces at St. Mark's Church, located to the northwest of the SW Boones Ferry Road/SW Terwilliger Boulevard intersection. The College intends to discontinue the use of the St. Mark's vehicular parking spaces after sufficient replacement supply is added on-campus.

²Does not include the 30-space Facilities Yard.



**Existing Parking Locations
Lewis and Clark College
Portland, Oregon**

**Figure
1**

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Vehicular Parking Code Requirements

The allowable parking in a CI zone is determined under Zoning Code Section 33.266 (see Section 33.150.300). Sections 33.266.110 and 33.266.115 identify the minimum and maximum number of vehicular parking spaces by land use category. Per Table 266-2, the applicable number of vehicular parking spaces for the College is:

- Minimum = 1 vehicular parking space per 600 square feet of building plus 1 space per four dorm rooms.
- Maximum = 1 vehicular parking space per 400 square feet of building plus 1 space per 2.6 dorm rooms.

Table 2 identifies the existing and future vehicular parking requirements per the Zoning Code.

Table 2. Comparison of Parking Code Requirements to College Supply

	Zoning Code Requirement		Existing Campus			Future Campus		
	Minimum	Maximum	Size	Minimum	Maximum	Size	Minimum	Maximum
Buildings	1 per 600 sq ft	1 per 400 sq ft	882,238 sq ft	1,470	2,206	940,147 sq ft	1,567	2,350
Dorm Rooms	1 per 4 rooms	1 per 2.6 rooms	860 rooms	215	331	1,070 rooms	268	412
Total				1,685	2,536		1,834	2,762

As shown in Table 2, the minimum required parking per code is higher than that provided on-campus today (i.e., 1,685 spaces required by code whereas 1,427 spaces are provided on-campus). Further, only 1,887 spaces (excluding the 30-space Facilities Yard parking) are planned in the future versus a minimum of 1,834 spaces.

Chapter 33.266.110.C also identifies that for institutional uses, five percent of the vehicular parking spaces must be designated for carpools. For the College this translates to:

- Existing Carpool Parking Spaces Required = 5% * 1,427 = 71 spaces; as shown in Table 1, only 31 carpool spaces are marked on-campus today.
- Future Carpool Parking Spaces Required = 5% * 1,887 = 94 carpool spaces needed in the future.

Existing Bike Parking Supply

The bike parking supply was measured on-campus in Spring 2019; the results are summarized in Table 3.

Table 3. Existing Bike Parking Supply

Area	Long-Term	Short-Term	Zagster	Total
Athletic Fields/North Campus	0	249	0	249
Law School	0	81	0	81
Undergraduate	392	210	17	619
Graduate	0	22	0	22
Total	392	562	17	971

As shown in Table 3, of the 971 bike parking spaces, 17 are related to bike-sharing (i.e., Zagster). In addition, approximately two-thirds of the bicycle parking spaces are covered (either interior to a building or exterior covered space).

Bicycle Parking Code Requirements

The City’s Zoning Code Section 33.266.220 identifies the minimum and maximum number of bike parking spaces by land use category (See 33.150.300). Per Tables 266-6 and 266-7, the applicable number of bike parking spaces for the College is:

- Minimum Short-term = 1 bike parking space per 10,000 square feet of building; none required for residence halls.
- Minimum Long-term = 1 bike parking space per 20,000 square feet of building plus 1 space per eight dorm residents (i.e., beds, not rooms).

Table 4 identifies the existing and future bike parking requirements per the Zoning Code.

Table 4. Comparison of Bike Parking Code Requirements to College Supply

	Zoning Code		Size	Existing		Size	Future Campus	
	Long-Term	Short-Term		Long-Term	Short-Term		Long-Term	Short-Term
Buildings	1 per 20,000 sq ft	1 per 10,000 sq ft	882,238 sq ft	44	88	940,147 sq ft	47	94
Dormitory	1 per 8 residents	none	1,418 residents	177	0	1,824 residents	228	0
Total				221	88		275	94

In comparing Tables 3 and 4, the existing bike parking supply on-campus today exceeds the future needs for both short-term and long-term parking.

SECTION 3: EXISTING CONDITIONS

Campus Description

Lewis and Clark College started in 1867 when the Presbytery of Oregon secured a charter from the state legislature to build a new college in Albany. In 1934, the “Albany College” opened an extension campus in Portland. Due to high growth in enrollment, the College trustees moved all operations to Portland and acquired the Frank Estate and 63 acres in Portland’s southwest hills from the Frank family soon thereafter. Today, Lewis and Clark College occupies a total of approximately 137 acres and includes the College of Arts and Sciences (CAS), the Graduate School of Education and Counseling (GSEC) and the Law School.

Today, the campus includes approximately 1.3 million square feet of building space to serve the student body. Table 5 presents a summary of the building inventory, by type, on-campus. The building locations are reflected in Figure 2.

Table 5. Summary of Existing Campus Buildings (totals by square feet)

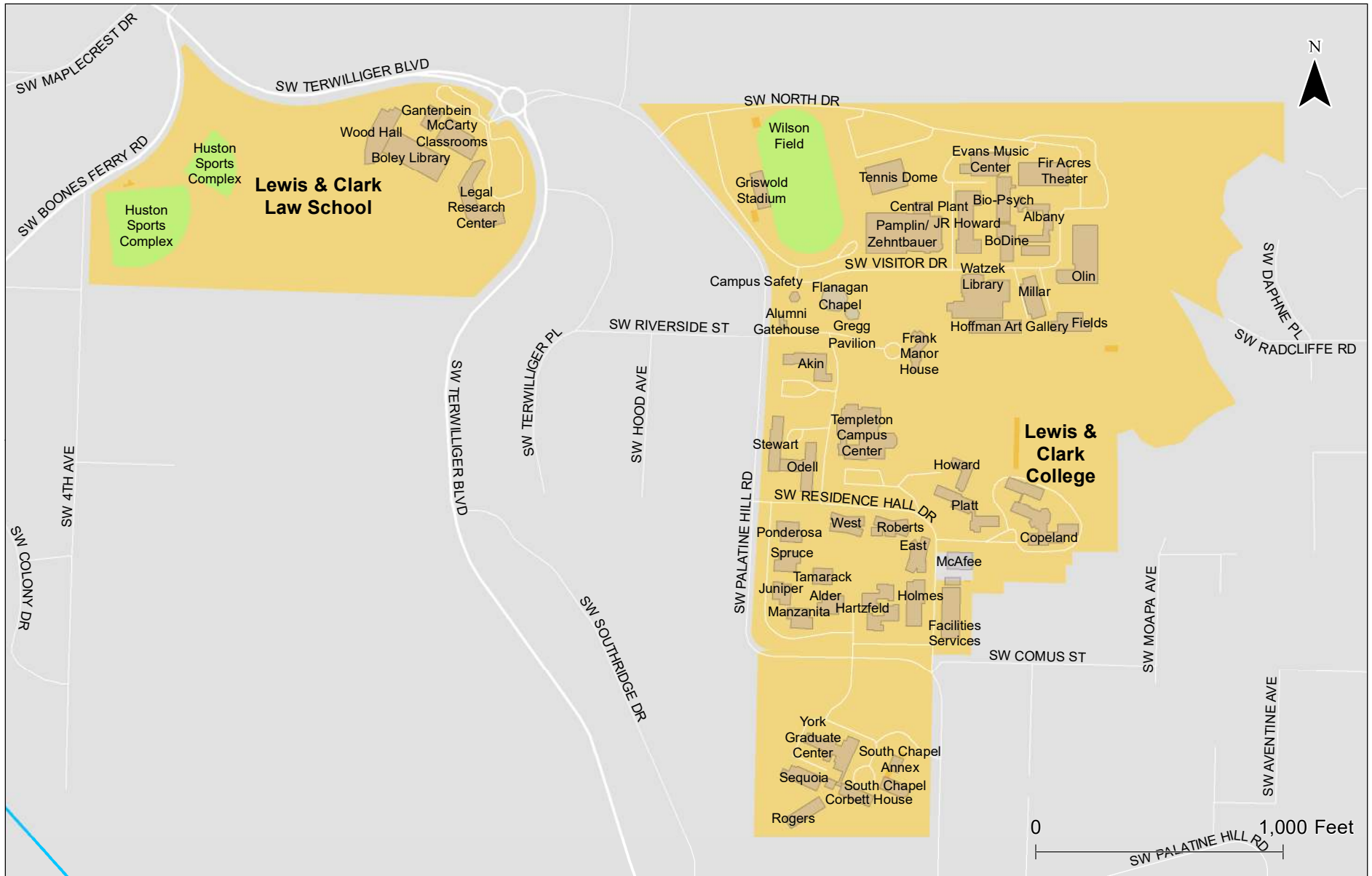
Area	Academic	Admin	Athletic	Library	Recreational	Residential	Support	Total
Athletic Fields/North Campus	264,198	20,499	115,282	103,200	1,228	0	21,323	525,730
Law School	98,203	0	0	29,248	0	0	0	127,451
Undergraduate	109,608	15,440	0	0	0	421,642	20,884	567,574
Graduate	52,348	23,717	0	0	7,060	0	0	83,125
Total	524,357	59,656	115,282	132,448	8,288	421,642	42,207	1,303,880

