



Existing Conditions Report
April 15, 2013



Appendix B: Existing Conditions Report

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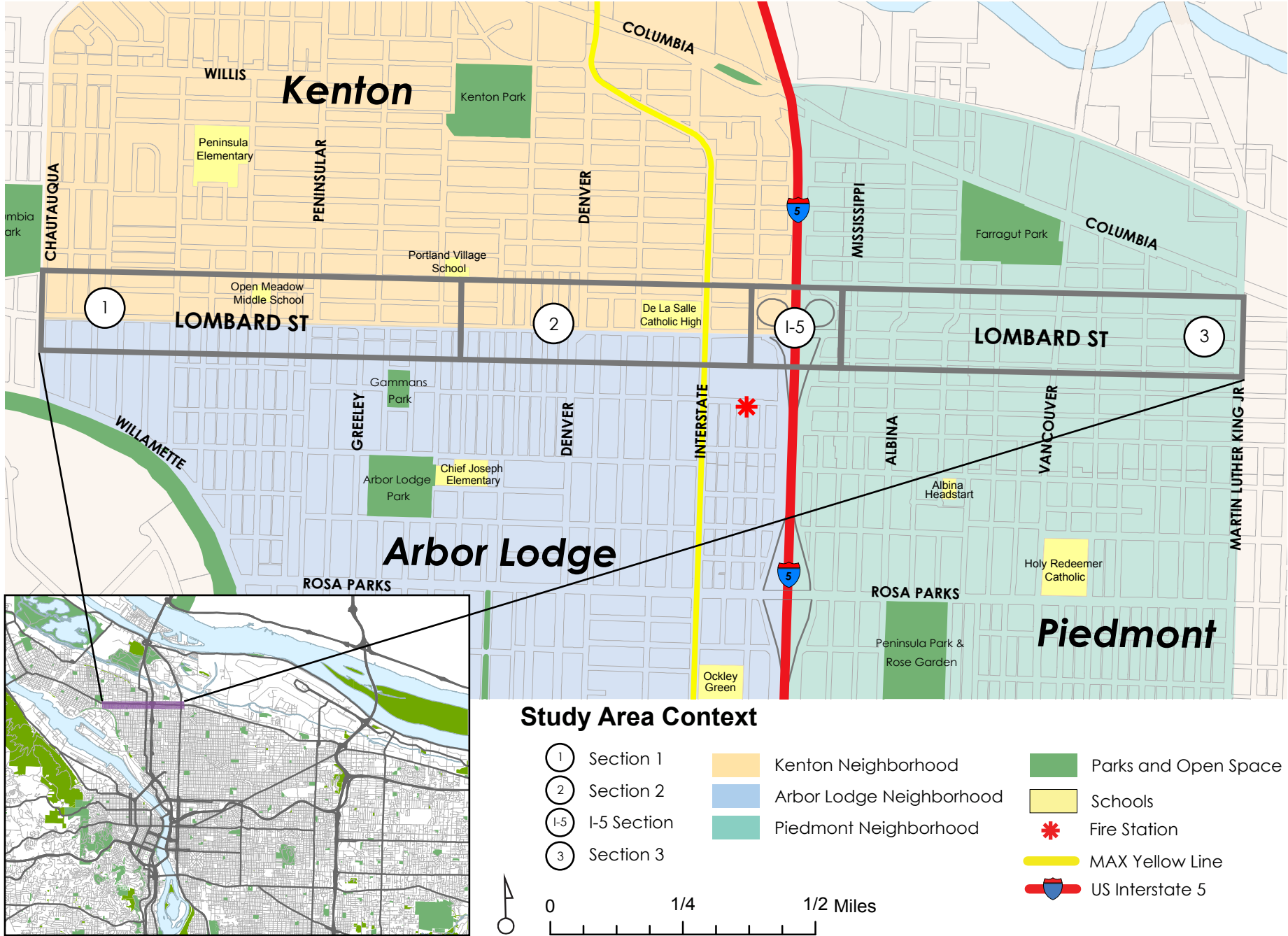
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I. Context Map

The Lombard study area is a corridor running through the Kenton, Arbor Lodge, and Piedmont neighborhoods in North Portland. Throughout this Existing Conditions Report, maps will be presented that correspond to the Sections (1, 2, 3, and I-5) shown below



II. Demographics and History

Demographics

As shown in Table 1, the demographics of the neighborhoods surrounding the project area differ from Portland as a whole in a few important ways: they are more ethnically diverse, including a higher percentage of Black and Hispanic residents; they feature a higher percentage of homeowners; and they have higher residential density.

Table 1: Selected demographics for project area and Portland

	Lombard Neighborhoods	Portland
Population	26,772	576,543
Pop Density (ppl/sq mi)	7,282	4,247
Median Age	35.9	35.9
Average Household Size	2	2.3
Median HH Income	\$51,723	\$50,177
% Below Poverty	14%	17%
% Owner Occupied	66.8%	54.2%
% Unemployed	10.4%	9.4%
% White	69.1%	77.4%
% Black	13.5%	6.4%
% Hispanic	10.5%	9.2%

Source: 2007-2011 American Community Survey (US Census Bureau)

Travel Behavior

People in the project area use many forms of transportation for their commutes. According to Census data, driving is the dominant mode, but other modes account for 30% of trips. Lombard neighbors are somewhat more likely to bike or take transit to work than other Portlanders, but are much less likely to walk to work.

History

The area surrounding the project corridor has been (and will continue to be) shaped by its unique history. One of the earliest examples of a planned community in Portland, Piedmont was planned and promoted as exclusively a “Place of homes” in the late 1800’s. Strict development standards regulated home construction and the community became comprised of mostly upper-middle-class families¹. The Arbor Lodge neighborhood was platted around the same time and took a similar form to that of Piedmont².

A decade or so later Kenton was built as a company town for the Swift & Company meatpacking plant. This spurred the construction of several factories and the area became an important manufacturing center in the region³. In 1948, one of the most significant disasters in Portland’s history occurred in Kenton with the Vanport flood. Thousands of people, including over half the city’s African-American population, became homeless as a result⁴. The flood has had a lasting effect on Kenton and Portland as a whole by highlighting racial injustice and segregation in the city.

Also after World War II, the Mocks Crest subdivision was built at the western end of the Arbor Lodge neighborhood. Mocks Crest today retains much of its character from when it was originally built, highlighted by distinct lampposts, mature street trees, and post-war-style bungalows⁵.

- 1 Piedmont Neighborhood Association
- 2 Arbor Lodge Neighborhood Association
- 3 History of the Kenton Neighborhood
- 4 Oregon History Project
- 5 Arbor Lodge neighborhood Plan, 1993



III. Existing Plans and Policies

City of Portland Transportation System Plan

The Transportation System Plan (last updated in 2011) is the 20-year plan for transportation improvements for the City of Portland. The plan assigns classifications to all city streets and provides policy guidance for roadway improvements (see Table 2 for Lombard classifications). It also lays out goals and objectives for the transportation system as a whole and for specific areas of the city.

Relevant Policy Objectives

- Reinforce neighborhood livability and commercial activity by planning and investing in a multimodal transportation network, relieving traffic congestion through measures that reduce transportation demand, and routing non-local and industrial traffic along the edges of the residential areas.
- Encourage transit coverage and frequency improvements, as well as bus stop improvements, within the district and within commercial and employment centers.
- Develop additional east/west and north/south bicycle routes to serve commuter and recreational bicyclists and provide connections to Northeast Portland bikeways.
- Complete the sidewalk system in North Portland, including enhanced pedestrian crossings on streets with high volumes of vehicle traffic.
- Encourage the use of Columbia Boulevard as the primary route for over-dimensional truckloads while ensuring the role of N Lombard (west of Martin Luther King Jr. Blvd.) as an interim route until such time as improvements are completed that allow N Columbia to accommodate all types of over-dimensional truckloads.

City of Portland Freight Master Plan

The Freight Master Plan (2006) was developed to ensure the local transportation network can support the projected increased demand for freight movement as the city continues to grow. The purpose of the plan is to balance freight mobility needs with community impacts and other transportation modes such as bicycle, pedestrian, transit, automobiles. The plan contains numerous policy objectives and implementation actions in support of the freight network.

City of Portland Bicycle Plan for 2030

The Bicycle Plan for 2030 (adopted in 2010) was developed to provide a list of projects and recommended actions to improve the city's bicycle network and promote bicycling as a form of transportation. The plan calls for "safe, comfortable, and attractive bikeways that can carry more bicyclists and serve all types and all ages of users, building on the best design practices of great bicycling cities around the world." It also provides a map of recommended bicycle facilities and strategies for implementing the proposed network.

Kenton Neighborhood Plan and Downtown Plan

The Kenton Neighborhood Plan (1993) was intended to create a vibrant, safe, thriving neighborhood that serves the needs of the community. The vision includes a strong downtown core, recognition of important neighborhood history, a thriving business district, and the creation of bicycle and pedestrian access neighborhood services and outdoor recreation opportunities. The Kenton Downtown Plan (2000) was a community initiative to revitalize the Denver St business district and plan for the light rail station at Interstate and Denver.

Arbor Lodge Neighborhood Plan

Arbor Lodge Neighborhood Plan (1993) was created to guide land use decisions and capital improvement projects within the neighborhood. The objectives of the plan are to ensure that Arbor Lodge retains its unique assortment of homes and places, continuing the development of Lombard St and Interstate Avenue as economically viable businesses centers, and to provide neighborhood residents with a network of pedestrian, bicycle, and public transportation options to access neighborhood services.

