

Traffic Impact Analysis

Submitted to
City of Lynnwood

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Lynnwood Community Recovery Center



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1.0 INTRODUCTION

The City of Lynnwood is planning to construct a new Community Recovery Center (CRC) building. This building will be located north of 194th Street SW and east of 44th Avenue W atop to the Lynnwood Justice Center which is currently being expanded. The CRC facility will include two levels located over a portion of the jail north of the proposed police department expansion.

The CRC is intended to incorporate medical, behavioral health, and substance abuse treatment into the Justice Center complex to help reduce the need for incarceration and recidivism. The additional facility will be located on the northeast portion of the complex as described above. The facility will include 9,910 square feet (SF) of additional space which will include a lobby, sleeping rooms, restrooms, offices, and meeting/classrooms to assist patients. The facility will include 16 beds within eight rooms for patients.

The proposed site of the Lynnwood Justice Center, which the CRC will be a part of, is located on the north side of 194th Street SW between 44th Avenue W and 40th Avenue W. Access to the site will be via a single driveway on 44th Avenue W as well as two separate driveways on 194th Street SW, one close to the intersection of 44th Avenue W and 194th Street SW and one to the east of the intersection adjacent to the Community Health Center of Snohomish County. A vicinity map of the project area is shown in Figure 1-1.



Figure 1-1. Project Vicinity Map.

The site area where the new development is taking place is currently undeveloped, consisting mainly of forested landcover. The Lynnwood Justice Center is already being constructed. The CRC is a separate, but attached, development under study.

The proposed site layout is shown in Figure 1-2. The CRC is highlighted in orange. Note that the total square footage of the CRC is 12,750 SF, however, only 9,910 square feet is new development. The remaining portion was constructed as part of the Justice Center work. In addition to the building, the parking deck will be expanded to add 38 parking stalls.

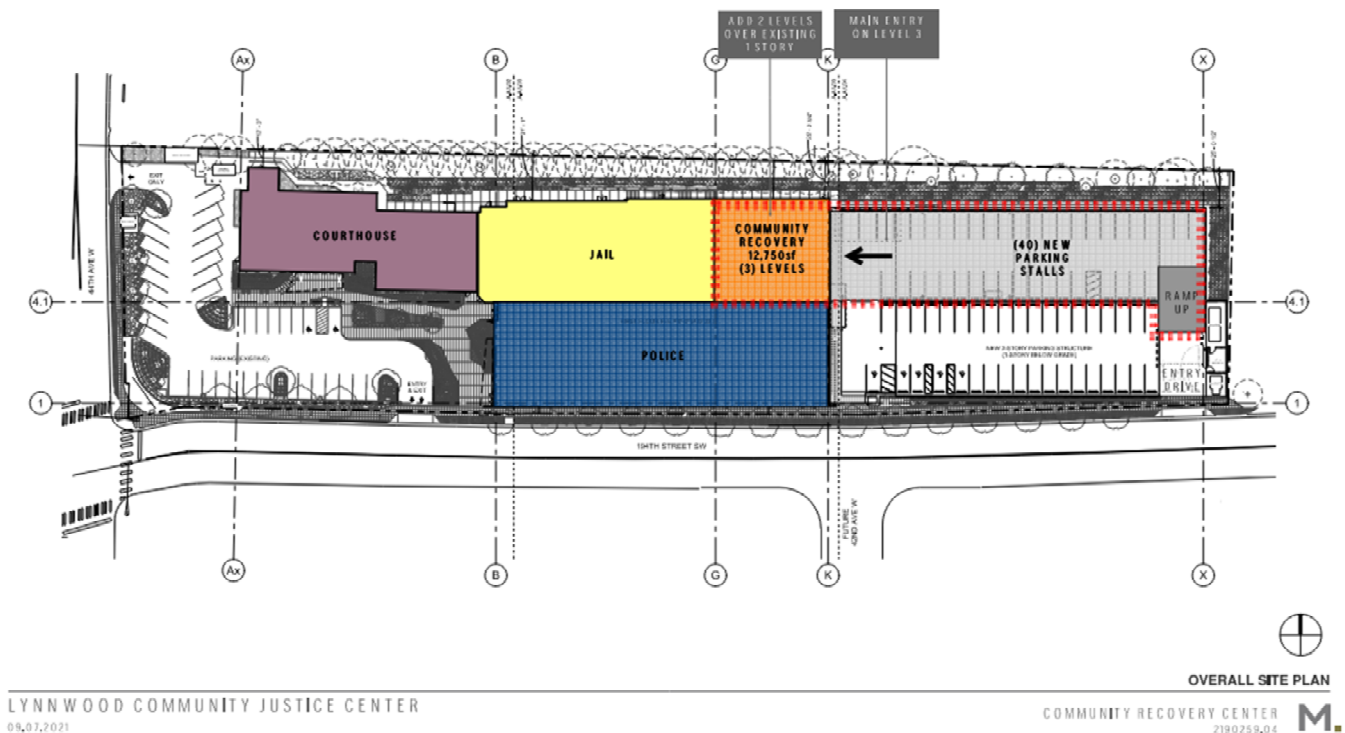


Figure 1-2. Project Site Plan.

2.0 METHODOLOGY

2.1 City Standards for Traffic Analysis

The City of Lynnwood Municipal Code Chapter 12.22, titled “Transportation Concurrency Management,” defines transportation concurrency as it relates to the transportation component of the comprehensive plan. Specifically, the chapter provides guidance for new development areas, and when such developments trigger intersection capacity analyses for the arterial street network.

Section 12.22.180 of the Municipal Code, titled “Site access evaluation”, outlines requirements for when to conduct a traffic analysis for trips generated by the development project. The code reads

“...developments generating greater than 50 peak hour trips shall prepare a site access evaluation to include the site access to the arterial street system and any intersections on the arterial system within one-quarter mile of the site access.”

