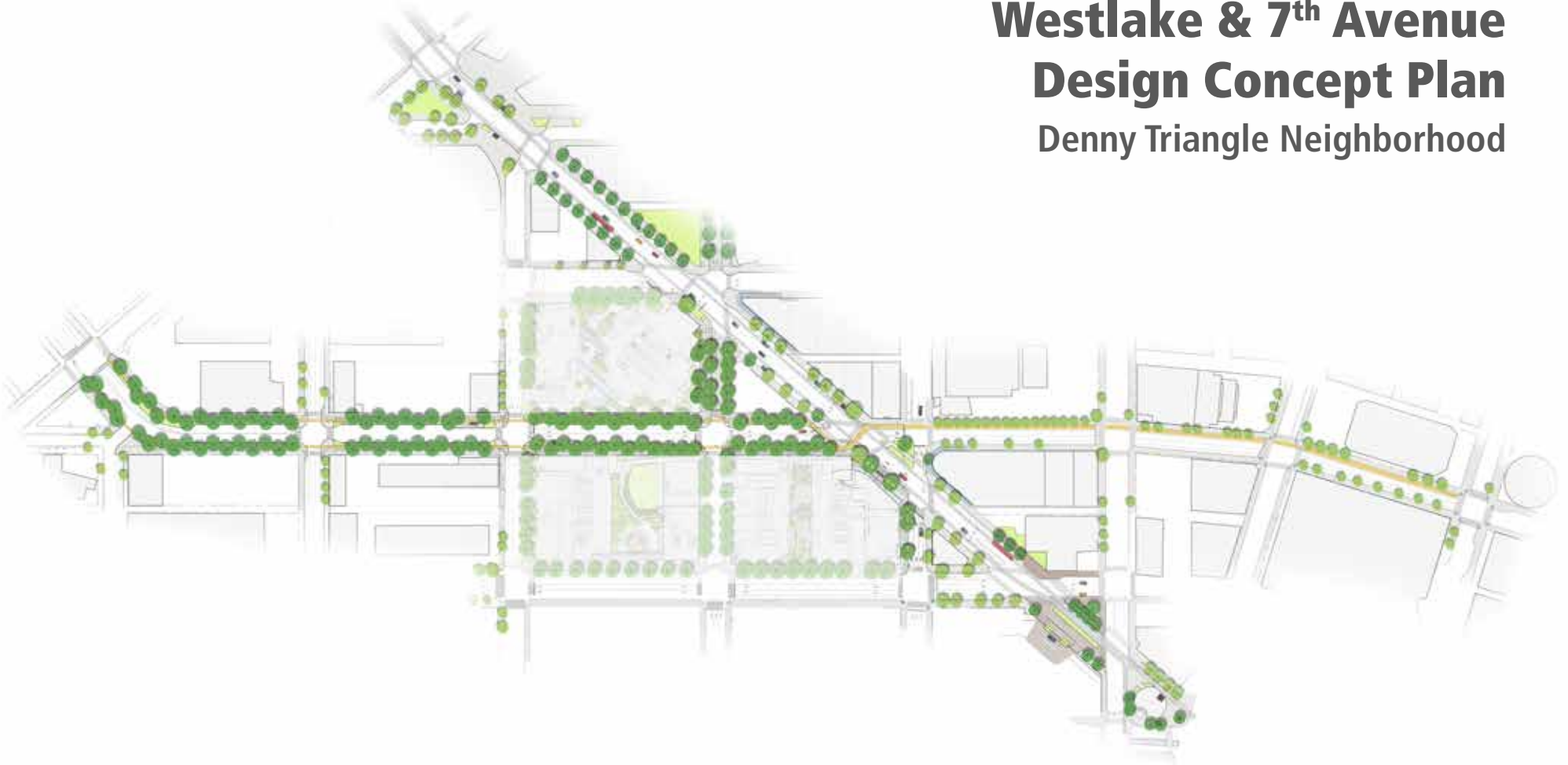


Westlake & 7th Avenue Design Concept Plan

Denny Triangle Neighborhood



September 2012

Acknowledgements

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Introduction & History

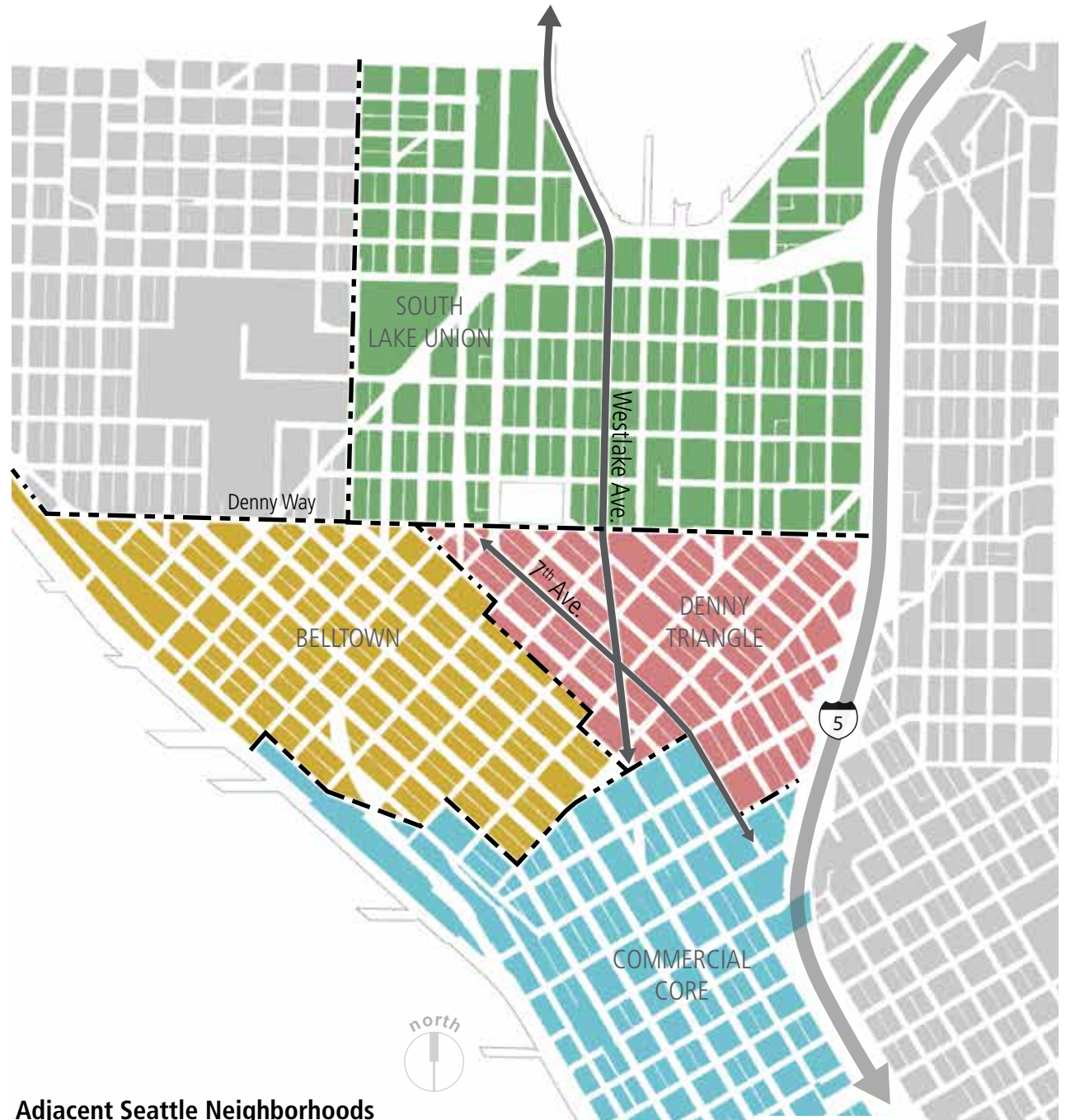
Overview & Previous Studies

The Denny Triangle neighborhood is one of Seattle's oldest residential and commercial neighborhoods, yet only achieved an official separate identity in the 1990s. The *Seattle Comprehensive Plan* distinguished this triangular transition zone separate from the downtown, Denny Regrade and Cascade neighborhoods in an effort to focus growth and investment in this under-developed neighborhood. Public and private efforts have been very successful in transforming the built environment in recent years.

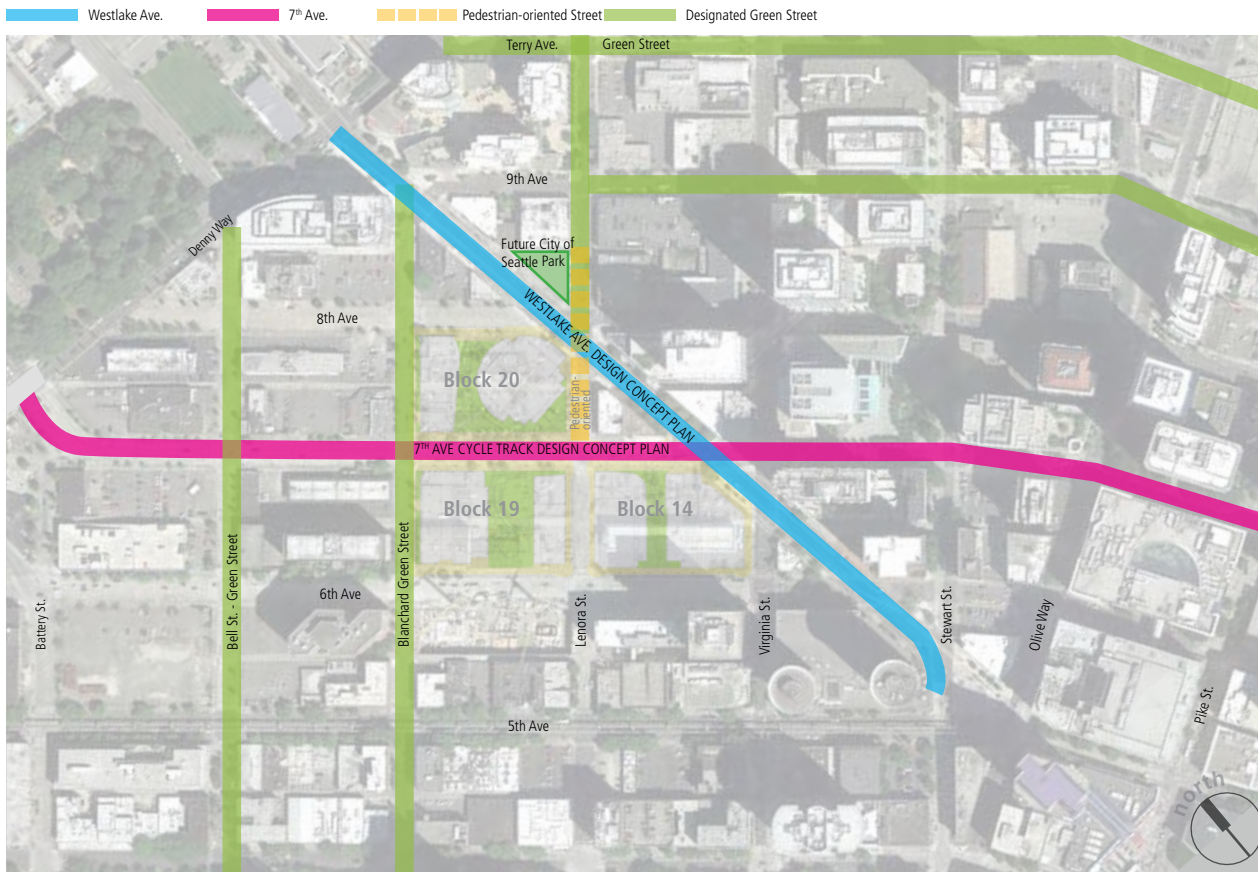
Circulating through the neighborhood via multiple travel modes: bus, car, bicycle, streetcar and foot have made Denny Triangle roadways very busy thoroughfares. This *Design Concept Plan* provides direction for Westlake and 7th Avenues to facilitate implementation and improve all modes of travel through the Denny Triangle neighborhood.

Several previous studies have documented the existing conditions and suggested improvements, many of which have been implemented within this neighborhood and adjacent districts:

- *Westlake Avenue Design (Denny Triangle District)*, 2004



Adjacent Seattle Neighborhoods



Denny Triangle Neighborhood Context Diagram

- *Denny Way Streetscape Concept Plan, 2009*
- *Westlake Transportation Hub Strategy, 2009*
- *South Lake Union / Uptown Triangle Mobility Plan, 2011*

These plans share many common themes in improving the urban rights-of-way:

- Invest in bicycle infrastructure, lanes, pavement, intersection crossing and parking;
- Enhance intersection function for all without compromising pedestrian movement over car (or vice versa);
- Integrate transit within streetscape, making it an integral element of the urban fabric;
- Promote public / private coordination in new and redevelopment;
- Make Westlake more than a street – add significant plantings to make a landscaped thoroughfare; and
- Complete the green street and extend green street intent beyond their designated boundaries.

The following *Design Concept Plan* detailed for Westlake and 7th Avenues was based on these design principles.

2

Goals & Objectives

Westlake Avenue

Historically, Westlake Avenue was the original northwest gateway into Downtown Seattle before the development of Aurora Avenue (Highway 99). The 90' right-of-way has the width to accommodate a multi-modal, landscaped thoroughfare with pedestrian amenities. While the avenue is not identified for bicycle traffic, cars, buses and the streetcar travel to/from downtown via Westlake Avenue. The goals for improving Westlake Avenue would include provision of the following:

- Safe, comfortable pedestrian sidewalks, designed and constructed to City standards;
- Street trees in planting beds;
- Quality lighting fixtures;
- Street furniture (benches, bicycle racks, trash cans, recycling containers and/or newspaper stands) provided in concentrated zones near the curb;
- Streetcar stops with shelters, incorporated with adjacent building where possible;
- Public art where appropriate;
- Enhanced pedestrian crossings and areas of refuge while waiting to cross;
- Potential bike-share stations; and



- Improve pedestrian circulation.

Illustrative Design Concept: Westlake & 7th Avenues

Goals & Objectives

7th Avenue Cycle Track



South Planning Area

Seattle has made significant improvements throughout the city to improve bicycling safety with the goal of tripling ridership from 2007 by 2017. The proposed creation of a “cycle track” on 7th Avenue is a continuation of one of the city’s busiest bike lanes along Dexter Avenue. The cycle track concept plan is designed to provide a more protected and comfortable space for cyclists than a conventional bike lane (as currently exists on 7th). The proposed cycle track is intended to accomplish the following objectives:

- Separate cyclists from both vehicular traffic and pedestrian sidewalks with a lane distinguished by materials and buffered from vehicles with landscaped areas and other physical barriers;
- Increase visibility of bicycle riders and improved bicycle operations at intersections; and
- Minimize potential conflicts between bicycle traffic and parked cars as well as buses.

Westlake Avenue improvements and the 7th Avenue cycle track concept plan would be implemented in phases, as adjacent redevelopment occurs and as city budgets allow. Additional public outreach and technical studies would be conducted by the city on future phases, such as the segment in the south planning area.

3

Observation & Analysis

Westlake Avenue Existing Conditions

Recent redevelopment of Westlake Avenue parcels within the South Lake Union neighborhood have helped transform the northern section of Westlake into a vibrant, multi-modal urban boulevard. This *Design Concept Plan* focuses on the Denny Triangle portion of Westlake Avenue extending from Denny Way south to its terminus at Stewart Street and McGraw Square. Understanding the existing conditions will help identify the steps necessary to extend Westlake Avenue's urban streetscape character south into the Denny Triangle neighborhood.

This southern section of Westlake Avenue is unique in its bisecting of the city grid, resulting in numerous triangular and/or irregular blocks. Angled crosswalks yield long pedestrian crossings which increase pedestrian discomfort while putting them at risk for longer durations. Existing marked crosswalks often connect two of the three corners at any given intersection which can require two streets needing to be crossed rather than one. Unfortunately, this often promotes jaywalking, particularly on a street that hosts multiple bus and streetcar stops where the timeliness of arrival is of increased importance. Any opportunity to shorten crossing distances and therefore, time, would improve the safety of Westlake Avenue.

Bike lanes are not included on Westlake Avenue; it is not a designated bike route through the city, however cyclists do occasionally share the road for short distances or crossings. The safest path across drives the bicycle at 90 degrees to the rails. Existing bike lanes start or stop at Westlake Avenue on 6th, 7th and 8th Avenues. Marked crosswalks on Westlake Avenue should accommodate perpendicular rail crossings to the extent possible for enhanced safety, particularly at these intersections.