Piedmont Neighborhood Plan

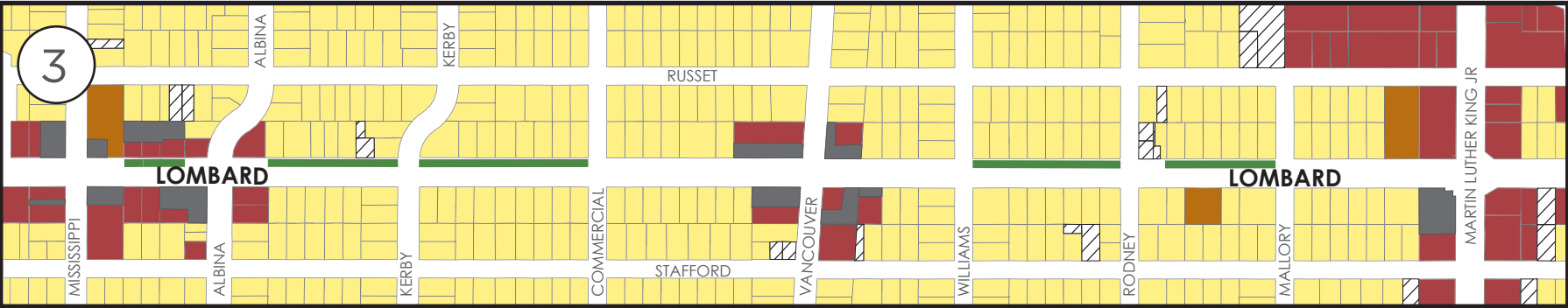
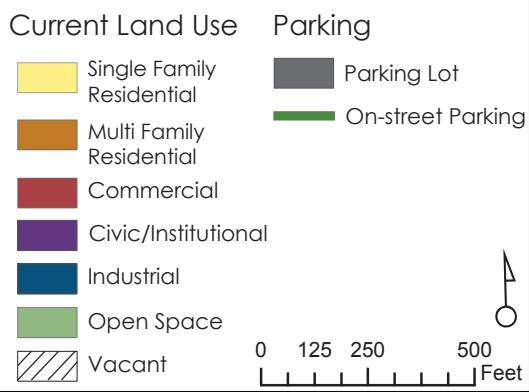
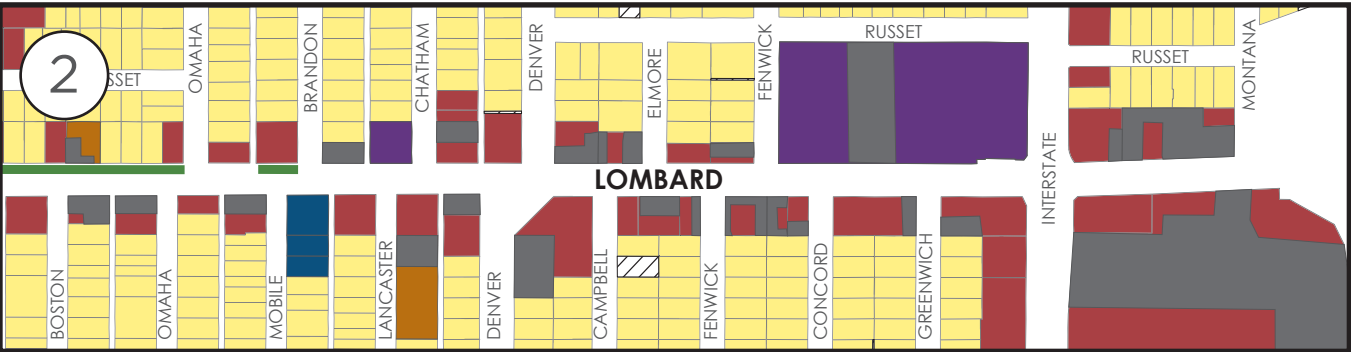
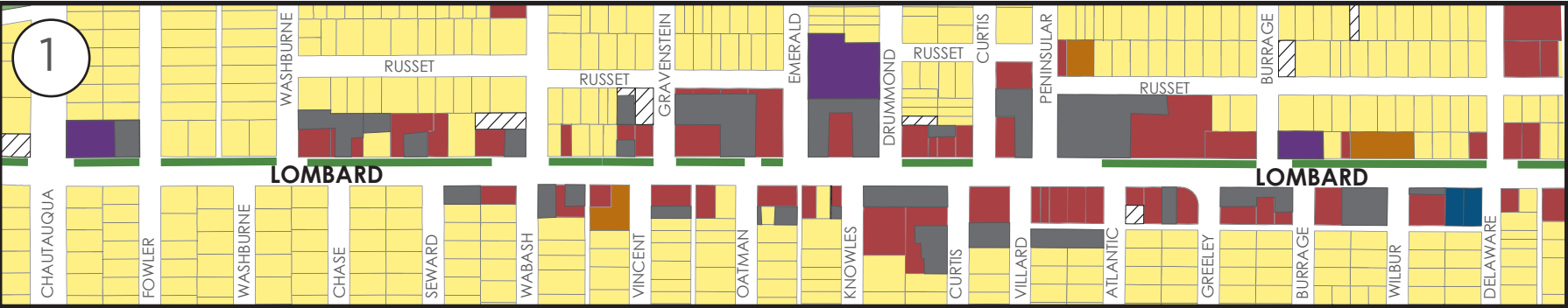
The Piedmont Neighborhood Plan (1993) was adopted to create a neighborhood vision, identify neighborhood issues, and prioritize development actions within the neighborhood. The purpose of the plan was to establish a sense of community among residents while preserving the racial and economic diversity of the neighborhood, accommodate multi-family and affordable housing, increase walkability, and to showcase the neighborhoods' parks and open space while providing increased outdoor recreation opportunities.

The St Johns/Lombard Plan

The St. Johns/Lombard Plan (2004) recommends strategies to create a more vibrant St. Johns town center and North Lombard main street area over a 20 year period. The plan includes elements to create: a small town community environment; a safe, reliable, and efficient transportation network; a diverse population with an eclectic mix of housing, commerce, and industry; increased access to employment; and increased access to the natural environment through parks and open space.

Table 2: Transportation System Plan Street Classification			
Category	Classification	Description	Policies
Street Design	Community Main Street	Community Main Streets are designed to accommodate motor vehicle traffic, with special features to facilitate public transportation, bicycles, and pedestrians.	Development consists of a mix of uses oriented to the street. Street may include up to four lanes, with on-street parking. Fewer than four vehicle lanes are typically appropriate, particularly to allow on-street parking. Consider the following: low vehicle speeds; the use of medians and curb extensions to enhance pedestrian crossings; combined driveways; on-street parking; wide sidewalks with pedestrian amenities; landscape strips and/or street trees to create a buffer between curb and sidewalk; improved pedestrian crossings; and striped bikeways or wide outside lanes.
Pedestrian	City Walkway	City Walkways are intended to provide safe, convenient, and attractive pedestrian access to activities along major streets and to recreation and institutions; provide connections between neighborhoods; and provide access to transit.	City Walkways should serve areas with dense zoning, commercial areas, and major destinations. Where auto-oriented land uses are allowed, site development standards should address the needs of pedestrians for access.
Bicycle	City Bikeway	City Bikeways are intended to serve the Central City, regional and town centers, station communities, and other employment, commercial, institutional, and recreational destinations.	Auto-oriented land uses should be discouraged. Destinations should have long-term and/or short-term bicycle parking. Consider bike lanes, wider travel lanes, bicycle boulevards, and signage for local street connections. When bike lanes are not feasible, traffic calming will be considered to allow bicyclists to share travel lanes safely with motorized traffic..
Transit	Major Transit Priority Street	Major Transit Priority Streets are intended to provide for high-quality transit service that connects the Central City and other regional and town centers and main streets.	Transit-oriented land uses should be encouraged and auto-oriented development should be discouraged. Provide safe and convenient access for pedestrians and bicyclists to, across, and along the street. Employ transit-preferential measures, such as signal priority and bypass lanes. Provide safe and convenient transfer points with covered waiting areas.
Freight	Major Truck Street	Major Truck Streets are intended to serve as principal routes for trucks in a Transportation District. Major Truck Streets provide truck mobility within a Transportation District and access to commercial and employment uses along the corridor.	Commercial and employment land uses that generate high levels of truck activity should locate along Major Truck Streets. Trucks with no trip ends within a Transportation District should be discouraged. Major Truck Streets should accommodate all truck types, as practicable.
Traffic	District Collector	District Collectors generally connect town centers, corridors, main streets, and neighborhoods to nearby regional centers and other major destinations. District Collectors serve trips that both start and end within a district.	Land uses that attract trips from the surrounding neighborhoods or from throughout the district should be encouraged. Regional attractors of traffic should be discouraged. Removal of on-street parking and right-of-way acquisition should be discouraged except at specific problem locations.
Emergency Response	Major Emergency Response	Major Emergency Response Streets are intended to serve primarily the longer, most direct legs of emergency response trips.	Design treatments should enhance mobility for emergency response vehicles by employing preferential or priority treatments.
Source: Portland Comprehensive Plan			

IV. Land Use



Overview

Current land uses on the lots within the project area are shown on the maps to left and in Table 3 below. Most of the land (67%) is devoted to commercial use and most residential development consists of single-dwelling homes. The distribution of these uses varies by section, with the bulk of commercial uses located west of I-5 and most residential uses located east of I-5. Besides commercial and residential uses, the corridor also includes three religious institutions, one private school, and some utilities.

