



WEST O STREETSCAPE ENHANCEMENT PLAN

LINCOLN, NEBRASKA

FEBRUARY 27, 2020



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FOREWORD

West O Street has long been identified by the City of Lincoln as a significant entryway corridor in need of improvements. In 2013, an initial round of streetscape enhancements were made to West O, highlighting the entryway's historic significance as part of the Detroit-Lincoln-Denver (D-L-D) Highway. The improvements included an interpretive plaza near 3rd and O Street, median plantings east of Highway 77, and decorative lighting, banners, and street trees east of Highway 77 and between Sun Valley Boulevard and Harris Overpass.

Building on the 2013 enhancement efforts, this project is intended to address both aesthetic and functional improvements along the corridor, setting the stage for added private reinvestment. With proper care and attention, this corridor can become the welcoming gateway of the west into the City of Lincoln that attracts high-quality redevelopment and revitalization opportunities. The recommendations contained herein are based on a foundation of community engagement efforts, focused on involving local business, property owners and citizens in shaping the future vision for the West O Corridor.

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CHAPTER ONE: INTRODUCTION

“Most times, the way isn’t clear, but you want to start anyway. It is in starting with the first step that other steps become clearer.”
- Israelmore Ayivor

CORRIDOR CONTEXT

PROJECT OVERVIEW

West O Street has long been identified by the City as a significant entryway corridor in need of improvements. The West O Street corridor in Lincoln, Nebraska is one of the primary gateways into the city from the west and is part of US Route 6. Prior to the Route 6 identity, this route was identified as the Detroit-Lincoln-Denver (DLD) highway. In 2013, an initial round of streetscape enhancements were made to West O, highlighting the entryway's historic significance as part of the Detroit-Lincoln-Denver (D-L-D) Highway. The improvements included an interpretive plaza near 3rd and O Street, median plantings east of Highway 77, and decorative lighting, banners, and street trees east of Highway 77 and between Sun Valley Boulevard and Harris Overpass.

Building on the 2013 enhancement efforts, this project is intended to address both aesthetic and functional improvements along the corridor, setting the stage for added private reinvestment. This planning effort includes analysis of current corridor conditions, a robust public engagement process to help set the vision and goals that this corridor should help achieve, streetscape design and an implementation strategy to move from planning into built results.

The corridor area under study stretches approximately four and a half miles, from NW 56th Street to 9th Street just over the Harris Overpass.

HISTORY

The history of the West O Corridor connects deeply to the evolution of U.S. Highway 6 as one of America's first transcontinental highways. Originally serving to link farms to towns, towns to cities, and states to states, the history of the West O corridor has been heavily shaped by the automotive identity.

During the "Good Roads" movement of the early 20th century, the Omaha-Denver TransContinental Route Association connected existing dirt roads from Omaha to Denver – creating the O-L-D (Omaha-Lincoln-Denver) Highway.

Shortly after the establishment of the O-L-D Highway, the automobile was becoming even more popular and President Woodrow Wilson passed the Federal Highway Act of 1916, encouraging planned road development by requiring state supervision over the construction of new roads. This was good news for the automobile industry as well as the owners of 2.3 million registered automobiles who were eager for improved highways.

The original O-L-D route became the D-L-D route when Detroit highway promoters joined in 1920. As an automotive connection from Detroit to Denver, the D-L-D highway was a significant piece of one of America's first transcontinental highways. However, the name of the highway changed multiple times over the next 20 years: becoming Nebraska Highway 6 in 1924, U.S. Highway 38 in 1926, U.S. 6/38 in 1931, and finally U.S. 6 by 1940.

Some of the earliest brick pavement of the highway as well as a cast concrete obelisk inscribed "DLD" and "MI" still exist on P Street. Newer improvements that highlight this history exist as interpretive panels along the corridor and a D-L-D plaza near 3rd and O Street. Model T sign banners are also seen along some stretches of the corridor from a prior beautification effort.

In addition to the historical automotive significance of the West O corridor, surrounding history also tells an interesting story. The Lakeview Elementary School just north of the corridor has been a part of this community for 96 years. The building was constructed in 1923 by its own local neighborhood members who advocated for the school, further reinforcing the blue-collar work ethic surrounding the development of the West O corridor.

The Capital Beach neighborhood was also quite an attraction near the early stages of the West O corridor. Originally a salt marsh named Gregory's Basin, Capital Beach Lake was one of the first draws for wagon trains and early settlers. After 1880, the marsh was flooded and Capital Beach Lake went by the name Burlington Beach, which offered amusement park rides and a 50-passenger steamboat and known as the "Playground from the Midwest". The area received the name Capital Beach in 1906 which was very successful until 1920s when the lake was drained again. Finally, in 1961, Capital Beach was purchased for \$190,000 and a housing development was initiated.

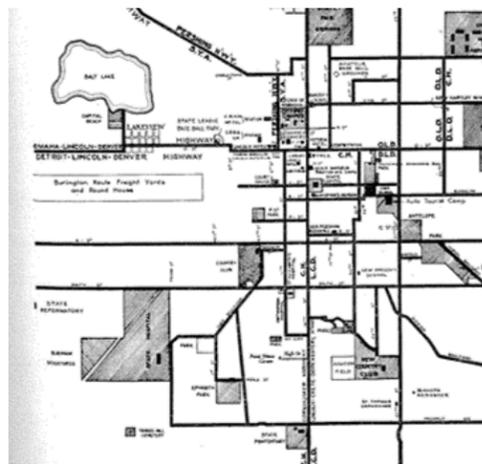


Figure 1.1: Historical Map of Highways Radiating Out of Lincoln



Figure 1.2: Historic Photo of Capital Lake Beach Adventure Park



Figure 1.3: Original D-L-D Highway Marker



Figure 1.4: D-L-D Themed Plaza Space at 3rd and West O Street



Figure 1.5: Cover Graphics of Related Plan Documents

PREVIOUS PLANS REVIEWED

Over the past several years, many different studies and plans have been conducted that will help guide the future of Lincoln. An important part of this process was to understand the visions, ideas, and strategies that have been proposed in these various plans. The design team reviewed these documents to avoid duplicating earlier efforts with redundant conversations and to build from the already strong ideas and vision laid out by Lincoln citizens, staff and elected officials. The design team reviewed the following plans.

WEST O STREET REDEVELOPMENT PLAN (2005-2017)

The West O Street Redevelopment Plan was adopted in August 2005 and amended September 2017. This plan provides guiding principles for redevelopment along the West O Corridor to create a more inviting “front door” to Lincoln, improve the building character for the corridor, and resolve land use conflicts with future developments such as this Streetscape Enhancement Plan.

LINCOLN BIKE PLAN (2019)

The Lincoln Bike Plan supports bicycle travel as a means of transportation as well as for recreation. This plan identifies a network of on and off street bicycle facilities, a recommended bike network, and implementation priorities for Lincoln’s bicycle initiative. The West O Streetscape Enhancement Plan is an opportunity to make the West O Corridor a safer and connected destination for bicycle travelers.

NEBRASKA HISTORIC HIGHWAY SURVEY (2002)

The Nebraska State Historical Society in Partnership with the Nebraska Department of Roads created the Nebraska Historic Highway Survey to identify historic resources, conduct surveys, and develop a public document addressing the history of road and highway development in Nebraska. This survey acts as a valuable resource for understanding the historical context of the Detroit-Lincoln-Denver Highway as it pertains to the West O Corridor Streetscape Enhancement Plan.

LINCOLN TRANSIT DEVELOPMENT PLAN (2016)

The Lincoln Transit Development Plan depicts StarTran routes throughout Lincoln. In order to meet the transportation needs of Lincoln’s residents, this plan provides evaluations of existing routes, ridership, and service levels and offers criteria for bus stop spacing and amenities. Route 46 connects Arnold Heights to downtown Lincoln through the West O Street Corridor. The West O Streetscape Enhancement plan is an opportunity to explore the look and feel of transit stop amenities along route 46.

BICYCLE AND PEDESTRIAN CAPITAL PLAN (2013)

As part of Lincoln’s 2040 Long Range Transportation Plan, the Bicycle and Pedestrian Capital Plan maps existing conditions, and guidelines, plans, and implementation priorities for bicycle and pedestrian circulation throughout the city. Improvements for bicycle and pedestrian connect ability are one way to improve economic vitality, quality of life, and benefits to individual families within the West O Corridor.

LINCOLN/LANCASTER COUNTY 2040 COMPREHENSIVE PLAN (2016)

The Lincoln/Lancaster County 2040 Comprehensive Plan Update outlines a shared vision of where, how, and when the community intends to grow. The West O Streetscape Enhancement Plan intends to align with this vision to maintain and enhance the health, safety and welfare of this community. Interconnectedness of economic, environmental, and socio-cultural domains should be reached in a visionary, yet practical way to sustain and improve the growing character of the community.

CORRIDOR CONTEXT

SURROUNDING CONNECTIONS, ENTRIES, AND VIEWS

The West O Corridor is situated just west of Downtown Lincoln and serves primarily as the western entrance into the city. It is surrounded by a variety of development-challenging features, such as Interstate 80, the Lincoln Airport and Capital Beach Lake to the north, the Burlington Northern Santa Fe Railroad yard to the south, and Salt Creek, Harris Overpass and Downtown to its east.

The full corridor stretches nearly four and a half miles from NW 56th Street to 9th Street. Vacant car lots, salvage yards, and dilapidated buildings are common scenery throughout the corridor and there are many land-use conflicts where family dwellings or restaurants are adjacent to automotive and industrial developments. Highway 77 overpass divides the corridor into two distinct development characteristics, where the west side lends itself to a more rural pattern with limited infrastructure improvements and facilities (i.e. no sidewalks or curb and gutter), and the east side of the overpass is more commercial and service oriented with narrow sidewalks and updated roadway sections. The segment west of Highway 77 has the opportunity for expansion and growth, where west of Highway 77 has infill and redevelopment potential.

Major entries into the corridor include the Harris overpass from the east and NW 48th Street from Interstate 80 from the west. NW 48th Street also acts as an entrance from the north for Air Park, Arnold Heights and Oak Hills neighborhoods. There is also an internal access point by means of Highway 77, connecting at the middle of the corridor.

There are a handful of nearby neighborhoods adjacent the West O corridor. Lakeview is directly adjacent to the corridor, and fully depends on West O as its access to get anywhere inside and outside of Lincoln. Other neighborhoods, such as Arnold Heights and Oak Hills, depend on West O street as a direct route into Downtown.

With this corridor being one of the main entries from the west into the City of Lincoln, corridor users experience unique views throughout that could be further enhanced. These views include the distant Lincoln skyline and views of the capital building which can be seen especially well during the evening hours.

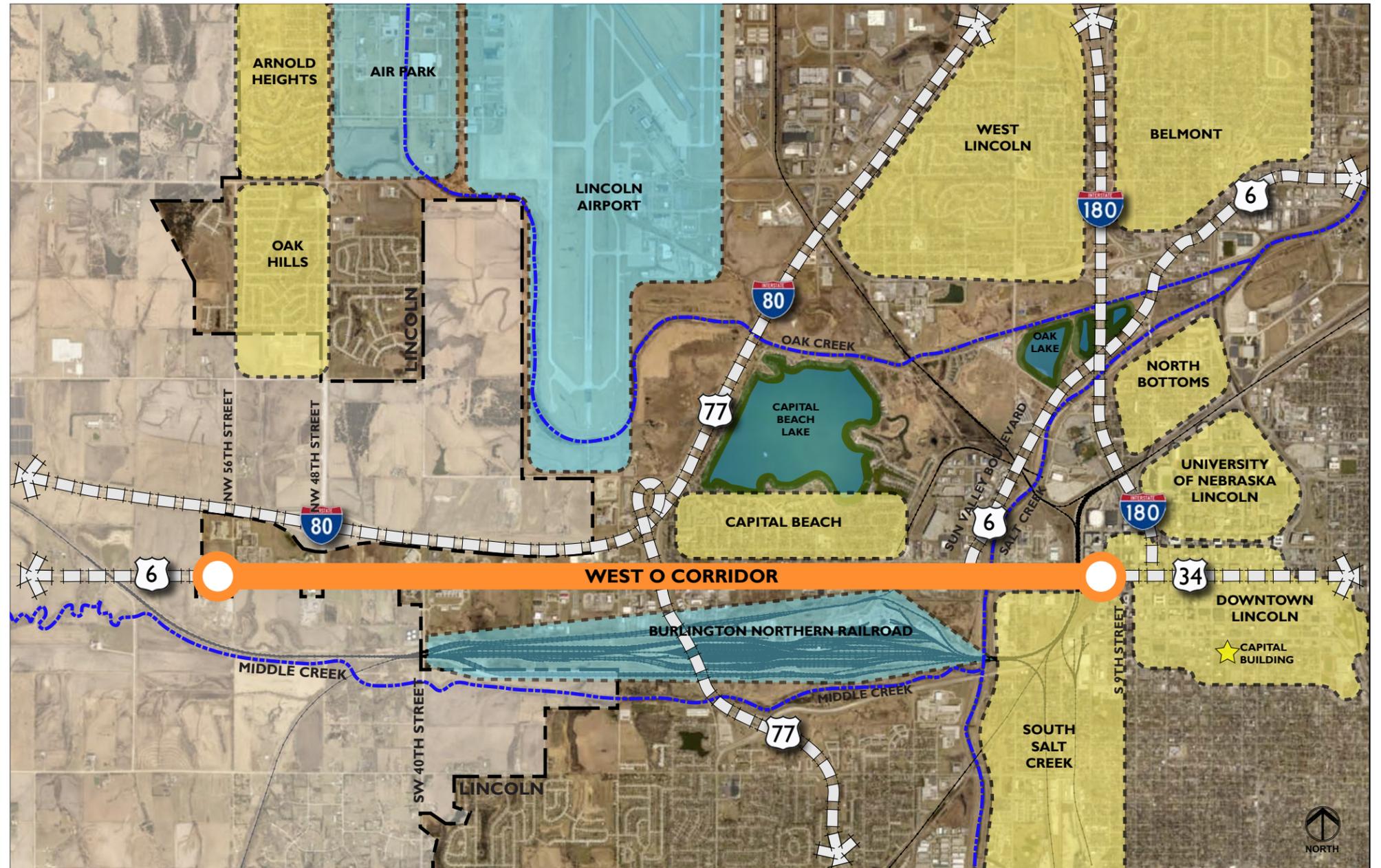


Figure I.6: Corridor Context Map

TRANSIT

StarTran Route 46 has 15 stops along the West O Corridor and is ranked seventh overall in terms of average weekday ridership (433 daily riders) but falls just below the systemwide average for weekday ridership productivity at 20 boardings per hour. Route 46 travels south from Arnold Heights to West O Street, then travels east on West O Street until 22nd street where it jogs north to West Q Street through the Capital Beach neighborhood. At Capital Beach Boulevard, it jogs back to West O Street and travels east until 11th street, looping back at downtown Lincoln. Bus stops vary in amenities, some only a simple sign posted to a utility pole or its own post, while others have a bench and/or shelter facility. Also, stops west of the Highway 77 underpass are less connected as there are nearly no sidewalk west of the underpass. The design team will review ways to incorporate potential station improvements into the overall streetscape aesthetics.

BICYCLE

There are no commuter trails for bicycles directly along the West O Corridor. Commuter trails only exist at the east and west ends of the corridor – one along Salt Creek traveling north and south, and a fragmented segment along NW 48th Street and SW 40th. The trail along Salt Creek is a designated commuter trail, while NW 48th street and SW 40th Street are along the road. A bike connection between NW 48th Street and SW 40th is proposed to link the west commuter trail together.