Table 6 provides a summary of the number of students and staff for the past six academic years.

Table 6. Changes in Enrollment and Staff Levels

Academic Year	Undergraduate		Graduate		Law School	
	Students	Staff*	Students	Staff	Students	Staff
2013-14	2,099	470	566	86	593	139
2014-15	2,165	508	537	76	563	107
2015-16	2,190	504	546	82	586	117
2016-17	2,116	509	552	91	583	126
2017-18	2,087	491	525	100	566	130
2018 - 2019	2,070	509	597	115	547	137
Average	2,121	499	554	92	573	126

*Includes Common Services staff as well.



**Existing Building Locations
Lewis and Clark College
Portland, Oregon**

**Figure
2**

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Adjacent Multimodal Transportation Facilities

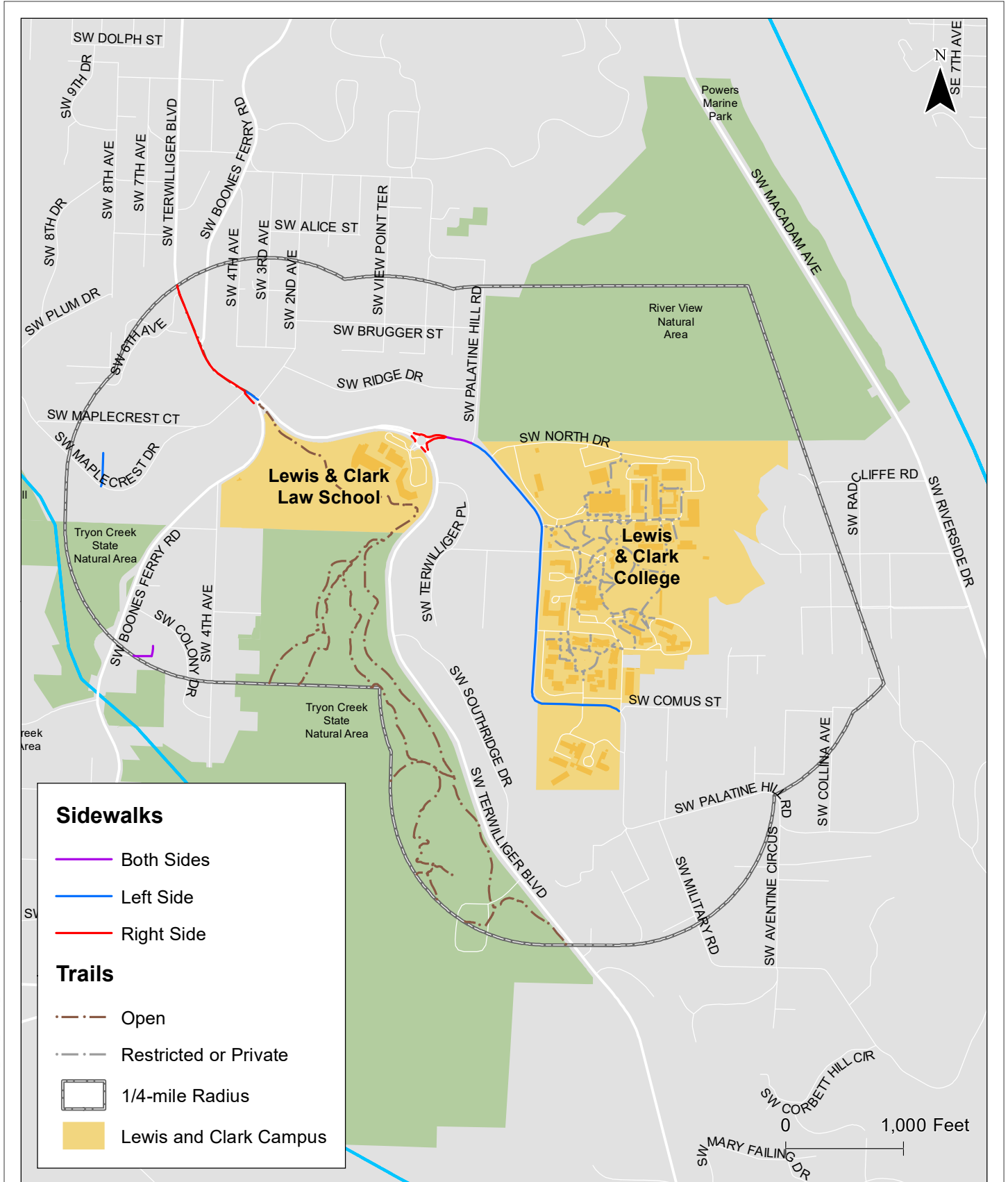
The campus is served by a variety of multimodal facilities providing students, staff and visitors with access via walking, cycling, transit and automobile. Figures 3 – 5 illustrate the existing pedestrian, bicycle and transit facilities within one-quarter mile of the campus boundaries.

As shown in Figure 3, the following TriMet routes provide access to campus:

- *Route 38 (Boones Ferry Road)* – this route provides service between Tualatin, Lake Oswego and downtown Portland. Service is generally provided between 6 AM and 9:30 AM and between 2:30 PM and 7 PM on weekdays only. The nearest stops to the College are located on SW Boones Ferry Road near SW Colony Drive and near SW 4th Avenue as well as along SW Terwilliger Boulevard near SW Maplecrest Drive and near SW 6th Avenue.
- *Route 39 (Lewis & Clark)* – this route provides service between the College, Burlingame, and Hillsdale and has multiple stops within the college boundaries. Service is provided on weekdays only generally between 6 AM and 7 PM.

In addition to TriMet service, the College provides a free shuttle (the Pioneer Express³) between campus, nearby groceries and services, and downtown Portland during the school year on both weekdays and weekends. Airport shuttle service is also offered at the start and end of each semester, at Thanksgiving, and at Spring Break.