Much of the land is not occupied by buildings. A significant portion consists of surface parking, totaling 641,446 square feet. This is the equivalent area of more than 11 football fields, and enough for 1,800 off-street parking spaces. On-street parking, on the other hand, is only permitted on about half the total curb-space on the north side only, providing room for about 250 vehicles.

Very few vacant lots exist in the project area, but most of the land is developed at fairly low densities. Single-use, one- or two-story buildings are norm, and large setbacks further reduce the amount of space devoted to building floor-space. Unlike many other commercial corridors in Portland, Lombard contains few examples of mixed-use development.

Table 3: Land Use Breakdown (% Total Acres)

	Residential	Commercial	Other
Section 1	25	72	3
Section 2	3	76	21
Section 3	69	29	2
Lombard	31	67	2

Source: Metro RLIS

Section 1

This section is dominated by commercial buildings, mostly free-standing single-use structures surrounded by surface parking. The highest concentration of commercial use and surface parking is in the stretch from Vincent to Burrage. Most blocks have on-street parking on the north side, though there are some gaps. There are pockets of residential use, both single-family and multi-family, mostly on the western end near Chautauqua and on the eastern end near Delaware. Surround neighborhoods contain mostly single-family homes on small lots.

Section 2

This section is also dominated by commercial buildings, but they are somewhat smaller and more scattered. There is still a great deal of surface parking, and there is virtually no on-street parking available. Many lots facing Lombard in this section are very shallow, as they were originally oriented toward side streets. The area around Interstate has a number of commercial buildings and a very large amount of surface parking. A school and schoolyard are located at the NW corner, occupying the entirety of a large city block.

Section 3

This section has a very different character than the sections west of I-5. Here the majority of land is devoted to single-family homes, which line both Lombard and the surrounding streets. Commercial hubs are located around Albina and Mississippi, Vancouver, and MLK Jr. These commercial areas are similar in character to the rest of Lombard, primarily auto-oriented uses with surface parking lots. On-street parking is available on the north side of the street, but is mostly restricted to the residential areas rather than the commercial areas.



Single-family home on Lombard

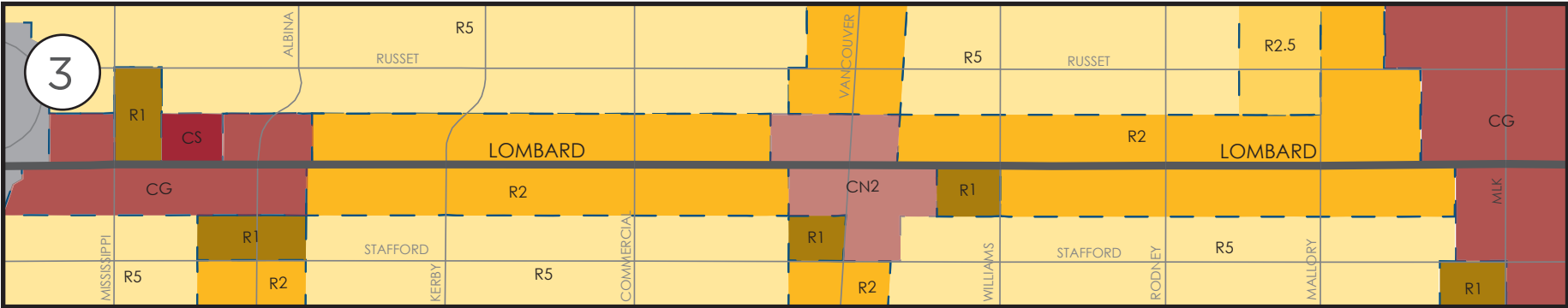
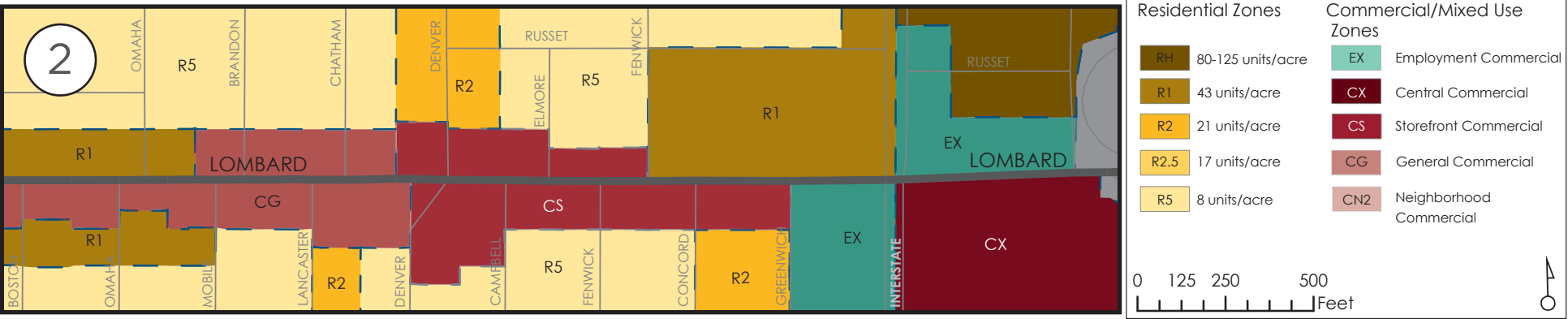
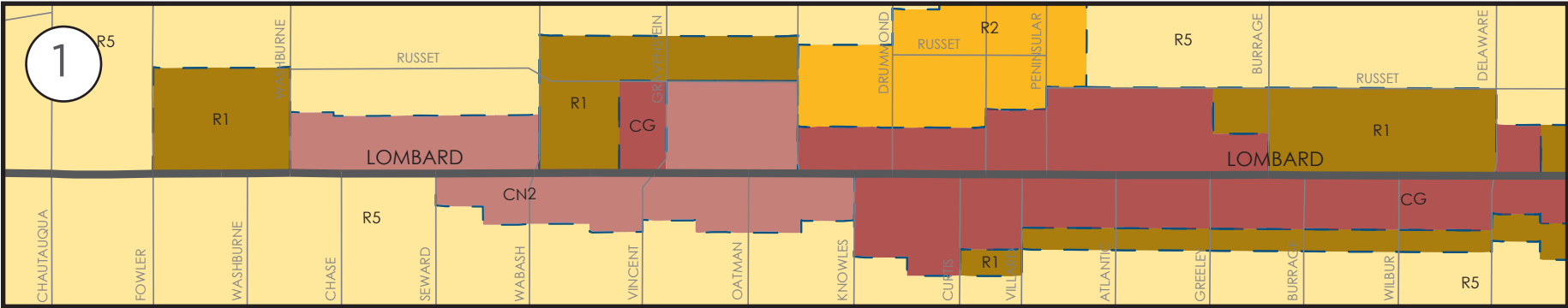


Strip-mall style commercial development with surface parking in front



Main-street style commercial development built up to sidewalk

V. Zoning



Overview

Unlike many commercial corridors in Portland, the project area lacks consistent zoning along its length. Instead there is a patchwork of different zones that often vary from block to block. These include residential, commercial, and employment zones that allow varying levels of development intensity and allow different uses. Even though zoning is discontinuous, there are some basic patterns in the zoning.

Section 1

From Chautauqua to Emerald, Lombard is mostly zoned CN2 (Neighborhood Commercial 2), with a few blocks zoned R5 (Single-Dwelling Residential) or R1 (Multi-dwelling Residential). This area currently includes a small grocery, several medical offices, drive-through banks, surface parking, and bars, along with some single-dwelling and multi-dwelling residential.

From Emerald to Delaware, Lombard is primarily zoned CG (General Commercial) with a north-side block face near Delaware zoned R1. This part of Lombard includes the more built-up Peninsular and Greeley area (including some small streetcar-era storefronts as well as larger commercial uses with surface parking such as Walgreens and Goodwill), as well as a less-intensive stretch from Greeley to Delaware.

Section 2

From Delaware to Denver, Lombard is primarily zoned CG, with a north-side block face near Delaware zoned R1. This stretch of Lombard is a mix of low-intensity residential and commercial development, mostly office and small retail uses.

From Denver to Interstate, Lombard is primarily zoned CS (Storefront Commercial). This stretch does not currently contain any

traditional storefront development, and is dominated by low-intensity commercial development with a great deal of surface parking.

The NW corner of Lombard & Interstate is zoned R1. This site contains the De La Salle School and its field.

The SE corner of Lombard & Interstate is zoned CX (Central Commercial), covering the entire Fred Meyer site. Fred Meyer was able to avoid requirements to build close to the sidewalk by including walkways within the parking lot and building other retail storefronts up against the sidewalk.

The SW and NE corners of Lombard & Interstate are zoned EX (Central Employment). This zone covers two gas stations and a drive-through fast-food restaurant; these are all non-conforming uses, so if the sites redevelop they will not be allowed to continue these uses.

Section 3

The Mississippi/Albina area is zoned CG. The area has some streetcar-era storefronts along with more auto-oriented development.