Per the recently adopted Lincoln Bike Plan, a proposed bike facility is suggested along West Q Street from NW 22nd Street to Capital Beach Boulevard, then jogs down Capital Beach to connect to the proposed West P street bike route from Capital Beach Boulevard to Sun Valley Boulevard, tying into the existing Salt Creek commuter trail. The design team will review these proposed improvements at a finer grain during this study.

PEDESTRIAN

West O Street has a typical 4-foot-wide concrete pedestrian sidewalk, offset from the roadway, on both north and south sides of the street from the Harris Overpass to NW 22nd Street, while only a few short pedestrian connections exist west of the Highway 77 overpass, near the

correctional facility (both sides, near bus stop) and directly in front of the FairBridge Inn Express. There are no sidewalk connections provided under the Highway 77 overpass, but multiple “cow paths” exist, indicating that pedestrian facilities are needed further west along the corridor. Some intersections east of Highway 77 are emphasized with grey colored concrete, but crosswalk painting and markings are vehicular scaled and uncomfortable to the pedestrian while crossing. The design team will explore ways to increase safety of pedestrian facilities and crossings along and across the West O corridor.

EXISTING VEGETATION

There are very few street trees along West O Street, especially west of Highway 77. There are some younger street trees planted near Highway 77 interchange, which will help mitigate sound and improve appearance as they continue to grow. A small cadence of mature street trees does exist, specifically near Runza and RV Parts and Services, as well as near the Surplus Center. While walking the corridor, these areas with consistent street tree coverage provides a more comfortable and quieter walk. An unusual lush vegetated corner near Illuminations at the southeast 20th exists, while a prior effort of median plantings near Highway 77 are slow to re-emerge. Overall, there is very little existing vegetation along the corridor, but the right of way provides ample amount of open green space to study potential opportunities to incorporate more vegetation.



Figure 1.7: Photographs Taken of Existing Site Conditions



Figure 1.8: Existing Transit Connections



Figure 1.9: Existing Commuter Trails



Figure 1.10: Existing Sidewalks inside West O Street Right of Way

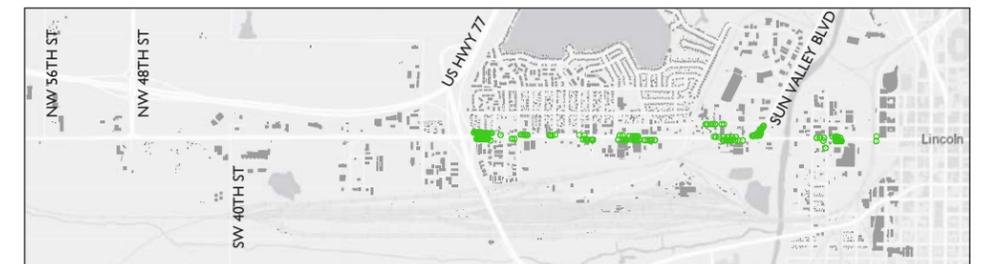


Figure 1.11: Existing Street Trees inside West O Street Right of Way

CORRIDOR CHARACTER

Overall, the West O corridor has a distinct automotive and industrial character as well as being a gateway from the west to the urban core of Downtown Lincoln. West O Street is highly auto centric and, while convenient, does not provide a positive sense of place while approaching Lincoln’s capital. However, this is beginning to change as development infills along the corridor with more commercial and service destinations and the community embraces the need for a true identity that embraces the rich history of West O Street.

This Streetscape Enhancement Plan identifies three distinct zones along the West O Corridor. To the west of Highway 77 interchange, West O Street is much more rural, with limited development and untouched green space. To the east of the interchange, the corridor is denser and has more commercial and service business to support the residential neighborhoods south of Capital Beach Lake. Finally, the zone near the interchange itself acts as a transition zone between the rural areas and the developed areas. Automotive salvage yards, body shops, and used car lots are a common denominator throughout all zones.

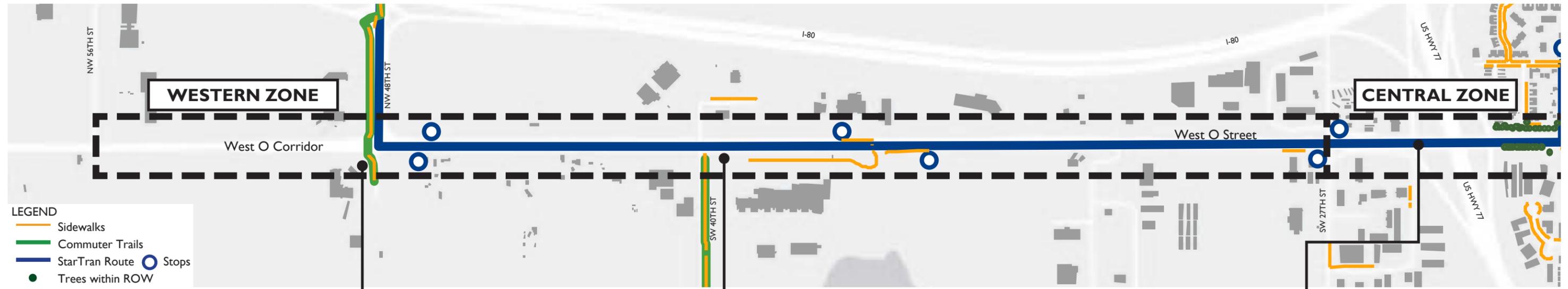


Figure I.12: Corridor Character Map



Figure I.13: Shoemakers Travel Center



Figure I.14: Lancaster County Department of Corrections



Figure I.15: Highway 77 Underpass

Figure I.16: D-L-D Highway Signage



Figure I.17: Lakeview Elementary



Figure I.18: Salt Creek



Figure I.19: Harris Overpass



Figure I.20: SW 20th Street Intersection Landscaping



Figure I.21: Vacant Lot at NW Roundhouse Dr.



Figure I.22: Lincoln Steel Corporation



Figure I.23: D-L-D Plaza at North 3rd Street

CORRIDOR CHARACTER

WESTERN STREETScape

The western zone stretches from NW 56th Street to NW 27th Street and serves as the entrance into Lincoln on Highway 6. Here, West O Street is typically four lanes wide with no curbs, a two-foot shoulder, and a four-foot-wide paved median. There is a generous street right of way varying from 132 feet up to 200 feet depending on the location. Within the street right of way, there are streetlights on both sides of the street, and overhead utilities along the south side of the road, and occasionally billboards and drainage swales. There are limited sidewalks in this zone, with the exception of the area north of the Lancaster County Department of Corrections and the FairBridge Inn.



Figure I.24: Western Zone View 1, Traveling East



Figure I.25: Western Zone View 2, Traveling East

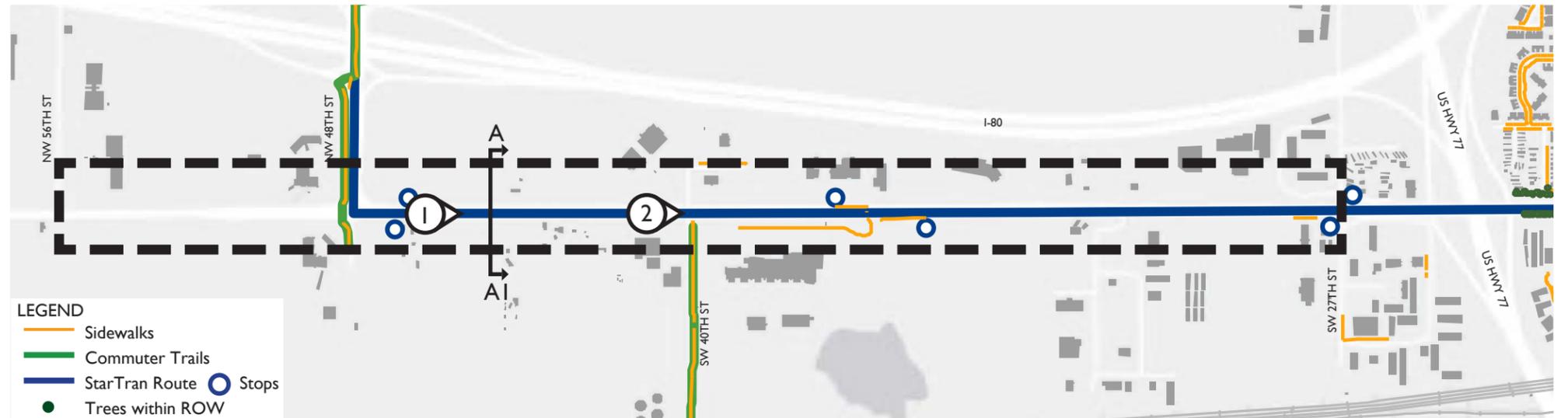


Figure I.26: Western Zone Key Plan

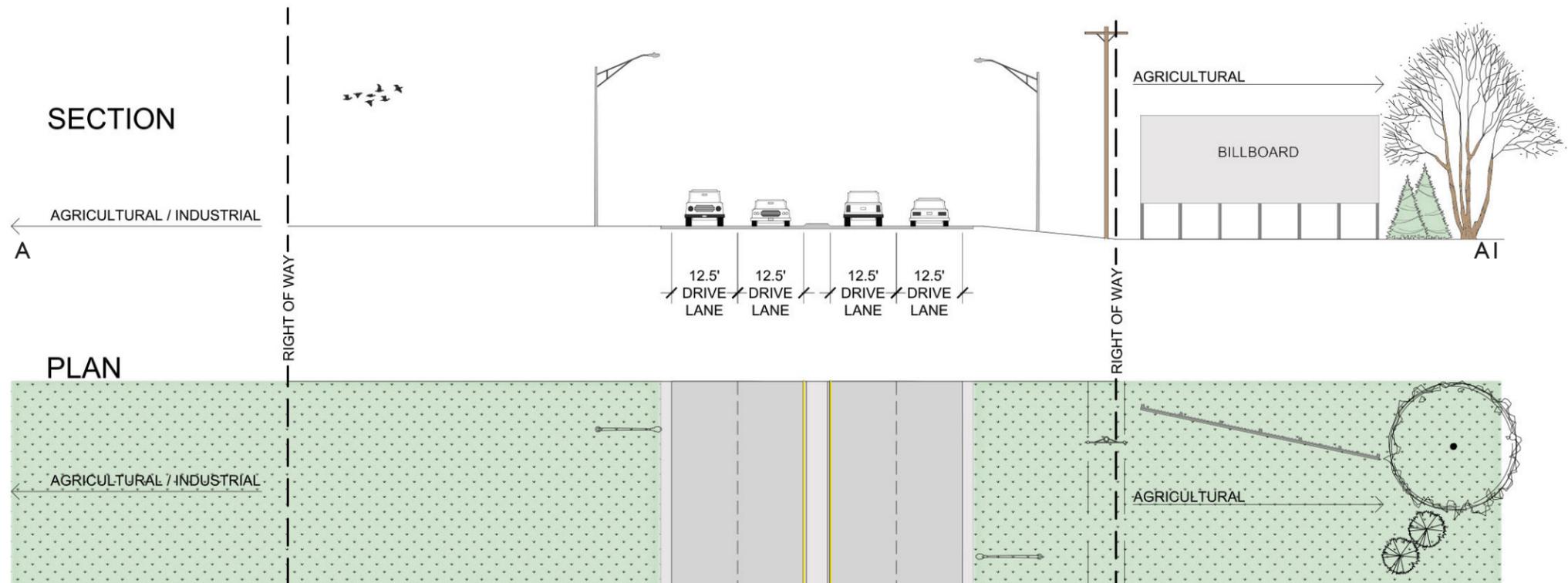


Figure I.27: Existing Western Zone Section and Plan

CENTRAL STREETSCAPE

The central zone stretches from NW 27th Street to NW 22nd Street and serves the Highway 77 interchange and the connector between the two east and west zones of the West O Corridor. Here, curbs are introduced, and the median is widened to 16 feet to allow for center turn lanes. Where no center turn lanes are needed, the lane transitions to a planted median. Most of the streetscape is within the right of way of Highway 77, allowing the right of way to vary from 165 feet to 350 feet around the on ramps to the east and west. Streetlights and utility lines continue from the western zone to the central zone. On the eastern side of the underpass is the addition of Detroit-Lincoln-Denver decorative street lighting on either side of West O Street. There is no sidewalk within the central zone.



Figure 1.29: Central Zone View 1, Traveling East



Figure 1.30: Central Zone View 2, Traveling East

- LEGEND
- Sidewalks
 - Commuter Trails
 - StarTran Route ○ Stops
 - Trees within ROW

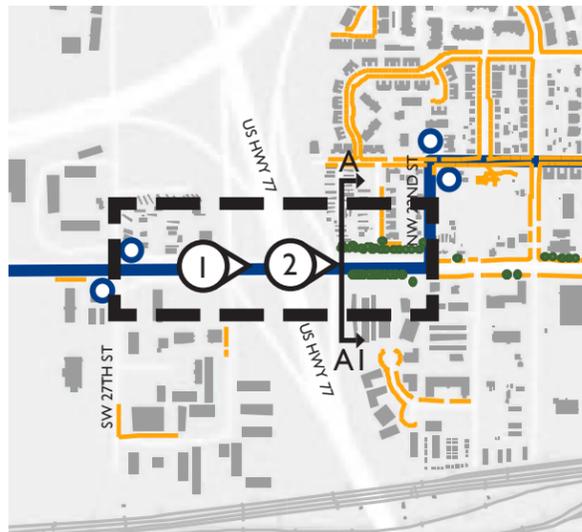


Figure 1.28: Central Zone Key Plan

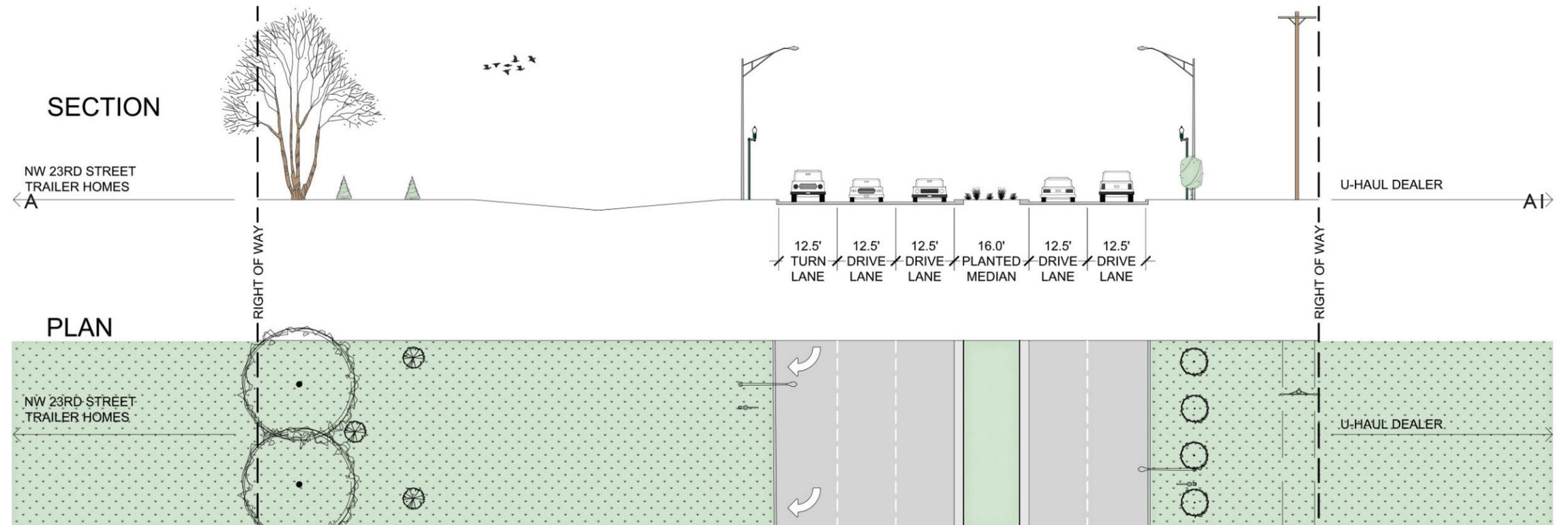


Figure 1.31: Existing Central Zone Plan and Section

CORRIDOR CHARACTER

EASTERN STREETScape

The eastern zone stretches from NW 22nd Street to 9th Street, connecting the West O Corridor to downtown Lincoln. Here, there is a constant 16 foot wide central turning lane making the roadway five lanes wide. There is typically no median with the exception of Capital Beach Boulevard and Sun Valley Boulevard intersections due to the turn lanes. In this zone, the right of way is generally 120 feet wide with streetlights on both sides of the street, and overhead utilities that edge the south side of the street. Detroit-Lincoln-Denver Highway decorative street lighting are sprinkled throughout this zone, and a consistent four foot sidewalk exists on both sides of West O Street. There are also occasionally street trees within the right of way.



