Transit-Oriented Parking Regulation Updates

City of Evanston, IL

Recommendations Report
July 2017

Contents

Introduction

The City of Evanston has put forth a concentrated effort toward decreasing the community's reliance on the automobile through increasing the density of the city within a short walk to transit. Evanston has excellent access to transit with ten transit stations along the CTA Purple line, the Metra Union Pacific-North line and a connection to the CTA Red and Yellow lines. The community's planning efforts have paid off with significantly lower automobile ownership than its surrounding suburban counterparts and increasing development and commercial activity around transit stations.

But while the driving and parking characteristics of the community have evolved and continue to change, especially in areas adjacent to transit, Evanston's residential parking requirements do not reflect the influence of transit, lower vehicle ownership and actual parking demands by residents. Through zoning updates, the City hopes to encourage increased multi-modal travel by residents, businesses and visitors within Transit-Oriented Development (TOD) areas – areas with mixed-use development in proximity of a transit station. The City also hopes to balance parking supply with demand and eliminate unnecessary parking requirements in these TOD areas.

To study this particular issue, Evanston was awarded funding from the Regional Transportation Authority (RTA) through its 2015 Community Planning Program which, among other goals, aims to support zoning updates that encourage transit-friendly development. The intent of the funding was to support an examination of the City's parking regulations to determine the appropriate amount of off-street parking required in its TOD areas.

As such, the purpose of this study is to provide the City with research and parking data to help determine adjustments needed to the Zoning Ordinance that better reflect actual private, off-street parking needs in TOD areas. The following report summarizes our parking analysis and provides recommendations to implement TOD area parking requirements.

What is Transit-Oriented Development and how does parking fit in?

Transit-oriented development, commonly referred to as TOD, is typically defined as compact, higher-density, mixed-use development in proximity of a transit station. Within a TOD, a resident has the ability to walk, bike or take transit to work, and meet a combination of convenience and lifestyle needs within a short walk of home. When communities add TOD, they become less reliant on automobiles and the benefits accrue at multiple levels. For example, TOD:

- **Can lower the cost of living by helping households live with fewer cars**. TOD provides the opportunity for households to own fewer cars, drive them less, and generate savings on transportation that can be spent at local businesses or on other needs. Across Evanston, the typical household owns 1.36 cars. According to the Center for Neighborhood Technology (CNT), the cost of owning and driving those cars means that the household cost of transportation is $10,070 per year.[1] But in downtown Evanston, a typical household owns 1.15 cars and the cost of transportation is $8,860 per year, or 12% less.

[1] Center for Neighborhood Technology, Housing + Transportation Affordability Index, 2016. http://htaindex.cnt.org/map/.

- **Can connect households with jobs**. When commuters can easily access a rail station from their home, it greatly expands the number of jobs they can reach within a 60-minute commute. For example, households in downtown Evanston can reach 1.3 million jobs, or 30% of the regional total, within a 60-minute transit ride, in addition to 9,534 jobs at Northwestern University.[2]

- **Can reduce vehicle miles traveled and greenhouse gases**. When households can live close to transit, they can drive less, reduce traffic congestion, and can produce fewer greenhouse gases (GHGs) from their transportation behavior. According to the Center for Neighborhood Technology (CNT), in downtown Evanston, the typical household drives 14,436 miles per year and generates 4.49 metric tons of GHGs per year, compared to 15,900 and 6.06 metric tons citywide.[3]

- **Can increase property values**. TODs increase tax revenues near transit stations by promoting high intensity development in areas of significant transit investment. For example, a three-story development in a downtown can generate up to 100 times more property tax revenue per acre than a single family home on an equivalently sized parcel.[4]

- **Can increase and stabilize property values**. In addition to the increased tax increment that TOD may generate, it can also preserve home values during market fluctuations. During the real estate downturn between 2006 and 2011, CNT has found that while the average sales price for residential properties in the Chicago region declined by nearly a third during this period, residential properties near transit were most resilient to the recession. The average sales price for a property within a ½-mile of all Metra and CTA rail stations outperformed the regional average by 29.7%.[5]

- **Can Attract more development to the downtown core.** When parking requirements are decreased, developers are no longer required to purchase additional land to construct unnecessary parking assets. This increases the amount of services that are able to locate in a centralized area, encourages cross-shopping since patrons are more likely to stop in other stores while completing their errands, and promotes sustainable development in the downtown core area.

- **Is aligned with the region's mobility goals.** Data provided by the Chicago Metropolitan Agency for Planning (CMAP) indicates that while single occupancy vehicle (SOV) trips still represent the majority of work trip taken in the region, SOV mode share in the region has not increased since 2000[6], which can be seen in **Figure 1**.

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2 CNT, AllTransit, http://alltransit.cnt.org/.

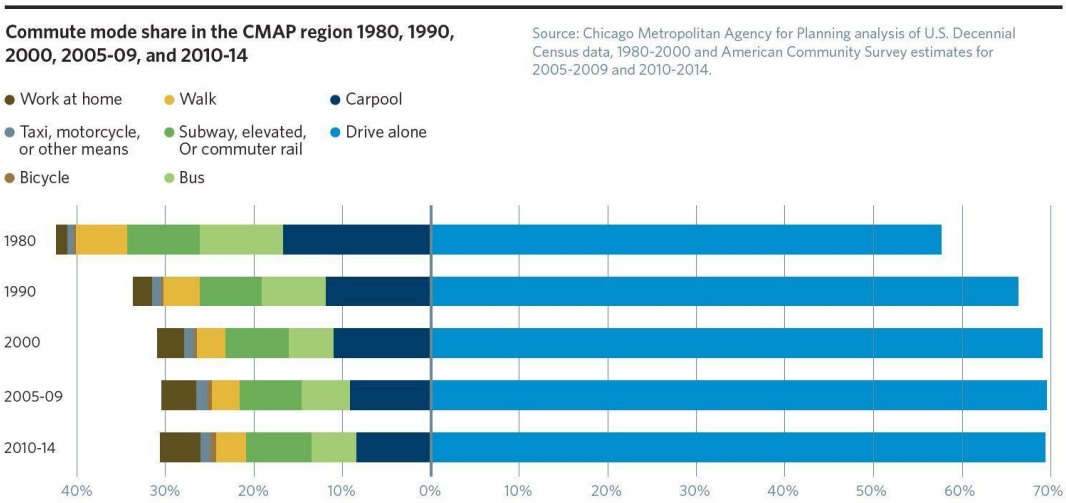
3 CNT, H+T Index, 2016.

4 Chicago Metropolitan Agency for Planning, Fiscal and Economic Impact Analysis of Local Development Decisions. January 2014.