The Vancouver intersection area is zoned CN2. The intersection corners are characterized by auto-oriented retail and service development.

The MLK intersection area is zoned CG. The area contains auto-oriented development such as fast food, gas stations, and parking lots.

The residential stretches in between these nodes are zoned R2 (Multi-dwelling Residential). Currently these are all single-dwelling houses, but rowhouses and townhouses would be allowed for future development.

Parking

There are no minimum parking requirements for commercial development along Lombard because frequent transit service is available along the entire corridor. Multi-dwelling residential developments of greater than 30 units would be required to include some limited off-street parking.



Commercial Zone Descriptions

The commercial zones along Lombard differ significantly in their allowed uses and design standards. Please consult the commercial zone descriptions and Table 4 on the following page for more detail on what is allowed in the various zones.

Commercial Zone Descriptions



CN2 (Neighborhood Commercial 2): The CN2 zone is intended to allow small-scale commercial development in low-density residential areas, primarily to serve the surrounding neighborhood rather than the region.



CG (General Commercial): The CG zone is intended to allow a broad range of retail and service businesses that serve both a local and regional market. It encourages auto-accommodating development that matches the predominant character of the area.



CS (Storefront Commercial): The CS zone is intended to encourage new development to have a traditional storefront character matching existing development. The zone allows a full range of uses serving both local and regional markets, and design standards encourage mixed-use buildings of a moderate size that are built up to the sidewalk.



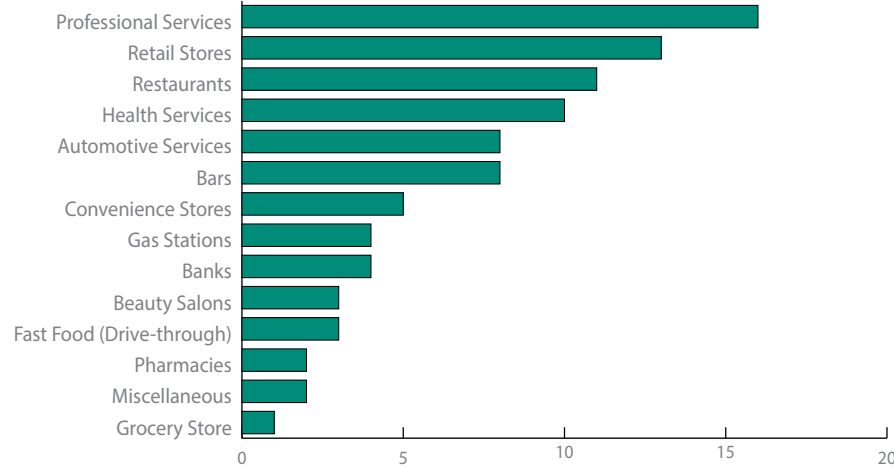
CX (Central Commercial) & EX (Central Employment): The CX and EX zones are designed to allow the widest range of uses at a higher level of intensity than most other zones. Development is meant to serve a regional market and serve as major employment centers.

Table 4: Zoning and Land Use					
Allowed Uses	Zones				
	CN2	CG	CS	CX	EX
Residential	Yes	Yes	Yes	Yes	Yes
Office	Yes	Yes	Yes	Yes	Yes
Retail	Yes	Yes	Yes	Yes	Yes
Gas Stations	Yes	Yes	No	Yes	No
Drive-thrus	Yes	Yes	No	Yes	No
Vehicle Repair	No	Yes	No	No	Yes
Design					
Floor Area Ratio	.75 to 1	3 to 1	3 to 1	4 to 1	3 to 1
Max. Height	30 ft.	45 ft.	45 ft.	75 ft.	65 ft.
Max. Front Setback	10 ft.	10 ft.	10 ft.	10 ft.	10 ft.
Building Coverage	Max 65%	Max 85%	Min 50%	No limit	No limit
Parking allowed between building and sidewalk?	Yes	Yes	No	No	No
Source: Portland Zoning Code					

VI. Business and Employment

Lombard Street has a variety of business types including professional services (such as legal, financial, and insurance services) as well as retail and food service. While restaurants are the third most common business type on the street, only a few are full-service sit-down establishments. There are several Hispanic-owned and -operated businesses including several Hispanic food establishments. Beyond this cluster, there is no identifiable grouping of similar industries. There is a mix of corporate chain businesses and locally-owned businesses, which provides a diversity of shopping options but could also contribute to a lack of identity or cohesion on the corridor.

Lombard has several bars and taverns, but there are few all-ages gathering places like cafes or coffee shops. A large number of businesses (mostly convenience stores and fast-food restaurants) operate 24 hours a day. Most businesses are auto-oriented, with a great deal of surface parking, and many of these (mostly banks and fast food restaurants) also feature drive-through windows. While some businesses make a great effort to beautify their facades and streetscapes, many of the storefronts are aging and in disrepair.



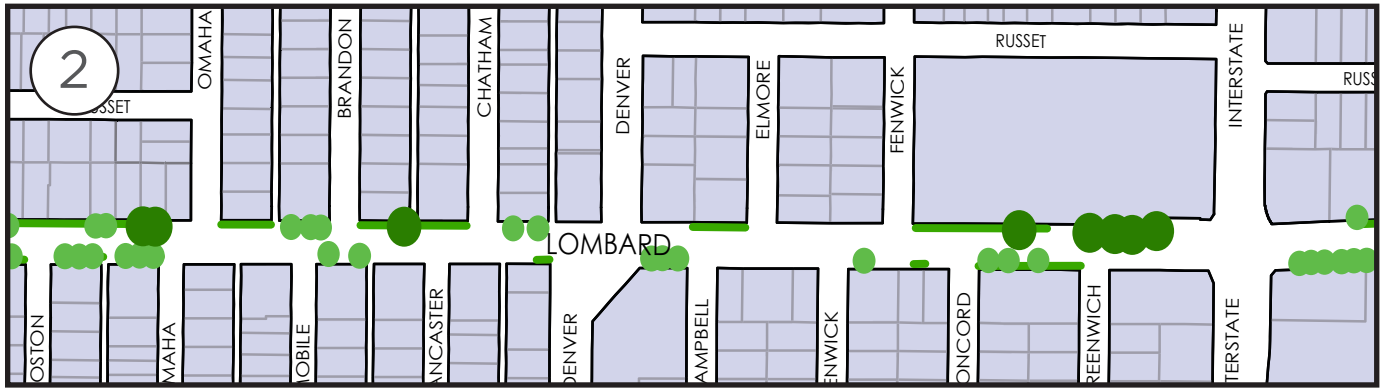
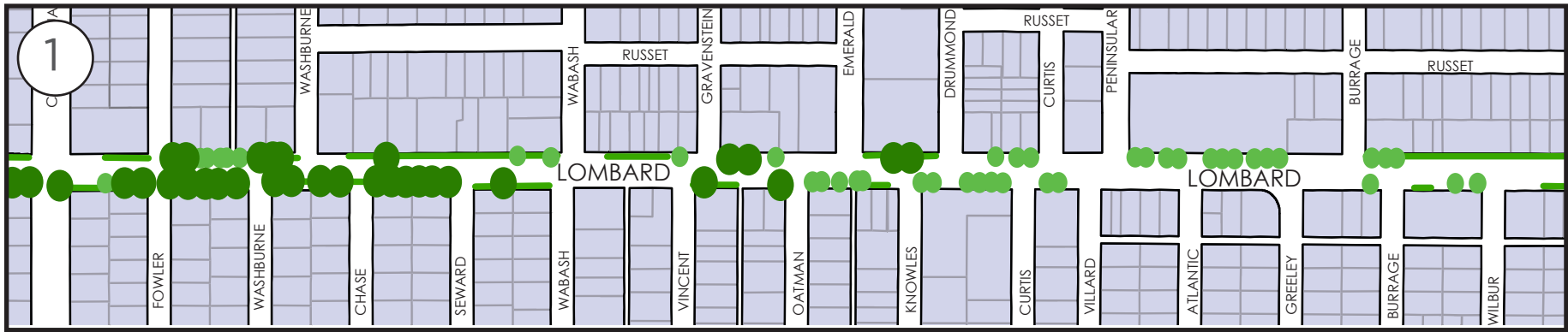
Inviting storefronts with planters and seating



Storefronts in need of improvement

Table 5: Employment demographics		
Age	Percent	Number
29 and under	28%	507
30-54	54%	968
55+	18%	320
Total	100%	1795
Income		
\$1,250/month or less	33%	587
\$1,251-\$3,333/month	42%	750
\$3,333+/month	25%	458
Total	100%	1795
Educational Attainment		
Less than HS	8%	135
HS	20%	356
Some college or Associates	25%	444
Bachelor's or Advanced	20%	353
Total	100%	1288
Race		
White	86%	1537
Black/African American	5%	88
Native American	1%	22
Asian or Pacific Islander	6%	107
2 or more races	2%	41
Total	100%	1795
Ethnicity		
Hispanic	8%	144
Non-Hispanic	92%	1651
Total	100%	1795
Gender		
Male	43%	767
Female	57%	1028
Total	100%	1795
Source: PDC 2010		