Figure I.32: Eastern Zone View 1, Traveling East



Figure I.33: Eastern Zone View 2, Traveling East

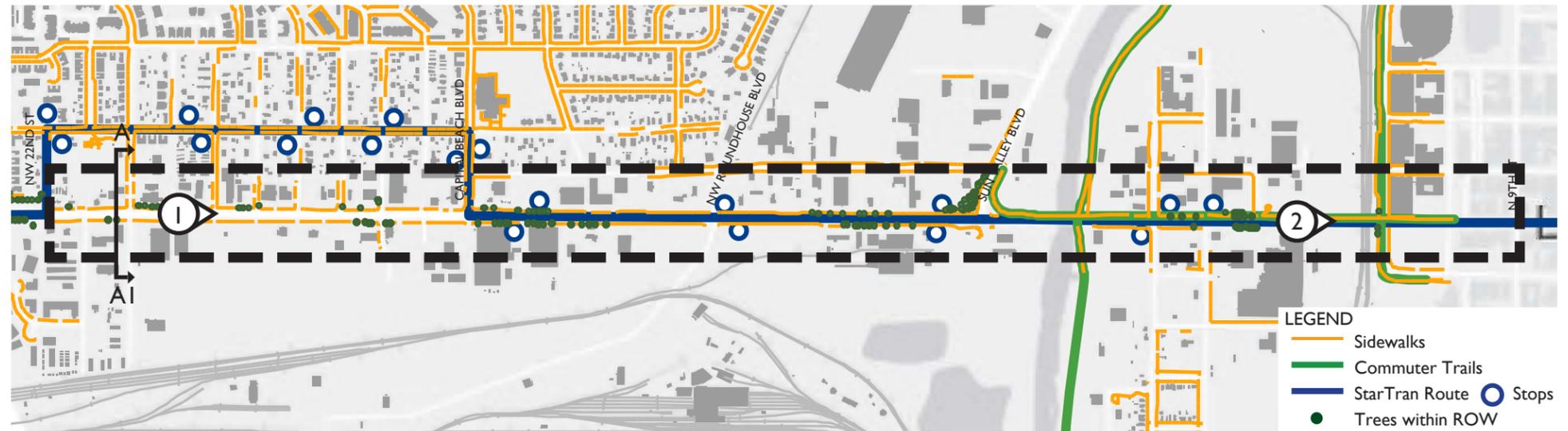


Figure I.34: Eastern Zone Key Plan

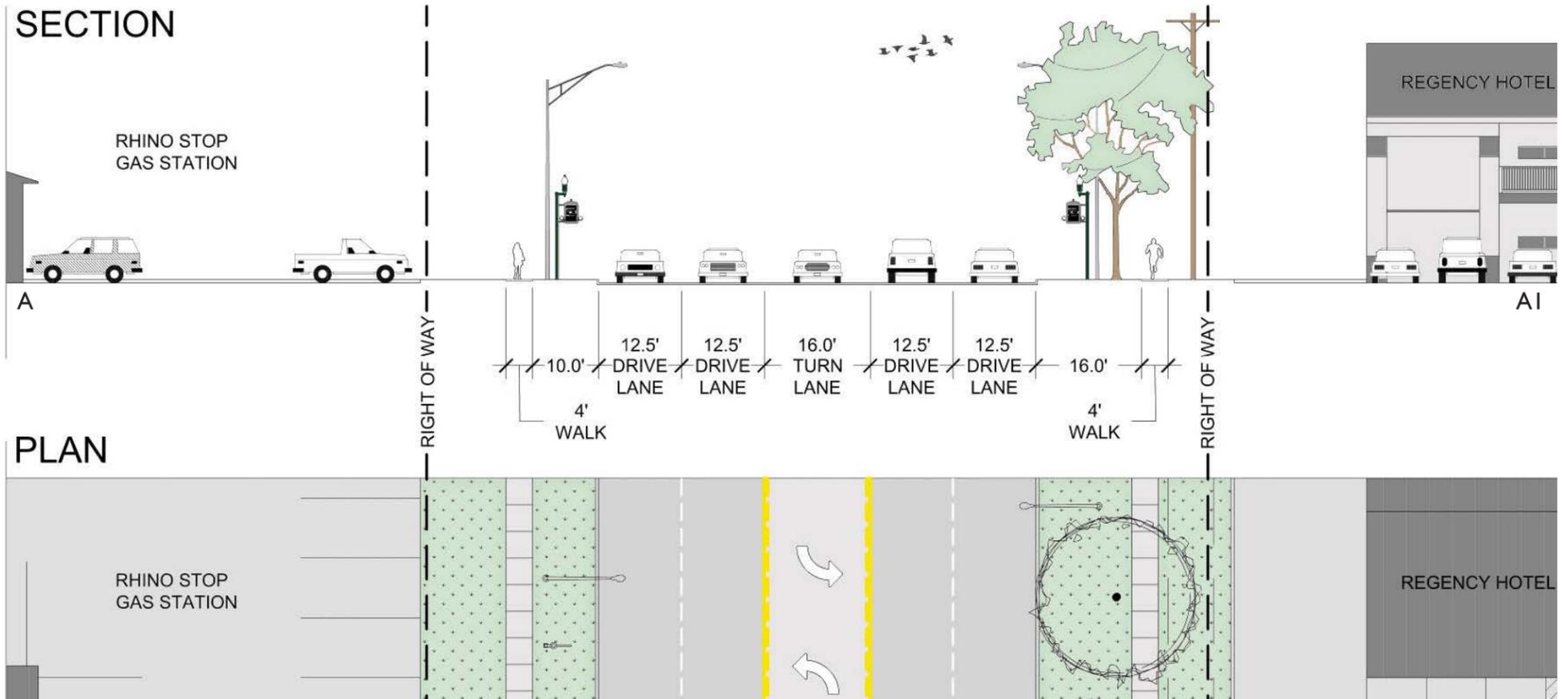


Figure I.35: Eastern Zone Section and Plan

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EXISTING TRAFFIC CONDITIONS ANALYSIS

A review and assessment of the existing traffic conditions, including operations and safety, was performed using traffic data provided by the City of Lincoln. The resulting findings were then integrated into the Streetscape Enhancement Plan.

OVERVIEW OF STUDY AREA

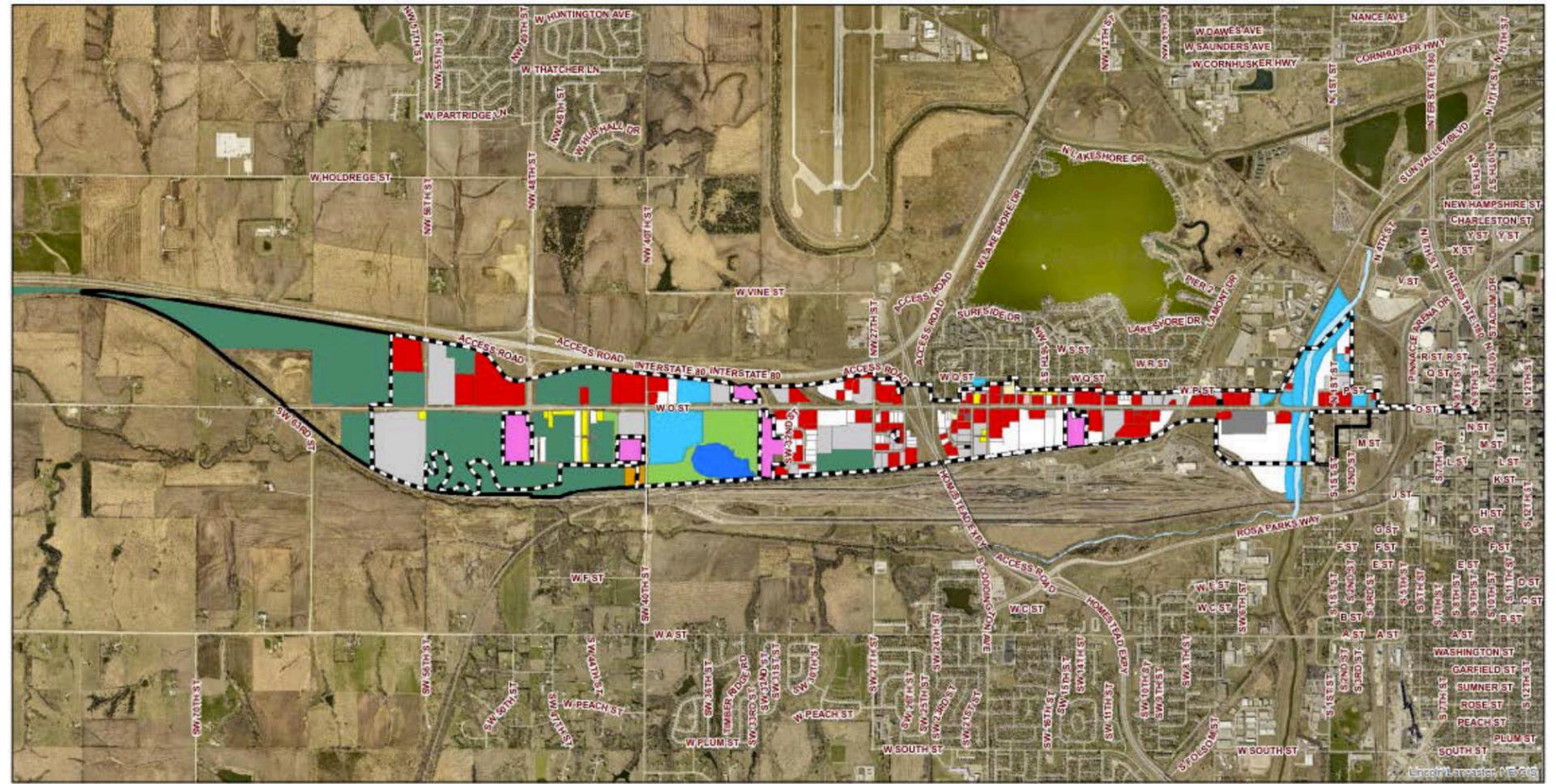
The study area extends along West O Street between NW. 48th Street and Sun Valley Boulevard.

The study area includes the following eight at-grade intersections from west to east:

- West O Street and NW 48th Street (signalized intersection)
- West O Street & NW 40th Street (two-way stop-controlled intersection)
- West O Street & US-77 SB Ramps (signalized intersection)
- West O Street & US-77 NB Ramps (signalized intersection)
- West O Street & NW 20th Street (signalized intersection)
- West O Street & Capital Beach Boulevard (signalized intersection)
- West O Street & Roundhouse Drive (signalized intersection)
- West O Street & Sun Valley Boulevard (signalized intersection)

Key intersections include: West O Street & NW 48th Street; West O Street & US-77 NB Ramps; West O Street & US-77 SB Ramps and West O Street & Sun Valley Boulevard.

Current land use within the study area is primarily commercial, industrial, residential and some undeveloped areas (Figure I).



West O Revitalization Project - Current Land Use



Figure I.36: West O Street Project Area Land-Use Map

TRAFFIC VOLUMES

The most current Annual Daily Traffic (ADT) obtained from the City of Lincoln transportation and utilities webpage shows a maximum of 20,330 vehicles per day within the study corridor in the year 2016 (see Figure 2)

Historically, higher traffic volumes are generally observed east of the US-77 interchange than west of the interchange. Based on historic ADT volumes shown in Figure 2 - Figure 4, the highest ADT observed

within the study area was 24,100 in year 2007 and the highest ADT in the year 2016 was 20,330. Generally, traffic volumes along O Street have either remained fairly level or decreased over the past ten years at an average rate of 1% to 2% per year. The only location with consistent traffic growth between 2007 and 2015 is immediately east of the US-77 interchange. This is likely due to an increase in residential and commercial developments within that area.

Traffic counts at each of the main eight intersections during the peak AM, Midday and PM peak hours were also provided by the City of Lincoln. A

review of the data showed that the highest volumes were observed during the PM peak hour. The traffic capacity analysis performed with this study uses the PM peak volumes as the existing worst-case scenario. Figure 5 below shows the existing peak hour turning movements (vehicles, pedestrians and bicyclists) at each of the eight intersections. Based on the counts received, all the pedestrian and bike traffic was observed west of the US-77 interchange, primarily at the intersections of West O Street & 20th Street, West O Street & Roadhouse Drive and West O Street & Sun Valley Boulevard.