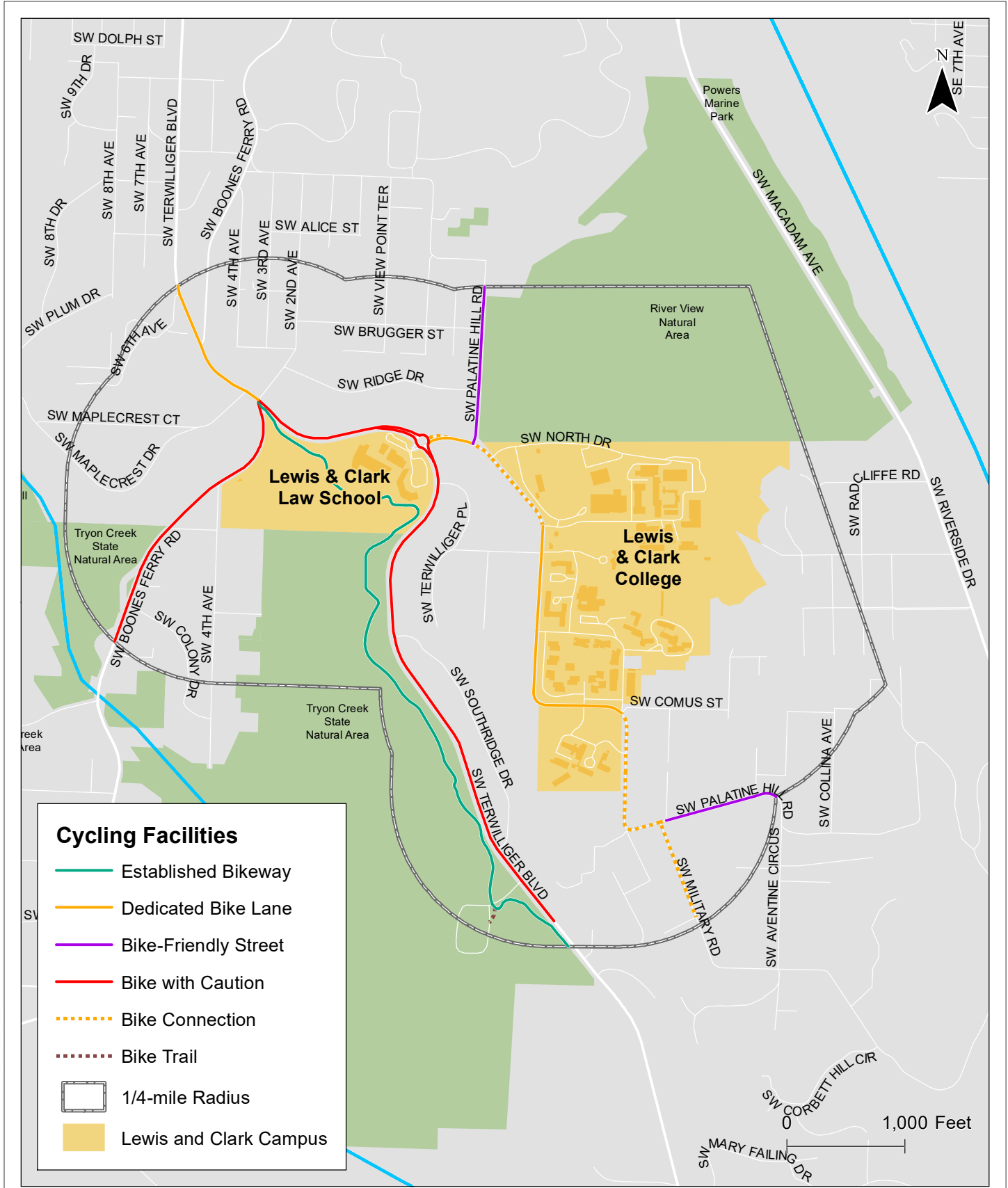
³ https://www.lclark.edu/offices/transportation_and_parking/shuttle/



Walking and Trail Facilities within 1/4-mile of Lewis and Clark College Portland, Oregon

Figure 3

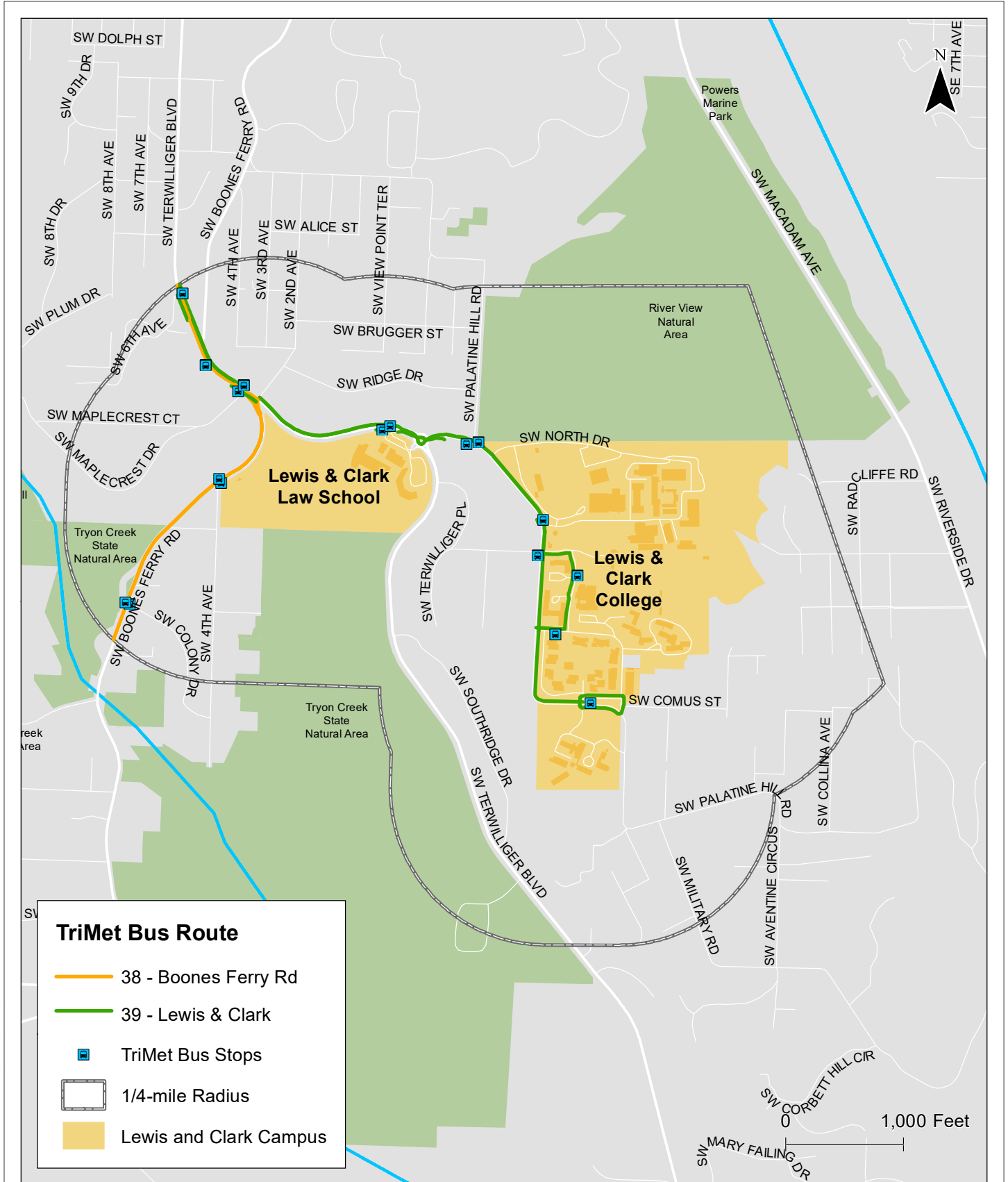
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Cycling Facilities within 1/4-mile of Lewis and Clark College Portland, Oregon

Figure 4

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Transit Facilities within 1/4-mile of Lewis and Clark College Portland, Oregon