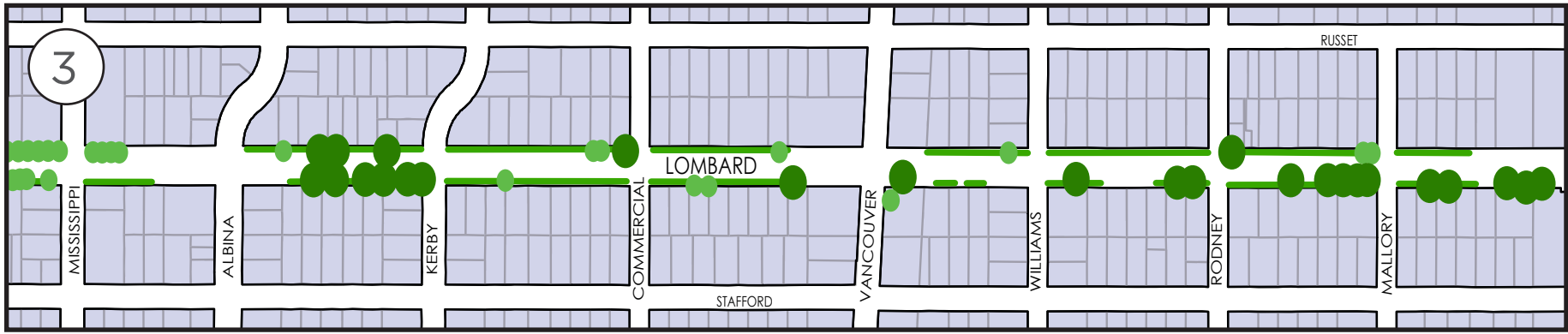
VII. Pedestrian Environment



Tree Cover

- Small Tree
- Large Tree
- Planting Strip
- Tax Lots

0 125 250 500 Feet



Trees and Vegetation

The presence of tree cover, vegetation, and landscaping varies along Lombard Street within the study area. While most blocks are lined with street trees, many blocks in the commercial areas lack trees or landscaping. Street trees and planting strips are more prevalent in the residential sections west of Wabash and east of Albina. In 2011 the City of Portland Bureau of Environmental Services identified 627 tax lots within the study area that contained potential for street tree planting.

Sidewalks

Sidewalk conditions also vary greatly within the study area, ranging from wide sidewalks in good condition to narrow sidewalks that are cracked and worn. Sidewalk curb ramps are rare, and most of them do not meet ADA guidelines for accessibility. The large number of curb cuts and parking lots along Lombard contribute to a lack of street trees and landscaping. Most parking lots do not have a landscaped buffer between the sidewalk and parking lot, contributing to a streetscape dominated by pavement.



This block has crumbling sidewalks and lacks street trees, resulting in an unpleasant walking environment.



This dental office uses estate fencing and to create a more pleasant walking environment. Vehicle access is limited to the side street, eliminating the need for a curb cut.



Large driveways with no barrier between the parking lot and the sidewalk are common on Lombard.

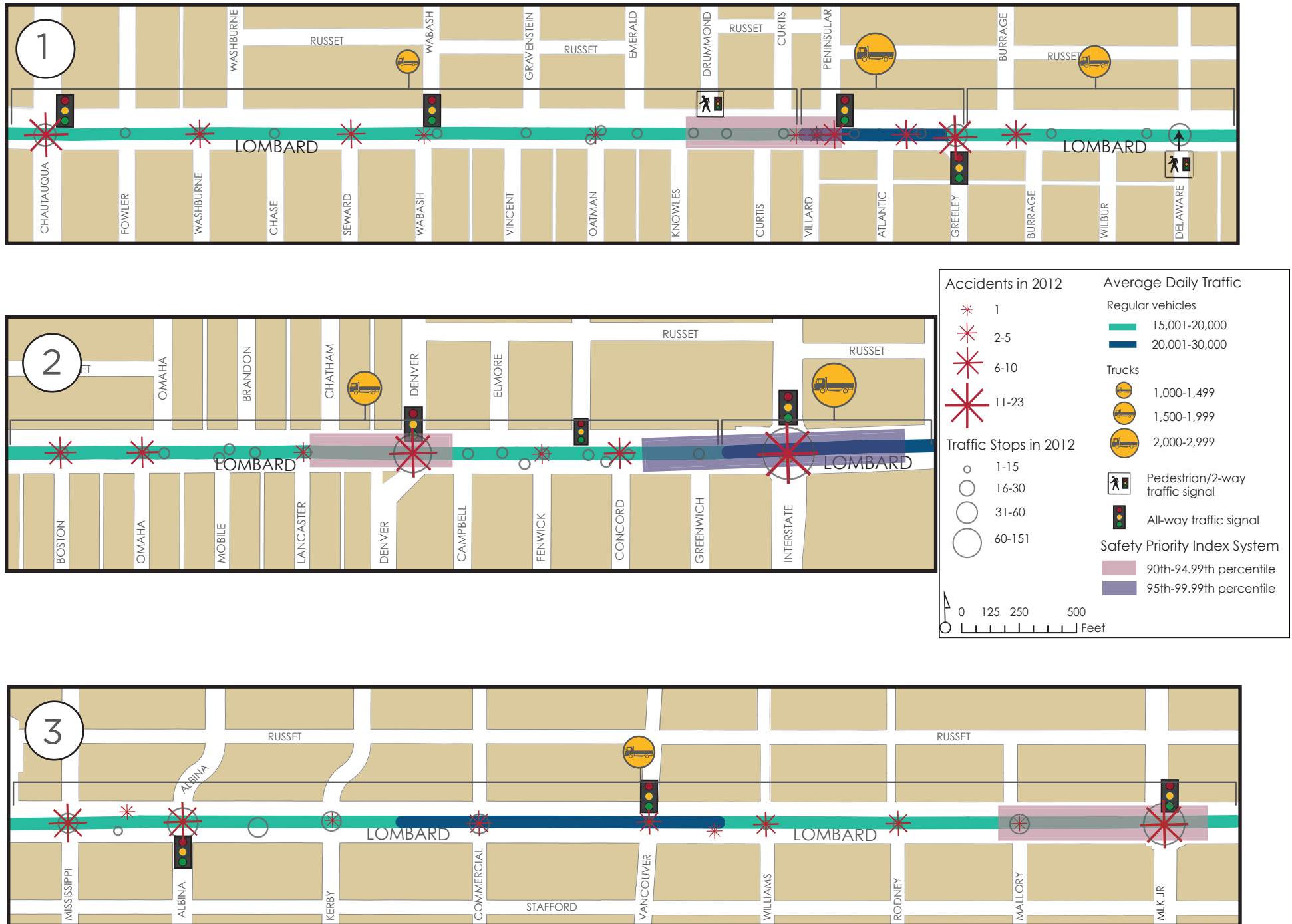


This cluster of businesses uses planters to create a more inviting outdoor seating and pedestrian environment.



This building lacks active uses, but the wide sidewalk and street trees help make the street feel more welcoming.

VIII. Traffic Volume and Safety



Traffic Volumes

The Annual Average Daily Traffic (AADT) volume for the study area is nearly 19,500 average vehicles per day (see Table 6). Most of the study area carries between 19,000 and 20,000 vehicles per day, with pockets of slightly higher traffic near the Peninsular/Greeley, Interstate, and Vancouver intersections.

Freight traffic accounts for 9% of total traffic within the study area, with slightly roughly 1,750 trucks traveling through the study area per day. Freight volumes are slightly higher west of I-5, accounting for 10% of total vehicle traffic, as opposed to 8% east of I-5. Tractor-trailer vehicles account for 4% of vehicle traffic within the study area, with larger vehicles (5 or more axles) comprising 0.5% of vehicle traffic within the study area.¹

Safety

Lombard Street has many safety issues that need to be addressed. Traffic stops and accidents for 2012 are shown in Table 7. While Section 3 has the highest number of stops and incidents, the I-5 crossing has the highest rate per 1/4 mile.

Data prior to 2012 (see Figure 2) shows that traffic incidents have increased in recent years after a period of decline. Four of the incidents from 2002-2011 had fatalities, and the most common type of Incident was rear-

	AADT	Freight AADT	% Freight
West of I-5	19,200	1,876	10%
East of I-5	19,850	1,574	8%
Total Study Area	19,489	1,742	9%

1 Oregon Department of Transportation; TransGIS, Traffic Counting Program

end collisions, comprising one-third of all incidents².

Lombard has also seen several pedestrian and bicycle incidents in the past decade. Two pedestrian fatalities, 21 pedestrian injuries, and 10 bicycle injuries occurred from 2002-2011 according to the Portland Bureau of Transportation. The relative lack of safe crossings may contribute to these safety issues.