Figure I.37: West O Street Estimated Average Daily Traffic and Year Counted (Updated 2013)



Figure I.38: West O Street Estimated Average Daily Traffic and Year Counted (Updated 2015)

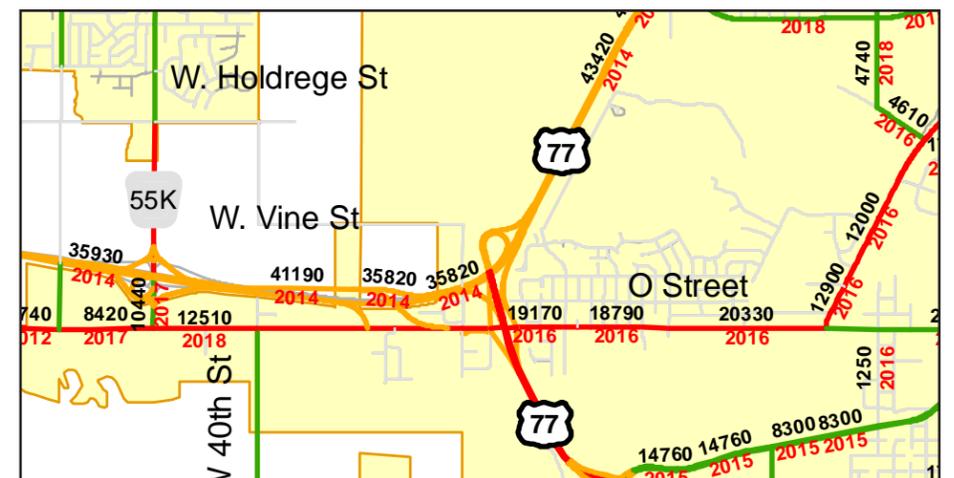


Figure I.39: West O Street Estimated Average Daily Traffic and Year Counted (Updated 2018)

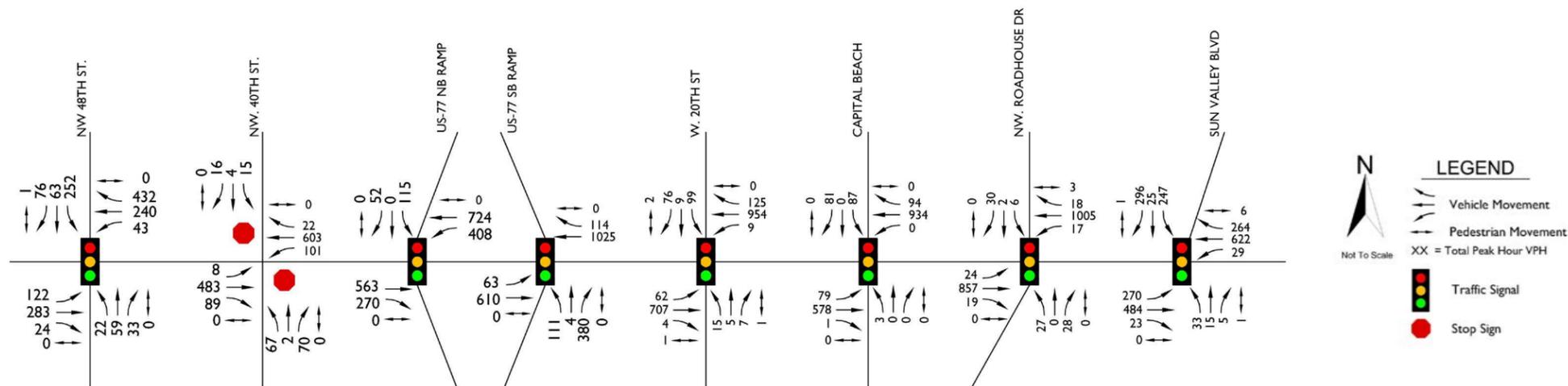


Figure I.40: West O Street PM Peak Hour Turning Movement Volumes (Collected in March 2016)

EXISTING TRAFFIC CONDITIONS ANALYSIS

CAPACITY AND INTERSECTION ANALYSIS

The 2010 Highway Capacity Manual (HCM) defines ranges that correspond to performance indicators known as Level of Service (LOS) (Table 1). LOS calculations are based on the driver’s perception of the traffic conditions. LOS A is the best operating condition from the driver’s perspective and LOS F has the longest delays, therefore being the worst operating condition. LOS D or better is considered acceptable in most urban settings during the peak hour.

LOS thresholds for signalized and unsignalized intersections are different due to driver’s expectations of the traffic control conditions. According to HCM procedures, delay is not experienced for the free movements in a two-way stop-controlled intersection and therefore an overall LOS cannot be calculated. In signalized and all-way stop-controlled intersections, all movements experience delay and an overall LOS can be calculated. None of these vehicular LOS indicators account for the user’s perspective from other modes and the LOS provided to them such as pedestrians, cyclists, or transit users.

The application used for operational analysis in this study was Trafficware’s Synchro v9 using the 2016 PM Peak volumes provided by the City of Lincoln (see Figure 6).

All intersections within the study area were operating at a LOS C or better during the PM peak hour. The three signalized intersections of West O Street & 48th Street, West O Street & US-77 SB ramps and West O Street & Sun Valley Boulevard experience the highest levels of delays at a LOS C.



Figure I.41: West O Street Existing LOS using PM Peak Traffic Volumes (2016)

Table 1: Intersection Level of Service Criteria

LOS	Description	Signalized Avg Delay (sec/veh)	Unsignalized Avg Delay (sec/veh)
A	Little to no delay. Progression is either exceptionally favorable or the cycle length is very short.	≤ 10	≤ 10
B	Volume-to-capacity ratio is low and either progression is highly favorable, or the cycle length is short.	> 10 - 20	> 10 - 15
C	Progression is favorable, or the cycle length is moderate. Individual cycle failures may begin to appear at this level.	> 20 - 35	> 15 - 25
D	Volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are noticeable.	> 35 - 55	> 25 - 35
E	Volume-to-capacity ratio is very high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 55 - 80	> 35 - 50
F	Volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear to the queue.	> 80	> 50

SAFETY AND CRASH ANALYSIS

The most recent and complete three-year (2016 – 2018) crash data within the study area was provided by the City of Lincoln. The data was analyzed to measure intersection and roadway segment safety relative to existing crash patterns that may need to be addressed.

A total of 217 crashes occurred along the entire corridor within this three-year period. One-hundred fifty-five (155), which is 72% of the total crashes, occurred at the eight main intersections as shown in Figure 7. Of the total crashes, three resulted in fatalities and 69 (32%) resulted in injuries. The three fatal crashes included one pedestrian crash at West O Street & 20th Street, one right angle crash at West O Street & 40th Street and one left-turning side-impact crash at West O Street & 48th Street.

Of the remaining crashes along the corridor and at the minor unsignalized intersections and accesses, Rear end and turning crashes were the most



Figure I.42: Number of Crashes at the West O Street Intersections

Table 2: West O Street Main Intersections Crash Types

Intersection with West O Street	Ped	Rear-End	Right-Angle	Ran off the Road	Sideswipe	Driveway	Turning	Animal	Unknown	Total
NW 48th St.		9	2	1	3		4	3	1	23
NW 40th St.		2	4	3	2	1				12
US-77 SB Ramps		3	2	2	1		2			10
US-77 NB Ramps			12	5	1		3			21
NW 20th St.	2	5	3	2	1	2	5			20
Capital Beach Blvd.		7	2	6	1	1			3	20
Roundhouse Dr.		6	1		2	2		1		12
Sun valley Blvd.	1	16	1	5	2	3	6		3	37
Total	3	60	20	20	12	9	20	4	7	155

Table 3: West O Street Minor Intersections and Accesses Crash Types

Location	Ped	Rear-End	Right-Angle	Ran off the Road	Sideswipe	Driveway	Turning	Backing	Animal	Unknown	Total
Accesses & Minor Intersections		15	8	5	8	8	14	3		1	62

frequent types of crash observed. Turning crashes primarily involved vehicles traveling in opposite directions with one vehicle attempting to turn in front of the oncoming vehicle. Failure to yield to oncoming vehicles and sight obstruction are the most common causes of turning crashes. A complete breakdown of the types of crashes at each intersection is shown in Table 2 and Table 3.

Rear-end crashes were the most common type of crash observed at the signalized intersections. Rear-end crashes are typically the result of motorist inattention often combined with unexpected stops in the traffic stream. Signalized intersections often have a high frequency of rear-end collisions.

Three of the crashes were pedestrian crashes. Two of which occurred at the intersection of West O Street & 20th Street and the third at the intersection of West O Street & Sun Valley

Boulevard. One of the crashes at 20th Street was a fatal crash which occurred at night due to driver failing to stop for a pedestrian crossing West O Street.

There were no specific crash patterns identified based on the time of day, time of year, type of crash, or contributing circumstances.

Mitigation strategies for turning crashes commonly involve improving sight distances at the intersections or reducing vehicle speeds by narrowing lane widths. While the number of lanes usually cannot be reduced due to capacity needs, it may be feasible to narrow the lane and median widths to reduce the crossing distance.

Mitigation improvements for pedestrian related crashes commonly involve reviewing existing pedestrian and bicycle facilities, providing improved crosswalks, implementing a lead-pedestrian interval at signalized intersections, providing well connected pedestrian and bicycle networks, proper street lighting and minimizing driver-pedestrian conflicts.

Mitigation for the rear-end crashes primarily involve optimizing clearance intervals and signal timings as well as providing right-turn channelization or right-turn lanes based on the results of a traffic study. These strategies assist with improving the overall intersection delays and LOS.

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CHAPTER TWO: PARTNERS AND PROCESS

“Many ideas grow better when transplanted into another mind than the one where they sprang up.”
-Oliver Wendell Holmes

VISIONING AND PREFERENCING INPUT

ADVISORY COMMITTEE AND COMMUNITY

The City selected several property owners, business owners, and citizens to participate on an Advisory Committee to provide guidance to the design team during the study. The design team worked with this committee as well as the general public during key stages of the planning process, allowing the input and recommendations of the community to shape the design of the corridor. A series of individual stakeholder meetings were also conducted throughout the process. The following meetings were conducted to engage the community during this effort:

- JUNE 20** Advisory Committee: Kick Off meeting
- JULY 11** Public: Kick Off meeting
- SEP 5** Advisory Committee + Public: Initial Concept Review + Van Tour
- OCT 24** Advisory Committee: Final Concept Review
- DEC 5** Advisory Committee + Public: Phasing Strategy + Costs
- DEC 31** Final Plan Acceptance



Figure 2.1: Advisory Kick Off meeting at Speedway Motors

GOALS

The community, together with the design team, has crafted three goals for this project that encompass the desired outcomes of the West O Streetscape Enhancement Plan. In order to positively impact the corridor, this planning process intends to:

- 1 SHIFT** the aesthetic to a more green, vibrant, and beautiful streetscape to encourage private investment, supportive of the envisioned corridor character.
- 2 ACCELERATE** towards an identity as a welcoming gateway into downtown Lincoln.
- 3 FUEL** the corridor with modes of transportation that provide better connections and safety.



Figure 2.3: Van Tour stop at West O and 1st Street



Figure 2.2: Initial Concept Review at Community Action Partnership

VISIONING AND PREFERENCING INPUT

Q4 *If you left Lincoln, Nebraska for 10 years and then returned, what portions of the West O Corridor would you hope remained unchanged?*

Illustrated in Figure 2.8, many responses bluntly stated that nothing should remain unchanged. However, some responses expressed the Harris Overpass, popular restaurants, and the current amount of lighting that exists along the corridor remain unchanged.



Figure 2.8: Question 4 word cloud results

Q5 *What portions would you hope to be improved?*

Illustrated in Figure 2.9, responses support improving bicycle and pedestrian connections, increasing pedestrian safety and enhancing overall corridor aesthetic to help benefit existing businesses and attract new companies.

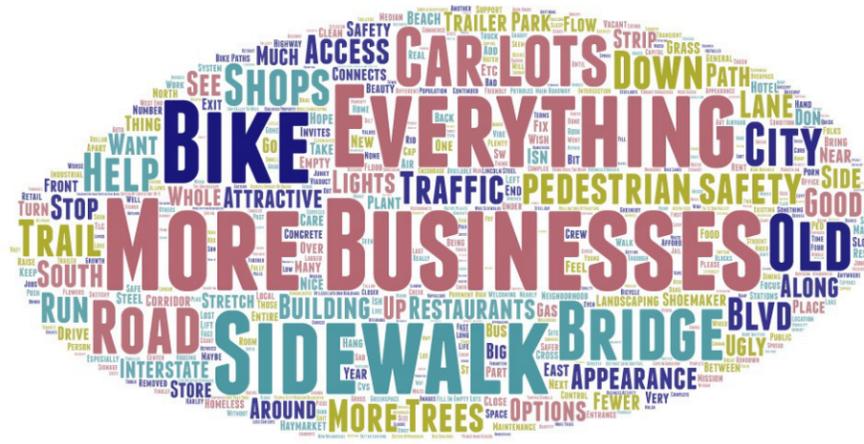


Figure 2.9: Question 5 word cloud results

Q6 *What/where do you consider to be the front door of the corridor?*

Illustrated in Figure 2.10, responses clearly suggest that NW 48th Street is the western entrance into the corridor. Responses for the eastern entrance to the corridor were less clear how the community defined it, but suggestions typically included the Harris Overpass, 9th Street, Salt Creek, or Sun Valley Boulevard. Highway 77 was also a popular response which connects users to the middle of the West O Corridor.

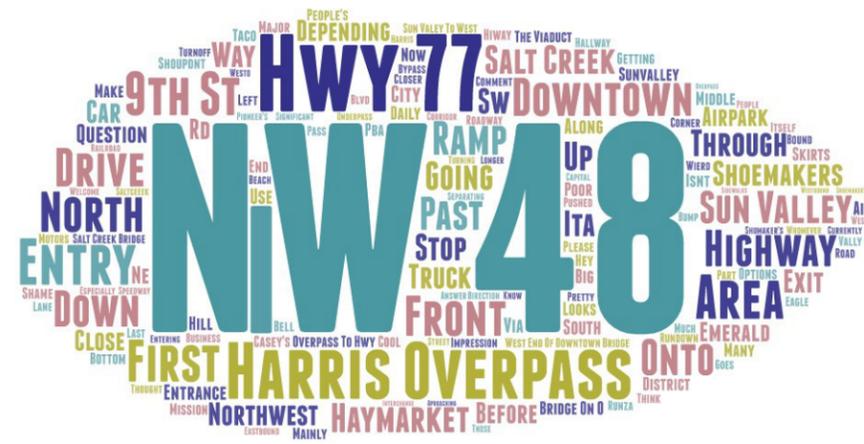


Figure 2.10: Question 6 word cloud results

Q7 *What is your primary association with the corridor?*

This question was answered by those taking the online survey and is illustrated in Figure 2.11. Results show that a large portion of surveyors (35%) do not live or work in the corridor but rather drive through the corridor on a regular basis, emphasizing the importance of enhancing the overall corridor aesthetic for all user experiences and impressions.

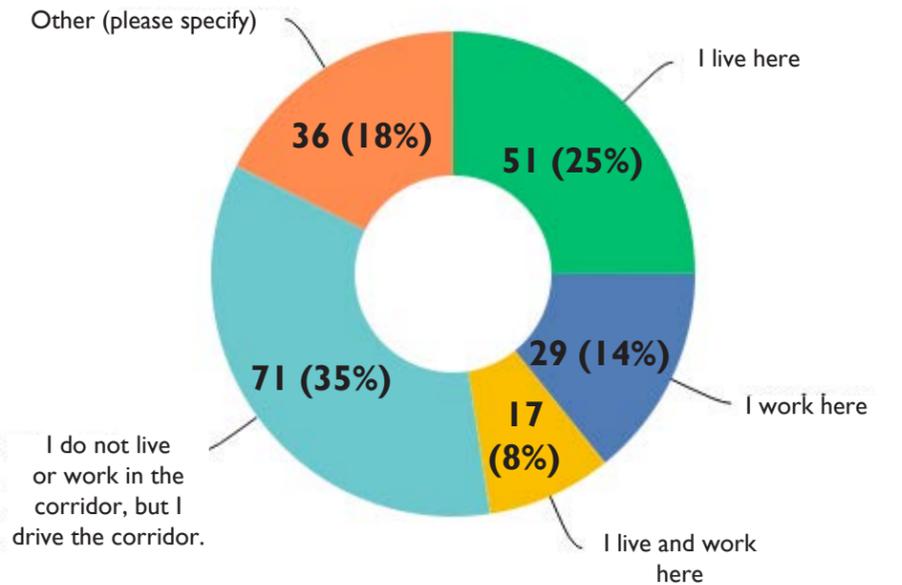


Figure 2.11: Question 7 results

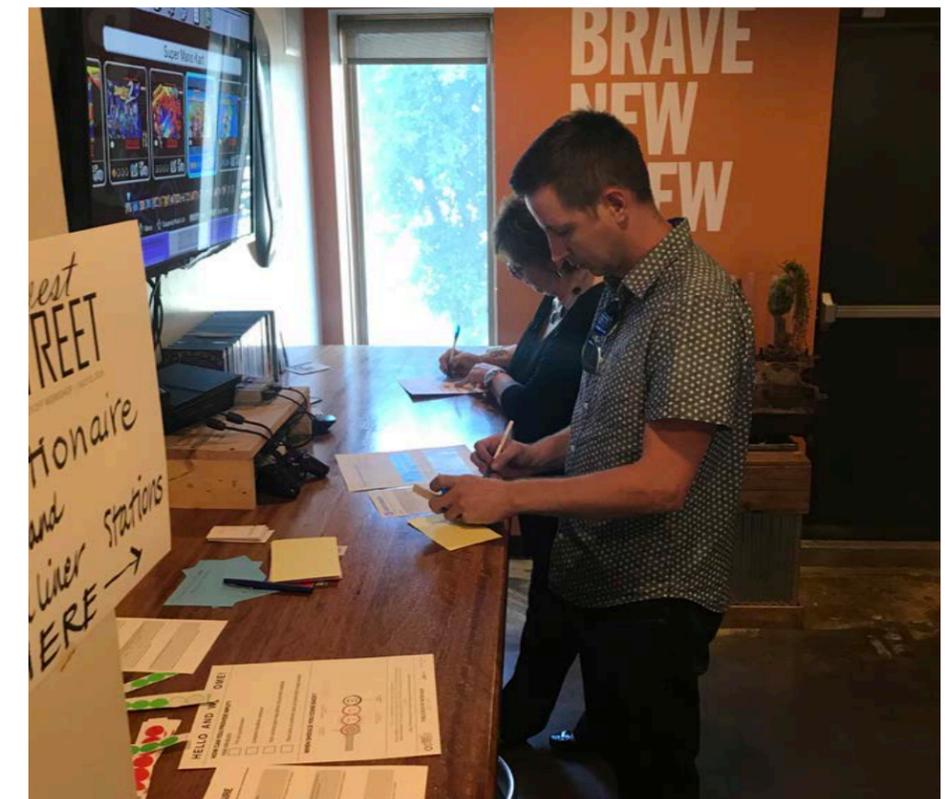


Figure 2.12: Community members filling their questionnaires at the Public Kick Off Workshop at Zipline Brewery.