Several lengths of Westlake Avenue within the Denny Triangle neighborhood currently lack any street tree or other landscape plantings, as indicated in the aerial photo. SDOT's master plan prefers horse chestnut (*Aesculus hippocastanum*) trees in this south section of Westlake Avenue, transitioning to hybrid elm trees north of Denny Way. Adding landscaped areas on Westlake will separate pedestrians from vehicular traffic, improve safety and the urban condition and increase the "boulevard aesthetic" identified as one of the goals for Westlake Avenue improvements.



Existing Aerial View of Westlake Ave., looking east

Observations & Analysis

Westlake Avenue, continued

Pedestrian lighting is inconsistent, relying predominantly on overhead Cobra street lights or ambient, ground floor lighting of adjacent development. Continuing existing pedestrian lighting fixtures employed on Westlake Avenue North would increase public safety in this neighborhood.

The existing **sidewalk conditions** are inconsistent on both sides of Westlake and are highly dependent on whether or not adjacent parcels have been recently

renovated or redeveloped. For example, the Whole Foods and Enso developments at Denny Way provided significant public plazas and open space, improving the urban character along their Westlake Avenue frontages. Down the street, however, patches of nonuniform concrete mix with asphalt repair sections and/or brick paving prevail. City-installed curb ramps and ADA textured panels are provided consistently along Westlake at all intersections. On-street, parallel **parking** is available on those blocks

that do not provide streetcar stops. These parking spaces are adjacent to the curb, outside the streetcar rails. Painted lines indicate to drivers where cars need to be parked in order for streetcars to pass with adequate room. The City's standard parking pay stations are stationed on those blocks as necessary.

Existing **street furniture** includes newspaper boxes, parking pay stations and the South Lake Union streetcar shelters.



Typical Westlake Sidewalk Conditions



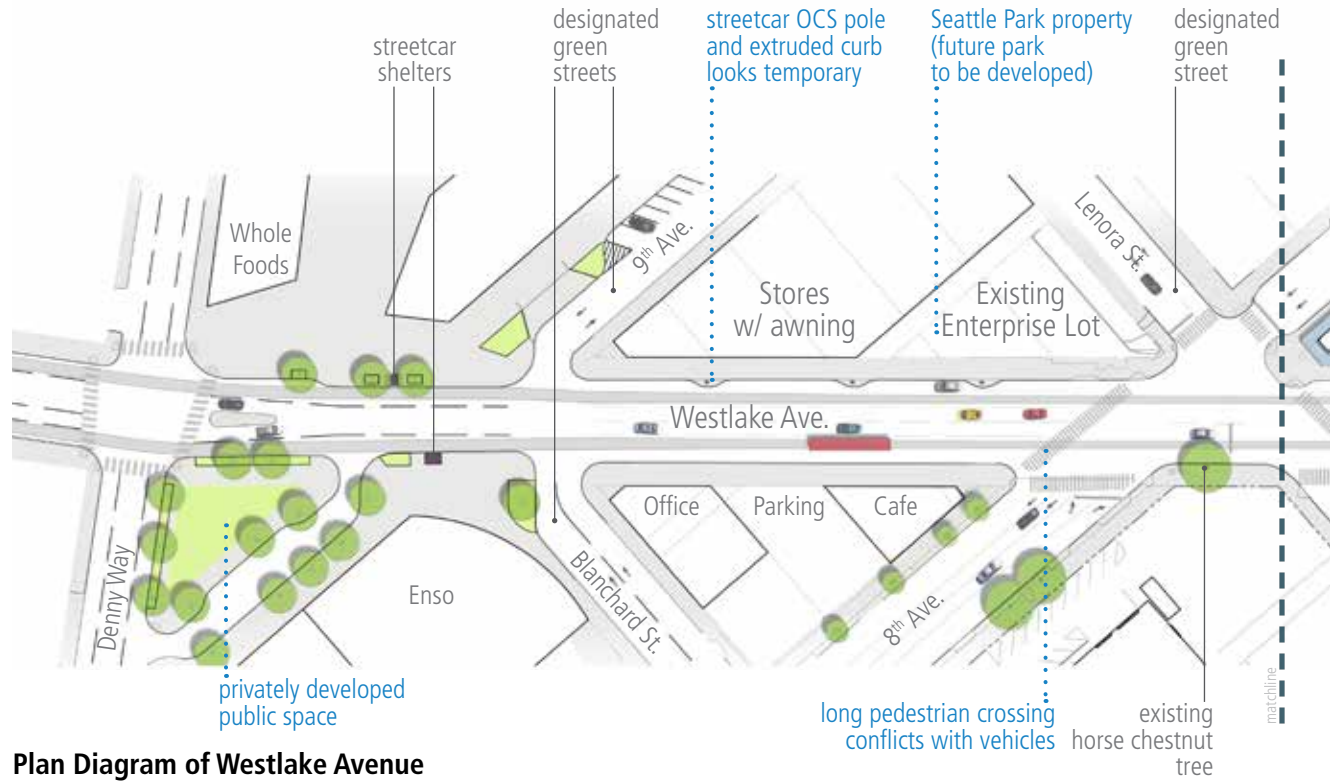
Pedestrian Running across Westlake Crosswalk



Westlake Avenue Intersection at 8th & Lenora

3

Observations & Analysis Westlake Avenue, continued



- Key
- Existing conditions observation & comments
 - Existing conditions

Plan Diagram of Westlake Avenue



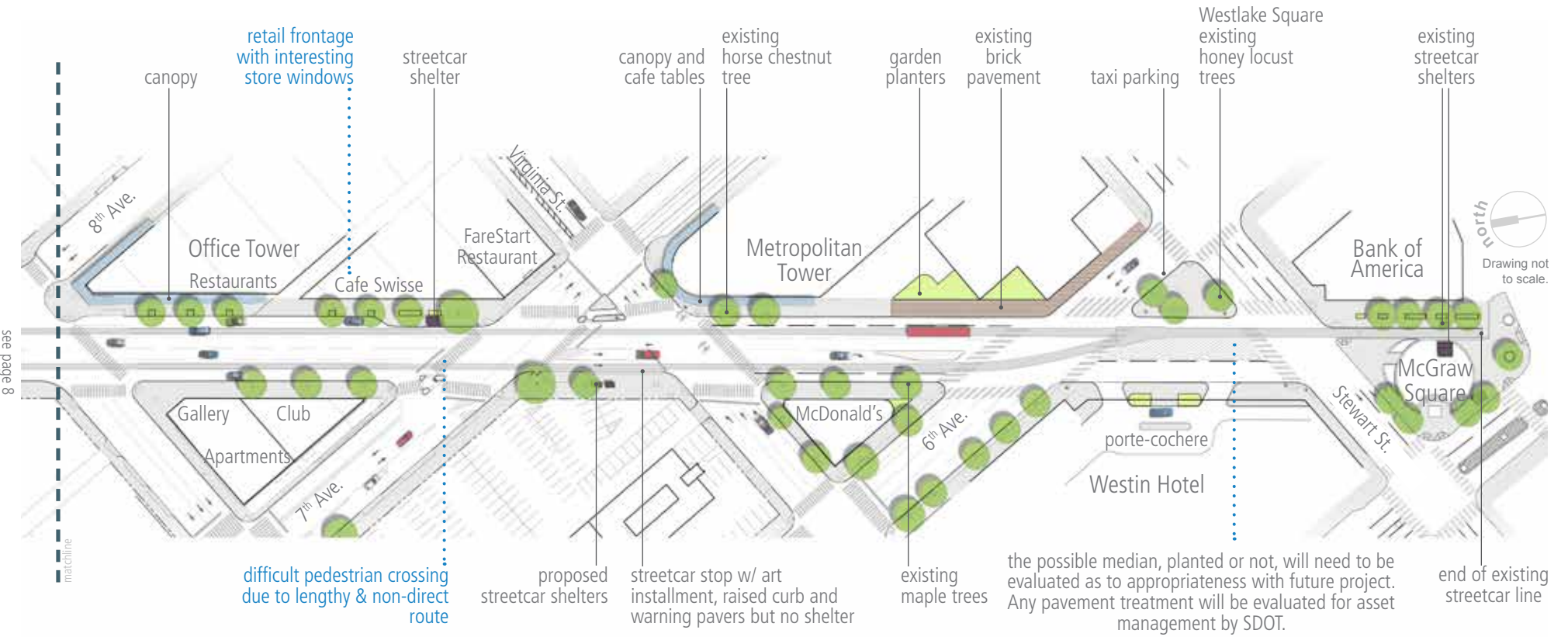
Whole Foods Plaza Activity



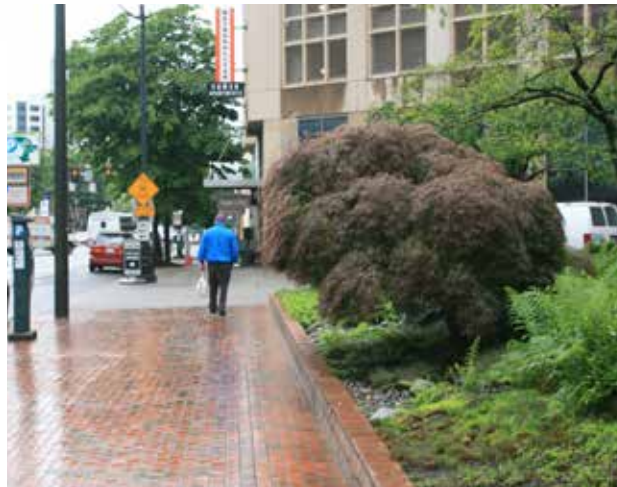
Westlake Ave. at Denny Way, looking south



Westlake Ave. at Blanchard St., looking south



Existing Streetcar Shelter & Horse Chestnuts



Existing Sidewalk & Landscaping, near Stewart St.



McGraw Square, looking south

3

Observation & Analysis

Westlake Avenue, continued



Existing Westlake Sidewalk near 7th Ave.

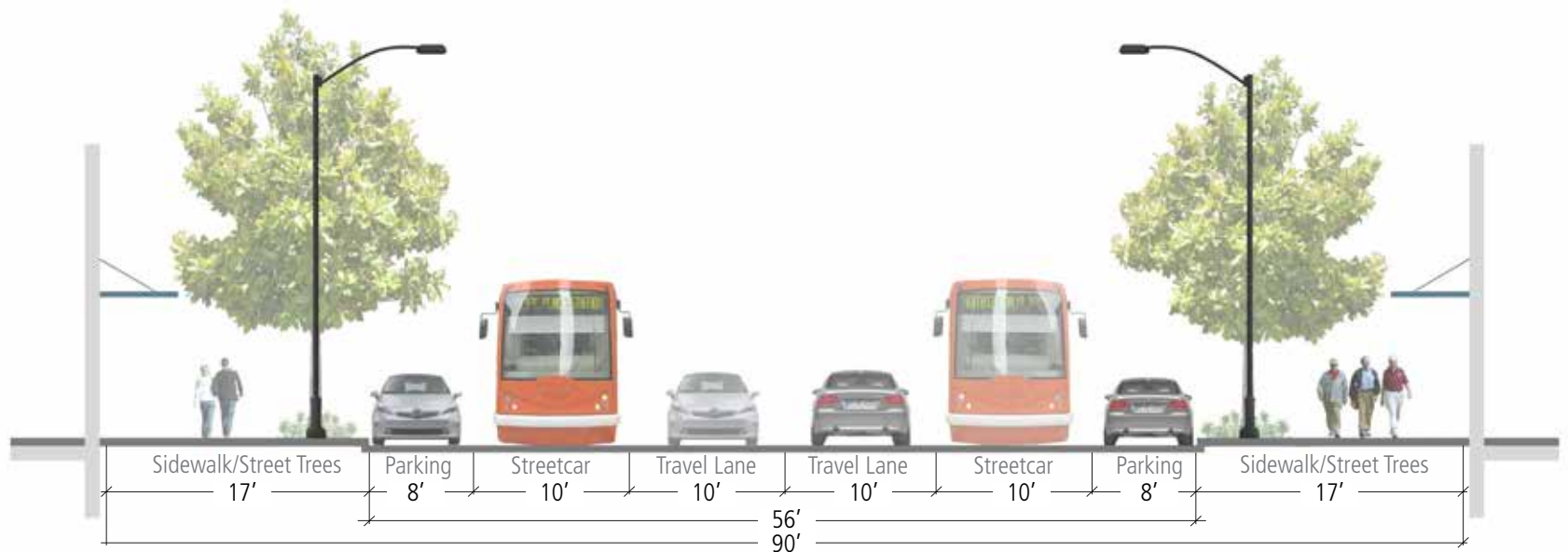


Existing Conditions @ 7th Ave., Virginia St. and Westlake Ave., looking southeast



Existing Conditions @ 8th Ave., Lenora St. and Westlake Ave., looking northeast

Observation & Analysis
Westlake Avenue, continued



Existing Westlake Avenue - Typical Section

3

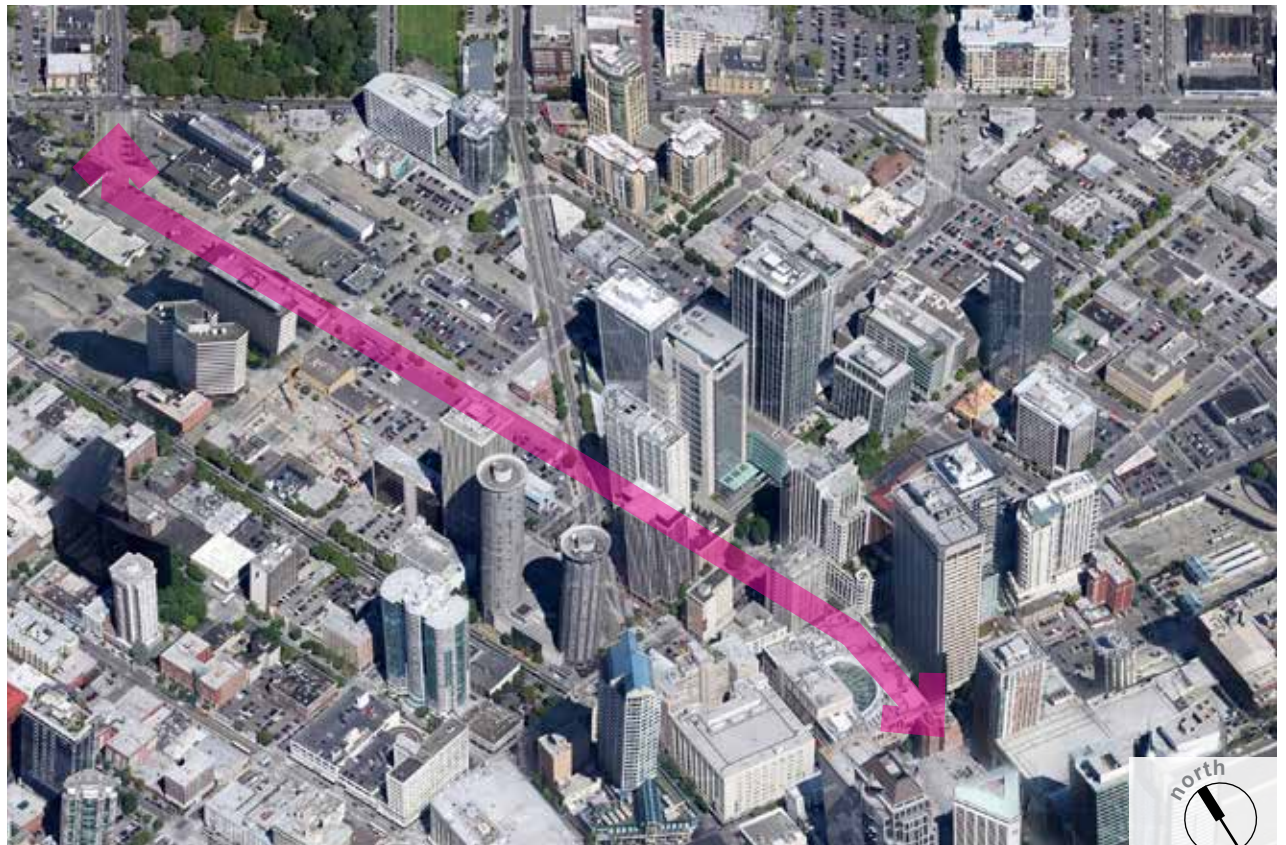
Observation & Analysis

7th Avenue Existing Conditions

This *Design Concept Plan* focuses on that portion of 7th Avenue within the Denny Triangle neighborhood, from Denny Way to Pine Street. The existing street configuration changes north or south of Westlake Avenue: the right-of-way is 90' wide from Denny Way to Westlake and accommodates both directions. Between Westlake Avenue and Pine Street, the right-of-way is southbound only and is reduced to 66' wide. Similar to Westlake Avenue and other subareas within the neighborhood, the streetscape character is highly dependent on whether or not renovation or redevelopment has occurred on adjacent parcels.