	Section 1	Section 2	Section 3	I-5
Stops	163	194	323	122
(per 1/4 mi)	50	88	101	191
Incidents	33	38	46	17
(per 1/4 mi)	10	17	14	27

Source: Portland Police Bureau

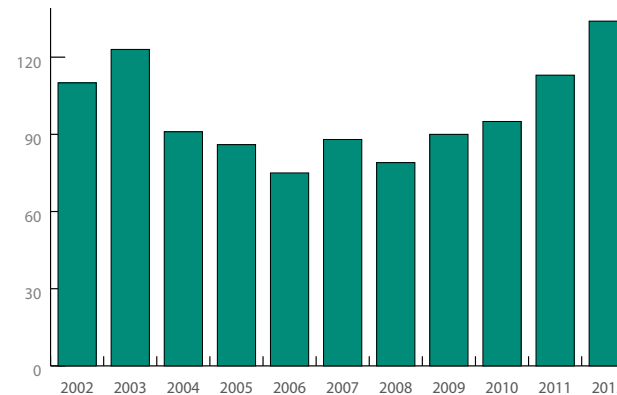


Figure 2: Study Area Traffic Accidents By Year 2002-2012

Road Segment	ADT	Crashes	Fatalities	Percentile
N Peninsular Ave to N Greeley Ave	14,300	28	0	90%
N Denver Ave	17,900	23	0	90%
N Interstate Ave to N Greenwich Ave	19,400	46	1	95%
NE Martin Luther King Jr Blvd	20,900	25	0	90%

2 Portland Bureau of Transportation

Safety Priority Index System

The Safety Priority Index System (SPIS) is a method developed by the Oregon Dept. of Transportation for identifying safety problems on state highways. Annual SPIS analysis is performed to identify locations that have exhibited high instances of crash activity. The purpose of SPIS analysis is to systematically identify sites where there is potential to reduce the risk, occurrence, or severity of crashes.

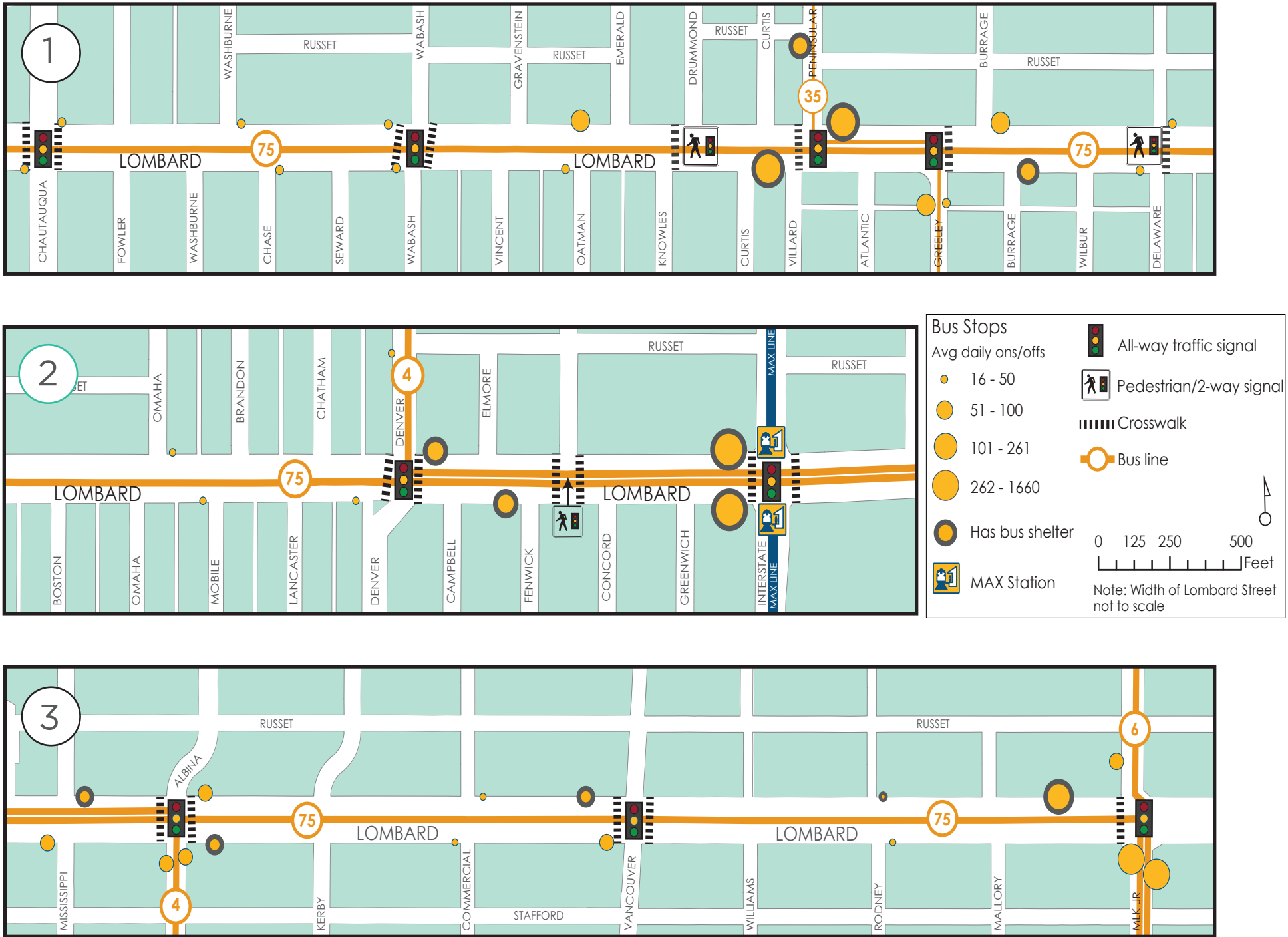
Within the study area, the Peninsular/Greeley, Denver, and MLK areas are categorized in the 90% SPIS rating, meaning these locations are among the top 10% high-crash road segments in the state. The area between Interstate and Greenwich is categorized in the 95% SPIS rating, meaning this area is among the top 5% high-crash road segments in the state (see Table 8).³

Street condition

The pavement condition on Lombard Street is rated 'Poor' from Chautauqua to I-5, and 'Very Poor' from I-5 to MLK. Visual inspection of the street reveals numerous examples of cracks, potholes, and warped asphalt. The poor roadway condition contributes to the noise of traffic and could possibly contribute to traffic incidents now and in the future. Lombard is in poor enough condition that it will most likely require a complete rebuild in the coming years rather than simply getting repaved.

3. ODOT Traffic-Roadway Section (TRS): Safety Priority Index System (SPIS)

IX. Pedestrian and Transit Facilities



Transit Lines

Lombard Street features a relatively high level of transit service both along the corridor and crossing it in several locations. The Line 75 crosstown bus travels the length of the corridor, providing east-west service. The Yellow Line MAX light rail provides service north to Kenton and south to Downtown Portland. The Lombard Transit Center is located where these two busy transit lines meet at Lombard & Interstate.

Several bus lines also cross Lombard within the study area. The Line 35 bus crosses Lombard at Peninsular & Greeley, providing service to University of Portland and Downtown Portland. The Line 4 bus provides service west to St Johns via N Denver Ave and south to Downtown Portland via N Albina Ave. The Line 6 bus crosses Lombard at NE MLK Blvd, providing service north to Jantzen Beach and south to Downtown Portland.

Lines 4, 6, 75, and the Yellow Line are all classified by TriMet as Frequent Service lines. Frequent Service is currently defined as service operating with 15 minute or better headways during peak morning and afternoon weekday hours. The Line 35 bus is much less frequent outside peak hours than the other lines and is primarily oriented to serve commuters. All transit lines drop

in frequency and span during the weekend, especially the Line 35. See Table 9 for full details of headway and span for each line.

Transit Stops

The most heavily-used transit stops are those located at transfer points. The stops with the highest levels of use are located at Peninsular, Denver, Interstate, and MLK. The Lombard Transit Center receives by far the most use, with about 1600 average riders per day. Stops at Peninsular and Denver are used by about 200 riders per day, while stops at MLK are used by about 100 riders per day. Stops are spaced an average of 678 feet apart. However, some stops are located much closer together and opportunities may exist for stop consolidation to speed up service.

Bus stop amenities vary widely, ranging from simple bus stop poles to shelters to the large shelters at the Lombard Transit Center. Most bus stops feature a concrete area, but a few are located on a planting strip. These bus stops present accessibility challenges and result in an unpleasant waiting area. Many shelters lack garbage cans, seating, and adequate lighting. The provision of a shelter does not always correspond to ridership. Several low-ridership stops east of I-5 have shelters, while stops with much higher ridership near MLK lack shelters.

Pedestrian Crossings

In the entire 2.3 mile project corridor, there are 12 intersections with protected crosswalks: 9 are regular signalized intersections and 3 are specifically for pedestrians using activated signals. The pedestrian-activated signals are aging and do not meet current standards for crossing time and pedestrian delay. The signals also do not follow the current Portland practice of displaying the number of seconds remaining to cross rather than only a flashing red hand.

As shown in Table 10, this stretch of Lombard has fewer crossings than similar stretches on MLK, Sandy, and Powell Boulevards. Only SE 82nd Ave has fewer, with 11 instead of 12. Crossings on Lombard are located roughly 1000 feet apart on average, more than double the 400-foot distance recommended for Community Main Streets in the Portland Transportation System Plan. Notably, many transit stops are not located near crossings, making it difficult to access both directions of the transit line.