IMAGE PREFERENCING

Another way the design team received input during the Advisory and Public Kick Off meetings was via responses on image preferencing boards. Attendees could vote by placing green or red dots on precedent images for seven different categories: Hardscape and Pavement Treatment, Landscape Treatment, Underpass Beautification, Street & Pedestrian Lighting Attachments, Site Furnishings, Monuments & Identity Markers, and Public Art & Interpretation. This exercise further revealed the community's initial streetscape preference to the design team as green dots on images represented an aesthetic preferred by the voters while red dots on images signified images that were less desirable to the community.

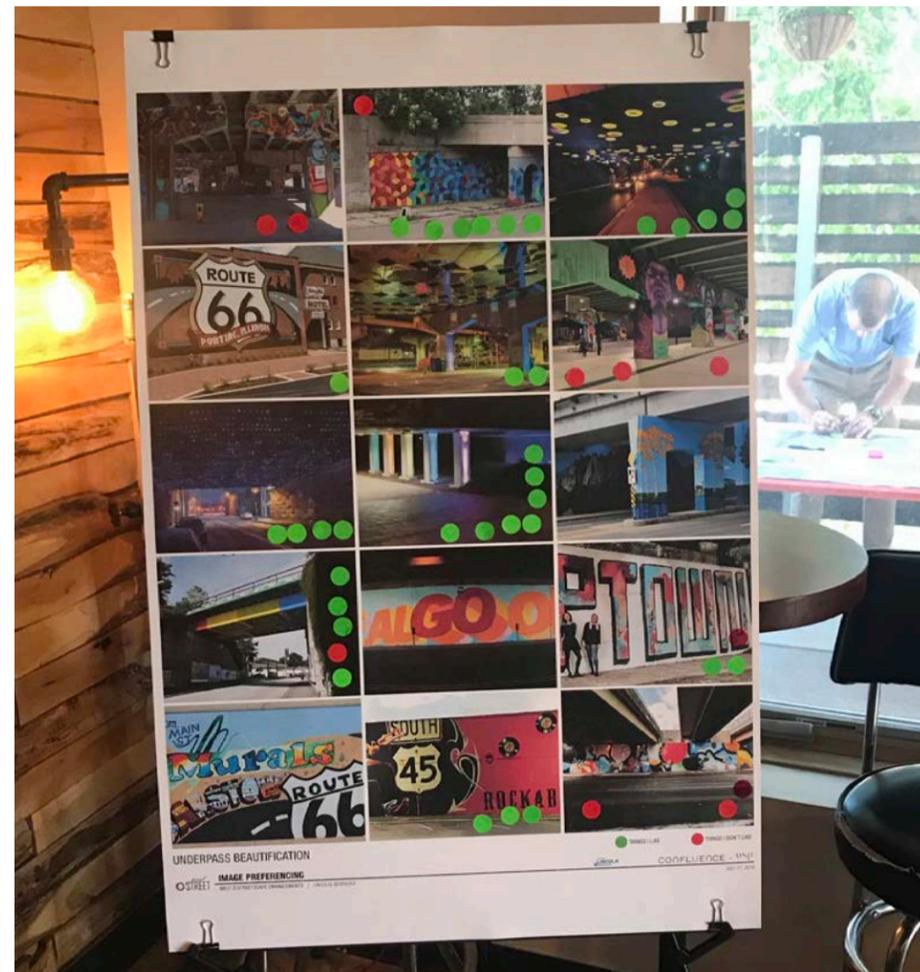


Figure 2.13: Underpass Beautification board at the Public Kick Off Workshop

Hardscape + Pavement Treatments

The Hardscape and Pavement results suggest the community's preference for hardscape that offers more visual interest than a standard concrete sidewalk. Pavement with multiple colors, vegetated buffers between streets and sidewalks, and curves or patterns fared well while simple sidewalks, lots of brick, or large areas of colors were less desirable.

Landscape Treatment

The Landscape Treatment category received a plethora of green dots across all images, suggesting the community's desire for more vegetation throughout the West O Corridor in general. More specifically, images with trees and manicured plants fared well while more natural and plantings that appear overgrown received more red dots.

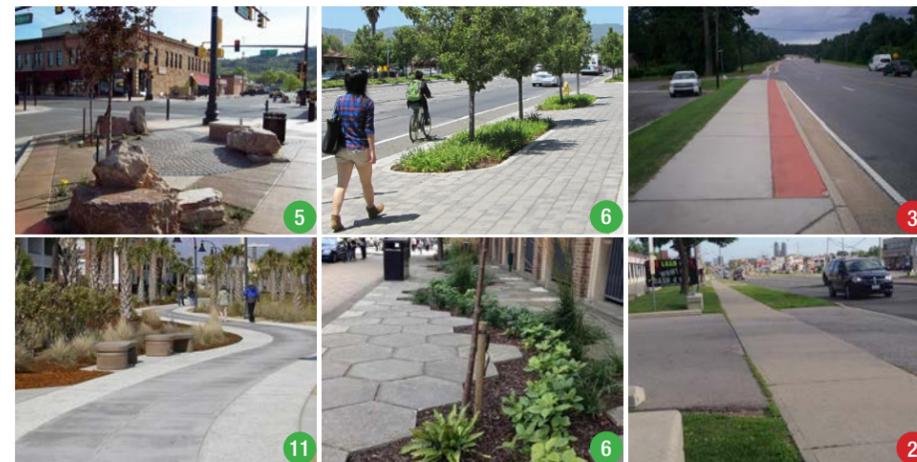


Figure 2.14: Results from Hardscape + Pavement Treatments category



Figure 2.15: Results from Landscape Treatment category

Underpass Beautification

Like the Landscape Treatment category, the Underpass Beautification category was very well received as an overall enhancement as there were nearly all green dots in this category. Successful images selected by the community showed well-lit underpasses (typically a ceiling illumination treatment) coupled with an artistic mural applied to the support columns or abutments.

Street/Pedestrian Lighting + Attachments

Responses varied for the Street/Pedestrian Lighting + Attachments category. Some branding elements, such as banners on light poles fared well. Branded street name signs and complex or custom streetlights did not receive many green dots.

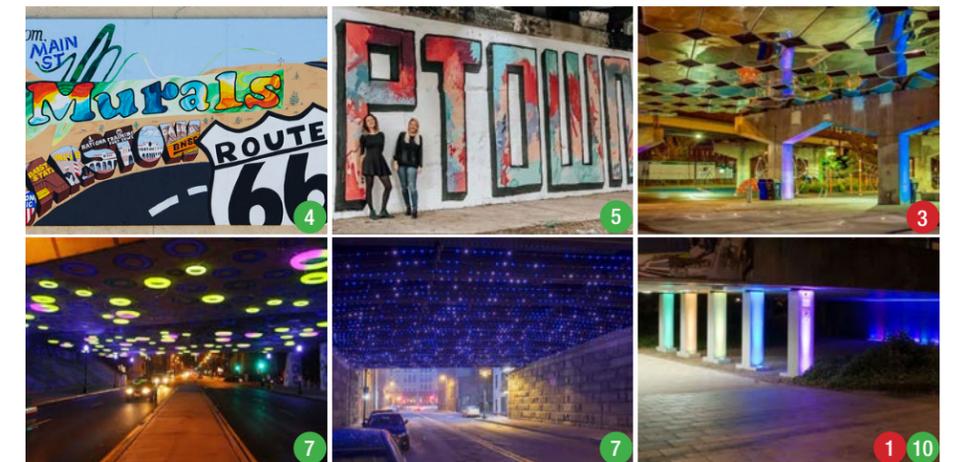


Figure 2.16: Results from Underpass Beautification category



Figure 2.17: Results from Street/Pedestrian Lighting + Attachments category

VISIONING AND PREFERENCING INPUT

Site Furnishings

Responses on Site Furnishings suggested a preference for more modern aesthetic rather than traditional. Aluminum or powder coated metal was much more popular than wood in terms of materiality; images showing bike racks were the most popular overall, suggesting the community's desire for bike connections along the corridor tying into the trail system.

Monuments + Identity Markers

The Monuments + Identity Markers category had mixed results, receiving both positive and negative reactions. Branded wayfinding features fared relatively well and preference for a vertical, iconic identity marker was most consistent.

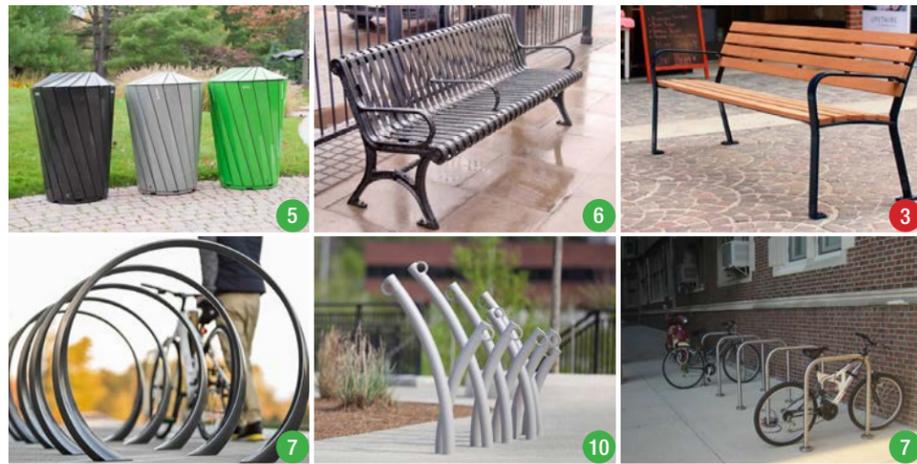


Figure 2.18: Results from Site Furnishings category

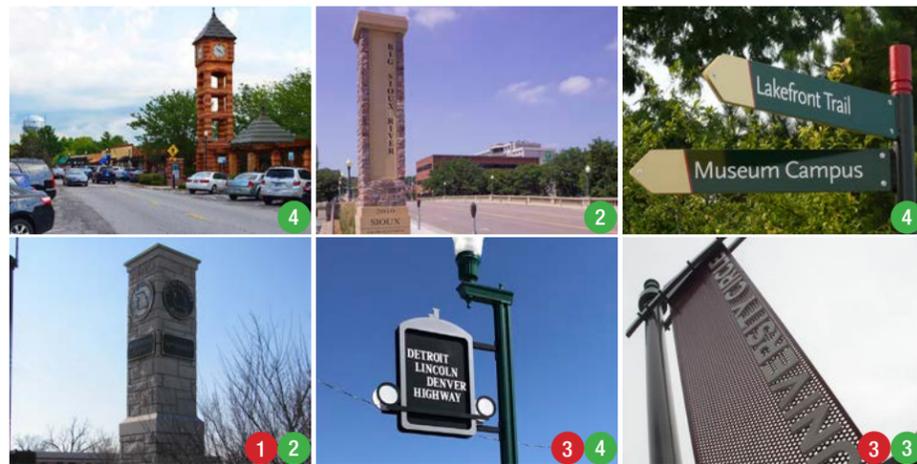


Figure 2.19: Results from Monuments+Identity precedent image board category

Public Art + Interpretation

The Public Art + Interpretation results suggest a desire for art to incorporate a vertical element to be visible from the road. Simple, well-lit artwork received support while art that appeared more industrial and art on the ground plane were less desired.

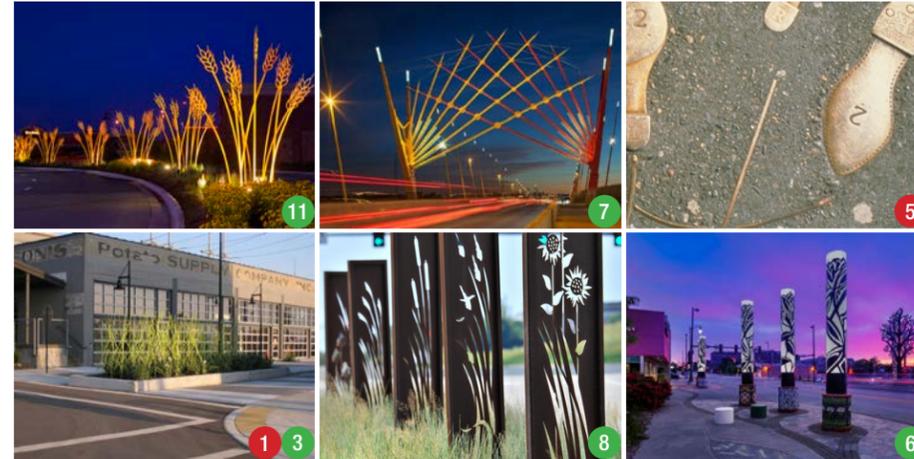


Figure 2.20: Results from Public Art + Interpretation precedent image board



Figure 2.22: Precedent Image Exercise at the Public Kick Off Workshop



Figure 2.21: Precedent Image Exercise at the Advisory Kick Off Workshop

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CORRIDOR SYSTEMS AND BRANDING INPUT

CORRIDOR SYSTEMS

After the Kick Off meetings with the Advisory Committee and the public, the design team hosted an Initial Concept Review meeting to present proposed systematic options for the West O Corridor and acquire additional input from the community. The West O Corridor was broken down into six different systems for feedback including: Bicycle Facility Options, Median Options, Bus Stop Design, Intersection and Pedestrian Improvements, Trees, and City Land and Views. These systems were presented to the community to help reach a consensus for the direction of the master plan. Much like the image preferencing exercise, the community provided feedback by placing green colored dots on the options that they preferred the most. This feedback allowed the design team to finalize the master plan approach and concept for the West O Corridor.