7th Avenue continues one of downtown's busiest bike routes along Dexter Avenue, promoting bicycle commuting for downtown Seattle employees. Existing bike lanes are buffered from the adjacent traffic lanes by painted buffers. The majority of the bike lanes are located outboard of parallel parking. Analysis has indicated the following bicycle commuting patterns on 7th Avenue:

- Southbound cyclists (primarily morning commuters) typically turn left (east) on Bell Street. Some cyclists, however, continue on Westlake Avenue and distribute from there through various routes into downtown.
- Northbound cyclists (primarily afternoon commuters) typically originate at Blanchard or Virginia Streets.



Existing Aerial View of 7th Avenue, looking east

Observation & Analysis

7th Avenue, continued

Some **Metro bus routes** initiate along this section of 7th Avenue and use designated layover areas. Bus bypass lanes have recently been added to minimize conflicts between Metro and cyclists.

Similar to the existing conditions along Westlake Avenue, **landscaped areas** and **street trees** are intermittent on 7th. There are some existing evergreen magnolia trees (*Magnolia grandiflora*) of average condition between Denny Way and Westlake. A variety of trees are planted

along most sections of 7th Avenue south of Westlake.

Pedestrian lighting is inconsistent, relying predominantly on overhead Cobra street lights or ambient, ground floor lighting of adjacent development. Additional pedestrian-scale street lights are recommended to increase public safety in this neighborhood for cyclists and pedestrians.

The existing **sidewalk conditions** are inconsistent on both sides of 7th Avenue and are highly dependent on

whether or not adjacent parcels have been recently renovated or redeveloped. City-installed curb ramps and ADA textured panels are provided consistently at all intersections. In addition to city-installed ramps, many are installed as a part of the frontage improvements required of private development.

On-street, parallel **parking** is available along 7th Avenue with standard parking pay station stationed on those blocks as necessary. Existing **street furniture** includes news-paper boxes and parking pay stations.



Typical 7th Avenue View, looking north



Typical 7th Avenue View, looking south



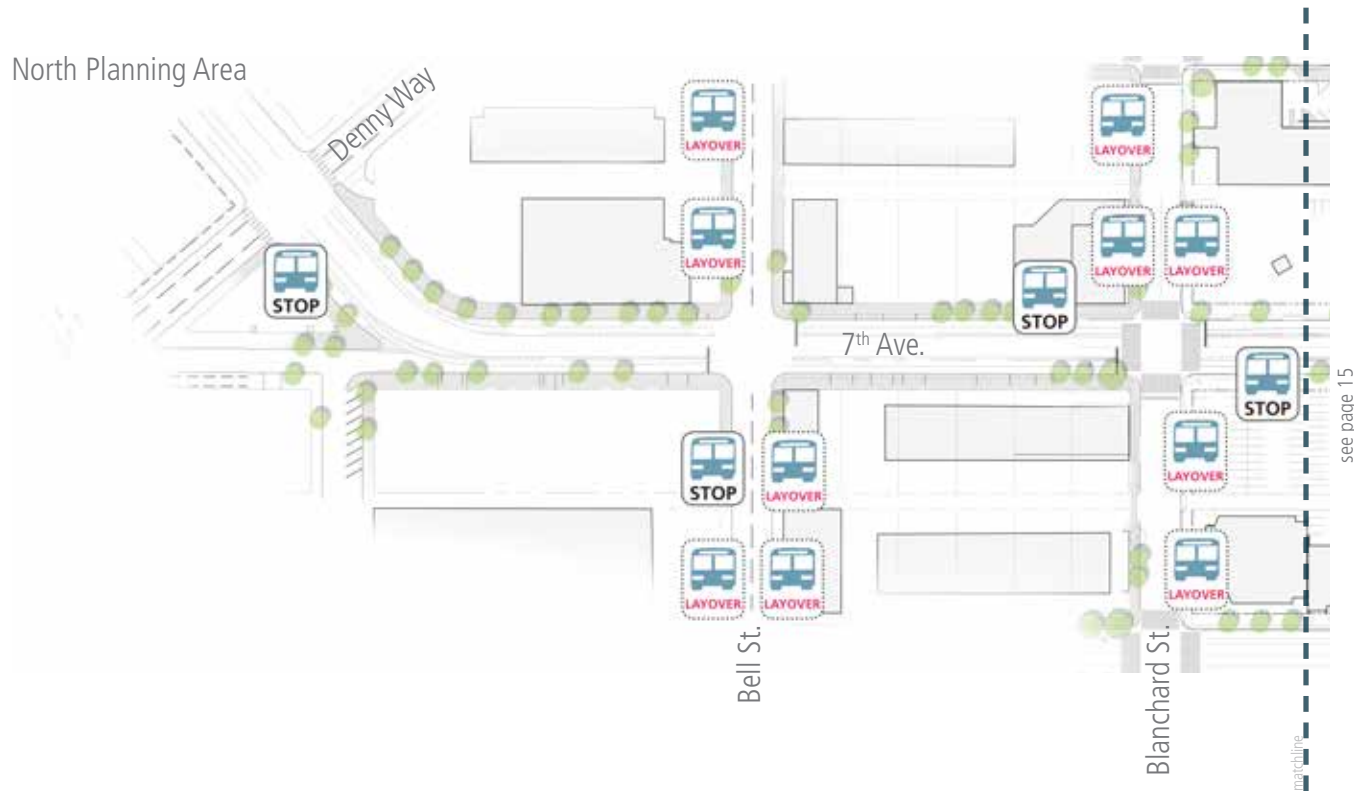
7th Avenue Bike Lane Detail, near Denny Way

3

Observation & Analysis

7th Ave. & Vicinity Metro Transit Conditions

King County Metro transit currently has multiple bus stops along the 7th Avenue corridor as well as several layover areas on adjacent streets. A bus layover is a stop at the end/start of a transit route that allows for a time "cushion" for the schedule and also allows for the driver to take a break. Layovers are typically located on or next to the bus route. SDOT and Metro staff work closely to coordinate municipal transportation objectives and transit service needs. The identified stops and layover areas here indicated are existing as of summer 2012.



Key

- Existing conditions observation & comments
- Existing conditions
- - - - - Cut Line