Line	Weekday					Weekend		
	Headway			Span (hrs/day)	Trips/Day (each dir.)	Headway All Day	Span (hrs/day)	Trips/Day (each dir.)
	Peak	Midday	Evening					
4	10	15	20	20	76	20	20	52
6	10	20	20	19	60	20	19	51
35	10	35	60	19	43	35	14	24
75	15	18	20	20	70	20	19	54
Yellow	15	15	15	20	73	18	20	61

Crossing location	Total marked crosswalks	Average distance between crosswalks (mi)
Lombard (Chautauqua to MLK)	12	0.20
MLK (Lombard to Stanton)	26	0.09
82nd (Burnside to Holgate)	11	0.20
Sandy (SE 7th to NE 42nd)	19	0.13
Sandy (NE 42nd to NE 82nd)	15	0.14
Powell (Milwaukie to Foster Rd)	15	0.14

X. Bicycle Facilities



Bicycling on Lombard

Lombard Street is not currently designed for bicycling, though the Bicycle Plan for 2030 does call for some kind of bicycle facility on Lombard in the future. Many people have been observed riding bicycles on the sidewalk, but most sidewalks are narrow and difficult to traverse by bike, especially when pedestrians are present. Bicycle parking is very limited, with few public bike racks available on Lombard and few businesses offering their own bike parking.

Parallel Bicycle Routes

The nearest east-west bike routes west of I-5 are Terry Street (four blocks north) and Bryant Street (four blocks south), both of which are classified as Neighborhood Greenways. Bryant Street also provides the nearest I-5 crossing besides Lombard itself, several blocks to the south. East of I-5, a large gap exists in the east-west bike network north of Bryant between I-5 and NE 11th Ave.

Bicycle Crossings

The project area has several north-south bike routes that intersect with Lombard. These routes and their classification are shown in Table 11. The Portland Bicycle Plan for 2030 anticipates upgrading many of these routes to Neighborhood Greenway classification, and would also add an in-road bicycle facility to N Peninsular Ave.

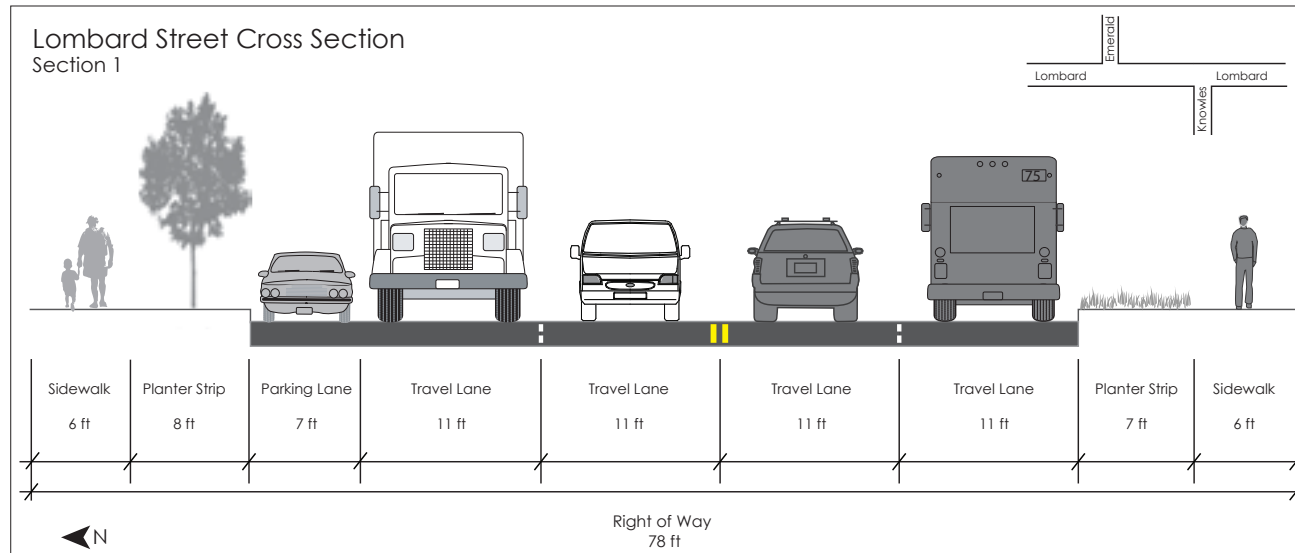
Each crossing has a regular traffic signal (some timed, some activated) with two exceptions:

- Delaware has a pedestrian-activated signal that only allows pedestrians to cross, with stop signs for vehicles in the roadway. Bicyclists generally must enter the sidewalk and press the pedestrian button in order to cross safely.
- Fenwick and Concord are part of a Neighborhood Greenway crossing Lombard, but the streets are staggered apart. Concord does not have any signal, while Fenwick has a pedestrian-activated signal with a stop sign for vehicles in the roadway. Bicyclists generally must enter the sidewalk and press the pedestrian button in order to cross safely.

Table 11: Bicycle routes crossing Lombard (listed from east to west)	
Street	Facility/Classification
Vancouver	Bike Lane
Interstate	Bike Lane
Fenwick/Concord	Neighborhood Greenway
Denver	Bike Lane
Delaware	Low-traffic Through Street
Wabash	Neighborhood Greenway
Chautauqua	Low-traffic Through Street

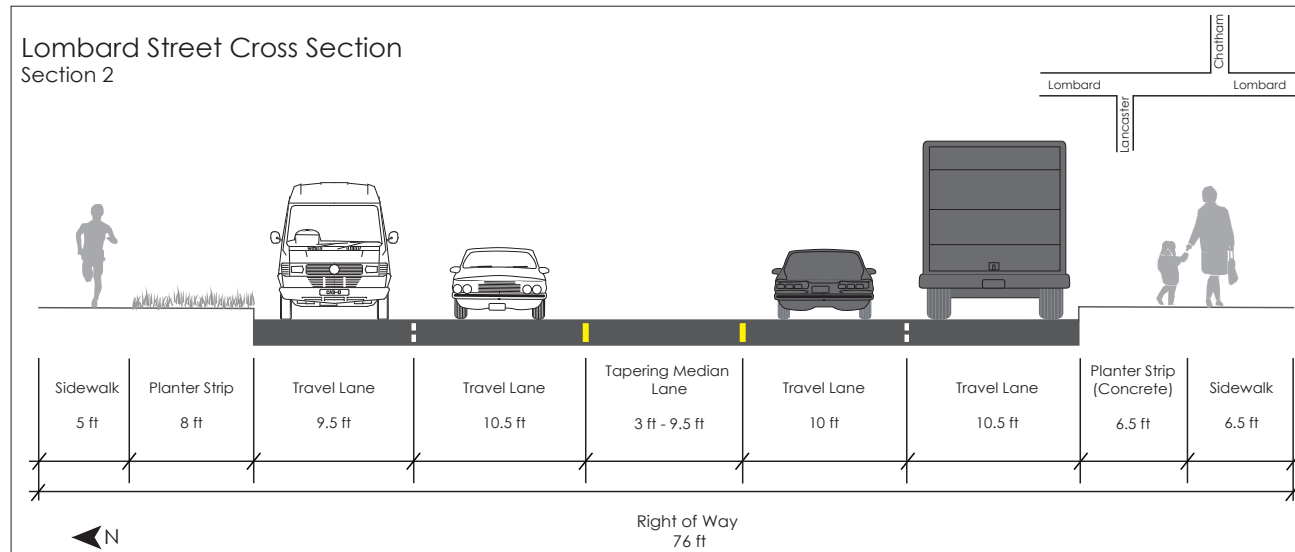


XI. Street Cross Sections



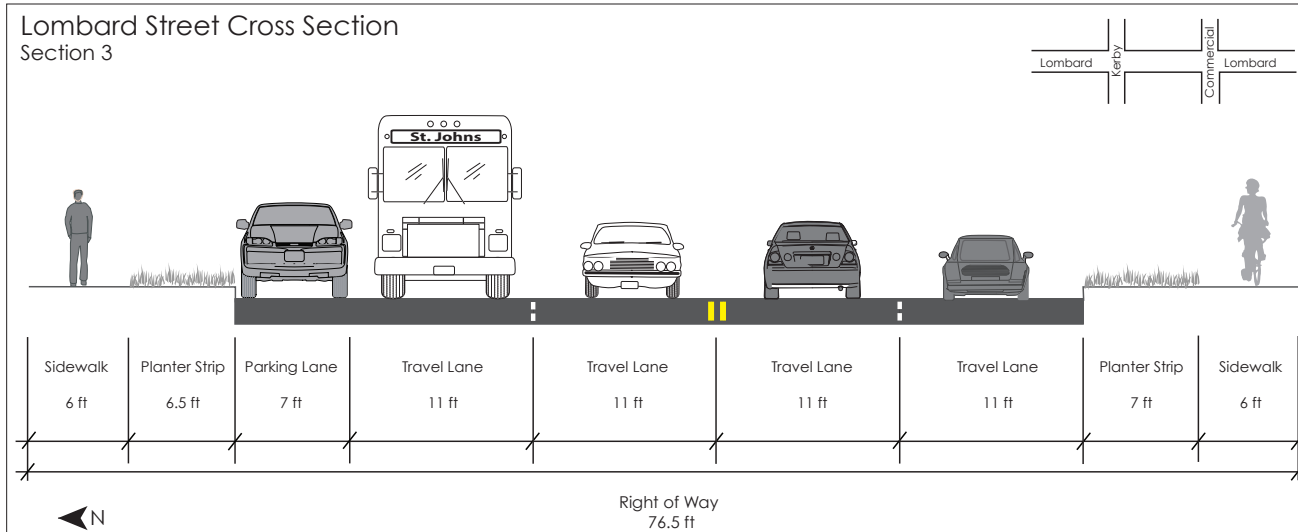
Section 1

The typical configuration in this section includes four 11-foot travel lanes and an unmarked parking lane on the north side of Lombard. Street trees are more common in this section than the other two, and sidewalks are a standard 6-foot width and continuous throughout.