BIKE FACILITY RESULTS

Based on the community's feedback from the Kick Off meetings, there was a clear interest in improved bicycle connectivity along the West O Corridor. Both Advisory members and the public understand the benefits of providing bicycle connections along the corridor, as they demonstrate a welcoming image and an accessible travel alternative to residents and businesses. Three bicycle facility options were presented at the Initial Concept Review meeting in order to identify the preferred approach for bicycle connectivity along the West O Corridor. All three options maintained the existing street curb location for minimal impact and reconstruction, and for equal "apples to apples" comparison when evaluating the different bike facility options.

Bike Facility Option 1: Bike Lanes

This option proposes unprotected, five-foot-wide on street bicycle lanes in each direction on West O Street. This would benefit both bicyclists and pedestrians by allowing each user their own dedicated areas of travel. By placing bike lanes directly on the street, it would require vehicle drive and turn lanes to be narrower, thus reducing traffic speeds and making West O Street safer. However, Advisory members and the public were concerned about impacts of reducing vehicle lane widths and with the safety of unprotected bike lanes on West O Street due to the high-speed traffic.

Bike Facility Option 2: Cycle Track

This option proposes a ten-foot-wide cycle track on the north side of West O Street. A cycle track is a two-way protected bike facility. Like Option 1, a cycle track provides both pedestrians and bicyclists a dedicated area of travel and requires a reduction to the vehicle drive and turn lane widths on West O Street. In this option, a two-foot barrier would separate the cycle track from vehicular traffic. Experienced riders gravitated toward this option, but there was still an overall resistance to implementing a bike facility directly on the street due to vehicular speeds.

Bike Facility Option 3: Multi-use Trail

Rather than place a bicycle facility directly on the street, this option proposes to widen the sidewalk along the north side of West O Street to a ten-foot-wide multi-use trail shared between bicyclists and pedestrians. This option keeps bicyclists and pedestrians separated from vehicle traffic but does require pedestrians and bicyclists to use the same facility and cross multiple entrances into businesses along the corridor. This option was preferred overall because cyclists are physically separated from the road by distance and elevation.

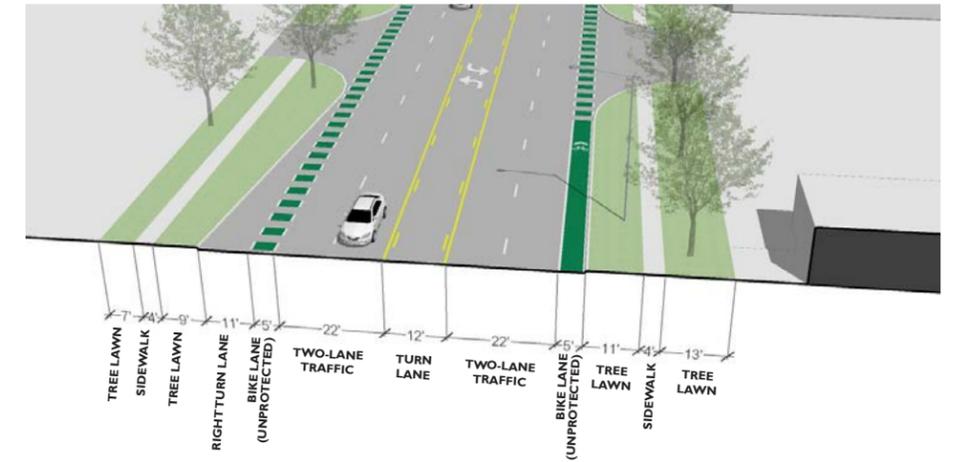


Figure 2.24: Option 1: Bike Lanes

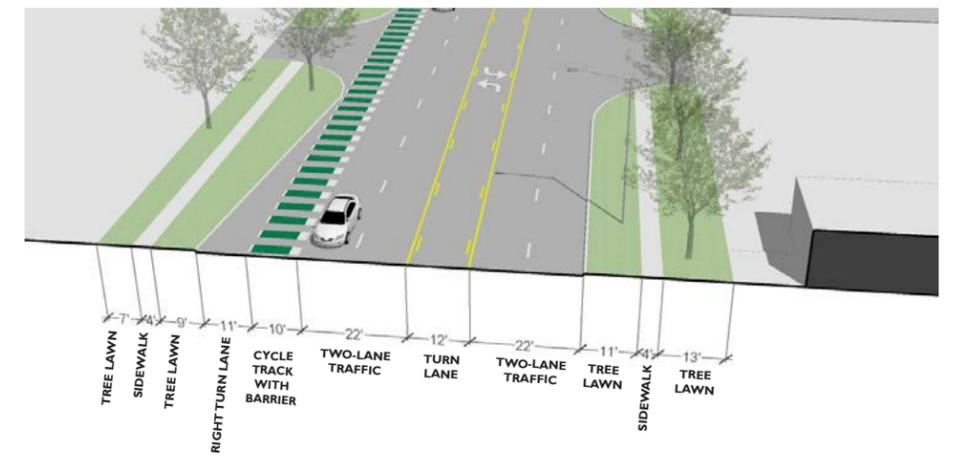


Figure 2.25: Option 2: Cycle Track

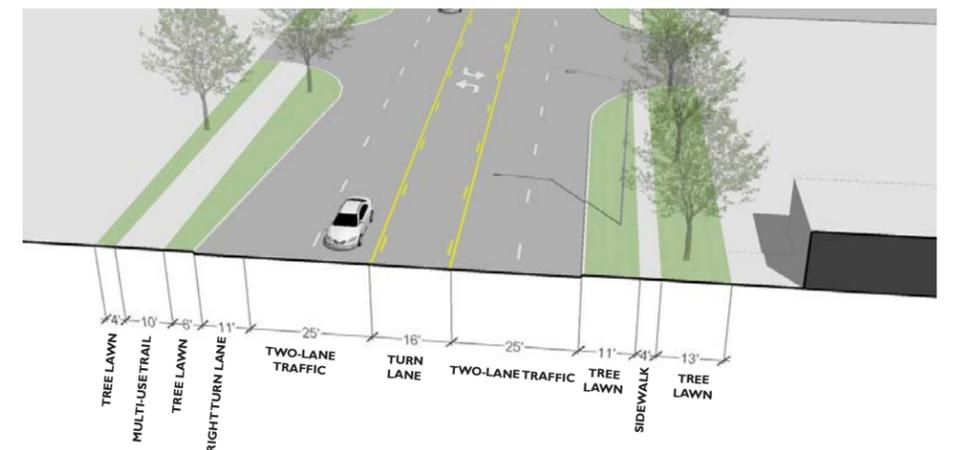


Figure 2.26: Option 3: Multi-Use Trail



Figure 2.23: Bike facility voting results (Advisory + Public)

TREE MEDIAN RESULTS

Both the Advisory Committee and the public agree that trees would positively improve the appearance and experience of the West O Corridor. Trees offer clean air, shade, calm traffic, and make businesses more attractive to customers. The proposed master plan incorporates trees along the edges of the roadway, but the design team needed input on the community’s desire for incorporating vegetated medians within the street. Along West O Street, 16-foot-wide concrete medians exist that could be transformed into vegetated medians with trees.

There are also some portions of the corridor where turn lanes could be replaced with new curbed, planted median, offering even more green and vibrancy to the corridor. These three median options were discussed and voted on at the Initial Concept Review meeting to help the design team understand the community’s preferences on how best to integrate trees within the roadway.



Figure 2.27: Tree median voting results

Median Option 1: Keep as Existing

The first option is simply to leave the existing concrete medians and turn lanes as they are and to only have trees along the edges of the roadway. This approach would be the least expensive but would also have the least impact on the corridor’s beautification and vibrancy, specifically west of Highway 77 where many concrete medians exist, and trees along the edges of the roadway are limited due to the drainage pattern. This was the least preferred option out of the three options due to its minimal visual impact and improvement to the overall corridor.

Median Option 2: Landscape Existing Concrete Medians

This option proposes to maintain the existing median layout along the corridor but remove the concrete within these medians and transform them with planted trees with a turf median. The bulk of the existing medians typically exist west of Highway 77, but there are a few medians east of Highway 77 near the Capitol Beach and Sun Valley Boulevard intersections. This option was the most preferred of the median options as it helps to beautify the corridor, minimally impacts access to businesses, and is relatively cost effective for the value added.

Median Option 3: Landscape Existing Concrete Medians and Proposed Medians

This option proposes to build upon the ideas expressed in Option 2 by converting the central turn lane to a new curbed planted tree median with turf from NW Roundhouse Drive to Sun Valley Boulevard. This option would have the greatest impact to the corridor, providing the most trees for beautification. There was some support for this option, as it maximizes the number of trees along the corridor, helps reduce traffic speeds and noise levels and provides shade and a sense of scale for pedestrians, but some feedback expressed concern for business access. If this idea were to move forward, it would need additional analysis to fully understand traffic impacts to businesses. Incorporating roundabouts could complement the addition of medians by providing easier access into businesses. Strengthening and improving P Street could also provide additional access to these businesses.

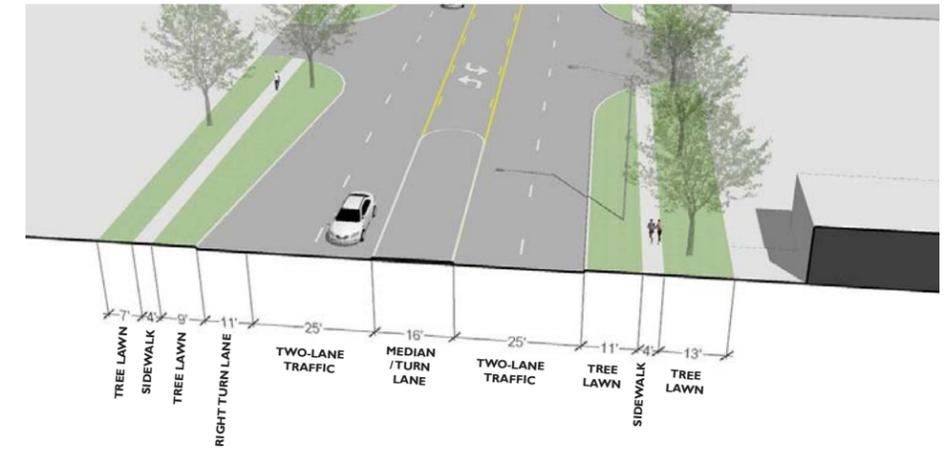


Figure 2.28: Diagram of the existing concrete medians

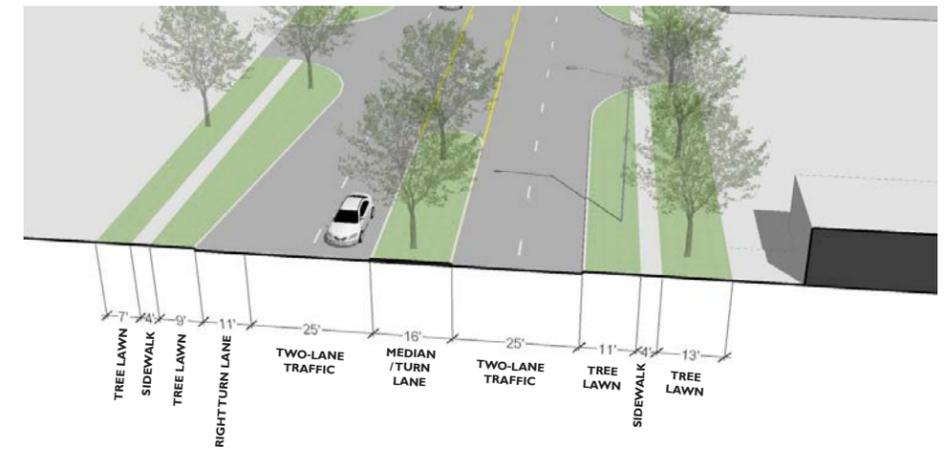


Figure 2.29: Diagram of the landscape existing concrete medians option

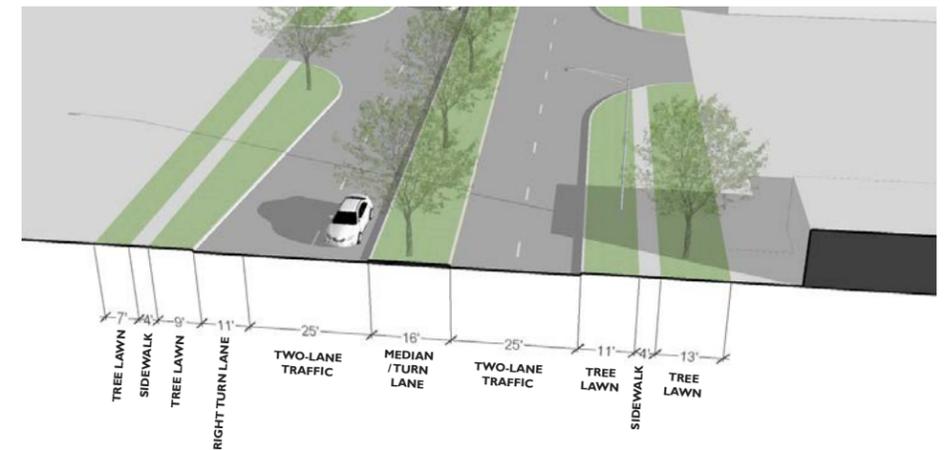


Figure 2.30: Diagram of the landscape existing concrete medians + new medians option

CORRIDOR SYSTEMS AND BRANDING INPUT

BUS STOP DESIGN RESULTS

StarTran Route 46 has 15 bus stops along the West O Corridor between the Harris Overpass and NW 48th Street. Two of these bus stops have shelters, while the remaining consist only of a signpost and occasionally a bench. Improving bus stops throughout the corridor would provide the opportunity to integrate branding elements into the bus stop locations, strengthening the corridor’s identity while also providing better amenities for transit users. The design team provided three design solutions for bus shelter design. These options ranged from standard bus shelters, standard bus shelters with a few custom components, or a completely custom designed bus shelter. These options were presented at the Initial Concept meeting to gauge the Advisory Committee and community on what type of bus facilities they envision along West O Street (See Figure 2.31 for results).

In addition to the design of the shelter, the design team proposed a typical bus stop layout along West O Street for input (See Figure 2.35). Feedback received included concern of bus stop size, amount of paving and number of amenities based on current ridership counts. The design team used this feedback to craft the final proposed design of the station for the master plan.