Figure 5

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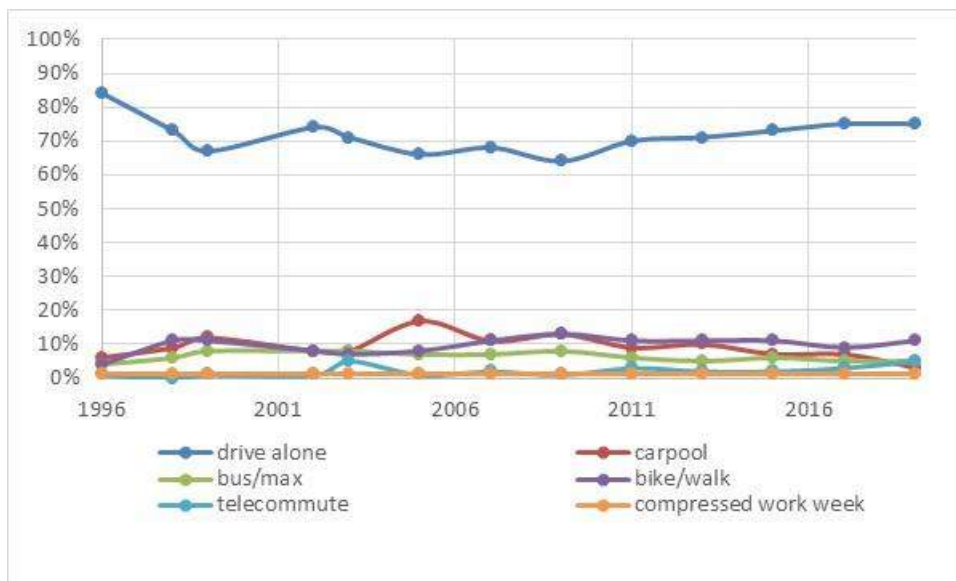
SECTION 4: PERFORMANCE TARGETS

The City’s Campus Institutional Zoning designation recognizes the essential role that colleges and hospitals play in future job growth and innovation in Portland. The zoning requirements also recognize that these critical institutions play a role in shaping transportation behaviors and system needs between now and the year 2035. As such, the City has established performance targets for these institutions to sufficiently achieve relevant mode share targets established by the Transportation System Plan (TSP). For the College, the relevant target in the year 2035 is for no more than 35 percent of all trips be made by single occupancy vehicle travel. This target also applies to all “western neighborhoods” within the City.

Baseline Mode Split

The College has been participating in TriMet’s Employee Commute Options (ECO) Survey since 1996. During this time, the single occupancy vehicle (SOV) rate for employees has averaged 71 percent. The most recent ECO survey was conducted in 2019 at which time the SOV rate was 75 percent. Exhibit 1 presents the 20-year history on employee mode split.

Exhibit 1. Historical Mode Split Data



Until now, the College has focused the mode split surveys on its employees and has not accounted for the travel behaviors and mode choice of students living on-campus as well as those living off-campus. The College also surveyed the student population in the Fall of 2019 to understand how the students contribute to achieving the City goals for reducing drive alone trips throughout the region.

Table 7 reflects the modified mode split calculation for 2019 using both student and employee survey information.

Table 7. Baseline Mode Split with Employees and Students

Commute Method	Total Expected Weekly Trips			Percent of Total Weekly Trips
	Employees	Students	Total	
Drive Alone	2,252	4,198	6,450	40%
Carpool/Shuttle	98	1,028	1,126	7%
Bus	145	452	597	4%
Bike/Walk	338	997	1,335	8%
Telecommute/Compressed Work Week	189	N/A*	189	1%
Live on Campus	0	6,498	6,498	40%
Total	3,022	13,173	16,195	100%

*Although there are students who participate in school activities from off campus (online courses and study; classes held off campus, etc.) and who do not attend classes five days a week, no reductions were made to the student trips to reflect these activities/schedules. In future surveys, the College will add/refine the questions to provide further detail on this element.

As shown above, the current drive alone rate when considering both employees and students is only five percent higher than the target 2035 rate.

SECTION 5: EXISTING TDM STRATEGIES

Lewis & Clark College maintains a page on its website with detailed information to encourage non-single occupancy vehicle travel to campus. In addition, the College has a 14-member Transportation and Parking Advisory Committee (TPAC) composed of staff, faculty, and students that serves as an advisory group to the Vice President of Business and Finance/Treasurer related to transportation and parking issues and policies.⁴

Relevant information required by the City’s TDM checklist related to the existing TDM strategies are provided below.

Program Management

Per Action Item #1 in the existing TDM Plan, a new Parking and Transportation Manager has recently been hired by the College. This is a full-time position and he will oversee management of transportation and parking on-campus as well as continued implementation of the TDM Plan.

⁴https://www.lclark.edu/offices/transportation_and_parking/overview/

Information and Education

The College maintains a detailed summary of available travel options to the campus via its website: https://www.lclark.edu/offices/transportation_and_parking/overview/ for use by visitors, employees, and students. This site provides information on parking, TriMet services, cycling, walking, carpooling, shuttle services, and electric vehicle infrastructure. This information is made available at various points within the campus and is being included in student and employee orientation, new student fairs, and newsletters/mailings.

Financial Incentives

The transportation options provided by the College and their associated costs are provided below.

Transit

The College increased subsidization of bus passes in 2016. The available transit routes within and adjacent to campus were shown in Figure 5. During the past twenty years, the percentage of employees using transit for commuting to/from the College has varied between 5 and 8 percent, with an average rate of 7 percent.

For those taking transit, the applicable costs for a TriMet Hop Card in the 2018/2019 school year was:

- Monthly bus pass = \$25 per month; which equates to \$100 per semester (or approximately \$1.40 per day assuming 70 days per semester); or
- 10 ride ticket = \$6.25.

The College spends approximately \$175,000 annually on TriMet subsidies.

Pioneer Express Shuttle

As noted previously, free shuttle service via the Pioneer Express is provided between campus, nearby groceries and services, and downtown Portland. The shuttle is a 68-passenger bus providing service throughout the day during the school year on both weekdays and weekends.⁵ Operation of the shuttle costs approximately \$223,000 per school year, funded entirely by the College. The average ridership per day is 202 passengers (5,621 per month). The shuttle is available for students, faculty, employees and visitors. The College does not regulate use by non-College users and anecdotal evidence suggests that non-College users also use the shuttle on occasion.

⁵ https://www.lclark.edu/offices/transportation_and_parking/shuttle/

Airport Shuttle Service

Airport shuttle service is also offered at the start and end of each semester as well as at Thanksgiving and Spring Break. At the start and end of each semester, the airport shuttle operates between Upper Templeton on-campus and the lower level of the airport approximately six times per day. During Spring Break and Thanksgiving, shuttle service via Pioneer Express is provided between the campus and the MAX Red Line with students given a free TriMet pass to travel to the airport.

Vanpools

The College's webpage on carpooling provides information on MetroVan Vanpools for interested users with a link to the appropriate contract person at Metro.

The College also provides vans to transport students in Outdoor programs as well as for "away" athletic events. The Outdoor program maintains six, 15-passenger vans for transporting students to off-site activities. The capital investment in these vans is approximately \$104,000, not including annual maintenance and mileage costs. In the 2018/2019 school year, approximately 174 trips were taken with an average of 12.1 students per trip. Based on an approximately 140-day school year, *this translates to a savings of 15 one-way trips per day that could otherwise be made by single occupancy vehicle* (i.e., 2,108 students transported/140 days) if the vans were not provided.