Existing Metro Transit Stops and Layover Areas on/near 7th Avenue

Observation & Analysis Metro Transit, continued

South Planning Area



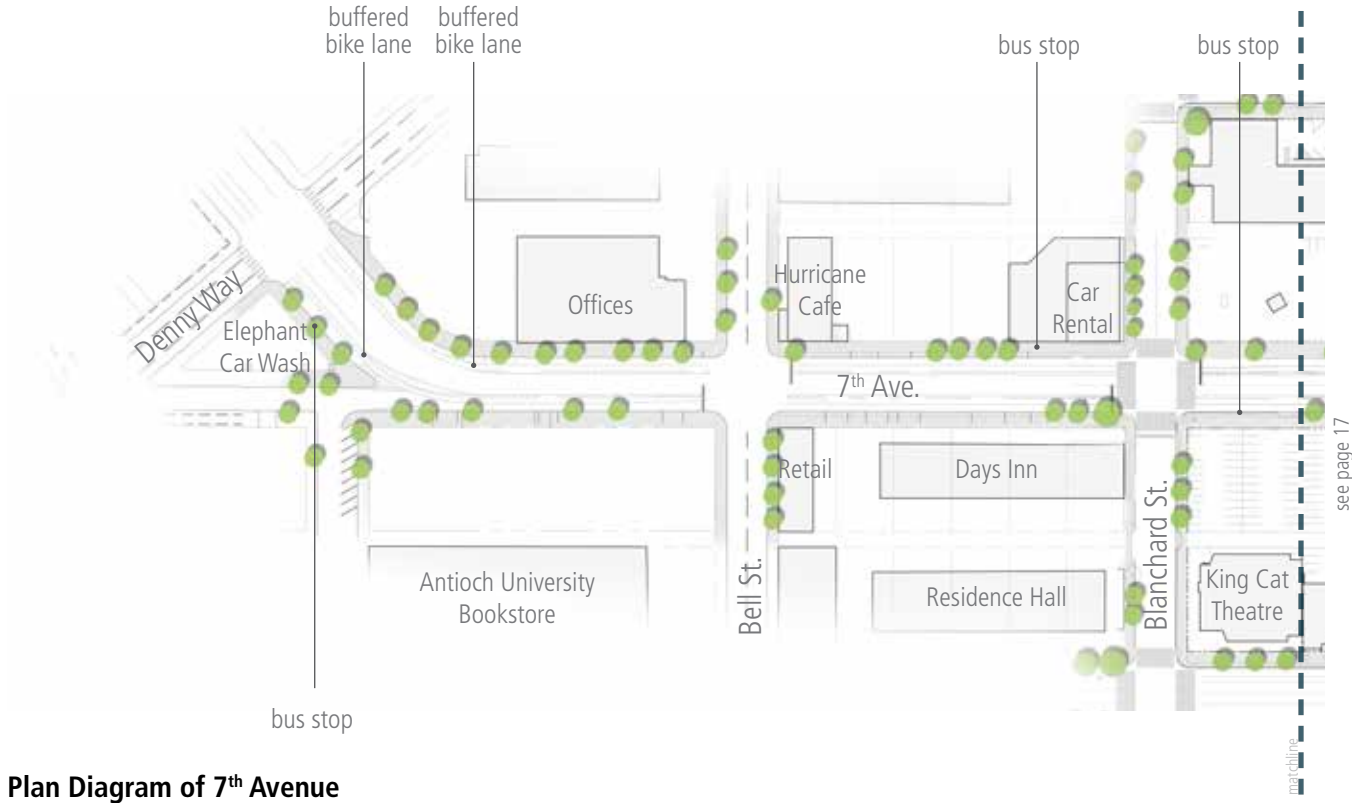
see page 14

matchline

3

Observation & Analysis

7th Avenue, continued



Plan Diagram of 7th Avenue



Difficult Bike / Vehicle Intersection, south of Denny



Existing Curb Ramp Conditions



Existing 7th Avenue Bike Lane, looking south



7th Avenue near Stewart St., looking south



7th Avenue near Olive Way, looking south

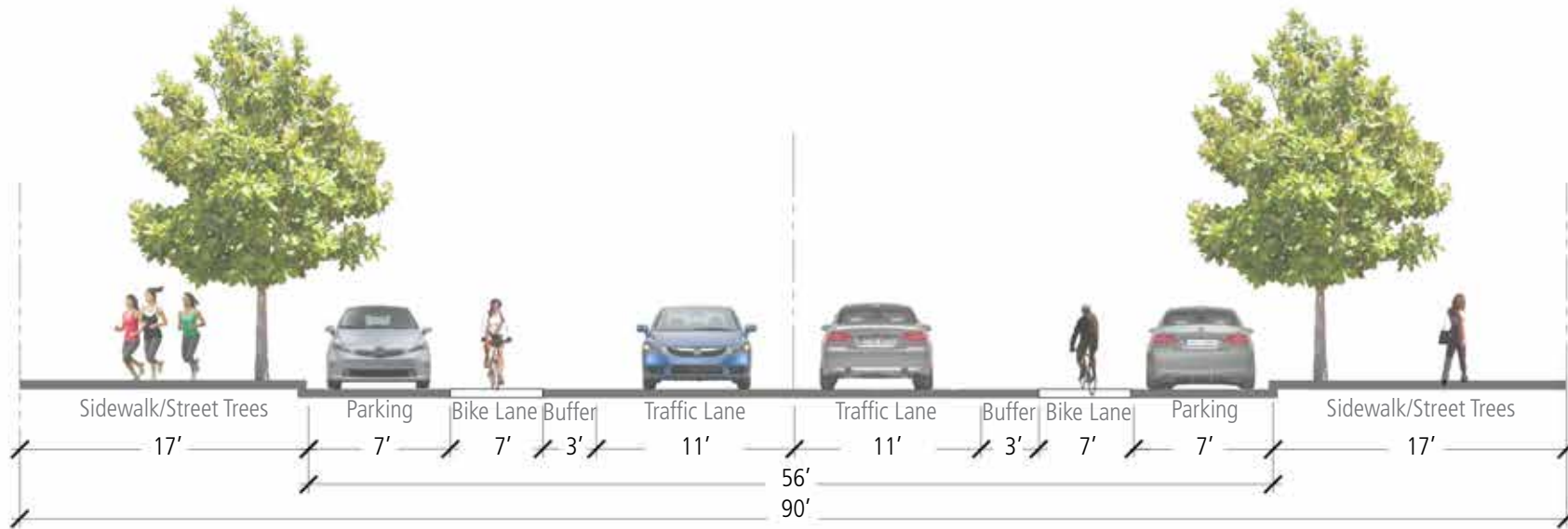


7th Avenue near Pine St., looking south

3

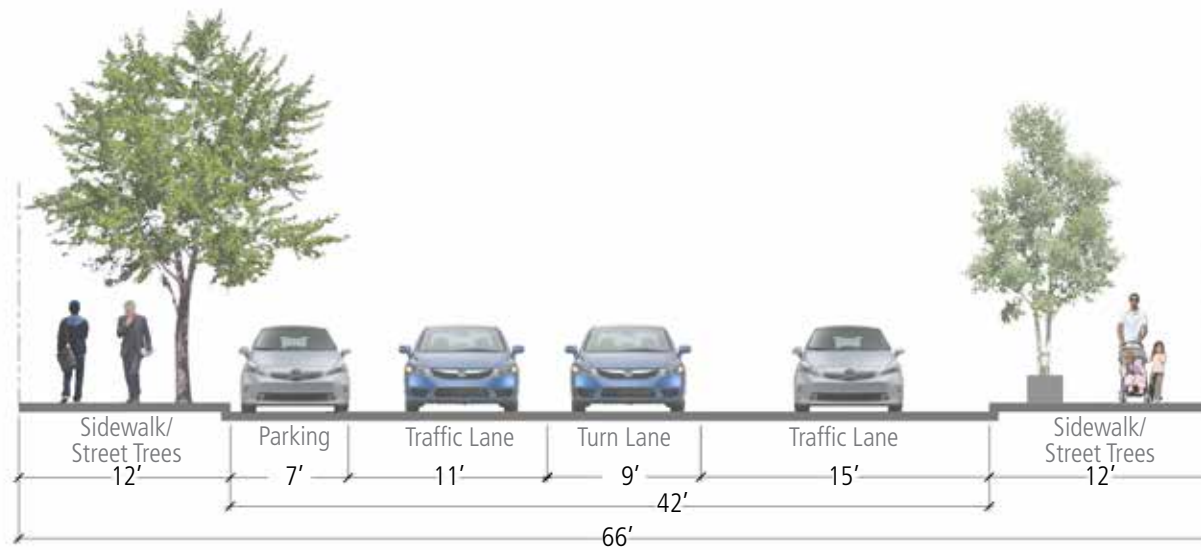
Observation & Analysis

7th Avenue, continued



Existing 7th Avenue, north of Westlake - Typical Conditions

Observation & Analysis
7th Avenue, continued



Existing 7th Avenue, south of Westlake - Typical Conditions

4

Design Concepts

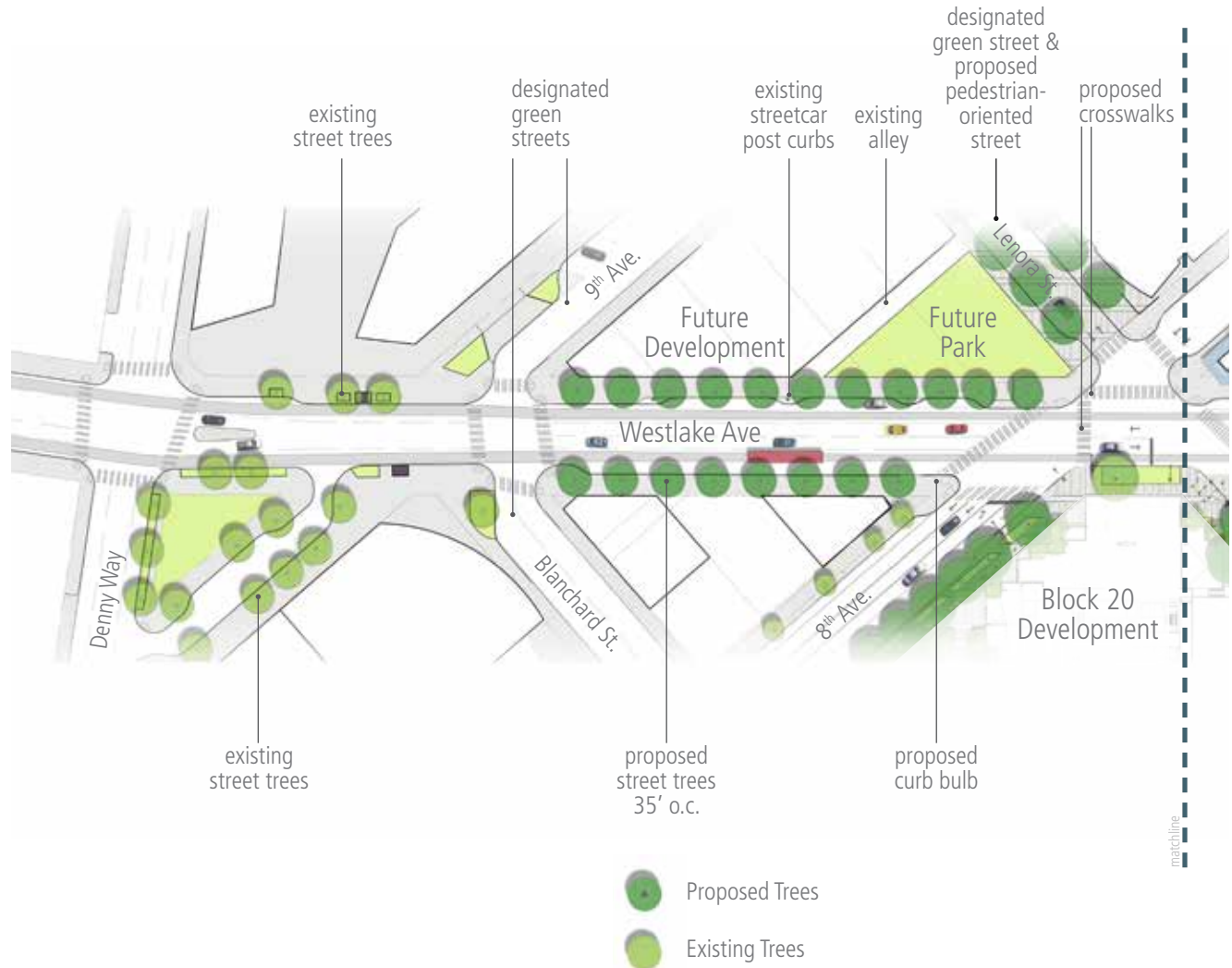
Westlake Ave. Improvements

The proposed design concepts identify potential improvements on Westlake Avenue and the corridor's intersections with adjacent streets. Elements such as street trees, sidewalk paving and furnishing contribute to the streetscape qualities. These intersections create opportunities for special open space nodes along the thoroughfare, such as:

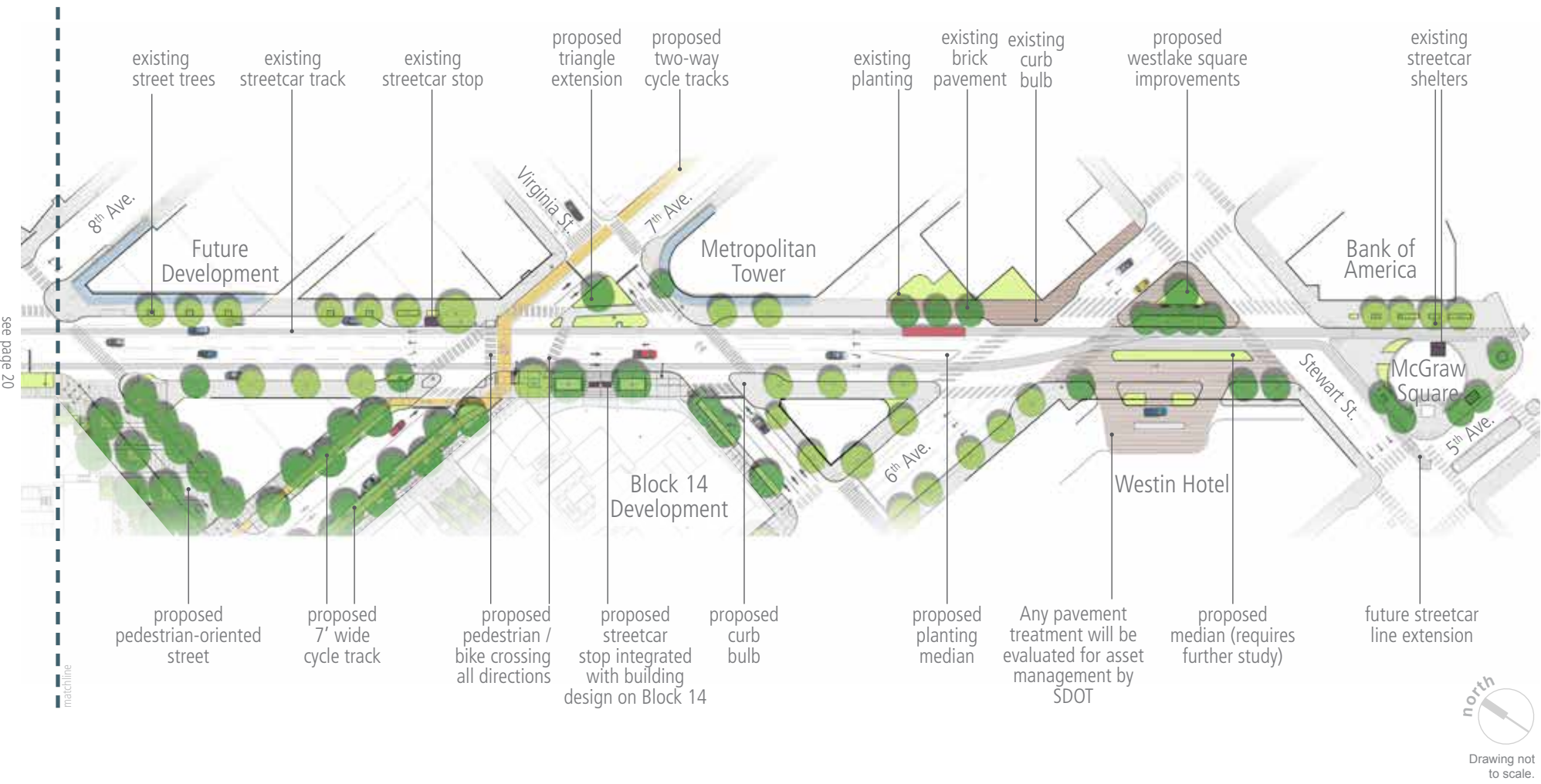
- public parks
- streetcar stops
- privately developed public plazas or
- improved curb bulbs for pedestrians to pause and wait for the light to change.

Good urban design of these nodes can enhance the street experience to a greater degree. Improvements should be made with the renovation and/or redevelopment of adjacent parcels and/or as the City budget allows.

In the following pages, concepts for the areas such as the pedestrian-oriented street at Lenora, the intersection of 7th/ Westlake/ Virginia, and the Westlake Square are further identified.



Proposed Design Concepts: Westlake Avenue



4

Design Concepts

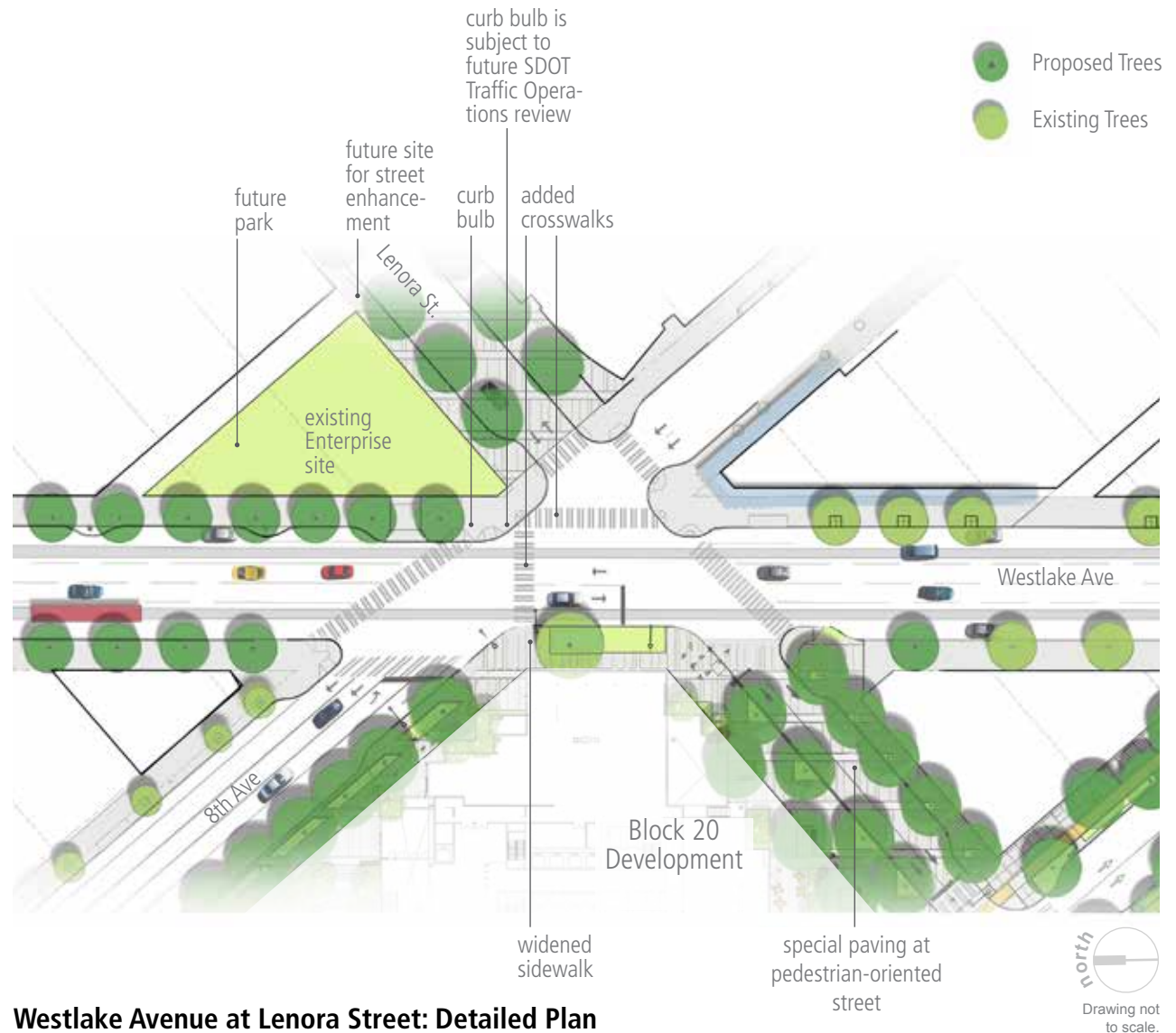
Westlake Ave. Improvements Pedestrian-Oriented Street at Lenora

Lenora Street between 7th and Westlake is proposed as a pedestrian-oriented street. Special paving and certain landscape details will be implemented to extend the open space experience between the proposed Block 20 redevelopment and the existing building. The goals for the pedestrian-oriented street include:

- slow vehicles down;
- shorten pedestrian crossings;
- promote public use of the street; and
- provide a higher quality of urban design & finishes.

Curb bulbs will be proposed to narrow pedestrian crossings. SDOT and DPD staff have confirmed that the raised crosswalk at 7th and Lenora - at the east leg of the intersection only - should be explored to act both as traffic calming measure and for ease of crossing. Along with special paving pattern, rolled curb or lower curb height (4 inch minimum) can be explored to promote public use of the street. Street parking will be on the south side of Lenora. Food trucks can be encouraged to add vitality to the pedestrian-oriented street.

Development of the existing Enterprise parking lot into a city park will also provide an opportunity for adjacent right-of-way improvements.



Westlake Avenue at Lenora Street: Detailed Plan



Westlake Avenue at Lenora Street: Axonometric View, looking northeast

4

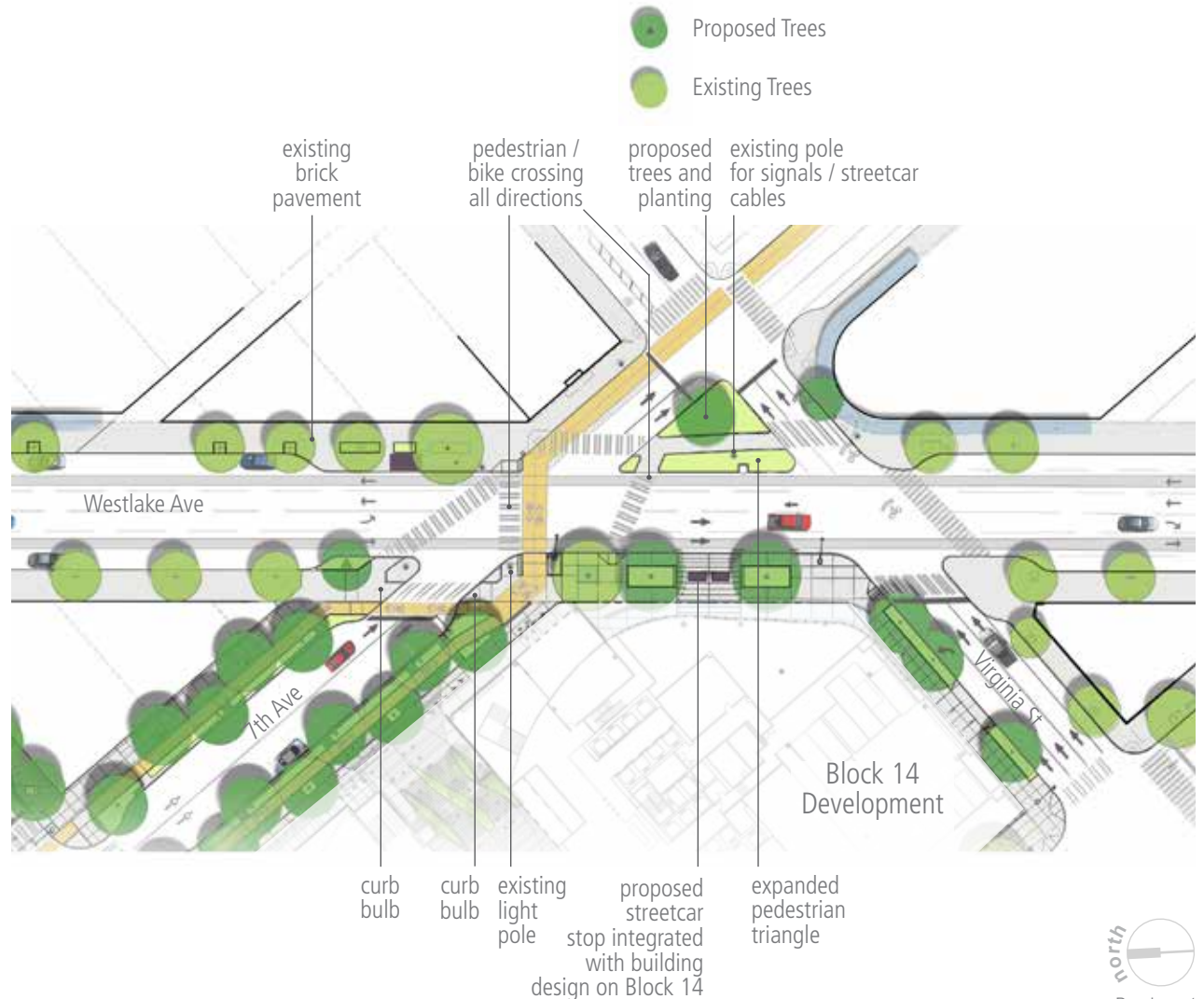
Design Concepts

Westlake Ave. Improvements 7th / Westlake / Virginia Intersection

The intersections of Westlake with 7th and Virginia create multiple angles and confusion for pedestrians, cyclists and drivers. Based on traffic analysis by Heffron Transportation, this *Design Concept Plan* recommends an all-direction walk signal phase is provided at 7th and Westlake to facilitate pedestrian and cyclist crossings. The cycle tracks will change at this intersection: the 7' each northbound and southbound tracks will merge into a single 10' wide track for dual directions, on the north side of the 7th Avenue right-of-way.