Figure 2.31: Bus stop design voting results



Figure 2.32: Standard bus shelter improvements (existing)



Figure 2.33: Standard bus shelter with some custom components example



Figure 2.34: Custom bus shelter design example

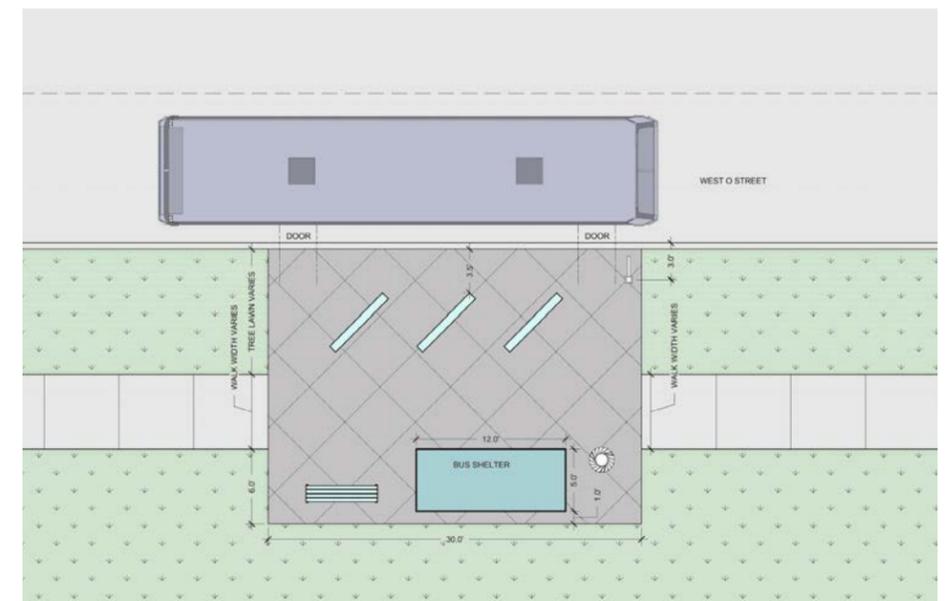


Figure 2.35: Existing bus shelter + initial proposed bus shelter layouts

INTERSECTIONS + PEDESTRIAN IMPROVEMENTS

Creating safe and aesthetic pedestrian connections as well as bolstering the identity of the West O Corridor are major components of this streetscape enhancement plan. Not only should pedestrian connections be extended along West O Street, but the existing connections should be improved to provide a better experience for all. The design team explored some initial concepts for improving the primary intersections along the corridor: NW 48th Street, the Highway 77 Interchange, and Sun Valley Boulevard. These intersections have been identified as the most prominent entrances into the West O Corridor, and thus merit more intensive pedestrian improvements, landscaping, and branding elements. This thinking was supported by the community and Advisory Committee members.

NW 48th Street

The intersection at NW 48th Street acts as the entrance from the west and the neighborhoods north of I-80 and is currently the terminus of a bicycle commuter trail from the north. Figure 2.37 illustrates a plan that suggests continuing the commuter trail to the east along the north side of the corridor. This plan also shows added plantings, improved crossings, and large gateway monuments on the northeast and southeast corners, marking the City of Lincoln’s and West O Corridor’s main western gateway.

Highway 77 Interchange

Highway 77 is the midway access point to the corridor and serves as a primary entry into the corridor. Although there is limited space for improvements, a proposed sidewalk and trail is located behind the street curb connecting the east and west sides of the corridor for both pedestrian and bicyclists. Figure 2.36 illustrates these connectivity improvements as well as proposed colorful lighting beneath the overpass and a mural painted on the abutments to enhance and emphasize the gateway experience.

Sun Valley Boulevard

Sun Valley Boulevard acts as the front door to the corridor from the east as it connects to downtown Lincoln as well as Cornhusker Highway. Figure 2.38 illustrates a plan where improved pedestrian crossings, added plantings, and gateway monuments are proposed. Figure 2.39 suggests exploring the potential of a roundabout at Sun Valley. A roundabout would calm traffic while still allowing traffic to flow freely, shorten the pedestrian crossing length, and allow vegetation to be integrated into the intersection improving the overall experience.

The design team explored a quick capacity analysis for Sun Valley Boulevard proposed high-level roundabout concept using existing traffic conditions and 2040 conditions. With the existing traffic conditions, a hybrid roundabout approximately 130 feet inscribed diameter works well. Projecting traffic conditions to the 20-year forecast, a dual lane roundabout approximately 165 feet inscribed diameter would be ideal. At this level of analysis, the intersection would need about 600 feet at each approach to install the required roundabout traffic signage. The roundabout option was quite popular at the Initial Concept Review meeting and, if a roundabout is desired in the future, additional traffic analysis and engineering is needed.



Figure 2.36: Highway 77 interchange preliminary design idea

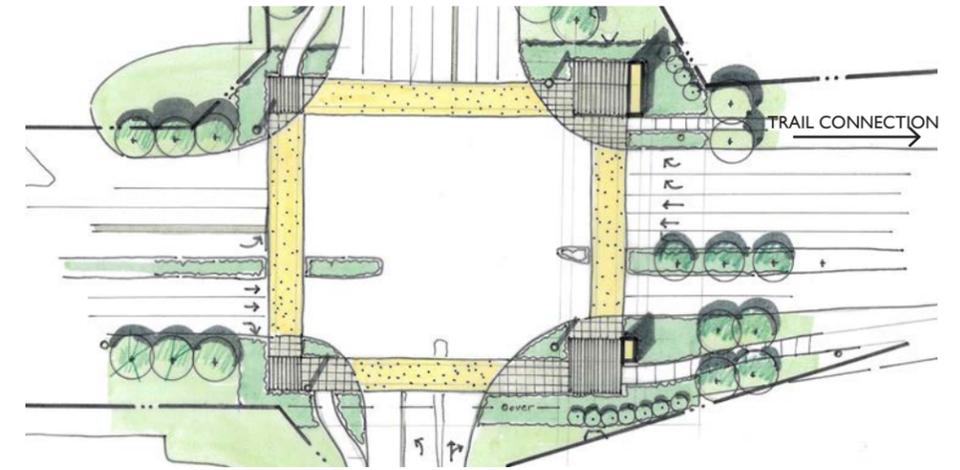


Figure 2.37: NW 48th Street intersection preliminary design idea

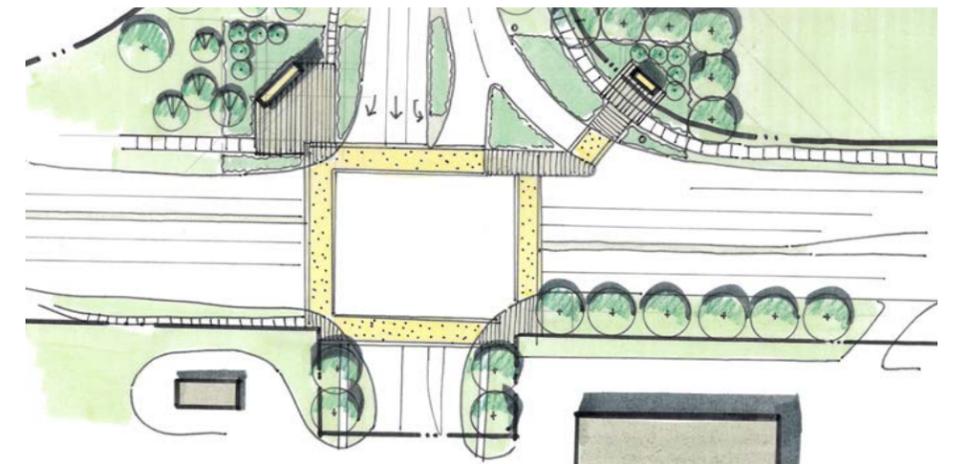


Figure 2.38: Sun Valley Boulevard intersection preliminary design idea

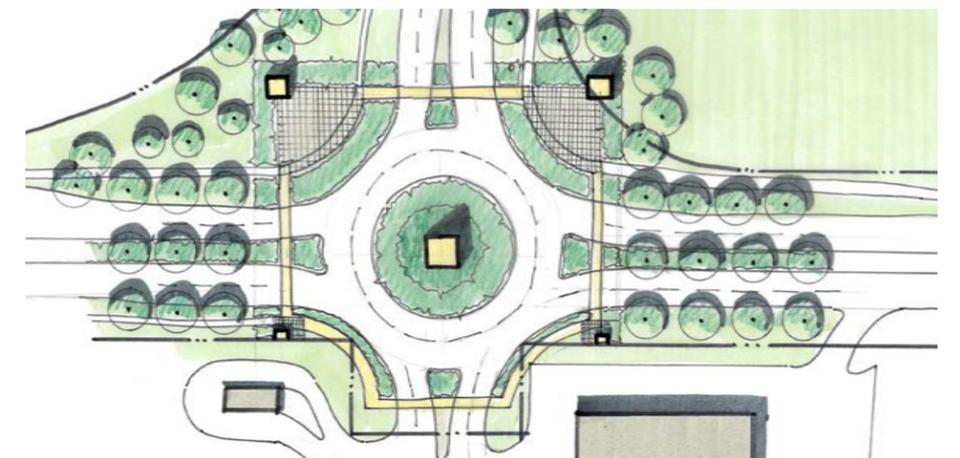


Figure 2.39: Sun Valley Boulevard intersection preliminary roundabout idea

CORRIDOR SYSTEMS AND BRANDING INPUT

TREES MEAN BUSINESS

Trees not only provide shade, clean air, and a more vibrant aesthetic, they also help activate businesses along the corridor. The benefit of trees along a corridor was shared at the Initial Concept Review meeting to communicate how trees and businesses can coexist with the right tree species selection and proper maintenance during establishment. For trees in the median and along the corridor of West O Street, it is important to choose large overstory trees with upright branches that are clear of traffic to maintain traffic flow and allow visibility to businesses.

Figure 2.40 displays appropriate and inappropriate tree forms acceptable for the West O Corridor. While they are young, street trees will need to be cared for by watering and trimming appropriately, pruning to seven feet minimum above the ground to allow clearance over vehicular and pedestrian traffic. As the tree matures and grows, the tree should be pruned and maintained to a minimum of 14 feet clearance.

During the growth of the tree, business facades and signs will become visible at different views. For businesses that have building signage versus monument signs during the tree's younger years, a monument sign on the ground should be allowed to provide additional business visibility. Figures 2.42-2.44 illustrate the street tree evolution as it relates to business sign visibility, and that adding trees can coexist with business signage and even add value to the overall business.

No Tree + Retail

Retail corridors that have trees planted consistently make more money than those that do not have trees. Research has shown that consumers spend more time and more money in districts that have trees and other plantings. Researchers suggest a 15 percent tree canopy in business districts. Most districts have less than 5 percent coverage and West O Street Corridor has considerably less than that. When selecting trees within business corridors, individual tree characteristics (shape, density, environmental tolerances, etc.) should be carefully evaluated to ensure success in the specific site.

Young Tree + Retail

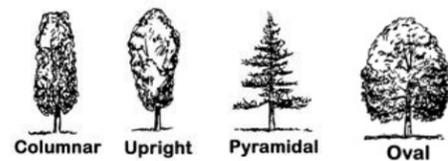
When a tree is young, it has a small overall footprint and canopy spread so, although it blocks some visibility, it does so for a very short time. As trees grow, alternative signage might make some sense to increase business visibility. By spacing trees correctly, visibility to existing signage can be maintained.

Mature Tree + Retail

When a tree has a full canopy, it is important to prune or limb up the tree branches as the tree grows. This way people driving by can see business signs. As trees change, signage placement can change.

The caring for trees in a business district is often seen as an extension of a business's customer service commitment and "sends a message of care." Beautiful, mature street trees are the single most effective way of demonstrating a high quality of life within a city, so it is important that we plant trees and provide long term and consistent care for our urban forests, especially along our most traveled streets.

TREE FORMS APPROPRIATE FOR STREETS



TREE FORMS NOT APPROPRIATE FOR STREETS

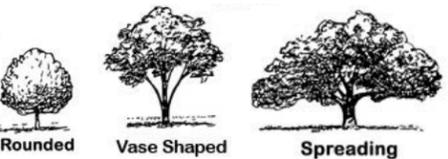


Figure 2.40: Tree forms appropriate for streets



Figure 2.41: Mature Tree + Retail example image

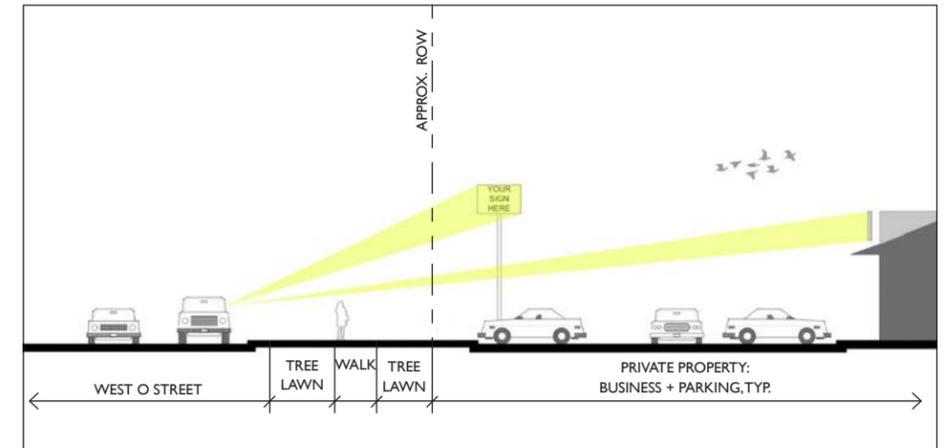


Figure 2.42: No Tree + Retail signage diagram

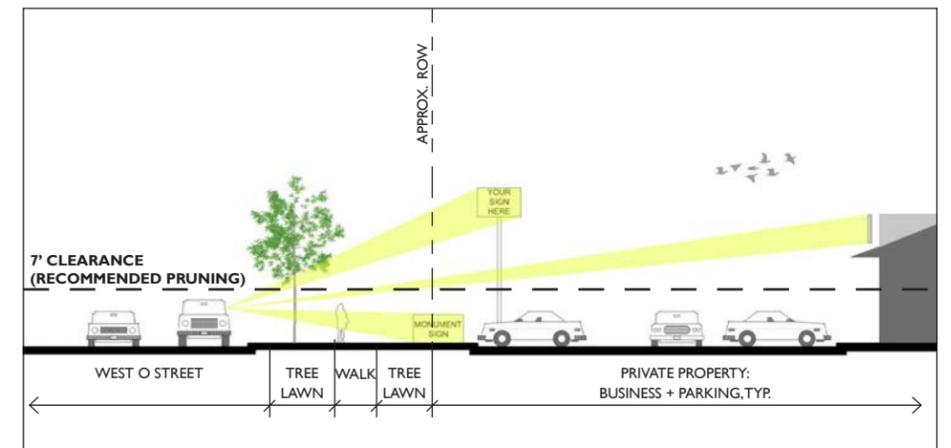


Figure 2.43: Young Tree + Retail signage diagram

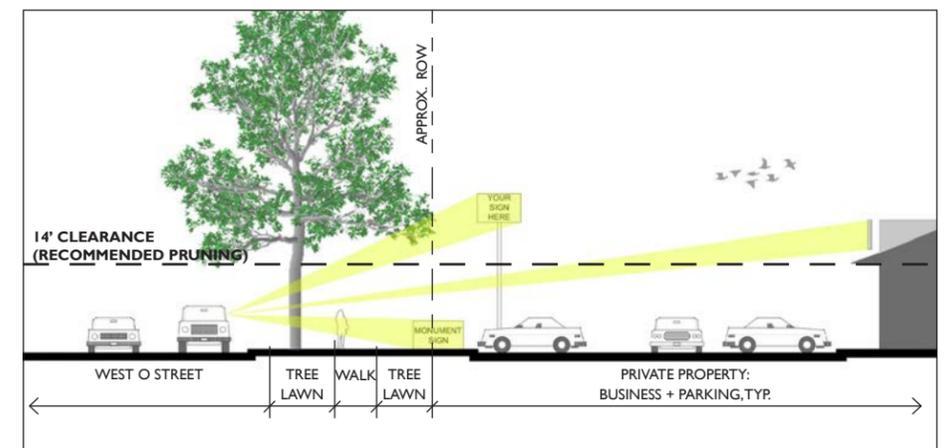


Figure 2.44: Mature Tree + Retail signage diagram

CITY LAND AND VIEWS

The north east corner of West O and Sun Valley Boulevard is approximately two acres of City owned land with great potential. Today, a pump station sits on a small portion of the site while the vast majority is undeveloped. Because Sun Valley Boulevard is a primary intersection along West O Street with a significant amount of undeveloped land, this area is prime real estate that could benefit the West O Corridor in many ways. Although not directly part of the master plan, the design team presented three potential high-level concept ideas for this open space. Civic use, private development, and recreational use concepts were presented at the Initial Concept Review meeting in order to elicit the community's preference at a high-level. It was clear that the community preferred to keep the City land dedicated to City use rather than sell off to private development and that any improvements to this area should remain open to public use. Additional visioning, community needs, and refined concept development is needed to fully understand the community's desire for this property.