5 CNT, *The New Real Estate Mantra: Location Near Public Transportation*. March 21, 2013

6 Chicago Metropolitan Agency for Planning (CMAP), ONTO 2050 Snapshot: Travel Trends: Understanding how out regions moves. http://www.cmap.illinois.gov/documents/10180/475314/FY17-0012%20Travel%20Trends%20Snapshot/340ac516-6fc7-4f0e-964e-40d84161c034

Figure 1
Historic Mode Split



One of the main goals included in CMAP's regional plan (*GOTO 2040*) is to make an effort to reduce the number of SOV trips and increase the volume of transit ridership to reduce congestion, discourage sprawl, increase land conservation, and centralize planning efforts. Currently, weekday ridership on the region's transit system is about two million, or approximately 9 percent of the total trips taken each weekday. CMAP's goal is to increase transit ridership's share to 13.5 percent of trips made each weekday — or approximately four million trips by 2040. In order to increase transit ridership, it is essential to increase the volume of housing that is transit accessible by creating and leveraging TOD developments within the region. Today, approximately 68% of residents can walk to transit stations from their home, while 76% of residents can walk to transit from their place of work. CMAP's *GOTO 2040* plan establishes a goal of increasing those "walk-to" rates to 75% and 80%, respectively.[7]

These benefits accrue as a community becomes less dependent on automobiles. Municipalities maximize these gains when they prioritize allocating space towards housing units, retail and office space, rather than parking stalls to store automobiles. All too often, however, minimum parking requirements require new development to add parking that is not needed. When that parking sits underutilized, it generates opportunity costs that can set communities back in maximizing TOD. Excessive parking requirements can:

- **Make market rate housing more expensive**. In the Chicago region, the cost to construct a parking space can vary between $4,200 in a surface lot and $37,300 in an indoor, underground parking garage.[8] Developers pass on the costs to renters and owners and a stall can increase the asking price of a unit by as much as 12.5%.

7 Chicago Metropolitan Agency for Planning (CMAP), GOTO 2040 Comprehensive Plan: Increase Commitment to public transit. http://www.cmap.illinois.gov/documents/10180/17842/GO-TO-2040-short-plan_10-7-2010_FINAL.pdf/2840498d-96fa-43fa-9784-9c8f364b4547

8 Donald Shoup, High Cost of Minimum Parking Requirements – numbers have been inflation adjusted for the Chicago market, 2012-5 –(Original Source: Rider Levett Bucknall, Quarterly Construction Cost Report, Third Quarter (2012)

- **Reduce the number of affordable housing units**. In a subsidized housing development, every dollar spent building parking spaces is a dollar not spent providing housing for people. In one case study, to provide housing without parking at an $80,000 purchase price, aimed at a family earning $30,000, a non-profit developer would need a $4,000 subsidy.[9] But requiring two parking spaces would increase the funding gap in this case study project to $26,251. Keeping the cost of construction constant, those limited subsidy dollars could fund 6.5 times as many units if allocated entirely towards housing, rather than towards parking.

- **Reduce the amount of space for non-parking uses**. Between the stall itself, the turning radius, and lanes and ramps, each parking spot requires about 350 square feet.[10] Within a ten unit building, 20 parking spaces would require 7,000 square feet of space. That space could be reallocated towards five new units at 1,000 square feet apiece, twenty bicycle spaces at 12.5 square feet apiece, up to 10 more ADA spaces, and three parking spaces dedicated to shared vehicles, with 700 square feet to spare.

- **Encourage people to own more cars and drive more.** When parking is provided, residents are more likely to use an automobile than to consider taking healthy, active modes of transportation. Vehicle trip generation rates increase when the supply of parking spaces increases.[11] Residents of neighborhoods with standard parking minimums are 28% more likely to drive to work than in similar neighborhoods without them.[12]

- **Disproportionately burden the poor, old, young, and disabled, who subsidize transportation for the relatively more affluent**. Parking minimums typically require that a development provide the same number of spaces for every unit, even when the tenant might be less likely to own a car. Tenants that do not own cars but pay for parking bundled within their rent effectively help subsidize parking for those who do use it.

Parking in Evanston TODs

Evanston has eight TOD areas defined by its Inclusionary Housing Ordinance that are generally described as the area within 1/8 of a mile from a transit rail station plus all property within ¼ of a mile of the station along the main commercial corridors. The TOD areas, shown contiguous in ***Map 1***, consist of:

- Central-Evanston (CTA Purple)
- Central Street (UP-N)
- Noyes-Foster (CTA Purple)
- Davis Street (CTA Purple, UP-N)
- Dempster Street (CTA Purple)
- Main Street (CTA Purple, UP-N)
- South Boulevard (Purple)

[9] Todd Litman, Victoria Transport Policy Institute. "Parking Requirements on Housing Affordability". June 11, 2014.

[10] US Environmental Protection Agency (USEPA). Parking Spaces / Community Places: Finding the Balance Between Smart Growth Solutions. January 2006.

[11] Robert Cervero and G.B. Arrington, "Vehicle Trip Reduction Impacts of Transit-Oriented Housing". Journal of Public Transportation, Vol 11, No 3, 2008.

[12] Todd Litman and Rowan Steele, Victoria Transport Policy Institute. "Land Use Impacts on Transport: How Land Use Factors Affect Travel Behavior", 27 January 2015.

- Howard Street (CTA Purple, Red, Yellow)

Map 2 shows Evanston population by census tract.

This section discusses the details of Evanston's Zoning Ordinance with regard to current residential parking requirements, notes recently approved Planned Development parking development allowances and compares the actual parking demand in TOD areas. It also discusses the availability of public parking and the role of TOD in Evanston's decreasing vehicle ownership rates.

Evanston Zoning Ordinance Requirements

There is currently one parking requirement for all new residential projects in Evanston, including ones close to transit, as specified in City's Zoning Ordinance. As stated in 6-16-2 of the City Code, "each principal building or use shall provide the minimum number of off-street parking spaces as identified in Table 16-B". Required off-street parking facilities shall be used solely for the users of the building. The parking requirements listed in Table 16-B for typical residential developments in Evanston are as follows:

- Single-family detached dwellings: 2.00 parking spaces per unit
- Single-family attached dwellings: 1.50 parking spaces per unit
- Multi-family attached dwellings (1 bedroom): 1.25 parking spaces per unit
- Multi-family attached dwellings (2 bedrooms): 1.50 parking spaces per unit
- Multi-family attached dwellings (3 or more bedrooms): 2.00 parking spaces per unit

The City allows for required parking to be provided off-site, either in a lot owned privately and located less than 1,000 feet from the property (when ten or more spaces are required), or leased from the City in a public facility located not more than 1,000 feet from the property and not located in a more restrictive zoning district (if not R1 through R4).

There are no residential parking requirement exemptions in the City's Zoning Ordinance, but they can be requested by variance, or as a development allowance for Planned Development projects. Shared parking is allowed for certain nonresidential uses and a general 20% parking reduction for nonresidential uses is allowed in the Downtown districts. Furthermore, the first 2,000 square feet for nonresidential uses in business districts, and the first 3,000 square feet for nonresidential in the Downtown districts are exempt from the parking requirements.

Map 3 shows the TOD areas overlaid on the City's land use map.

Existing Public Parking Facilities in Evanston

As previously mentioned, the City allows part or all of the required parking spaces to be leased from the City to serve the subject property as long as the spaces are located within 1,000 feet of the property and the development is not in R1 through R4. There are over 30 public surface lots in the community, including City, CTA and privately owned public lots. Public surface parking consists of approximately 1,975 free, metered and permit parking spaces. Three public parking garages are located in the Davis Street TOD area containing a total of 3,583 parking spaces. Public surface lots and garages are shown in three separate maps numbered ***Map 4, 5, and 6*** corresponding to the North, Central and South portions of Evanston.