It is further recommended that the block of 7th Avenue between Lenora and Westlake be converted from two-way operation to one-way, southbound traffic only. This would discontinue the southbound, right-turn from Westlake to 7th Avenue. The existing triangle at the northwestern corner will be incorporated into a curb bulb to better accommodate pedestrians and cyclists. At the northeastern corner of 7th and Westlake, a 90° curb bulb will help queuing pedestrian and bicycle movements.

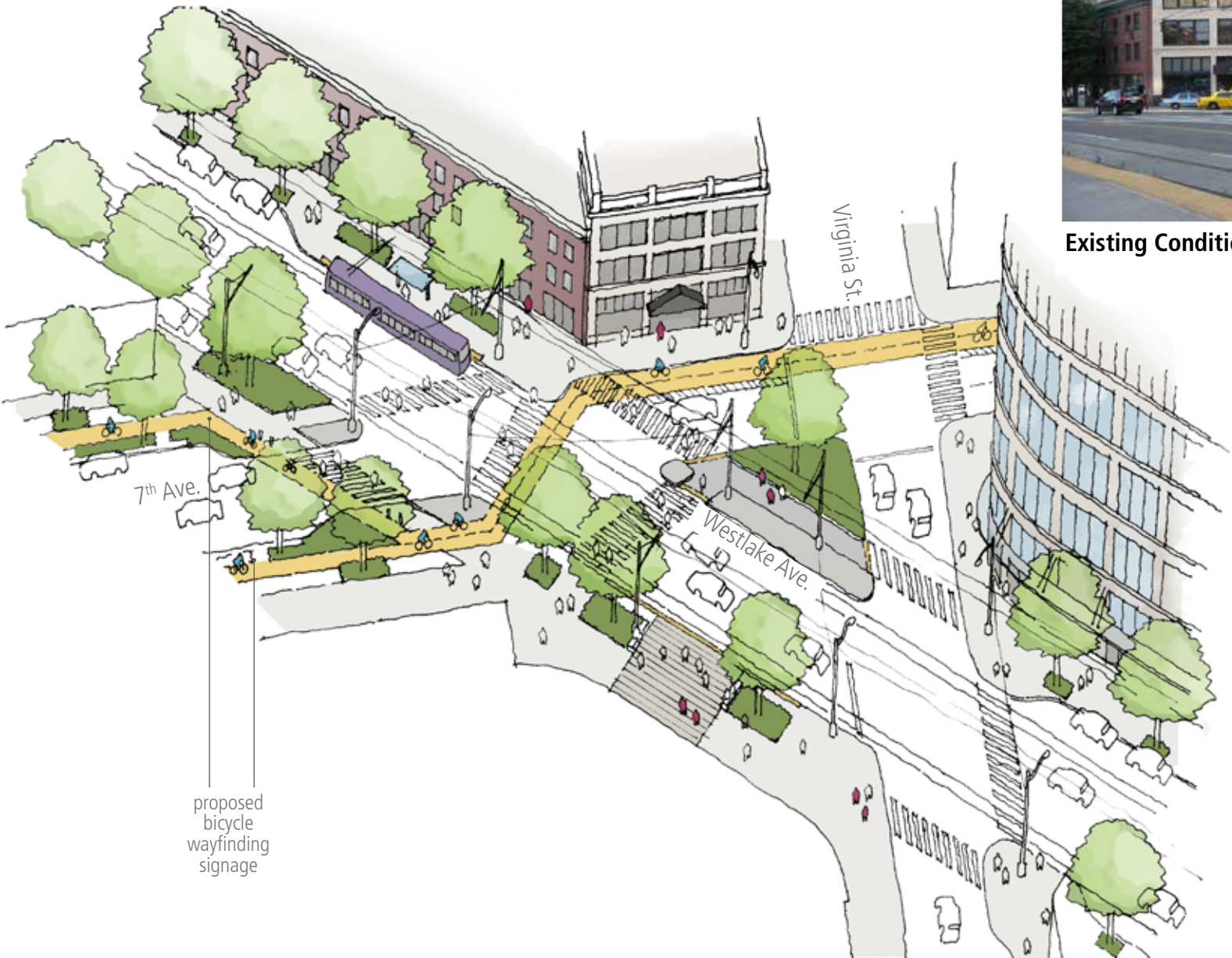
The triangular island at the intersection of 7th and Virginia will be expanded to allow for a place of respite between crossing and space for planting.



Westlake Avenue at 7th Ave. & Virginia St.: Detailed Plan



Existing Condition



proposed
bicycle
wayfinding
signage



Westlake Avenue at 7th Ave. & Virginia St.: Axonometric View, looking northeast

4

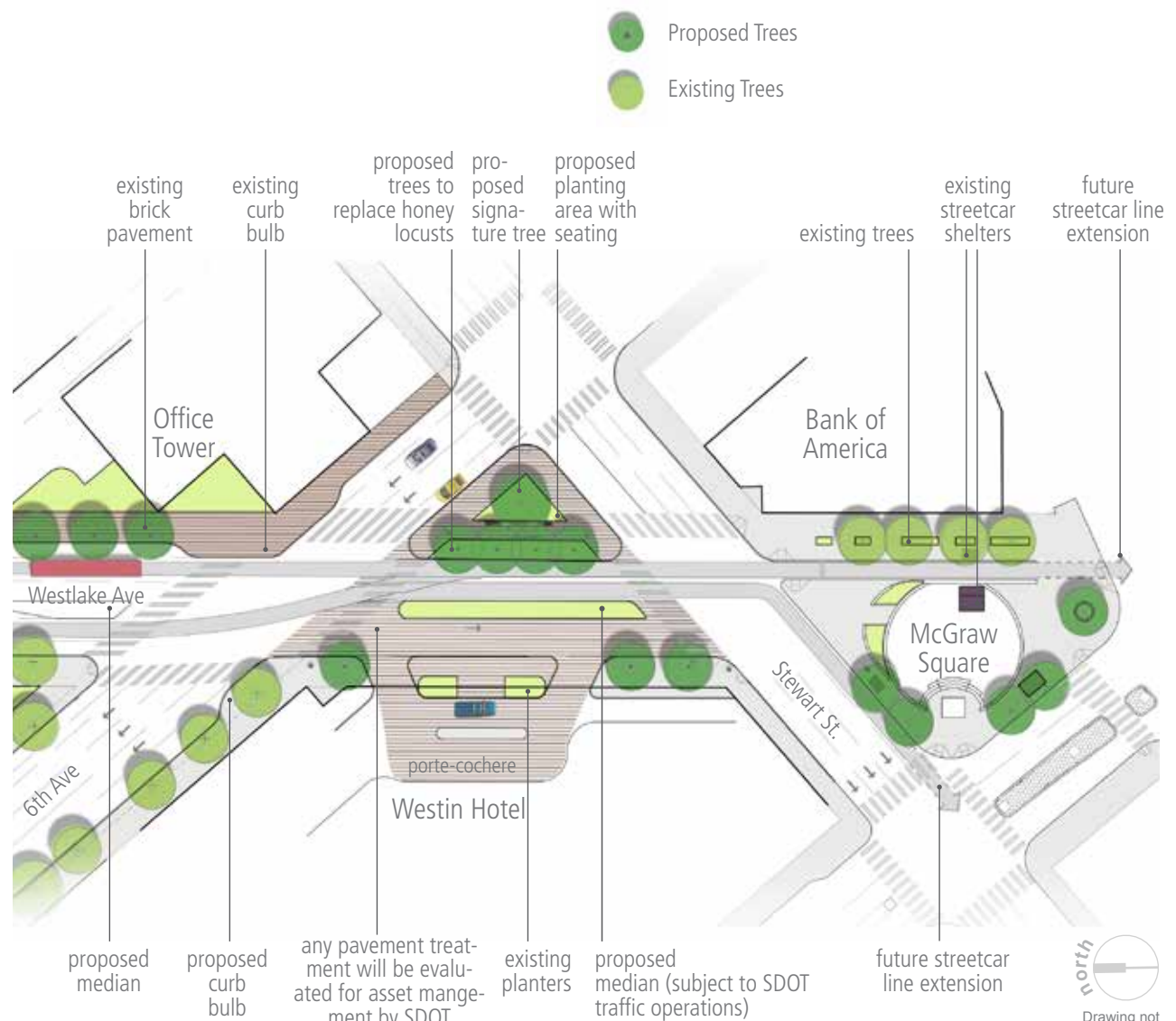
Design Concepts

Westlake Ave. Improvements Westlake Square at the Intersection of 6th / Westlake / Stewart

"There is every reason why the beginnings and endings of streets should be well marked, as part of the street, to introduce us to them and to take us elsewhere."

- Great Streets, Allan B. Jacobs

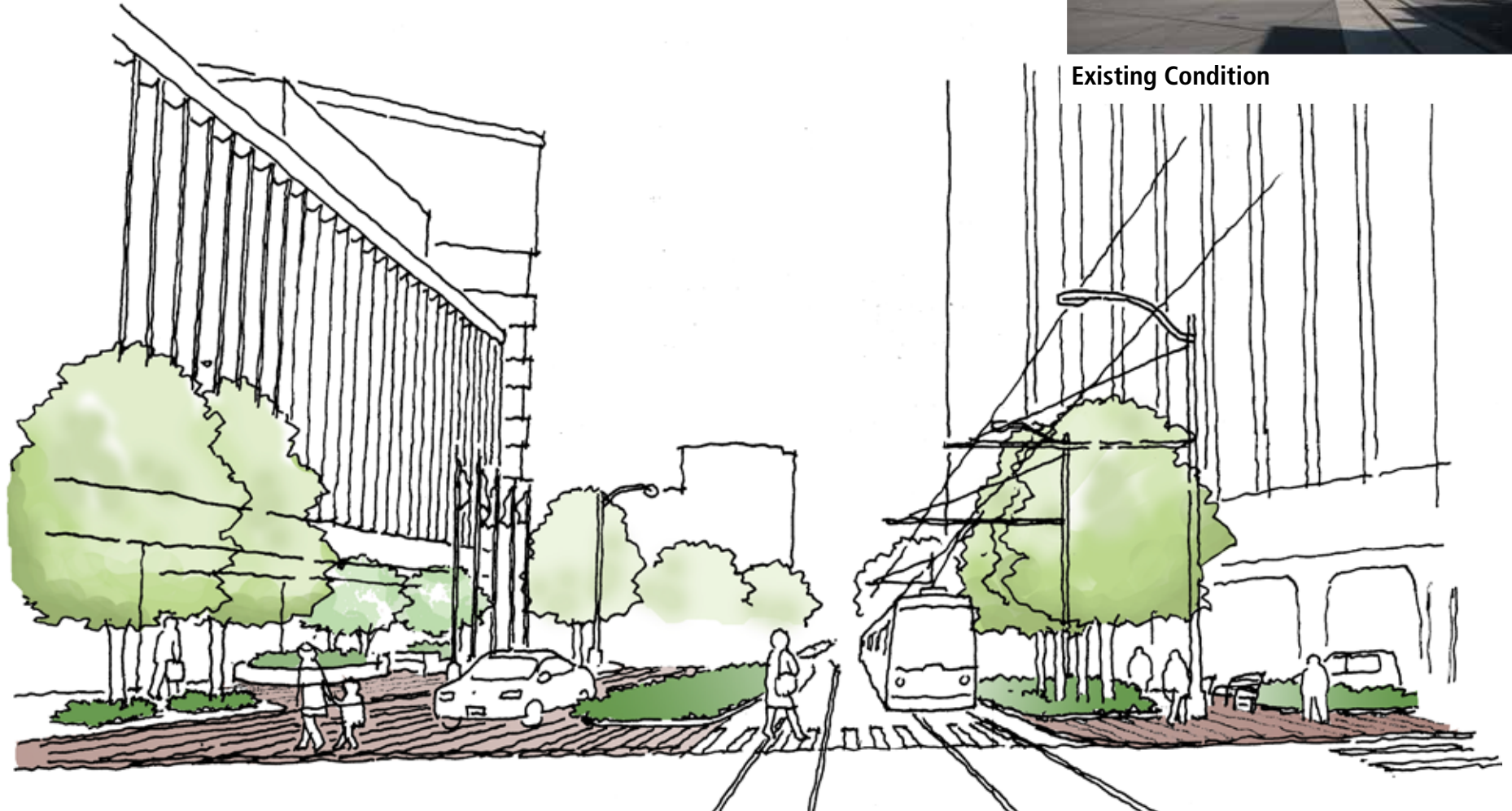
At the current end of Westlake Avenue, where the McGraw Square plaza serves as a streetcar terminus, vehicular traffic is reduced to one lane between the triangle island and the Westin Hotel porte-cochere, then limited to a right turn on Stewart Street. An improved Westlake Square should be developed to create a sense of closure and direction. The three existing Honey Locust trees at the concrete triangle are not in good condition. In the proposed design, new street trees and larger planting areas will be provided. The proposed planting medians will help separate and direct vehicular traffic.



Proposed Westlake Square Improvements: Plan View



Existing Condition



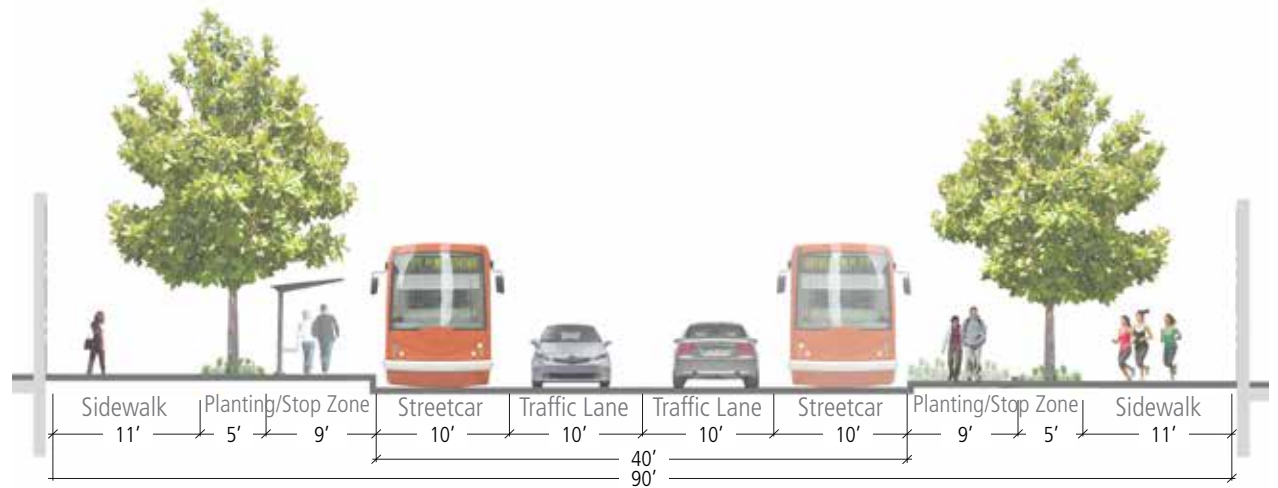
Proposed Westlake Square Improvements: Sketch View, looking north
(subject to SDOT Traffic Operations study and access considerations)

4

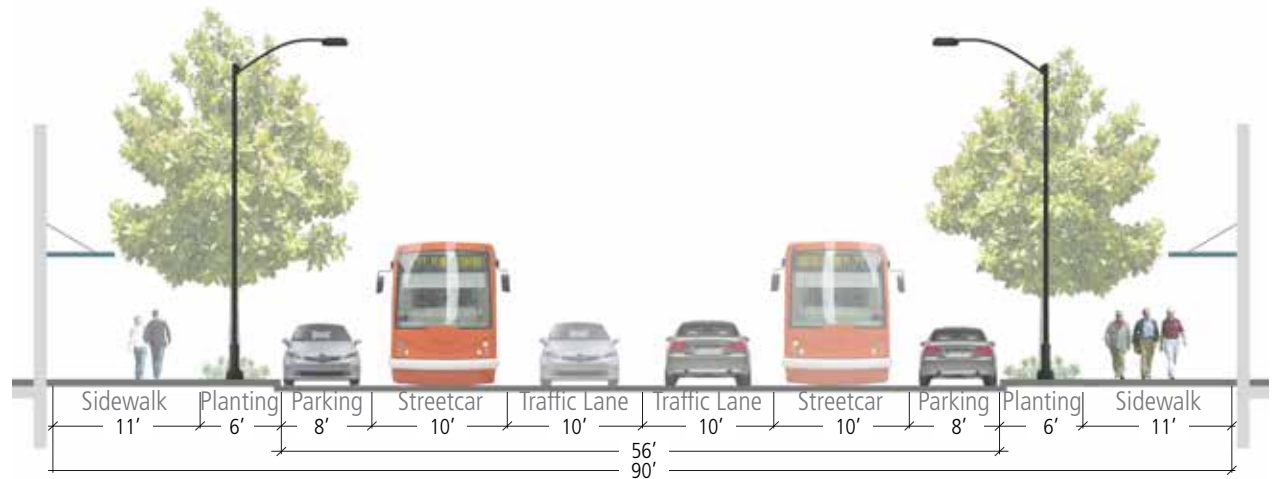
Design Concepts

Westlake Ave. Components

There are various streetscape components that contribute to the qualities of a great street. Physical elements such as street trees, paving, lighting, site furnishing and art affect the experience and comfort of a street; while factors such as density, building diversity, land use and transportation play important roles to shape a street. Drainage is also a physical element of street design and is not addressed here. Any design concept must include drainage as an element to be addressed. On the following pages, physical elements for Westlake Avenue streetscape will be discussed.