The Athletic Department maintains four 12-passenger vans, one 9-passenger van and one 14-passenger van with a total capital value of approximately \$90,000 in equivalent trade-in costs. The College contracts with a bus company that provides 47 and 55 passenger buses, as needed, to transport athletes to off-site events. All students must travel via buses/vans with their teams for any event that is more than 80 miles from campus.

In addition, the vans are used to transport athletes for the following:

- Off-site daily practice locations during September – November and January – May for both the Crew (40 – 70 athletes depending on the season) and Golf (approximately 20 athletes) teams; and,
- Occasional PE class activities, Student Athlete Advisory Committee activities, off-site athletic trainings, team community service activities, etc.

During the 2018/2019 school year, a total of 466 van trips transported athletes with the majority of those at seating capacity. *Assuming an average of 12-passenger vans, this translates to 40 one-way trips per school day being made by van that might otherwise be made by private automobile.* During the same school year, 82 trips were made by buses. *Assuming an average of 51-passenger buses, this translates to 30 one-way trips per school day being made by bus that might otherwise be made by private automobile.*

Taxi/Ride Hailing

The College provides information on available taxi services as well as rental car companies operating in the vicinity of the campus. No subsidization is provided for students, faculty or staff for trip-making.

Cycling Incentives

The College provides showers and lockers in Pamplin, in Rogers Hall, and at the Law School. They also have recently added three small stores throughout campus with food and other incidentals as well as placed self-repair bike stations at several locations on campus. Cyclists can also use the Riverview Cemetery to travel to/from SW Macadam Avenue (Highway 43).

In 2017, the College began partnering with Zagster to provide an on-campus bike sharing program. Currently, 8 Zagster bikes are housed at Tamarack-Forest Hall and 9 are housed at the Templeton College Center, providing convenient access for all users. The College spends \$18,000 annually on the Zagster bike share service. In 2018/2019, approximately 390 trips were taken by Zagster bikes (\$46 per trip).

Walking Incentives

The natural landscaping on-campus and in nearby Tryon Creek park provide an aesthetically pleasing environment for walking for adjacent residents, faculty, staff and students. The College has made a number of pathway and sidewalk improvements on-campus to facilitate comfortable and convenient walking between buildings. The significant topography surrounding the campus is challenging for longer distance commuting via both cycling and walking. As such, the average cycling/walking rate for employees has varied between 8 and 13 percent during the past twenty years, with an average of 10 percent using these modes for daily commuting.

Emergency Ride Home

The College participates in TriMet's emergency ride home program for students, faculty and staff in the event of family emergencies or shuttle bus failures. TriMet provides the funds for faculty and staff through the College's participation in the ECO program whereas the College funds rides home for students. All users are provided a ride home via a cab.

Carshare

The College has partnered with Zip Car to house five carsharing vehicles on-campus. These vehicles are housed near the Templeton College Center, providing convenient access to all users.

Eligibility for TDM

As described above, all faculty, employees and students have access to the plethora of TDM options provided by the Campus.

Budget for Financial Incentives

As described above, the College has made significant investments in providing transportation options for trip-making by all modes for students, staff and faculty. Many of the investments also benefit the nearby neighborhoods as well. Lewis & Clark remains committed to continued investment in providing comfortable, convenient and safe access to and within its campus, consistent with one of the College's Core themes: *"We are a community that commits itself to diversity and sustainability as dimensions of a just society."*

Parking Management

The College has been charging all users to park on-campus during the school year since 1998. Freshman are not permitted to bring cars to campus unless special permission is granted. Further, the College has a cap on the number of on-campus residents that can bring their cars to campus and pay to park.

Existing Parking Supply and Restrictions

As part of previous Conditional Use Master Plan (CUMP) approvals, the College has a cap on the number of spaces that can be provided on-campus. This equates to 0.475 spaces per students enrolled and physically attending classes at the College. In 2017, this cap was equivalent to 1,461 spaces (3,076 capita students in spring 2017 * 0.475). As was shown in Table 1, the College has 1,427 spaces on-campus which is below the existing CUMP cap and well below the parking supply that is permissible via the Zoning Code (Chapter 33.266.110.115).

Parking Pricing

With the exception of freshman students, all other users can choose to pay for parking based on the following rates (2018/2019 school year):

- Students = \$173 per semester; based on approximately 70 school days per semester, this equates to approximately \$2.50 per day.
- Carpools = \$173 per semester, cost sharing is determined by members of individual carpool. Faculty, staff and students interested in carpooling are provided with access to drivelessconnect.org for carpool matching services. The college also provides a ride-share web-based discussion forum on interested participants.

- Employees = \$43.25 per month during school year (September – April); this equates to \$173 per semester, or approximately \$2.50 per day;
- Motorcycle = \$30 per semester;
- Evening Passes (no day access allowed) = \$129 per semester, valid for parking after 3 PM only;
- Flexible semester pass = \$55 per weekday per semester for 3 or fewer days per week; and,
- Daily passes = \$5 for 7 AM – 7 PM per day; \$3 for 3 PM – 7 PM per day.

Table 8 identifies the number of parking permits by category (not including daily passes for visitors and flexible passes) for Fall 2018 as well as estimates of the percentage of the students and faculty/staff that purchased the permits.

Table 8. Fall 2018 Parking Permit Information

	Rate per Semester	Approximate Campus Population	Fall Permits	Annual Pass	Total Parked in Fall	Percent of Population Parked in Fall
Off-Campus Students	\$173	1,816	435	287	722	40%
On-Campus Students	\$173	1,398	102	167	269	19%
Carpool Student	\$173	1,816	36	27	63	3%
Carpool Staff	\$173	760	0	21	21	3%
Staff	\$173	760	96	516	612	80%
Motorcycle	\$30	3,974	0	8	8	0%
Evening	\$129	3,974	63	11	74	2%

Parking Demand

As part of the Transportation Impact Review (TIR), parking demand was measured during the Fall 2018 semester during a typical school week and when no inclement weather was present that would affect normal commute patterns. The existing demand for the College was measured at all on-campus parking locations on an hourly basis from 7 AM to 5 PM. At this same time, existing parking demand along adjacent on-street locations was measured within the neighborhood (at a total of 391 spaces on-street).

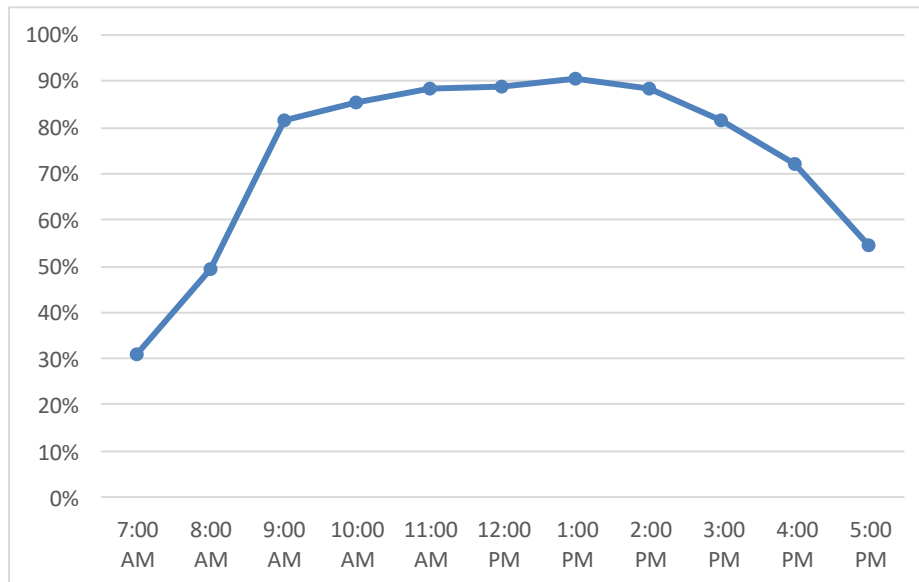
Details of the parking demand survey are provided in the TIR. A summary of the parking demand study includes:

- During the course of the day, the adjacent neighborhood streets were less than 12 percent occupied by parked vehicles. Prior to the start of the school day, the streets

were 9 percent occupied, thereby demonstrating that there are minimal parking increases attributable to campus activities.