Occupancy counts provided by the City at all three garages in 2014 show these garages to be approximately 59% occupied overall at peak times on weekdays and 43% occupied on weekends. The demand of the public parking garages is shown in ***Table 1***.

Table 1
Public Parking Garages: Supply and Utilization

Public Parking Garage	Capacity (spaces)	Weekday Utilization		Weekend Utilization	
		Maximum Peak	Average Peak (2:00pm)	Maximum Peak	Average Peak (2:00pm)
1800 Maple St. Self Park	1,400	1,020 (73%)	815 (58%)	763 (55%)	533 (38%)
Church St. Self Park	600	527 (89%)	312 (52%)	282 (47%)	185 (31%)
Sherman Plaza Self Park	1,347	990 (73%)	863 (64%)	892 (66%)	750 (56%)
Total	**3,347**	**2,537 (76%)**	**1,990 (59%)**	**1,937 (58%)**	**1,468 (44%)**

ACS Car Ownership Changes

According to the 2014 American Community Survey, vehicle ownership rates in Evanston is approximately 1.36 vehicles per household (Cook County, including the City of Chicago, has an ownership rate of 1.42 vehicles per household). However, these ownership rates are much less in areas around transit.

- Vehicle ownership rates of census tracts that include all TOD areas in the City are 9% lower than Evanston's already-low car ownership rate.
- In the area around the Davis Street TOD, car ownership is 15-16% lower than the City overall.
- Over the five years prior to 2014, car ownership, as measured by the average number of vehicles available per household, has declined almost 10% throughout the City.
- Car ownership in tracts that contain a TOD is less than 12% than it was five years ago, and 4% less than one year ago.

These numbers clearly demonstrate the downward trend of car ownership in Evanston's TOD areas.

TOD Planned Development Parking Demand

In a traffic study completed for the development at 1620 Central Street by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA), parking utilization counts were provided at four TOD developments in Downtown Evanston. The locations of these developments and a summary of the parking data is shown in ***Table 2***. Peak parking demand at the four locations ranged from 0.9 vehicles per unit to 1.05 vehicles per unit, with an average peak demand of 0.94 vehicles per unit.

Table 2
Actual TOD Parking Characteristics
Summary of Parking Survey Results (by KLOA, Inc.)

Development	Location	Closest Transit Station	Proximity to Transit Station	1 BR	2 BR	3 BR+	Total Units	Average Unit Size	Parking Supply (spaces per du)	Peak Parking Demand (spaces per du)
Optima Towers	1580 Sherman Ave	CTA - Davis Metra - Evanston (Davis Street)	0.2 miles	18	69	18	105	2.00	1.37	0.9
Optima Views	1720 Maple Ave	CTA - Davis Metra - Evanston (Davis Street)	0.2 miles	62	99	46	207	1.92	1.16	0.9
Optima Horizons	800 Elgin Road	CTA - Davis	0.3 miles	82	138	26	246	1.77	1.49	1.05
The Reserve	1930 Ridge Ave	CTA - Foster	0.2 miles	108	77	8	193	1.48	1.13	0.91
Average										**0.94**

Recently Approved Parking Development Allowances for Planned Developments

It is the purview of City Council to approve development allowances regarding parking requirements. The Plan Commission makes recommendations to City Council on parking for Planned Developments. Given the decreasing ownership rates and the resulting decrease in parking demand, the City has recently approved several developments near transit with reduced parking requirements. Each of these variations is described below and also shown on ***Maps 4, 5, and 6***.

- **835 Chicago Ave** – 1.09 spaces per dwelling unit (Main Street (CTA Purple, UP-N))
- **1571 Maple** – 1.13 spaces per dwelling unit, all but 12 of which are provided within the 1800 Maple St Self Park facility. Two on-site car-share spaces are designated. (Davis Street (CTA Purple, UP-N))
- **1620 Central Street** – 1.15 spaces per dwelling unit (Central-Evanston (CTA Purple), Central Street (UP-N))
- **1700 Central Street** – 1.0 space per dwelling unit. One car-share space is designated. (Central-Evanston (CTA Purple), Central Street (UP-N))
- **824-828 Noyes Street** - 0.8 spaces per dwelling unit. (Noyes-Foster (CTA Purple))
- **831 Emerson Street** - 0.7 spaces per dwelling unit. Two car-share spaces are designated. (Noyes-Foster (CTA Purple))

Vehicle Ownership

At the request of the City, vehicle ownership rates in applicable TOD buildings were analyzed. Specific addresses for applicable residential and mixed-use buildings were determined with staff, and registered vehicle counts by address were obtained from the Secretary of State. ***Table 3*** shows a breakdown of each building unit count based on number of bedrooms and the associated registered vehicle count. An average vehicle ownership rate among the data set was determined to be .94 vehicles per unit, as opposed to the 1.15 vehicle ownership rate that exists outside of the TOD area.

Table 3
Summary of Vehicle Ownership

Development	Location	Closest Transit Station	Miles to Station	# of spaces	1 BR	2 BR	3 BR +	Total Units	Vehicles per du[1]	Vehicle per br[1]	Parking Supply per du[1]	Parking supply per br
1717 Ridge	1717 Ridge Avenue	CTA - Davis Metra - Evanston (Davis Street)	0.2 mi	194	119	42	14	176	**.68**	**.49**	**1.10**	**0.79**
AMLI	705-749 Chicago Ave	CTA - Main Metra - Evanston (Main Street)	0.2 mi	309	110	104	--	214	**.80**	**.54**	**1.44**	**0.97**
Central Station	1720 Central Street	Metra – Evanston (Central Street)	0.1 mi	81	45	27	6	78	**.94**	**.62**	**1.04**	**0.69**
Optima Towers	1580 Sherman Ave	CTA - Davis Metra - Evanston (Davis Street)	0.2 mi	144	18	69	18	105	**1.33**	**.67**	**1.37**	**0.69**
Optima Views	1720 Maple Ave	CTA - Davis Metra - Evanston (Davis Street)	0.2 mi	240	62	99	46	207	**1.17**	**.61**	**1.16**	**0.6**
Optima Horizons	800 Elgin Road	CTA - Davis	0.3 mi	367	82	138	26	246	**1.07**	**.60**	**1.49**	**0.84**
The Reserve	1930 Ridge Ave	CTA - Foster	0.2 mi	220	108	77	8	194	**.89**	**.60**	**1.13**	**0.77**
1640 Maple	1640 Maple Avenue	CTA - Davis Metra - Evanston (Davis Street)	0.1 mi	145	29	71	3	103	**1.17**	**.67**	**1.41**	**0.81**
1572 Maple	1572 Maple Avenue	CTA - Davis Metra - Evanston (Davis Street)	0.1 mi	48	8	8	12	28	**1.29**	**.60**	**1.71**	**0.8**
Sherman Plaza Condominiums	807 Davis Street	CTA - Davis Metra - Evanston (Davis Street)	0.2 mi	304	72	154	27	253	**1.35**	**.74**	**1.20**	**0.66**
831 Emerson*	831 Emerson	CTA - Foster	0.2 mi	175	111	93	38	242	**.72**	**.43**	**1.38**	**0.43**
E2*	1881 Oak St	CTA - Foster	0.3 mi	353	246	81	26	353	**1.00**	**.34**	**1.00**	**0.73**
824 Noyes*	824 Noyes	CTA - Noyes	0.1 mi	35	23	12	9	44	**.80**	**.47**	**.80**	**0.47**
1571 Maple*	1571 Maple	CTA - Davis Metra - Evanston (Davis Street)	0.2 mi	113	57	38	6	101	**1.12**	**.75**	**1.12**	**0.75**
1620 Central*	1620 Central Street	Metra – Central Street	0.2 mi	54	11	28	8	47	**1.15**	**.59**	**1.15**	**0.59**
Chicago & Main*	835 Chicago	CTA - Main Metra - Evanston (Main Street)	0.1 mi	127	63	42	7	112	**1.13**	**.76**	**1.13**	**0.76**
Average									**.94**	**.57**	**1.19**	**.69**