Westlake Ave. Section at Streetcar Stop / Curb Bulb



Typical Westlake Ave. Section

Design Concepts

**Westlake Ave. Components:
STREET TREES**



Planting Area Located Adjacent to Curb



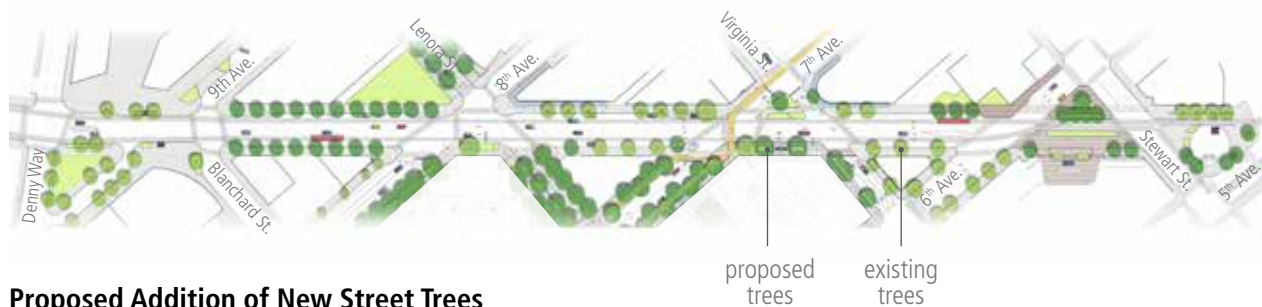
Planting Area Set Back from Streetcar Stop



Westlake Planting Area - near curb condition



Westlake Planting Area - streetcar stop setback



Proposed Addition of New Street Trees

proposed trees
existing trees

Trees create a distinct edge and a major environmental impact for streetscape. Which trees to use, their placement, planting and maintenance are all important considerations.

Currently on Westlake Avenue south of Denny Way most of the street trees are Horse Chestnuts (*Aesculus hippocastanum*), with a few Maples and Honey Locusts on the south end. The tree spacing varies from 30-50 feet. There are no street trees existing on the block between 9th Avenue and 8th Avenue.

For new tree planting SDOT's master plan proposes continued use of Horse Chestnut trees. Based on SDOT's regulations, the spacing should be 35-40 feet between large trees.

For the health of tree growth, planting space should be as large as possible. To make space for roots in an urban environment, strategies such as using structural cells under sidewalk pavement to maximize soil volume should be evaluated and considered. Trees need to be located where they will not conflict with Utilities at maturity.

4

Design Concepts

Westlake Ave. Components: PAVING MATERIALS

Most of the sidewalk pavement on Westlake Avenue is the standard City of Seattle 2-foot square grid concrete paving, except that there is colored concrete paving at the entrance of Metropolitan Tower, and brick paving at the building on the corner of 6th Avenue. Some existing buildings and proposed development have 1 to 2 feet or more in building setback which results in a wider sidewalk.

For new development on Westlake Avenue, concrete pavement that meets the City of Seattle standard can be implemented. Special paving such as pavers or colored concrete are proposed for particular nodes such as Lenora Street, the streetcar stop area on Block 14, and the Westlake Square.



Existing Scored Concrete Paving on Westlake



Existing Brick Paving on Westlake



Proposed Development Sketch Illustrates Concrete Paving and Varying Scoring Patterns

Design Concepts

Westlake Ave. Components: STREET FURNISHINGS + LIGHTING



Existing Lighting



Cafe Seating



Add Seating or Lean Rails to Streetcar Stops



Existing Streetcar stop

For the light poles on Westlake Avenue, there is a mix of both black painted poles in majority and galvanized poles with standard cobra lights and decorative bases. It is suggested to phase out galvanized poles to keep the consistency of black poles. Some of the light poles have arms supporting streetcar cables. Traffic signals are also strung from light poles at the intersections. As for lighting at sidewalks, the light level is sufficient with light fixtures on buildings and from cobra street lights.

Benches and café tables invite people to stay on the street. They permit us to pause and socialize. On Westlake some cafes and restaurants set up outdoor tables that contribute to the vitality of the pedestrian environment.

The streetcar shelter on Westlake has its unique design character. It works well for identity and weather protection. But there is lack of seating at the shelters. It is recommended seating and/or leaning rails to be provided at the streetcar shelter for user comfort.

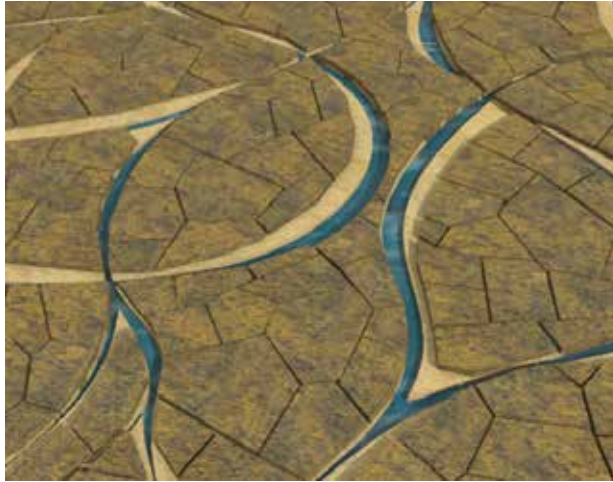
4

Design Concepts

Westlake Ave. Components: ART

Art in the streetscape can be an important placemaking element that tells you where you are. Public art, no matter how modest or how grand, should be part of the urban design strategy and planning process. Artists are encouraged to collaborate with architectural design teams to respond to places, so the work they create can be integrated into specific sites. For Westlake Avenue, the themes and opportunities of artworks can be enrichment of local history, celebration of the sustainable infrastructure, or just a whimsical surprise that would connect with people. They can be made of a wide range of materials, and represent a level of detail and craftsmanship.

Art exhibits should extend beyond Westlake Avenue making vibrant connections to adjacent streets, especially at Lenora. The exhibits should also be strategically placed, creating interest from multiple vantage points and visible beyond Westlake Avenue.



Artistic Paving Patterns



Lighting



Art Integrated Seating Elements



Artistic Bicycle Parking

Design Concepts

Westlake Ave. Components: INTERSECTION DESIGN



Pine Street Paving at Westlake Park



Pine Street Paving at Westlake Park



Pike Place Market All-Way Pedestrian Crossing

The intersections on Westlake Avenue present unique design opportunities to integrate paving, signalization, lighting and furnishing. This *Design Concept Plan* proposes curb bulbs at the intersections to shorten the crosswalks and adding some new crosswalks on Westlake Avenue. Whether the paving would be painted striping for pedestrian crossing, painted lanes for cycle tracks, or special pavers, the goal is to improve safety for pedestrians and cyclists while provide clear directions for drivers.

5

Design Concepts

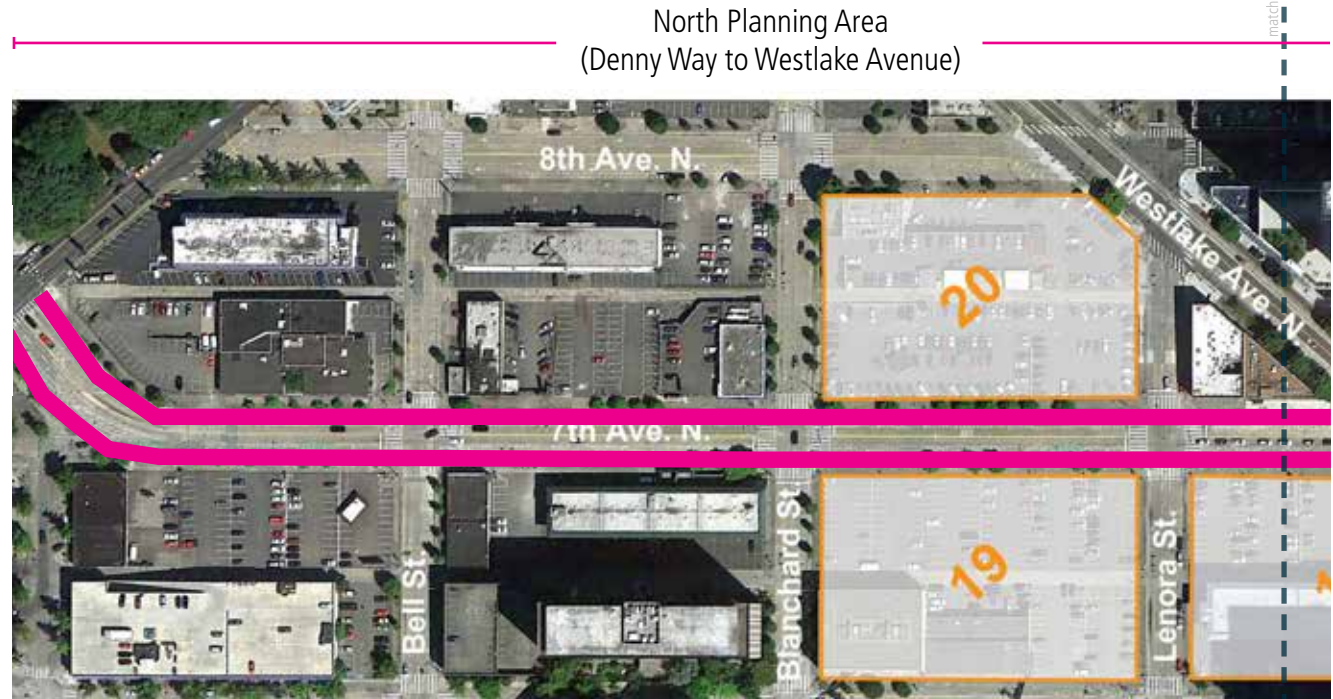
7th Ave. Improvements

Seattle has made significant improvements throughout the city to improve bicycling safety, with the goal of tripling the amount of bicycling from 2007 by 2017. The proposed creation of a “cycle track” on 7th Avenue is a continuation of one of the city’s busiest bike lanes along Dexter Avenue.

The cycle track is designed to provide a more protected and comfortable space for cyclists than a conventional bike lane. The existing bike lane works fine for people who are comfortable riding bicycles in mixed traffic. The proposed design is intended to make bicycling more comfortable for the majority of Seattleites who are not comfortable riding with vehicle traffic, thereby increasing ridership.

KEY

 Cycle Track Planning Area



7th Avenue Concept Design

Design Concepts

7th Ave. Improvements, continued



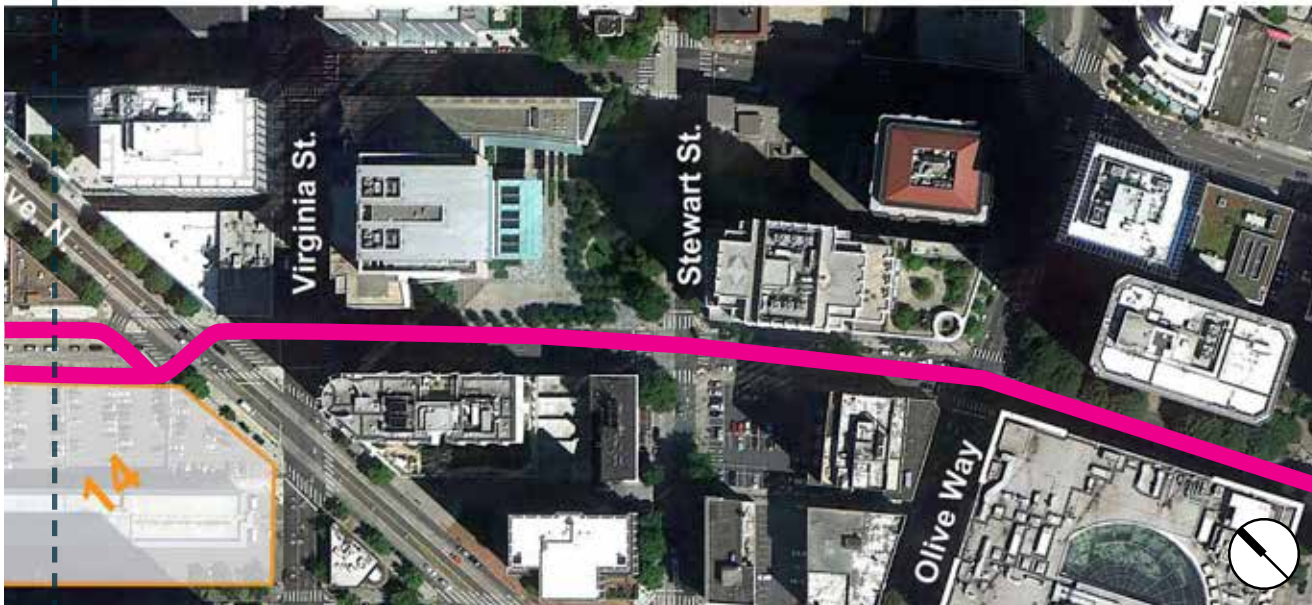
Example of proposed cycle track street: one-way lane on each side of 7th, north of Westlake Avenue (for illustrative purposes only)



Example of proposed cycle track street: two-way lane on east side of 7th, south of Westlake Avenue (for illustrative purposes only)

Cycle tracks provide more protection for cyclists by separating them from moving traffic, either by placing parked cars between the cycle lane and the vehicle travel lane, or by constructing a physical barrier such as a curb or a narrow median between the two modes of travel.