- During the course of the day, the on-campus parking peaked at 91 percent full and varied between 81 and 91 percent full between 9 AM and 3 PM. The overall on-campus parking utilization is reflected in Exhibit 2.
- The on-campus peak parking demand ratio is 0.40 spaces per student and occurs at 1 PM (1,289 spaces utilized/3,214 students). If the College were to achieve an 85 percent full standard, the ratio would equate to 0.47 spaces per student for a total supply of 1,516, which is within the CUMP cap of 0.475 spaces per student but below the minimum Zoning Code provisions.

Exhibit 2. Current On-Campus Parking Utilization



Off-Site Parking Management

The College’s Department of Transportation and Parking investigates all reported neighborhood parking violations. As discussed above, the on-street parking demand survey conducted in Fall 2018 did not reveal any measurable parking in the neighborhoods during a typical school day.

As noted previously, the College leases 75 paved/gravel parking spaces at the nearby St. Mark’s Church to support campus activities. This is not part of the long-term parking supply contemplated by the College.

Bicycle Parking and Amenities

Further detail on bicycle parking, showers and lockers, bike facilities, and bike sharing are provided in above sections of this report.

Event Management

The Campus Events staff coordinates with the Department of Transportation and Parking to ensure large events occur on weekends and that simultaneous events are not held on campus that would result in off-site impacts. Further, the only high school graduation that the College hosts is for the nearby Riverdale High School. In further recognition of “being a good neighborhood”, the College’s undergraduate graduation ceremonies are currently held at the Portland Memorial Coliseum and restrictions are placed on major evening events at Griswold Stadium.

Telecommuting for Staff and Faculty

The College has established policies, procedures and guidelines that enable eligible staff to utilize four-day work weeks and/or telecommute during certain days of the week, thereby reducing daily trips to campus. During the past twenty years, the combined telecommute/compressed work week has varied between 2 and 6 percent, with an average of 3 percent of staff utilizing these options.

On-Campus Housing

As discussed above, during the 2018/2019 school year, there were 1,418 beds on-campus that housed 1,398 undergraduate, graduate and law students. With the residence halls operating at 99 percent capacity, the college intends to add 406 additional beds (210 new rooms) on-campus during the next ten years, with a focus on attracting more upper-class and graduate students to live on-campus. The College’s plans to increase on-campus residency combined with its ongoing commitment to restrict freshman parking and to provide an overall cap on resident parking on-campus is a further demonstration of its TDM program effectiveness in reducing single occupancy vehicle travel.

Faculty/Law School Housing Program

To encourage faculty and staff to purchase/rent homes within walking distance to campus (thereby reducing the need to drive to work), the College owns 24 homes in the Collins View neighborhood. Of these, 16 homes have been sold or rented to faculty/staff and 8 are rented to law students.

Ongoing Public Engagement

Per the existing TDM plan, the College attends the monthly Collins View Neighborhood Association meetings to ensure open lines of communication. As needed, the College also holds special meetings with the neighborhood to solicit input on Master Planning project implementation.

In addition, the College has ongoing collaboration with TriMet and the City of Portland on identifying ways to improve multimodal facilities, including transit service, adjacent to and providing access to the neighborhood.

SECTION 6: COMPLIANCE WITH EXISTING APPROVED TDM PLAN

As part of past Conditional Use Master Plan Decisions (LUR97-00074 CUMS AD & LU08-180498 CU MS), the College has been providing bi-annual reporting on the status of its TDM plan to the City of Portland. This reporting includes information on 36 strategies, many of which are summarized in the above sections of this report, as well as the bi-annual mode split surveys. As reported during the past ten years, the College continues to make progress toward and significant investments in enhancing transportation options for faculty, staff and students. In addition, the College remains in compliance with its Public Involvement and neighborhood engagement obligations.

SECTION 7: FUTURE TDM STRATEGIES

Given that the College has an approved TDM, the new Campus Institutional zoning requirements allow Lewis & Clark eligibility under the “*Ongoing Participation and Adaptive Management Actions.*” Per this option, the following outlines the mode split trends relative to the performance targets and a timing of potential implementation.

Existing Strategies to be continued under new TDM Plan

Parking Management

- Pricing of all parking for all users (approximate current cost is \$2.50 per day).
- Off-site parking management via employee and student vehicle registration.
- Prohibition of on campus vehicle registration by first-year students.

Financial Subsidies

- 75 percent transit subsidy to employees, campus contractors, and students.
- Provision of free shuttle service provided during the school year, on weekdays and weekends, between campus, nearby groceries and services, and downtown Portland. Lewis and Clark College also provides an airport shuttle service during select times of the year.
- Provision of 8 on campus bike share bikes through the company Zagster.
- Emergency ride home service for employees, via TriMet ECO program and for students via College funds.
- Partnership with Zipcar to house 5 carsharing vehicles on campus.

Information and Education

- Continued distribution of TDM information and education, to be expanded under newly hired Transportation and Parking Service Manager.

Telecommuting

- Existing established policies and guidelines that enable eligible staff to take advantage of telecommuting and/or compressed work weeks.

On Campus Housing

- Provision of 1,418 beds on-campus today.

Proposed New TDM Strategies & Implementation Timeline

Immediate – 0 to 2 years (actions to be completed or substantially underway by January 2022)

Program Management

- Integrate the newly hired Transportation and Parking Service Manager into daily parking and transportation operations, engaging in activities such as:
 - Coordinating and conducting college-wide, objective-based transportation demand management (TDM) planning for the reduction of single occupancy vehicle trips, including strategy development and implementation, regional government agency liaison, statistical compilation, evaluation and reporting;
 - Developing alternative transportation programs to support college and campus TDM strategies and coordinating the marketing of such strategies;
 - Managing and planning shuttle schedules;
 - Manage the parking permit system and recommending permit and fee structures;
 - Overseeing collection and management of various fees and fines relating to parking and transportation;
 - Handling complaints from the college and surrounding communities regarding parking and transportation; and
 - Conducting traffic and parking studies.

Parking Management

- Increase the parking permit prices to the maximum amount allowable during the term of existing collective bargaining agreements (CBAs); this increase will occur in two steps (at the beginning of the 2020-21 and 2021-22 academic years) and will result in approximately a 4% increase each year. Make commensurate increases to other types of parking permits but maintain the existing price for carpool permits.
- Develop campus wide communications strategy that explains how parking revenue supports campus wide transportation benefits.
- Explore and report back on the use of Parking Kitty and/or other daily parking permit applications to assess overall effectiveness in decreasing daily vehicular trips.
- Conduct engagement with College executives and relevant departments in order to collaboratively identify solutions to address implications of daily parking changes on tax benefits and collective bargaining agreements.
- Implement stricter enforcement policies on unregistered vehicles parking on campus and College-related vehicles parked in the neighborhood.
- As new parking spaces are added on-campus, install and mark the 71 reserved carpool parking spaces currently required by city code in convenient locations around campus. Compliance with the minimum carpool supply requirement is anticipated no later than when the first 150 new spaces are added to campus. The College will ensure the designated carpool spaces on campus complies with the zoning code minimum requirements as the total auto parking inventory increases.