[1]Source: Illinois Secretary of State, 2015 data set. *Approved or recently constructed developments with no official number of registered vehicles.
**E2 Development 94% occupied with peak parking utilization rates ranging from 36% to 46% during a timeframe surveyed by KLOA

Peer & Large City Comparison

A number of cities across the United States are making adjustments to their parking requirements to reflect the changes in parking demand around transit stations. As part of this study, the project team conducted a review of the requirements in several peer cities across the country, as well as a few larger cities with applicable TOD parking ordinances (see *Appendix*).

Table 4
Comparison of Multi-Family Residential Parking Requirements in Peer and Large Cities

	Standard Residential			TOD			
	Min (low)	Min (high)	Guest	Min (low)	Min (high)	Guest	Notes
Evanston, IL	1.25	2.0	-	n/a	n/a	-	Allows for parking to be provided off-site/leased in public facility
Peer City							
Chicago, IL	1.0	2.0	-	0	1.0	-	
Palo Alto, CA	1.25	2.0	1 + 1 sp per 10 DU	.875	1.4	0.7 + .7 sp per 10 DU	Represents the maximum 30% reduction allowed for housing near transit & TDM/parking alternates
Cambridge, MA	1.0	1.0	-	n/a	n/a	-	Can reduce further with parking study
Boulder, CO	1.0	2.0	-	0	0	-	1 space per DU *maximum*
Pasadena, CA	1.0	2.0	1 sp per 10 DU over the first 10 DU	1.0	1.5	10% for every 10 DU	1.75 spaces per DU maximum (over 650 sf); mins may be reduced further with a parking study
Berkeley, CA	1.0	1.0	-	0	0	-	Represent car-free overlay
Portland, OR	0	1.0	-	0	.33	-	Bike parking may replace 25%
Minneapolis, MN	.5	1.7	1 sp per 50 DU	0	.85	0	Relates to proximity of transit station and high or moderate frequency service

Findings

The existing parking and transportation characteristics in Evanston's Transit Oriented Development areas mirror those expected of land use with close proximity to transit access and, in many cases, an easy walk to a mix of uses like commercial and office. Residents own fewer cars and drive less[13]. Providing off-street parking for residential uses within these TODS, as well as all areas of the City, is a requirement in Evanston, as it is with almost all American cities. But while parking characteristics within these TOD

[13] Todd Litman, Victoria Transport Policy Institute. "Evaluating Public Transportation Health Benefits", 2010.

areas are very different than the City overall, these existing parking requirements for new residential developments do not consider such differences within the Ordinance.

Based on surveys completed in four TOD developments in Evanston, the average peak parking demand is 0.94 vehicles per unit, with a range between 0.90 and 1.05 vehicles per unit. However, the supply of these developments averaged to be 1.29, ranging between 1.16 and 1.49. Similarly, according to data provided by the Illinois Secretary of State, vehicle ownership at ten Evanston TOD developments averages 1.07 vehicles per unit while the supply per unit averages 1.31. This demonstrates that the existing ordinance, which requires between 1.25 to 2.0 spaces for every unit, overstates the actual parking demand of these developments. When the supply of parking is overbuilt in this manner, it induces the demand for parking for these developments as residents are less likely to pursue alternative transportation modes if they are offered a parking space free of charge or at a discounted rate.

To better reflect the demand, the City has approved reduced parking at development near transit as a result of the decreasing vehicle ownership rates and associated decrease in parking demand, with recently approved development allowances ranging from 0.72 to 1.15 spaces per dwelling unit. However, this reduction is now required to be completed through a planned development or variance process that takes time and uncertainty to complete. This lengthy process can be a significant deterrent to new development.

The Peer City comparison demonstrates that cities are taking different approaches towards residential parking requirements for TOD. For smaller units (1 bedroom or less), the range is zero to 1.125 spaces per dwelling unit, and for larger units (2+ bedrooms) the range is zero to 1.5 spaces per dwelling unit. Evanston's requirements, in comparison, are higher than all peer cities reviewed. Among the larger city comparisons, TOD parking minimums ranged from 0 to 0.85 spaces per dwelling unit. The conclusion is that cities are making changes to their ordinances to reflect the reduced demand of vehicles of TODs.

Recommendations

Based on the findings of this study, the City of Evanston's parking requirements overstate the amount of parking that new residential developments near transit must build. The City of Evanston should create separate parking requirements for new developments located within TOD areas as defined by the Inclusionary Housing Ordinance. As such, the following recommendations are offered:

- Adopt lower parking requirements based on the number of bedrooms in a unit. The average number of vehicles owned per bedroom was recorded at 0.56, which was used to guide the recommendations presented in Table 5.

Table 5
Existing and proposed parking requirements for Multi-Family Units in TOD zone, per bedroom

Multi-family attached units		
# of bedrooms	**Existing**	**Proposed**
Studio/1 BR	1.25	0.55
2 BR	1.50	1.10
3 BR	2.00	1.65

Specifying parking requirements by bedroom count rather than using a flat-rate per dwelling unit is more administratively complex, but is likely to more accurately reflect vehicle ownership rates. Renters or owners who live in a studio or one-bedroom apartment are more likely to be individuals who can satisfy their daily commute and activities via public transit or shared mobility services. Renters or owners of a two or three-bedroom unit, on the other hand, are more likely to be families or larger households who may not be able to complete all of their trips without owning or sharing a vehicle. The bedroom-based approach may also have the collateral benefit of making smaller units more affordable, thereby helping satisfy another city goal.