South Planning Area
(Westlake Avenue to Pine Street)



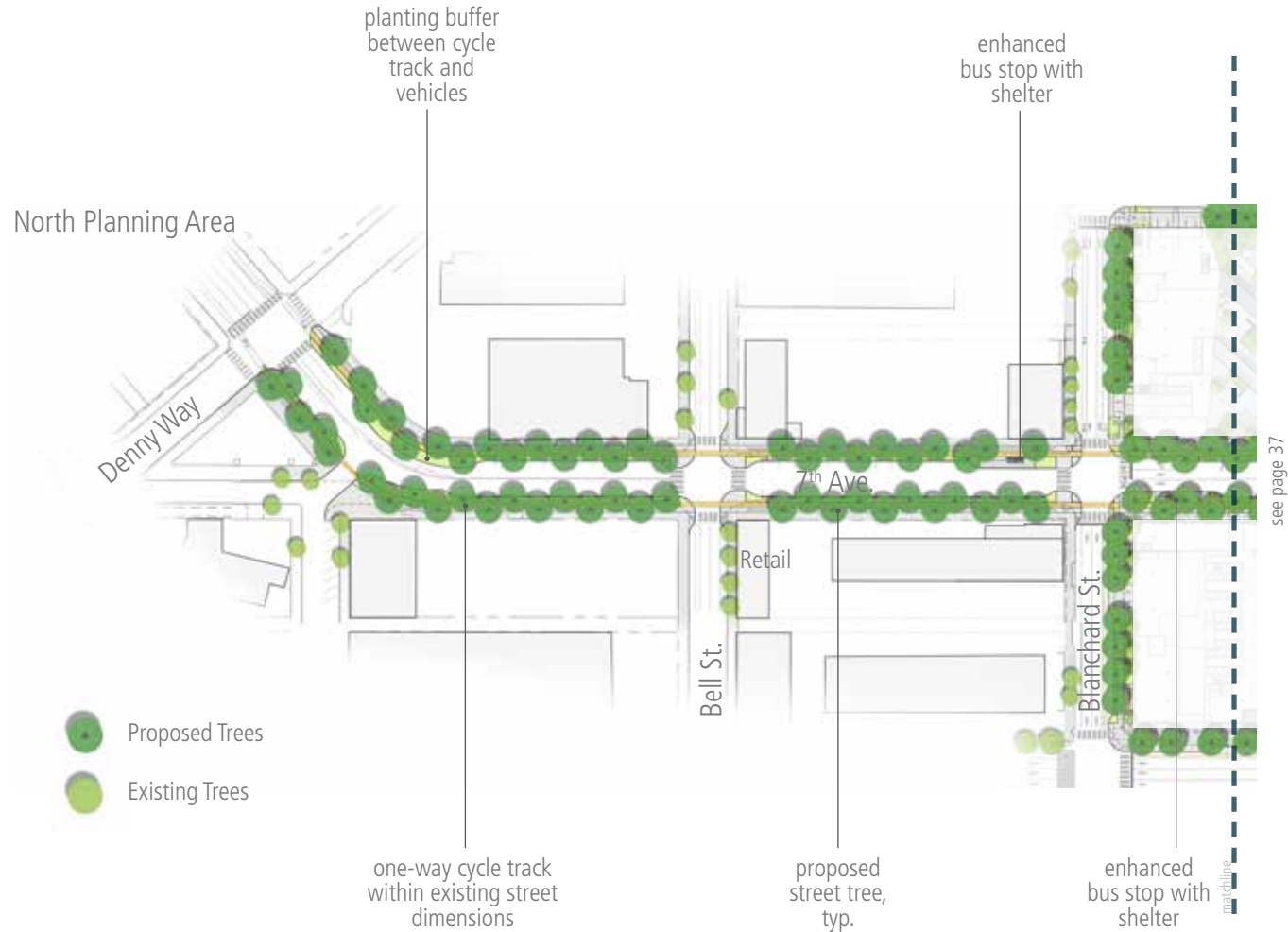
see page 34

5

Design Concepts

7th Ave. Improvements

The proposed cycle track planning area includes: a north segment with a minimum 90' ROW from Denny Way to Westlake Avenue and a south segment with a 66' ROW from Westlake Avenue to Pine Street. The 7th Avenue & Wall Street intersection may need future modifications based on transit changes and bus movement needs. King County Metro plans and works with SDOT on the placement and needed infrastructure for enhanced bus shelters. Utility coordination will occur at the time of the Street Improvement Permit review.



Proposed 7th Avenue Improvements: Detailed Plan



South Planning Area



Drawing not to scale.

5

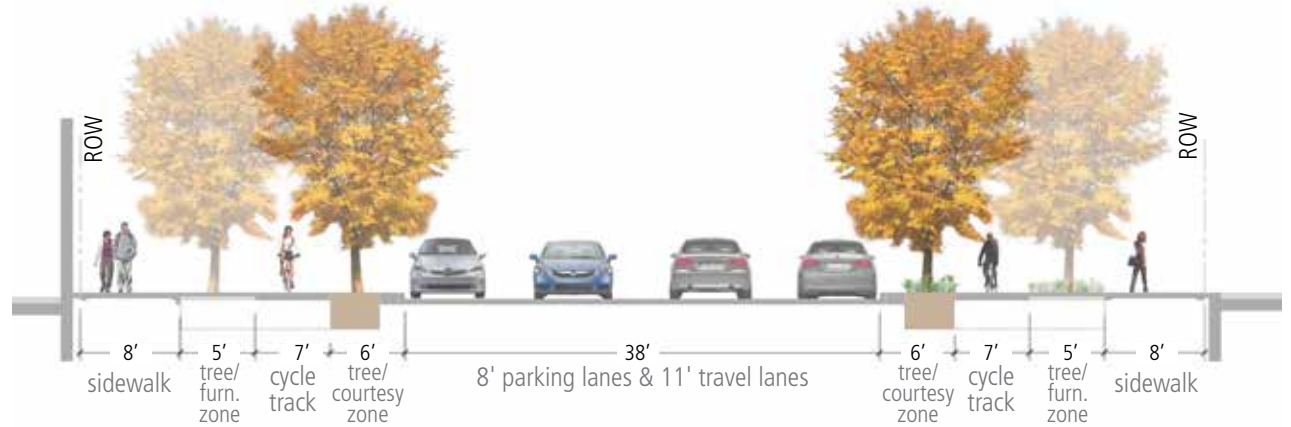
Design Concepts

7th Ave. Improvements Elements of a Cycle Track North Planning Area

Drivers park parallel to the travel lane in the same way that they do today, except that the parking lane is not adjacent to the curb. After leaving their parked vehicles, drivers and passengers cross the cycle track to reach the sidewalk. A buffer area separates the passenger side of the car from the cycle track. This area gives pedestrians an area to stop and wait comfortably for a gap if there are cyclists approaching.

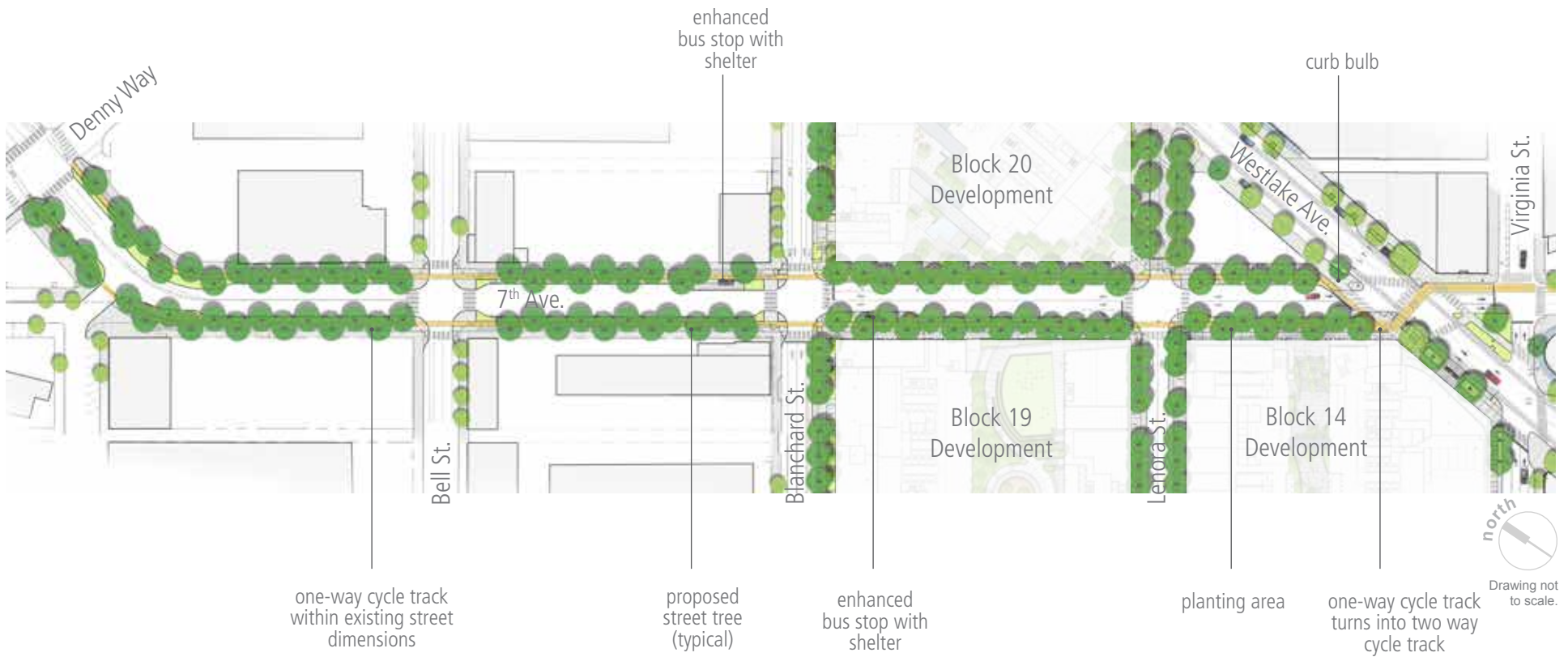
The north segment will provide:

- 2 travel lanes, two bike lanes, two parking lanes within the existing 56' right-of-way curb to curb;
- One way cycle tracks on each side of the street;
- Separated bike lanes from vehicular traffic and located at sidewalk grade;
- 8' sidewalk, 5' furnishing and street tree zone, 7' asphalt cycle track and 6' street tree, and "courtesy" strip zone; and
- Enhanced bus shelter area to occur on the southbound lane at the corner of Blanchard and 7th Avenue.



Proposed 7th Avenue Concept Design

Design Concepts 7th Ave. Improvements North Planning Area



Drawing not to scale.

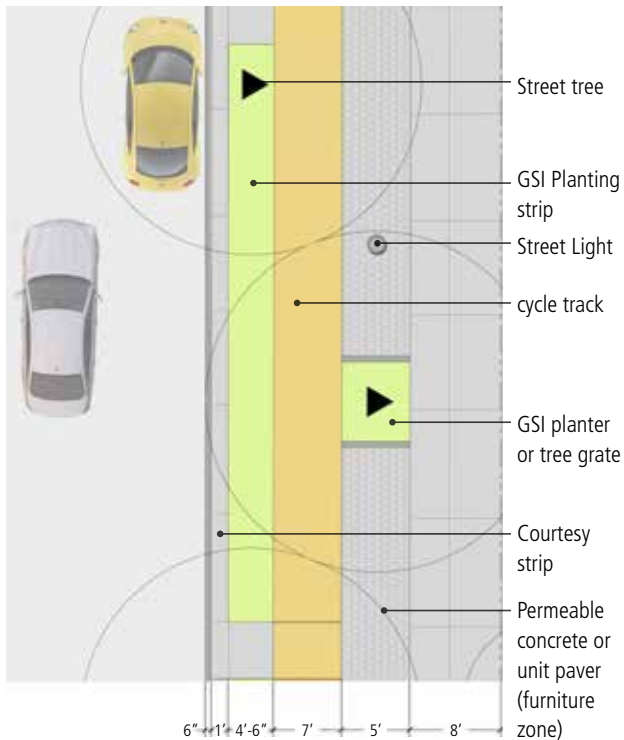
Proposed 7th Avenue Concept Design: North

5

Design Concepts

7th Ave. Components: MATERIALS & PLANTING

The following images are illustrative of potential concepts that may be implemented with the development of the 7th Avenue cycle track.



Proposed Cycle Track Concept: Detailed Plan



Bike Storage Area



Cyclist-Pedestrian Separation



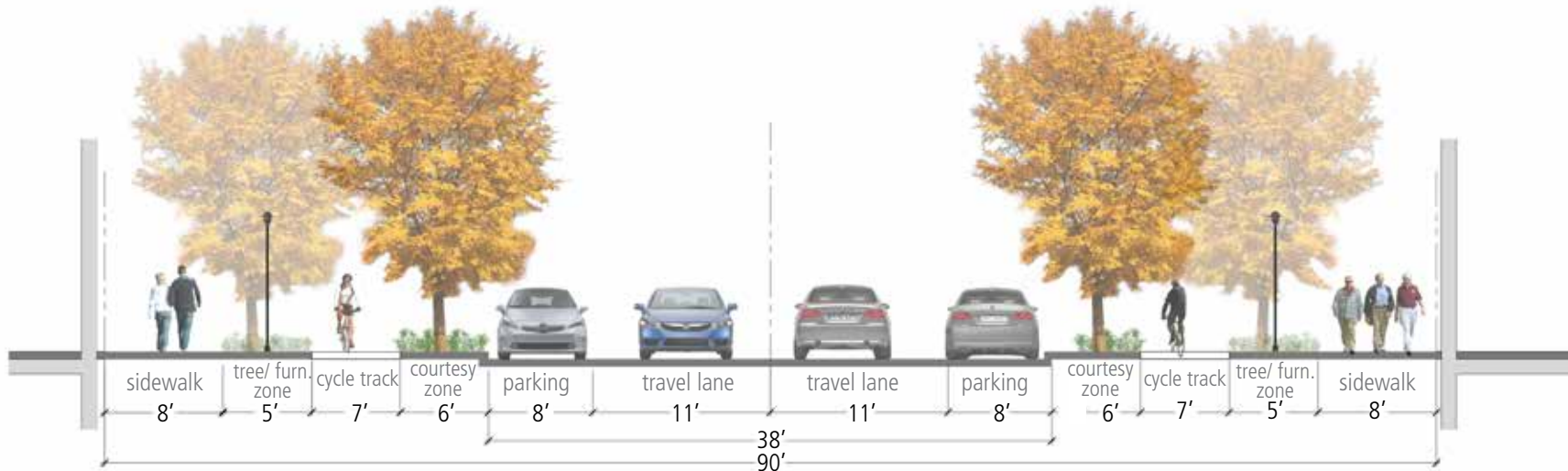
Permeable Sidewalk



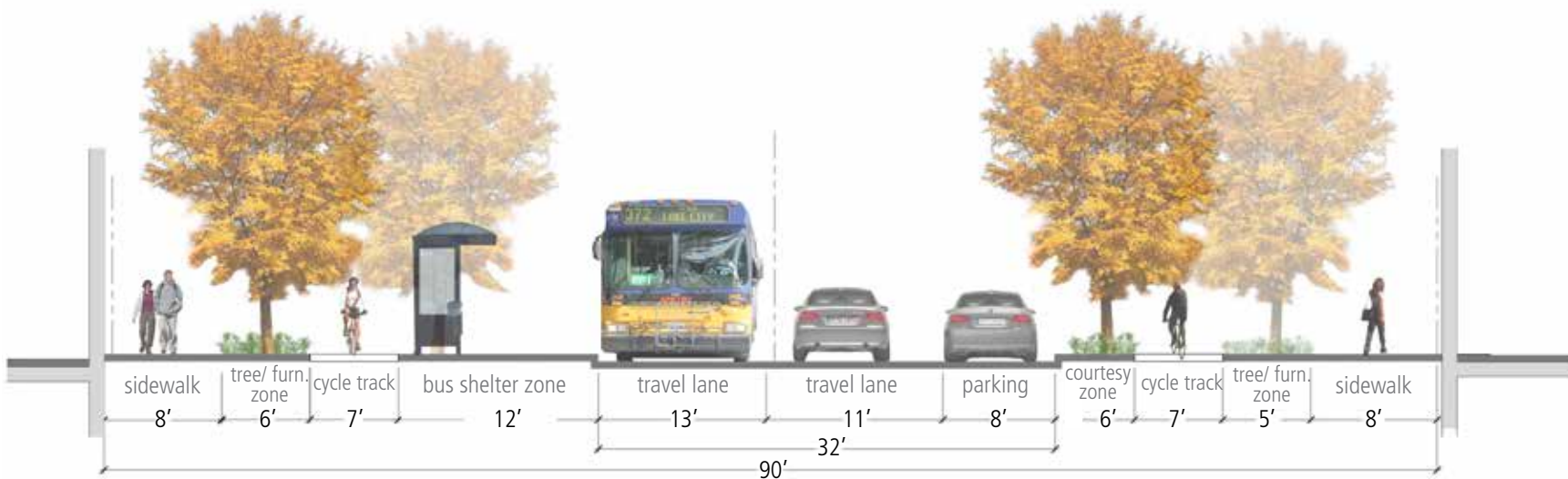
Permeable Concrete Sidewalks



Street Furniture Zone



Proposed 7th Avenue Design Section - Typical Conditions



Proposed 7th Avenue Design Section - Metro Bus Stop Conditions

5

Design Concepts

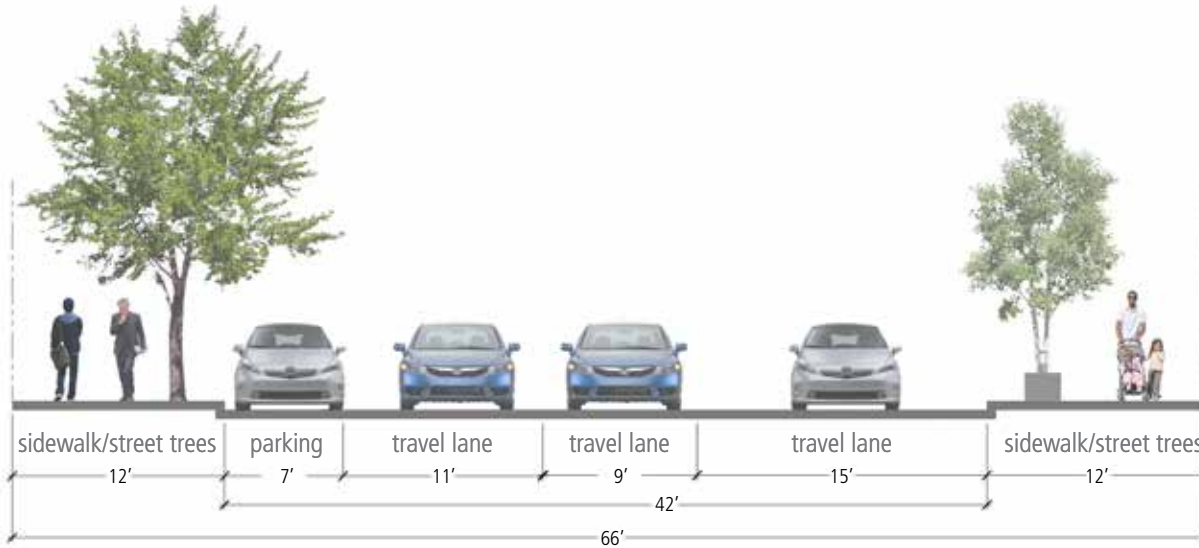
7th Ave. Improvements South Planning Area