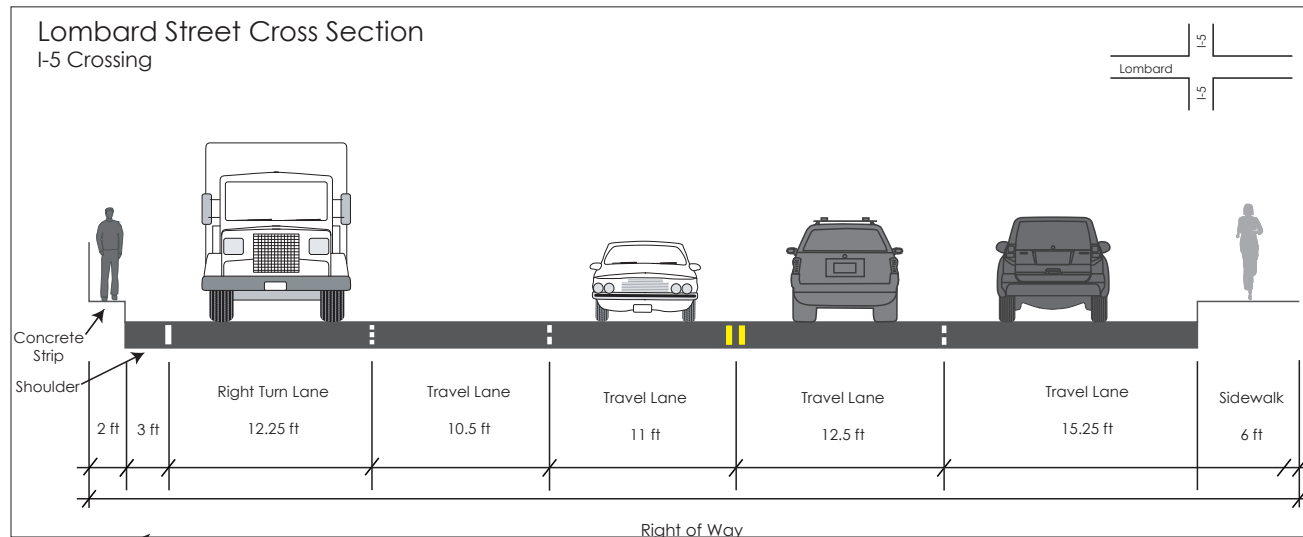
Section 2

The typical configuration in this section includes narrower travel lanes than the other stretches (9.5-10.5 feet) and less on-street parking to make room for a tapering median lane that accommodates left turn pockets at both Denver and Interstate. Many sidewalks on the south side have concrete instead of grass planting strips. Sidewalks are adequate (5-6.5 feet) and continuous.



Section 3

This section is similar to Section 1, with 11-foot travel lanes, unmarked on-street parking on the north side, and six-foot sidewalks with planting strips and street

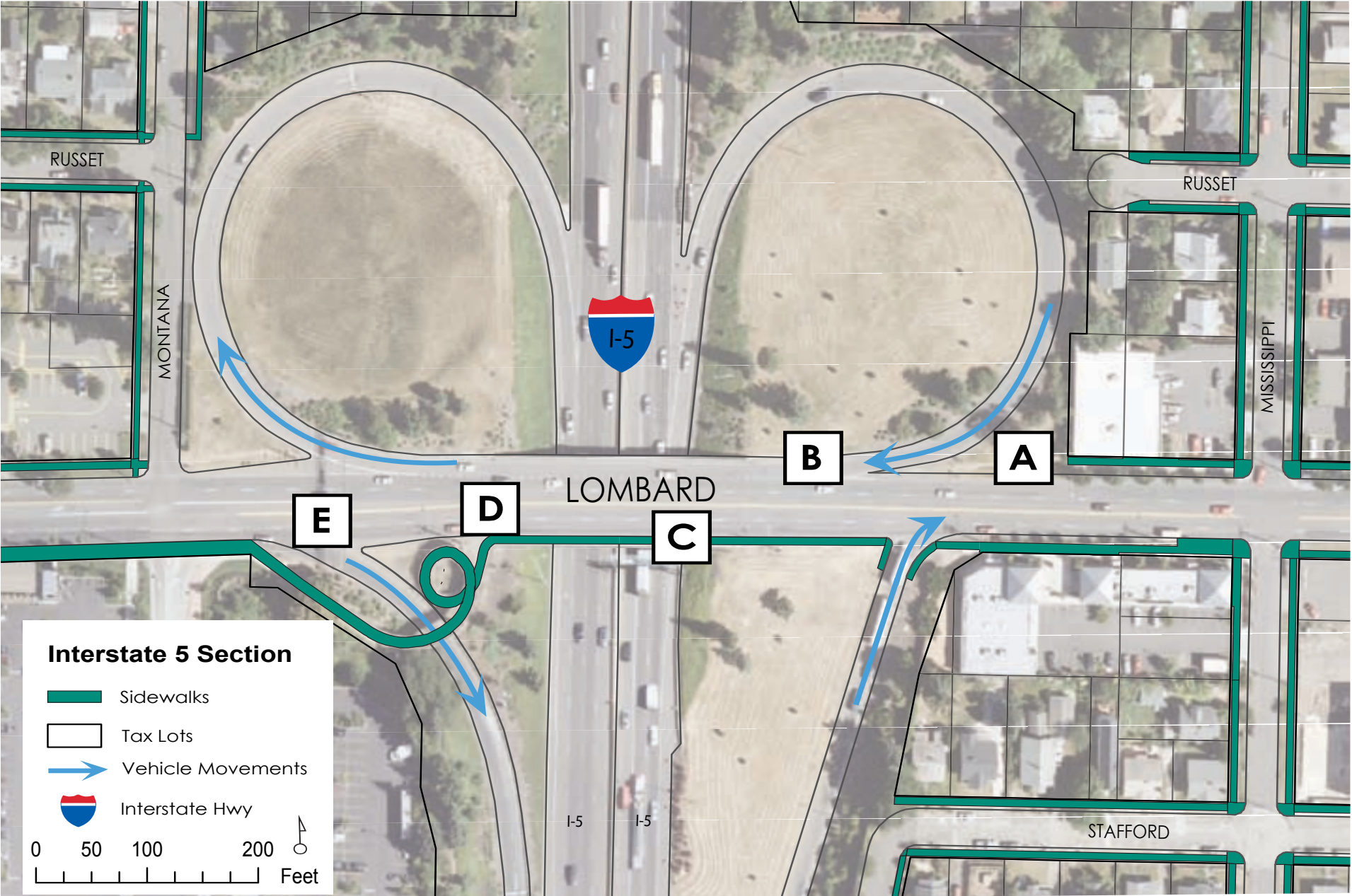


trees.

I-5 Crossing

The I-5 crossing features four wide through lanes, a wide turning/merge lane on the north side, and a six-foot sidewalk on the south side. On the north side there is a three-foot marked shoulder and a two-foot concrete strip.

XII. Interstate 5 Crossing



I-5 Crossing

The Lombard crossing over Interstate 5 presents many unique challenges for this corridor. The interchange is an atypical design, only allowing traffic to exit I-5 northbound and enter I-5 southbound. Despite this, eastbound and westbound traffic are each given a full ramp to enter or exit the freeway. This design makes it very difficult to accommodate pedestrians. A narrow sidewalk is only provided on the south side, and a spiral pedestrian overpass is needed simply to cross a freeway on-ramp. No signals are used to control traffic at this interchange, leading to high speeds as vehicles enter or exit Lombard.



The sidewalk on the north side of Lombard extends west from N Mississippi Ave, but ends before reaching the I-5 interchange. This muddy path demonstrates that many pedestrians choose to risk their safety by crossing I-5 on the north side, despite the lack of sidewalk, rather than backtrack several blocks to the nearest signalized crossing at N Albina Ave.



Rather than backtrack to Albina to cross Lombard, this pedestrian has chosen to cross the busy freeway off-ramp and walk along a narrow 2-foot path on the north side of Lombard to cross I-5. The circular ramps encourage fast speeds and are very dangerous for pedestrians. Despite the lack of a sidewalk or crosswalk, many pedestrians use this route since it is the shortest distance to cross I-5 on the north side.



Pedestrians and bicyclists are meant to cross I-5 using this sidewalk on the south side of Lombard. The sidewalk is narrow and is directly adjacent to high-speed traffic. The crossing is very noisy and unpleasant due to inadequate screening from freeway traffic below and no buffer from traffic on Lombard.



This spiral overpass is meant to give pedestrians a safe way to cross the southbound freeway on-ramp. The on-ramp has no signal to control traffic, so vehicles speed up quickly as they turn onto the ramp. Unfortunately, the pedestrian overpass is long and very steep, dissuading people from actually using it. In addition, the structure and the area have deteriorated over time. Large amounts of trash, poor lighting, poorly maintained landscaping, and standing water make the area very unpleasant.



A pedestrian ignores the spiral overpass and opts to cross the freeway on-ramp at-grade to save time and distance. The dirt path indicates this is a common decision for pedestrians who want to access Fred Meyer or the Lombard Transit Center by the shortest path. With heavy traffic volumes, high speeds, and no signal to control traffic, this area is quite dangerous for pedestrians.