- As an alternative to implementing parking requirements per bedroom, for simplicity the City could eliminate the reference to unit size in the Zoning Ordinance and require 1.0 space per unit for residential developments, regardless of unit size. While the average number of vehicles owned per unit was recorded at 1.11, actual demand surveys show a peak of 0.94 vehicles per unit. Furthermore, the proposed requirement of 1.0 will encourage even lower vehicle ownership, and continue to allow for a more walkable, transit-oriented environment. It should also be noted that the City is already allowing for a 1.0 space per unit supply through recently approved Planned Developments. Allow developers to propose further reductions on a case by case basis. These reductions must be supported by parking studies and market research, as well as Transportation Demand Management (TDM) strategies/programs that the developer must demonstrate will reduce automobile ownership. These can include providing car-share vehicles, bike share stations, transit passes, or other incentives to reduce the need for vehicles and should be monitored through reports submitted on a regular basis (between one and five years). It is recommended that the character and standards of these TDM strategies be guided by the TDM zoning ordinance in Cambridge Massachusetts.
- Require a multi-modal transportation study for all planned developments within a TOD. This study can include, but is not limited to examining the transit, bus, driving, parking, ridesharing, carsharing, pedestrian, and bicycle network.
- Require all developments that are granted a variance or development allowance to provide vehicle ownership data to the City on an annual basis, up to five years after the occupancy permit is issued, to ensure the parking demand does not exceed the supply or negatively impact the adjacent streets.
- For planned developments over 100 units that request a parking reduction, a transportation demand management plan must be provided that establishes mode split goals that align with the City's goals and how they will be achieved. This should be included with the traditional traffic and parking study that new developments are required to complete.
- Encourage shared parking approaches to further reduce residential requirements in mixed-use developments if parking will in fact be shared.
- Consider establishing and implementing an impact fee, escrow payments, or fee-in-lieu of parking policy for incoming development reviews and proposed construction projects. This should begin with a pilot area in order to measure the impacts created from reducing the parking requirement, followed by a period of analysis to decipher best practices for implementation.
- In addition to the changes to the parking requirements, the City should conduct a comprehensive parking study of off-street facilities, both public and private, to determine future parking needs within key TODs and availability of supply to accommodate.

Appendix

Cities used to compare parking and review parking requirements shown in Table 4 in the report include:

- Chicago, IL
- Palo Alto, CA
- Cambridge, MA
- Boulder, CO
- Pasadena, CA
- Berkeley, CA
- Minneapolis, MN
- Portland, OR
- Arlington, VA

Chicago, IL

Population: 2.7 million
Overview: Evanston's neighbor to the south.
Transit: The Chicago Transit Authority operates the nation's second largest public transportation system with eight rapid train routes including the three that service Evanston. Metra operates 11 commuter rail lines through Chicago, including the Union Pacific North that serves Evanston.
Parking Regulation: In September 2015, the City approved a TOD ordinance that allows a 100% reduction of parking requirements in B (Business districts intended to accommodate retail, service and commercial uses), C (Commercial districts intended to accommodate retail, service and commercial uses), and D (Downtown) districts if there are enough other transportation options provided in the area. TOD is defined as an area within ¼-mile of a CTA or Metra rail station and within ½-mile of a CTA or Metra rail station and on Pedestrian or Pedestrian Retail Street.

Palo Alto, CA

Population: 67,000
Overview: A higher income community in Northern California, home to Stanford University and many tech businesses.
Transit: Train service is available via Caltrain commuter rail with two regular stops and one special event stop at Stanford.
Parking Regulation: Their zoning ordinance allows for a reduction of 20% of the total spaces required by ordinance for residential uses located within a designated Pedestrian/Transit Oriented area or in close proximity to other "public transportation facilities serving a significant portion of residents, when such reduction will be commensurate with the reduced parking demand created by the housing facility." If the development has a Transportation Demand Management (TDM) plan, additional parking reductions can be applied to land uses based on type of land use and TDM, but maximum parking reduction is 30% for market rate housing, 40% for affordable housing and 50% for housing for the elderly.

Cambridge, MA

Population: 110,000
Overview: A city with many neighborhood centers that borders Boston and is home to a number of universities including Harvard University and the Massachusetts Institute of Technology.
Transit: One rapid transit line with five stations extends through Cambridge, as well as a connection to an additional rapid transit line and commuter rail service to Boston.
Parking Regulations: Cambridge zoning regulations do not offer any specific discounts for proximity to transit, though it permits developments to reduce the amount of parking based on proximity to transit through a parking study determining demand. Implementation of a TDM plan is required as part of the approval process.

Boulder, CO

Population: 105,000
Overview: A city often top ranked for well-being and quality of life and home to the main campus of University of Colorado.
Transit: Boulder has an extensive bus system that services nearby cities and the Denver airport.
Regulation: Boulder has no parking minimums for land uses MU-4 (Mixed Use 4) and RH-7 (Residential – High 7), which are both intended as high density residential uses close to transit with a pedestrian oriented pattern. A parking maximum is instead in place for 1.0 space per dwelling unit. City code also has special trip generation requirements for these land uses.

Pasadena, CA

Population: 140,000
Overview: A city in Los Angeles County, home to many scientific and cultural institutions including Caltech, and has been recently at the forefront of the parking discussion.
Transit: Rapid transit in Pasadena is provided via six stations along the LA Metro Gold Line, which originates in LA and extends several communities beyond Pasadena.
Parking Regulation: Pasadena has parking requirements for developments within ¼-mile of a rapid transit station or within their Central Transit-Oriented Area. Requirements are minimum of 1.0 space and maximum of 1.25 space for units less than 650 sf and minimum of 1.5 spaces and maximum of 1.75 spaces per unit over 650 sf. Parking requirements may be further reduced with a parking demand study. On-street permits are not allowed for people that live in these developments.

Berkeley, CA

Population: 120,000
Overview: A city in the San Francisco Bay Area with many distinct neighborhoods, the densest of which surrounds the University of California Berkeley.
Transit: Berkeley is served by three rapid transit stations with connecting service throughout the Bay Area, and one regular stop on Amtrak commuter rail service between Auburn and San Jose.
Parking Regulation: City parking regulations do not specifically contain requirements related to proximity to transit. New residential development within a designated area (Car-Free Overlay) south of the UC Berkeley campus are not required to provide any off-street parking, and existing parking within this area may be reduced subject to approval of a Use Permit. Occupants of residential properties within this car-free overlay may not receive residential parking permits. The Zoning Officer or Board may approve parking waivers or modifications for other residential development in the R-S (Residential Southside) zone based on a determination that additional or new on-site parking would be detrimental.

Minneapolis, MN

Population: 407,000
Overview: Minneapolis, along with its Twin City Saint Paul, makes up the second-largest economic center in the Midwest, behind Chicago.
Transit: Minneapolis has two light rail lines, one commuter rail line and over 100 bus routes that carry over 85 percent of the system's daily passengers.
Parking Regulation: Minneapolis distinguishes between high and moderate frequency transit service: moderate frequency is defined as 15-30 minute midday service, while high frequency is defined as midday service every 15 minutes or less. The City has ordinance that allows for the elimination of off-street parking requirements for multi-family residential buildings located within 350 feet of a high-frequency bus route or rail station. Depending on the size of the building, a 50 to 100 percent reduction is allowed within a TOD area ¼-mile around a high frequency bus route or ½ mile from a rail station. The City has ordinance that allows for a 10 percent reduction of off-street parking requirements for multi-family residential buildings located within 350 feet of a moderate-frequency bus route or rail station.