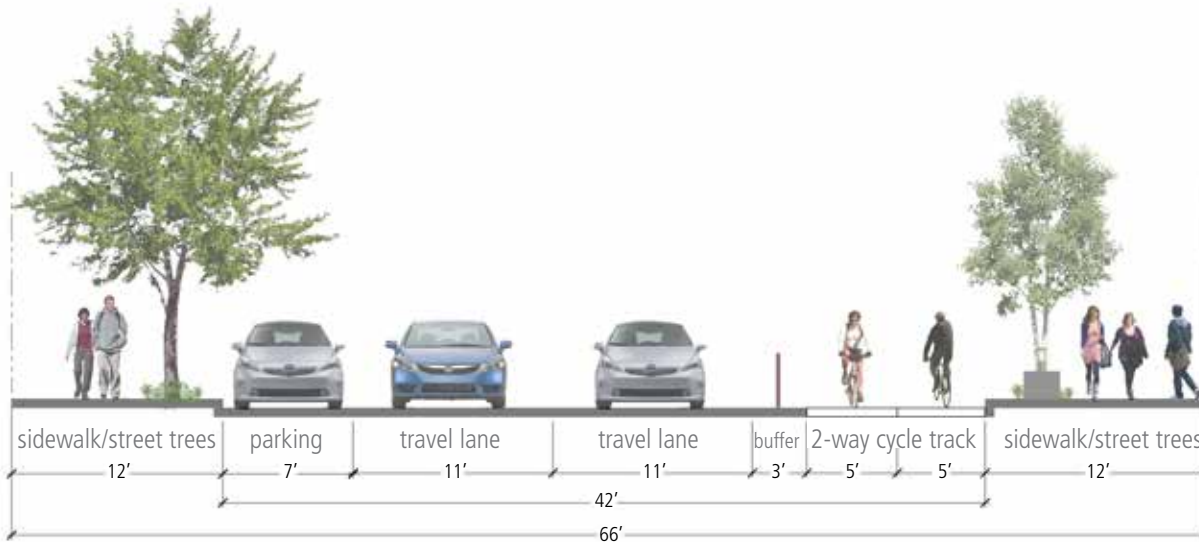
Proposed 7th Avenue Concept Design Plan: South

Design Concepts

7th Ave. South Planning Area: Westlake Ave. to Stewart St.



Existing 7th Avenue Section



Proposed 7th Avenue Section

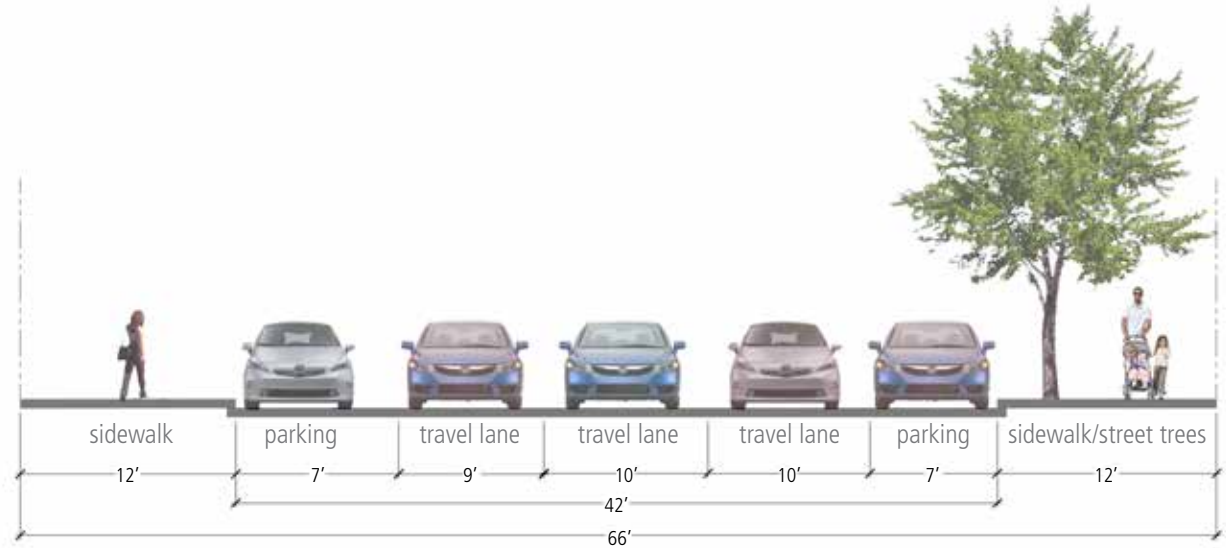
As the proposed 7th Avenue cycle track intersects with Westlake Avenue and Virginia Street, the one-way tracks merge into a dual way cycle track on the east side of Westlake Avenue. Bikes should be directed to cross the streetcar tracks at a 90 degree angle. Paving, painted direction and appropriate signage should be used to minimize pedestrian-cyclist conflict at this transition point. Intersection signals will need to be re-timed as part of the implementation process.

The south planning area segment of the proposed 7th Avenue cycle track may be subject to further technical study before implementation. The following proposed sections illustrate potential street configurations to accommodate a two-way cycle track per block, given the varying existing conditions.

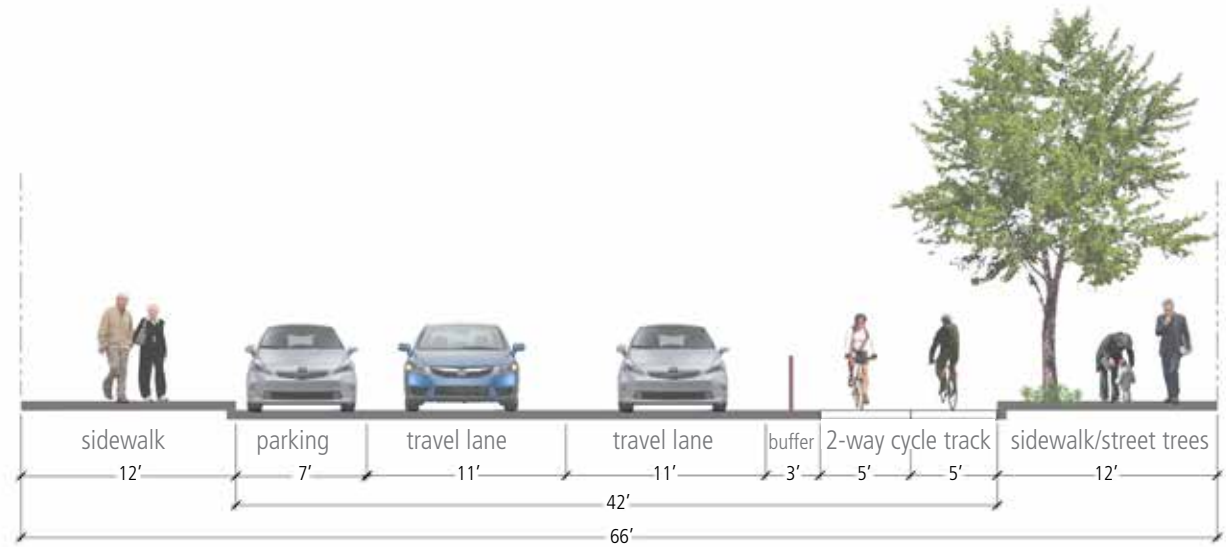
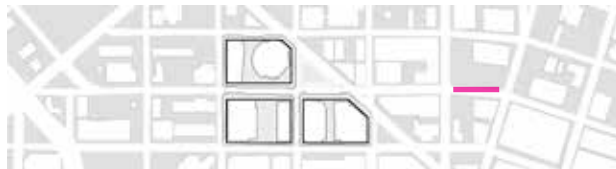
5

Design Concepts

7th Ave. South Planning Area: Stewart St. to Olive Way



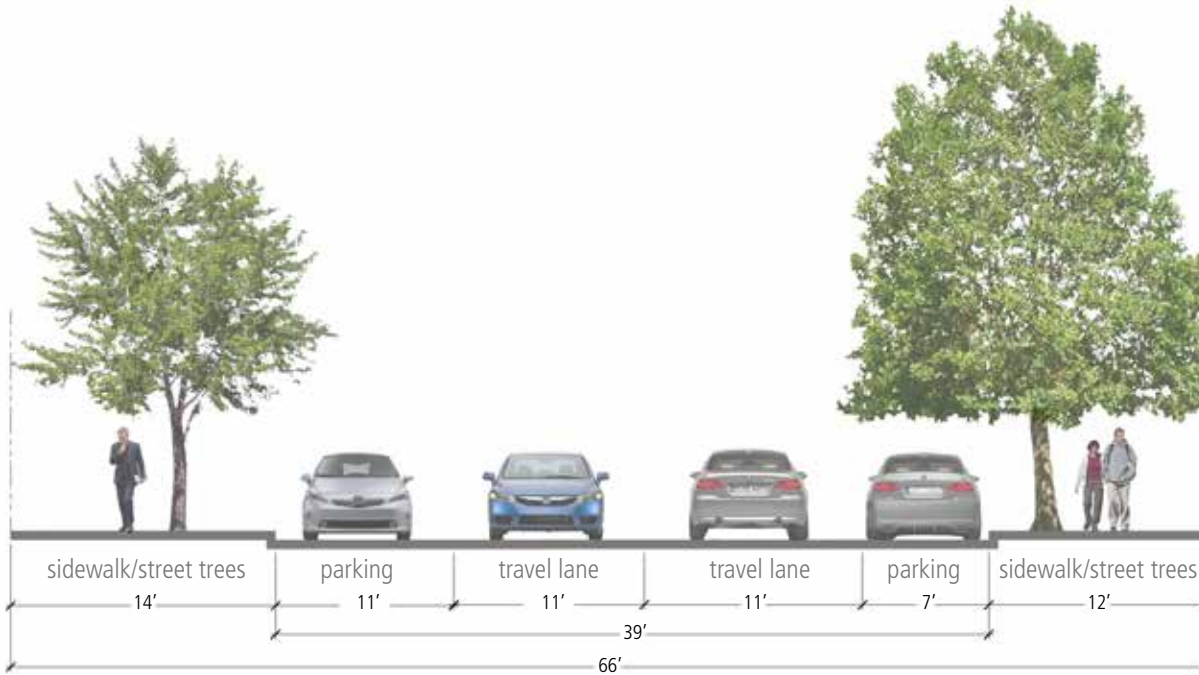
Existing 7th Avenue Section - Looking North



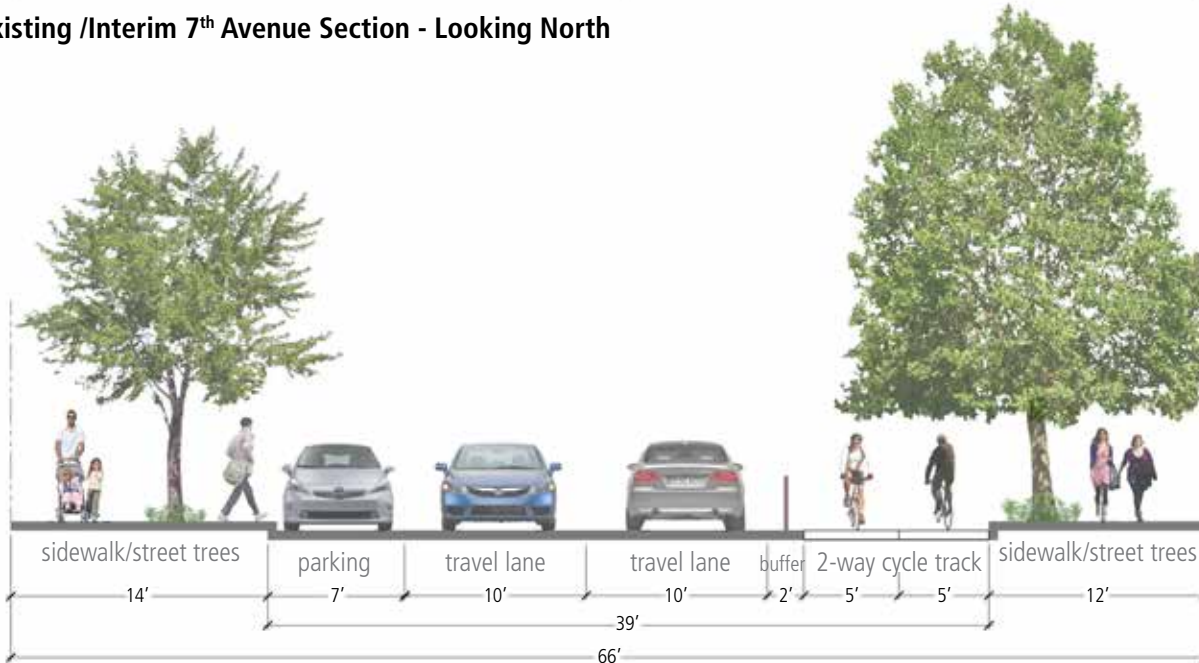
Proposed 7th Avenue Section - Looking North

Design Concepts

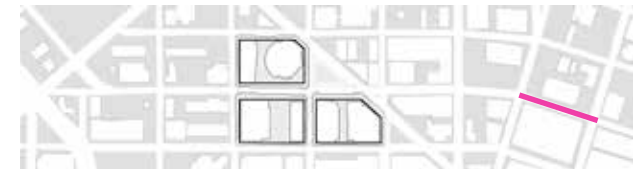
7th Ave. South Planning Area:
Olive Way to Pine St.



Existing /Interim 7th Avenue Section - Looking North



Proposed 7th Avenue Section - Looking North



5

Design Concepts

7th Ave. Components: FURNISHINGS & ART

A variety of street furnishings should be considered to provide additional amenities for cyclists along the proposed cycle track. These amenities could include the following:

- Bicycle counter - indicates route utilization, encourage ridership and provide useful feedback for DPD & SDOT.
- Bicycle signal - provides signalization for bicycles separate from vehicles, enhances overall signal operations, and can give priority to bicycles over turning vehicles. Intersection signal equipment needs to be upgraded and signals need to be re-timed.
- Bike share station - provides a future opportunity to promote bicycle ridership.
- Trash receptacle - located along cycle track lanes to accommodate moving riders.
- Lean rail - located near intersections to help cyclists balance while waiting for traffic lights.
- Seating - should be placed between the pedestrian sidewalks and the cycle track for shared usage.
- Signage – can describe convenient bike routes to encourage cyclists to use existing facilities; should be located mid-block to provide advance direction to traveling cyclists.
- Art installations are encouraged beyond 7th Ave. on adjacent and intersecting streets. Strategic placement of the exhibits create interest from multiple vantage points and enhance the overall pedestrian experience.
- Street furniture requires a private maintenance agreement.



Bicycle Counter



Bicycle Signal



Trash Receptacle



Lean Rail



Seating



Signage

Process for Review & Approval

SDOT and DPD will approve the *Concept Plan* by Joint Director's Rule. Right-of-way considerations need to be coordinated for all modes of transportation, traffic, stormwater rules, as well as co-lateral departments and agencies. The Joint Director's Rule process has requirements for completion including listing the proposed design concept Rule in the *Daily Journal of Commerce* (DJC) and providing a 14-day comment period prior to approval. The Rule must also be approved by the DPD and SDOT Directors. Once approved, the Concept Plan is appended to this Manual and listed in [Section 6.1.8: List of Approved Street Design Concepts Plans](#).