Financial Incentives

- Review results of fall 2019 semester survey of students to identify potential for additional transportation and parking options; use the survey results to help inform study of enhanced and expanded campus shuttle options, including the potential for dynamic shuttles and routes to in-demand neighborhoods (such as, potentially, Sellwood or another eastside stop(s)).
- Continue working with campus contractors to incentivize them to use alternate methods of transportation, reducing daily campus trips.
- Work with Portland Bureau of Transportation to consider the establishment of a bike-share station on campus.
- Continue ongoing work with TriMet to explore solutions that would provide better public transportation to and from campus.
- Continue ongoing conversations with TriMet on subsidy options for employee and student transit passes and explore ways in which TriMet can support convenient and timely pass/HopCard renewals. Negotiations should include support to facilitate Low Income Fare pass registration and College subsidy.

- Continue ongoing conversations with College executives and TriMet on subsidy options and financing for TriMet's Universal Pass to all campus employees.
- Evaluate extending additional transportation incentives to employees who don't drive to campus by subsidizing carshare use for vehicles on campus.

Information and Education

- Provide information during student registration at each of the three schools on trip planning options, on campus housing options, and all transportation subsidies available.
- Develop or invest in a commercially available trip-planning App to provide pre-trip planning for transit, shuttle, walking, biking, carpooling and ridesharing options to students and employees.
- Research and implement additional measures to incentivize carpooling.
- Include quarterly articles in the campus newsletter The Source regarding the importance of, and stories about, getting to and from campus via non-automobile modes of travel. Include success stories of staff and students using alternatives to single occupancy car commuting.

Telecommuting

- Identify college administrative positions which might be eligible for either telecommuting or alternative or compressed work schedules. If significant positions are identified, adopt a College goal around telecommuting and alternative schedules, including target employee participation rate and target percentage mode share for telecommuting.

On Campus Housing

- Complete residential housing demand study to inform short- and long-term decisions about residence hall supply, programming and configuration; this study will help to inform ways to achieve College's goal of increasing the percentage of students living on campus (and therefore decreasing the percentage of students commuting to campus). Following the study, the College will commence the design process for construction of new residence hall offerings.

Near Term – 2 to 4 Years (actions to be completed or substantially underway by January 2024)

Parking Management

- Evaluate impacts, including the potential impact on recruitment and retention of students, of extending vehicle registration prohibition to second year students.
- Implement tools, such as Parking Kitty, that have been identified by the College as the most likely strategies for incentivizing daily mode shift decisions and decreasing the number of vehicular trips.
- *Conditional Requirement:* If by July 2023, the College’s campus-wide non-SOV mode shift is not 46 percent or better, the following triggered action will be required:
 - Begin immediate discussions with PBOT concerning additional mitigation measures to be implemented in order to reduce the non-SOV mode split to achieve this interim performance target. These additional measures will include beginning the implementation of a daily priced parking system or other strategy approved by PBOT.
 - Note: The College’s 2019 baseline campus-wide non-SOV mode share was 60 percent, thereby exceeding this interim performance target.

Financial Incentives

- Provide subsidized low-income TriMet pass for all students and employees who qualify for and register for low-income fare pass (\$28 monthly value for student/employee). Explore automatic certification possibilities with TriMet based upon student financial need.
- Continue evaluation and financing discussions of subsidizing an employee Universal Pass annual transit pass. Evaluation to include examination of whether increased subsidization of TriMet passes will reduce SOV trips to campus.

Information and Education

- As part of the physical education and well-being curriculum, add a course and/or expand an existing course to address bicycle safety, commuting options and maintenance.

On Campus Housing

- Informed by the fall 2019 survey of student need, consider and potentially undertake renovations to the Templeton Campus Center in a manner that accounts for student transportation needs, potentially including development of a student mobility and transportation hub.

- Commence renovation, replacement and/or construction of residence hall(s) on campus as part of a strategy to increase the percentage of students living on campus (and therefore decreasing the percentage of students commuting to campus).

Medium Term – 4 to 7 years (actions to be completed or substantially underway by January 2027)

Parking Management

- Continue to explore additional strategies that may incentivize commuters to use alternative transportation modes, such as the possibility of phasing out semester passes in favor of monthly or daily passes.
- Increase pricing for parking pass to approximate a \$3.00 per day charge, or some other rate structure accounting for income level and other factors, subject to revisions to collective bargaining agreements.
- *Conditional Requirement:* If by July 2025, the College's campus-wide non-SOV mode shift is not 49 percent or better the following triggered action will be required:
 - Begin immediate discussions with PBOT concerning additional mitigation measures to be implemented in order to reduce the non-SOV mode split to achieve this interim performance target. These additional measures will include beginning the implementation of a daily parking permit system or other strategy approved by PBOT.
 - Note: The College's 2019 baseline campus-wide non-SOV mode share was 60 percent, thereby exceeding this interim performance target.

Financial Incentives

- Continue working with TriMet to find ways to improve public transit to campus.
- Study whether offering shuttle to Barbur Transit Center will motivate commuters to ride light rail once SW Corridor rail is built on Barbur Blvd.

On Campus Housing

- Continue renovation, replacement and/or construction of residence hall(s) on campus as part of a strategy to increase the percentage of students living on campus (and therefore decreasing the percentage of students commuting to campus).

Final Term 7 to 10 years (actions to be completed or substantially underway by January 2030)

Parking Management

- Continue to explore additional strategies that may incentivize commuters to use alternative transportation modes, such as parking cost increases and managing parking inventory to incentivize carpooling.
- *Conditional Requirement:* If by July 2026, the College's campus-wide non-SOV mode shift is not 52 percent or better, the following triggered action will be required:
 - Begin immediate discussions with PBOT concerning additional mitigation measures to be implemented in order to reduce the non-SOV mode split to achieve this interim performance target. These additional measures may include the implementation of a daily parking permit system or other strategy approved by PBOT.
 - Note: The College's 2019 baseline campus-wide non-SOV mode share was 60 percent, thereby exceeding this interim performance target.

Financial Incentives

- Continue working with TriMet to find ways to improve public transit to campus.

On Campus Housing

- Continue renovation, replacement and/or construction of residence hall(s) on campus as part of a strategy to increase the percentage of students living on campus (and therefore decreasing the percentage of students commuting to campus).

Baseline Mode Split

As discussed above, the College surveyed both employees and the student population in the Fall of 2019 to establish a baseline mode split for the TDM Plan. Table 8 reflects the results of this survey for students and employees based on the information presented in Table 7.

Table 8. Baseline Mode Split Calculations for Employees and Students

Commute Method	Employees	Students	Combined Rate
Drive Alone	75%	32%	40%
Carpool/Shuttle	3%	8%	7%
Bus	5%	3%	4%
Bike/Walk	11%	8%	8%
Telecommute/Compressed Work Week	6%	N/A	1%
Live on Campus	N/A	49%	40%

*Although there are students who participate in school activities from off campus (online courses and study; classes held off campus, etc.) and who do not attend classes five days a week, no reductions were made to the student trips to reflect these activities/schedules. In future surveys, the College will add/refine the questions to provide further detail on this element.

As shown above, the baseline rate for employees is 25 percent non-SOV whereas when students are included, the non-SOV percentage is 60 percent. The 60 percent non-SOV rate measured in 2019 serves as the baseline for the TDM plan.

SECTION 8: NEIGHBORHOOD ENGAGEMENT PLAN

As noted in Section 5, the existing TDM plan for the College includes Public Involvement strategies, including regular participation in both neighborhood meetings as well as City and TriMet planning efforts. During the next ten years, the College is committed to enhancing the existing relationships with the Collins View and Dunthorpe Neighborhood Associations.

Per Zoning Code Section 33.150.060, the College commits to also:

- Ensuring the neighborhood and local business associations are notified at least 30 days prior to submitting an application to the City for any building permits.
- Providing the City with a copy of the mailings and meeting minutes for the annual meetings.