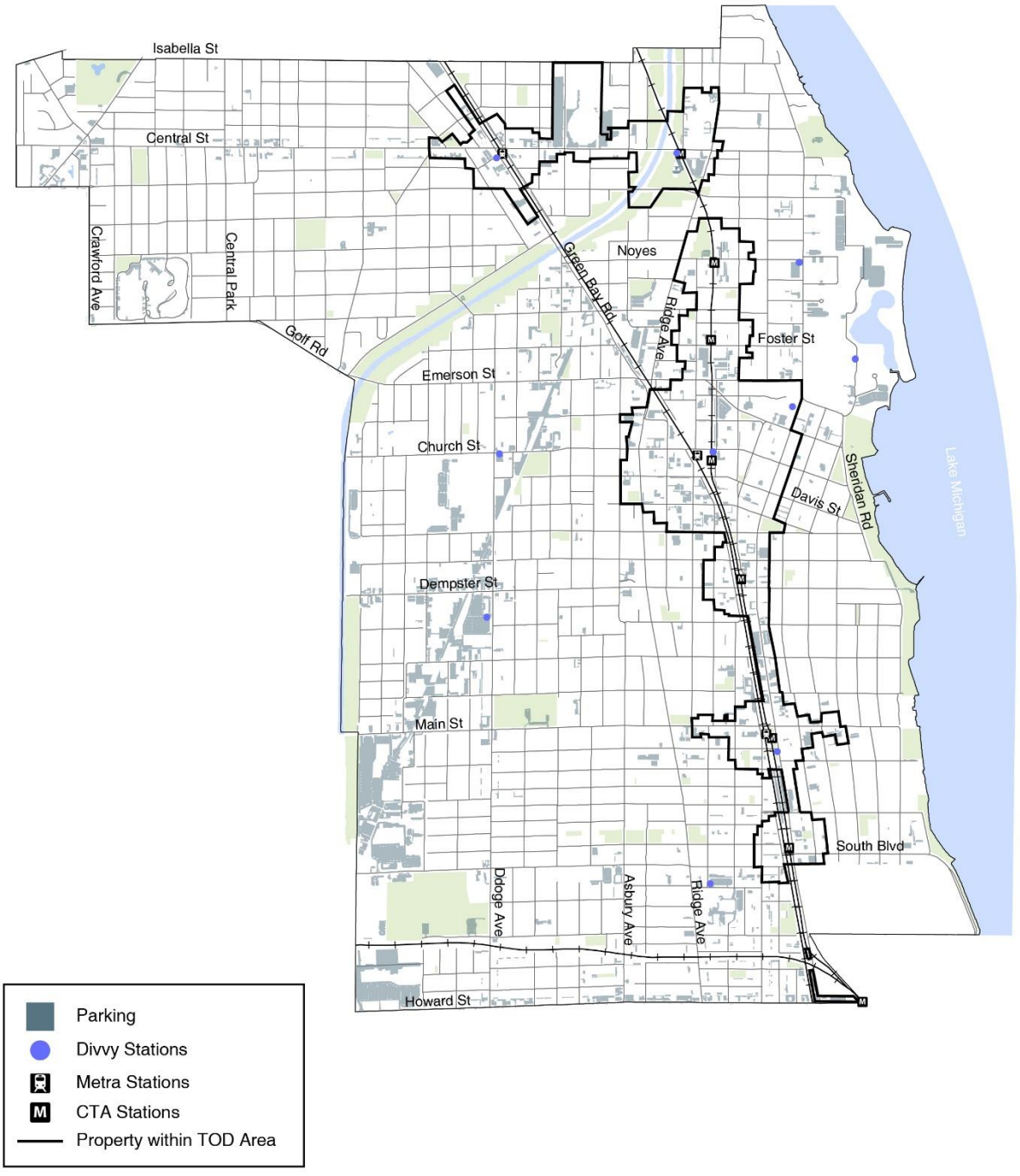
Portland, OR

Population: 620,000
Overview: Portland is known to be one of the most environmentally conscious cities in the country with high walkability, bicycle connections and well-planned transit-oriented development.
Transit: Portland's transit system is extensive, consisting of five light rail lines, two streetcar lines, 80 bus routes and commuter rail.
Parking Regulation: The City of Portland sets parking maximums based on intensity of development and proximity to transit service. Areas where high intensity development is present/anticipated or areas well served by transit have lower maximums than areas with lower development density or where transit is less frequent. Specifically, the city planning and zoning code calls for the lowest maximums in areas that are within a ¼-mile walk from a frequently served bus stop or within a ½-mile walk from a frequently served rail station.