In accordance with this guidance, Perteet performed trip generation calculations to determine if the additional trips generated by the CRC meet the criteria for an intersection capacity analysis for the intersections within 0.25 miles of the site area.

2.2 Trip Generation Methodology

Trip generation for the CRC for the PM peak hour period is based on the Institute of Transportation Engineers *Trip Generation Manual 10th Edition, Volume 2: Data (2017)*. Rates were selected for the PM peak hour and applied to the relevant conditions for the facility.

3.0 EXISTING CONDITIONS

3.1 Existing Site Conditions

The proposed site for the CRC is currently undeveloped land consisting of forested land directly north of 194th Street SW and just west of the Lynnwood Community Health Center. Two of the three driveways to the site connect to 194th Street SW. 194th Street SW is classified by Washington State Department of Transportation (WSDOT) as an Urban Major Collector. The street is a two-lane road, with parking lanes periodically spaced on both sides, and sidewalk along both sides between 44th Avenue W and 40th Avenue W. The road is marked with solid white edge lines and a double yellow centerline. The posted speed is 25 miles per hour (mph). The third driveway connects to 44th Avenue W, which is classified by WSDOT as an Urban Minor Arterial. 44th Avenue W is a four-lane road with a double yellow centerline and dashed white lane stripes north of 194th Street SW and a five-lane roadway with a two-way left turn lane south of 194th Street SW. The posted speed is 30 mph, which is reduced to 20 mph for a school zone approximately 1/3 of a mile north of the site. The intersection of 194th Street SW and 44th Avenue W is a signalized intersection with marked crosswalks along all approaches. There is protected-permissive phasing for all four approach directions.

Transit service in the vicinity of the site is Community Transit Route 112 which runs east/west along 194th Street SW west of 44th Avenue W, and north/south along 44th Avenue W north of 194th Street SW. The route 112 provides service from the Mountlake Terrace Transit Center to the Ash Way Park-and-Ride, with intermediate stops at the major hubs of the Lynnwood Transit Center and the Swamp Creek Park-and-Ride. Service is typically between 6:00 AM (7:00 AM on weekends) and 9:30 PM with one-hour headways on weekdays and weekends. Because of the land use, transit use for access to the proposed Justice Center is expected to be negligible.

4.0 COMMUNITY RECOVERY CENTER TRIP ANALYSIS

4.1 Community Recovery Center Trip Generation

The number of new trips generated by the CRC are calculated by using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. This manual contains a number of development types along with rates of trips generated based on various factors including floor space, number of employees, etc. The ITE *Trip Generation Manual* does not have a specific entry for a recovery center. To determine the appropriate land use, we considered the following land uses:

- Hospital (Land Use 610)
- Nursing Home (Land Use 620)
- Clinic (Land Use 630)

The description of the Nursing Home land use in the *Trip Generation Manual* is provided below:

A nursing home is any facility whose primary function is to provide care for persons who are unable to care for themselves. Examples of such facilities include rest homes, chronic care, and convalescent homes. Skilled nurses and nursing aides are present 24 hours a day at these sites. Nursing homes are occupied by residents who do little or no driving; traffic is primarily generated by employees, visitors, and deliveries.

The CRC will be a live-in facility with treatment and medical services. The Nursing Home land use is the most applicable land use for this facility.

The trip generation rate for the Nursing Home is calculated per bed. Using the proposed site elements, trip generation rates, and entering/exiting percentages from the *Trip Generation Manual*, new project specific trips during the PM peak hour were calculated as shown in Table 4-1.

Table 4-1. Project Trip Generation Summary.

Land Use	Entering %	Exiting %	Trips per Unit	Unit	Number of Units	Total Trips	Trips Entering	Trips Exiting
PM Peak Hour								
Nursing Home (620)	33	67	0.22	Bed	16	4	1	3

Due to the site conditions, all trips are assumed to be motor vehicles. This is a conservative approach as any non-motorized trips would result in less delay at the study intersections.

5.0 COMMUNITY RECOVERY CENTER PARKING ANALYSIS

5.1 Community Recovery Center Parking Requirements

The number of parking stalls required for the CRC are calculated by using the City of Lynnwood's Municipal Code (LMC) requirements. Specifically, this is contained within LMC 21.18.800. As noted above, the CRC can be

classified as a nursing home land use. In addition, the ITE *Parking Generation Manual (5th Edition)* description of a nursing home states:

A nursing home resident is not capable of operating a vehicle. Parking demand is entirely generated by employees, visitors, and deliveries.

The parking requirements are shown in Table 5-1.

Table 5-1. Project Parking Calculations.

Land Use	Parking stalls per Unit	Unit	Number of Units	Required Stalls
Nursing Home	1.5	1,000 SF	9.91	15

Most of the patients at the CRC will not be driving themselves to the site. The Justice Center parking and trip generation was already calculated in a prior report and those required parking spaces were included in the design of the Justice Center. Additional parking would be required for the staff and other medical staff or visitors to the site.

Table 5-1 shows that the facility would be required to have 15 parking stalls for this additional facility per the LMC. From the site plan, the City will be installing 38 stalls. This is in excess of the parking requirements from LMC 21.18.200. No additional parking will be required.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The results of the trip generation analysis show that the site development does not meet or exceed the City of Lynnwood threshold for intersection capacity analysis. Four new trips are projected in the evening peak hour. The trigger for additional intersection analysis is more than 50 trips generated in the PM peak. Because the number of trips generated is below the 50-trip threshold, no additional analyses are required.

The parking required for this facility is 15 stalls based on the LMC. The project plans to construct 38 stalls. The project will meet the parking requirements.