SECTION 9: REPORTING AND PERFORMANCE MONITORING EVALUATION

The College commits to continue to provide the City bi-annual reporting of:

- The results of future ECO employee and student mode split surveys (to be conducted in 2021, 2023, 2025, and 2027); and,
- Status and evaluation of effectiveness related to ongoing and new TDM implementation plan measures.

As part of TDM Plan development, PBOT has approved the following:

- The ECO survey tool, as revised by the College, is appropriate for use with students and contract workers. Survey questions are included in Appendix 2.
- A minimum response rate of 30 percent for student surveys will be adequate, although the College will endeavor to achieve a higher response rate.
- Contract workers on night shifts will not be counted.

The College and PBOT will review the TDM Plan in January 2021, January 2023, January 2025, January 2027, and January 2029.

Appendix 1 Master Plan

Near Term Development (0-5 Years)

Total Existing GSF 1,307,121

Total GSF as Shown in the Plan 1,464,988

Total Ongoing Maintenance 1,050,898

Total Renovation 193,018

Total New Construction 221,072

Total Demolition 63,205

Total Net Increase in GSF +157,867

Total Proposed GSF 1,464,988

Site Area 5,979,594

Proposed Floor Area Ratio (FAR) .25



Long Term Development (5+ Years or when Funded)

Total Existing GSF 1,307,121

Total GSF as Shown in the Plan 1,553,541

Total Ongoing Maintenance 765,094

Total Renovation 403,389

Total New Construction 385,058

Total Demolition 138,638

Total Net Increase in GSF +246,420

Total Proposed GSF 1,553,541

Site Area 5,979,594

Proposed Floor Area Ratio (FAR) .26



Note: Depending upon future residential need, Copeland could be renovated or retired in the Long Term

Appendix 2 Survey Questions

Student Commute Options Survey

Lewis & Clark email: _____ (if you wish to be entered into the prize drawing)

General Questions

1. What Lewis & Clark school do you attend? Undergrad _____ Grad _____ Law _____
2. What year are you in School? 1st _____ 2nd _____ 3rd _____ 4th _____ 5th _____ Other _____
3. What is your planned year of graduation? 2020 _____ 2021 _____ 2022 _____ 2023 _____ Other _____
4. Do you live off-campus? Y/N If Yes, please proceed to question 11. (I believe survey will be able to direct to next set of questions dependent on a Yes or No answer.)

Live on Campus or in College owned Law School housing

5. If you live on-campus, is it in a Residence Hall or a Law School Rental?

Residence Hall _____ Law School Rental _____

6. If you live on-campus, do you also have a car on campus? Y/N (If no, skip to question 8.)

7. If you have a car on campus, what are your 2 main reasons for needing a car?

<input type="checkbox"/>	Work location is off campus
<input type="checkbox"/>	Getting to and from home
<input type="checkbox"/>	Transportation options on Campus are not adequate or are inconvenient
<input type="checkbox"/>	Saves time
<input type="checkbox"/>	Ability to travel when needed
<input type="checkbox"/>	Other:

8. What campus transportation options do you use at least twice a month?

TriMet bus	Y/N
LC shuttle	Y/N
On-campus zip cars	Y/N
Uber/Lyft car services	Y/N
Bike (have bike on campus)	Y/N
Bike (use Zagster bike share on campus)	Y/N
Rely on friends with cars for transportation	Y/N
Commercially available app for trip planning or trip sharing	Y/N

9. What would improve the transportation options?

<input type="checkbox"/>	Tri-met Frequency
<input type="checkbox"/>	Tri-met service on nights and weekends
<input type="checkbox"/>	Frequency of LC Shuttle
<input type="checkbox"/>	Improved LC Shuttle Routes
<input type="checkbox"/>	Improved bike access to campus
<input type="checkbox"/>	

10. Any comments you would like to add?
-

Live off-campus and commute to Lewis & Clark

11. What is the zip code of your place of residence? _____

12. How did you travel to campus for classes or studying during the last week? If you used more than one method, mark the one in which you traveled the farthest. (Each day should have only ONE answer marked).

Commute Method to attend Classes or Study	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Drove Alone							
Rode TriMet and/or MAX							
Rode the LC Shuttle (Pio Express)							
Dropped Off by family or friend							
Carpooled or Vanpooled							
Used a Ride Share Service							
Bicycled							
Walked							
No Classes							
Other Reason (regular day off, sick, etc.)							

13. If you carpooled, vanpooled or were dropped off at campus in your answer above, how many people were in the car or van? Include yourself.

2	3	4	5	6	7	8	9	10

14. If you drive alone to campus: Mark up to three reasons for using the commute method you use.

	Need car for errands
	Saves Time
	Irregular work/class schedule
	Want car for emergencies
	No one to carpool with
	Saves money
	Need car for work
	Drop off others
	No TriMet service where I live
	No TriMet service where I work
	TriMet doesn't run during hours I commute to/from campus
	TriMet doesn't run often enough
	Too many transfers needed to use TriMet Service
	Other:

15. If you use a car to get to campus: (please approximate)

a. How far from campus do you live? _____ Miles

b. How long does it take you to drive to between campus and home? AM ___ Minutes, PM ___ Minutes

- c. How long does it usually take you to find parking on Campus? _____ Minutes
 d. Are you ever late to class because you can't find parking in a timely manner? Y ___ N _____

16. Have you ever looked into taking TriMet to get to campus? Y ___ N ___

If yes:

- a. If you used TriMet or LC Shuttle, how long would it take you to get to campus? _____ Minutes
 b. How many transfers would you need to take (# of vehicle changes)? _____ (number)

17. Have you ever checked out or used the trip planning resources available on the Transportation and Parking website? Y _____, N _____

18. If you drive alone to campus, what would encourage you to try an alternative (Mark any that apply)

* = currently available at Lewis & Clark

<input type="checkbox"/>	Higher parking fees
<input type="checkbox"/>	Reserved parking for carpools or vanpools*
<input type="checkbox"/>	Incentives for carpools or vanpools
<input type="checkbox"/>	Help finding carpool or vanpool partners*
<input type="checkbox"/>	Ride Share app
<input type="checkbox"/>	Secure bike lockers or racks*
<input type="checkbox"/>	Showers for bike riders, joggers or walkers*
<input type="checkbox"/>	College pays 75% of the cost of a TriMet pass *
<input type="checkbox"/>	TriMet passes sold on campus*
<input type="checkbox"/>	Compressed work week (for example: 4 Ten hour Days)*
<input type="checkbox"/>	Some classes available on-line
<input type="checkbox"/>	Transportation bulletin board*
<input type="checkbox"/>	Express bus to and from a park and ride lot
<input type="checkbox"/>	College provided a van for vanpool
<input type="checkbox"/>	Direct Tri-met service to/from downtown
<input type="checkbox"/>	More frequent TriMet service
<input type="checkbox"/>	TriMet service on the weekends and later in the evenings
<input type="checkbox"/>	Frequent LC shuttle (Pio Express) service connecting to major TriMet lines
<input type="checkbox"/>	Guaranteed ride home for personal emergencies*
<input type="checkbox"/>	Less parking on campus
<input type="checkbox"/>	An incentive for leaving your car at home

19. What is one thing L&C could do to change the way you commute to campus?

20. If you do take Tri-met, MAX and/or the LC Shuttle:

- a. How long does it take you to get to campus and back home: AM _____ Minutes, PM _____ Minutes
 b. How many transfers does it take to make a trip to campus from home? _____

21. How many bus trips did you make on a TriMet bus or MAX for any purpose this past week?
 (Count each direction as a separate trip) _____ (if none, skip 22.)

22. How many of your TriMet trips in question 21 were for travel to or from Lewis & Clark?
 (Count each direction as a separate trip) _____

23. Any other comments you would like to add?