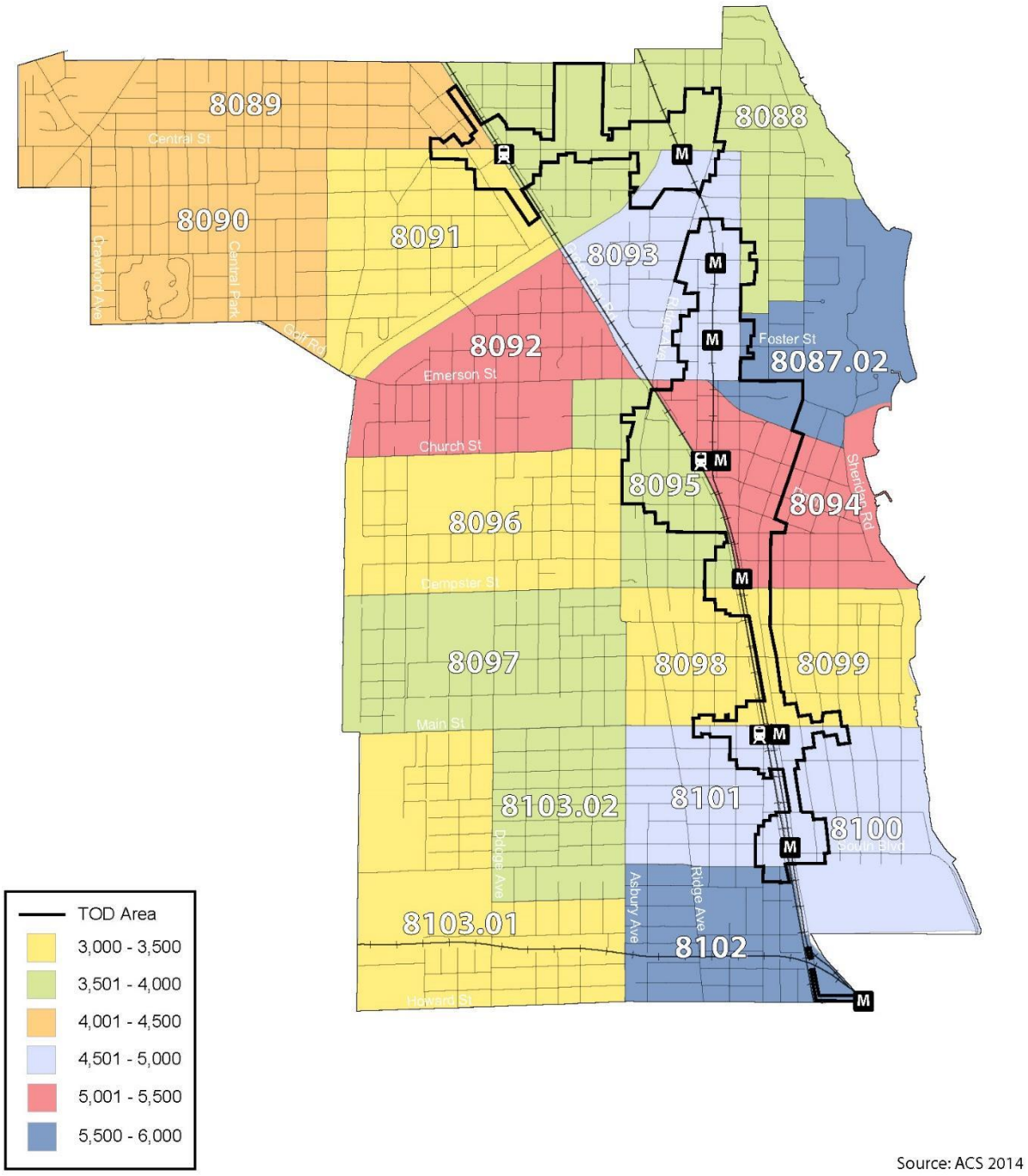
Arlington, VA

Population: 230,000
Overview: Arlington County is located within the Washington metropolitan area. It is headquarters to many departments and agencies of the federal government, as well as home to many national memorials.
Transit: Arlington is accessible to the nation's capital through a rapid transit system called Metrorail which is administered and operated by the Washington Metropolitan Area Transit Authority (WMATA). Additionally, the Arlington Transit system operates within Arlington County, supplementing Metrobus with cross-County routes and neighborhood connections to Metrorail.
Parking Regulation: Washington Governing regulations do not specifically contain residential parking reductions for proximity to transit (Metro) stations. Reductions and exemptions are provided for parking requirements related to a variety of commercial uses.

Map 1: Evanston Transit Stations & TOD Areas

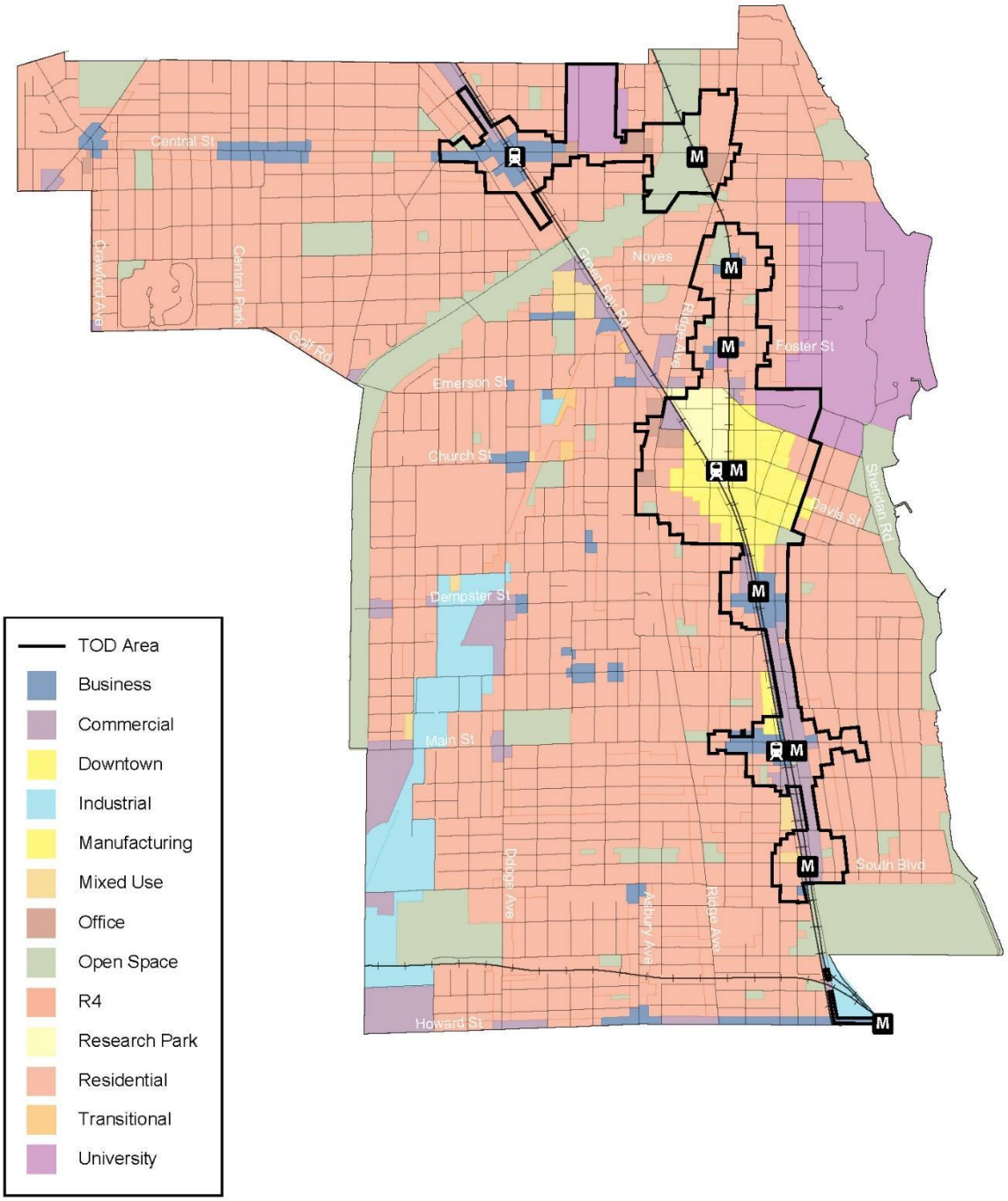


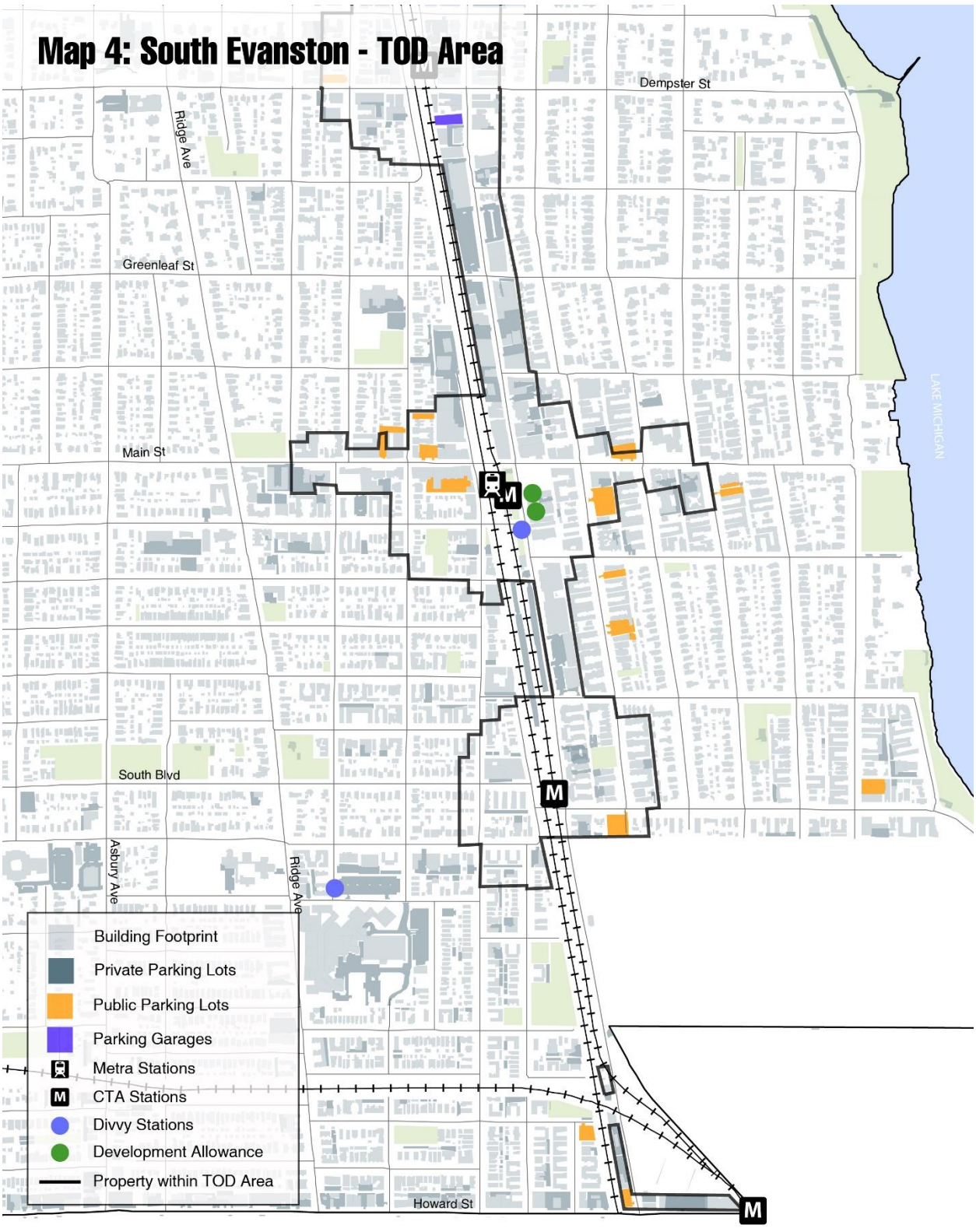
Map 2: Evanston Population By Census Tract

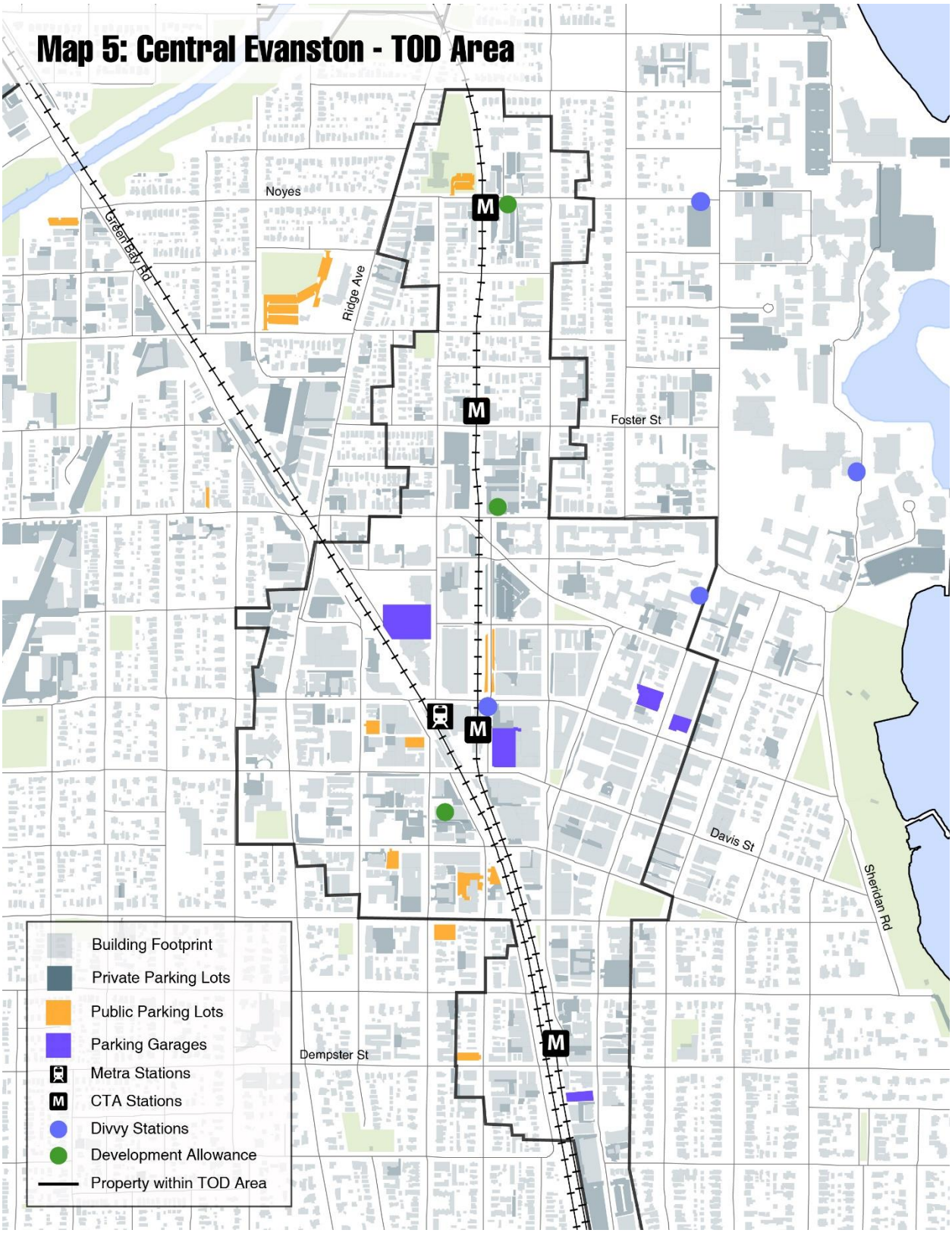


Source: ACS 2014

Map 3: Evanston Zoning




Map 4: South Evanston - TOD Area
Dempster St
Ridge Ave
Greenleaf St
Main St
South Blvd
Asbury Ave
Ridge Ave
Howard St
LAKE MICHIGAN
Building Footprint
Private Parking Lots
Public Parking Lots
Parking Garages
Metra Stations
CTA Stations
Divvy Stations
Development Allowance
Property within TOD Area


Map 5: Central Evanston - TOD Area
Noyes
Green Bay Rd
Ridge Ave
Foster St
Davis St
Sheridan Rd
Dempster St
M
Building Footprint
Private Parking Lots
Public Parking Lots
Parking Garages
Metra Stations
CTA Stations
Divvy Stations
Development Allowance
Property within TOD Area

Map 6: North Evanston - TOD Area