Another area explored during the Initial Concept Review meeting was the open space near the NW Roundhouse intersection along the south side of the corridor. Although not publicly owned, the community reacted positively to exploring the idea of additional tree plantings on this property. The proposed improvements (trees) are a minimal expense but offer high value to the users of the corridor. If the trees are planted as shown in Figure 2.48, they can help create a unique viewing experience that frames and emphasizes the capitol building for corridor users coming into the City from the west. Advisory Committee members and the community were excited to provide an opportunity along the corridor to emphasize this major landmark and were supportive of further exploring this idea.

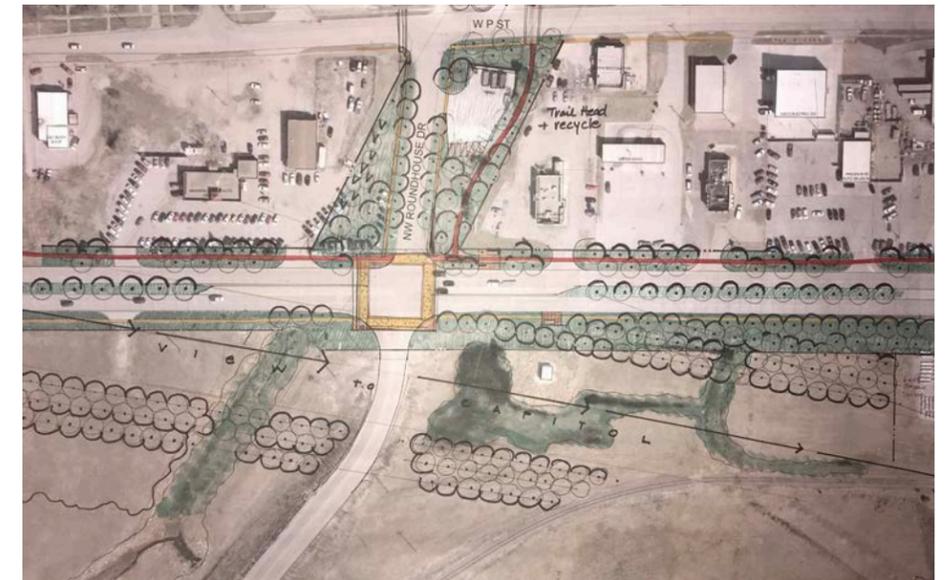


Figure 2.48: Preliminary idea creating views to the Nebraska State Capitol

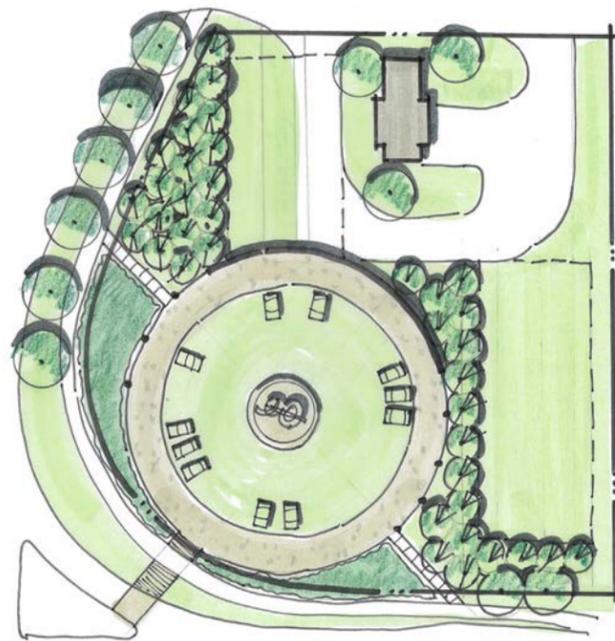


Figure 2.45: Sun Valley Boulevard civic use preliminary idea



Figure 2.46: Sun Valley Boulevard private development use preliminary idea



Figure 2.47: Sun Valley Boulevard recreational use preliminary idea

CORRIDOR SYSTEMS AND BRANDING INPUT

STREETSCAPE ENHANCEMENT PRIORITIES

In addition to design decisions needed from the community, the design team also asked for community input on prioritizing the different corridor streetscape elements. The streetscape elements were sorted into seven different categories: trees, bus stops, bike trails, pedestrian improvements, entry gateways, public art, and themed streetscape elements.

Each person who attended the Initial Concept Review meetings received \$400 of “West O Bucks” and was asked to spend it to their liking among the seven different streetscape enhancement categories as a part of this master plan effort. Figure 2.51 shows the overall combined results, as well as the individual Advisory Committee and public meeting results. The results of this exercise revealed that the top three priorities for the West O Corridor are trees, bike facilities, and pedestrian improvements.

The design team used this information to help finalize the overall corridor master plan and to inform the corridor’s streetscape implementation strategy.

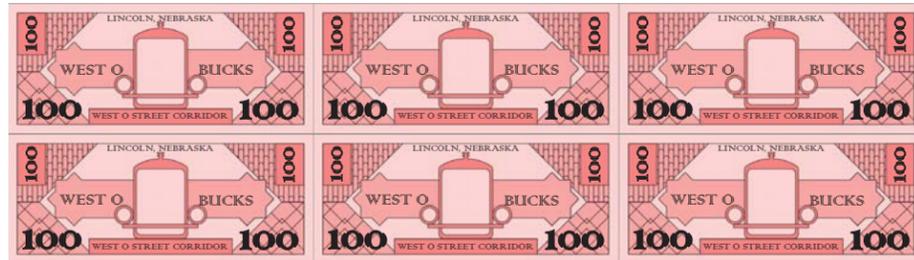


Figure 2.49: “West O Bucks” used in the money jar exercise



Figure 2.50: Money jar exercise at the Initial Concept Review meeting

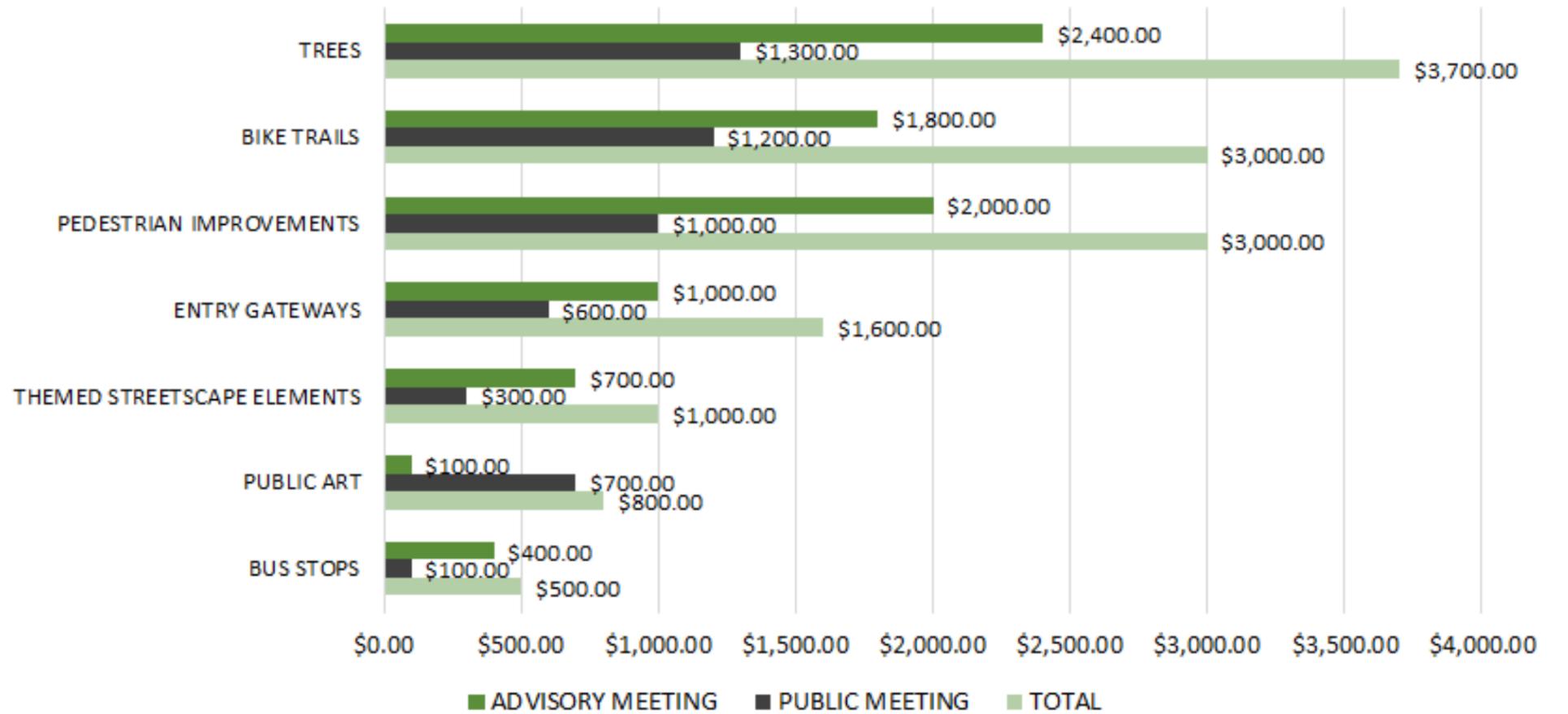
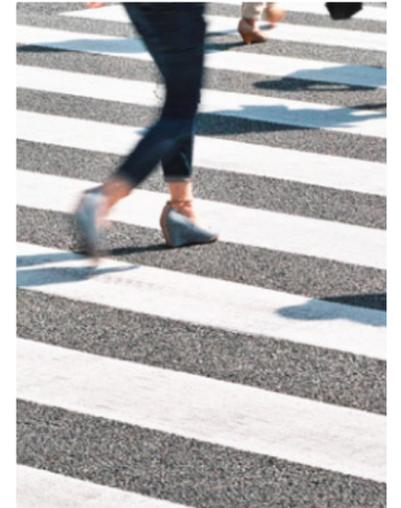


Figure 2.51: Money Jar priority results

STREETSCAPE AMENITY THEMES

To enhance the identity and brand for the West O Corridor, the design team explored three streetscape amenity themes. These themes were selected based on the existing character of the corridor, previous streetscape efforts and aesthetics along the corridor, and iconic and historical elements found along and near the corridor. At the Initial Concept Review meeting, the design team presented three themes: Art Deco, Googie, and DLD/Automotive. The goal was not to create a new identity for the West O Corridor, but to strengthen and improve the existing identity for the corridor. The Advisory Committee and the public were asked to vote on their favorite overall theme and provide feedback on what they did and did not like.

ART DECO

Art Deco is a style of visual arts from the early 1900s that can be seen in the architecture of Lincoln’s capitol building and the signage of the Lincoln Steel Corporation building just west of Sun Valley Boulevard. As a theme, Art Deco evokes intricate geometric patterns with strong rule of thirds proportions, fine craftsmanship, and rich materiality. This theme would complement the existing Art Deco elements along West O and provide interesting patterns and materiality that could be implemented into the design of proposed streetscape elements in the master plan.

GOOGIE

Googie is a style of architecture in the 40s, 50s and 60s that was prevalent during the development the automobile and other technologies, signifying the early days of car culture. As the car became more popular in America, people were able to spread further from the city’s core, and the need to grab the driver’s attention came in the form of unique shapes and eye-catching designs. Colin Electric Motor Service and the blank vertical steel sign near the Lincoln Steel Building are examples of Googie architecture along the corridor. This streetscape amenity theme channels the Googie style of design by exploring unique shapes throughout the main gateway signage, and angled roofs for bus shelters. Even the banner shapes are expressive of varying boomerang shapes, and all elements were envisioned to be bright, flashy and colorful to emphasize this corridor’s brand.

DLD / AUTO

The third theme explored was to build upon the existing streetscape improvements currently along the West O Corridor. This meant to blend the design of the existing D-L-D pedestrian signage and the Harris Overpass with any new proposed amenities along the corridor. Inspiration for this theme was pulled from the patterns seen throughout the design of the automobile, such as a grill on the early developed cars (i.e. Model-T or Model-A), the logo icon atop some of the first ever gas pumps, and the detailing of licenses plates during this early car era.



Figure 2.52: Art Deco themed precedent imagery



Figure 2.53: Googie themed precedent imagery

The Advisory Committee and public were asked to select their preferred theme. Figure 2.55 illustrates the results of this exercise. Overall, the preferred theme was Art Deco, but if reviewing the results between the Advisory Committee versus the public input, the preferred theme is split between Art Deco and D-L-D. After reviewing these results, the design team worked to combine elements from the Art Deco and D-L-D theme as the overall blended West O brand for the final concept.

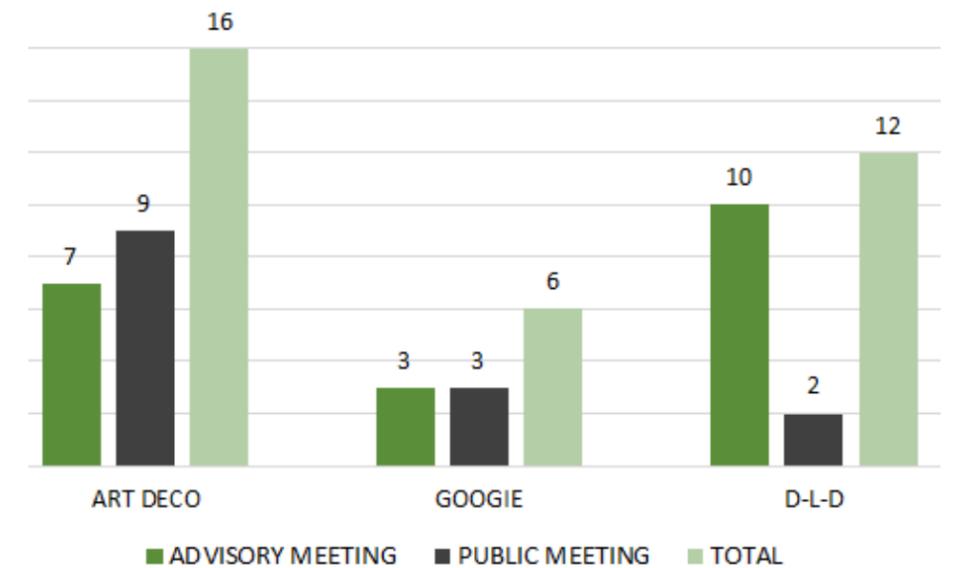


Figure 2.55: Theme ballot voting results



Figure 2.54: D-L-D/Automotive themed precedent imagery

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CHAPTER THREE: PROPOSED MASTER PLAN

“Coming together is a beginning, staying together is the process, and working together is success.”

- Henry Ford

PLAN VISION

KEY STRATEGIES

The sum of information collected from the public, thorough analysis and documentation has led to proposed design solutions that will enhance West O Street by improving the overall experience for corridor users and helping to encourage private investment and redevelopment. These solutions support the three project goals and the input received from the public, key stakeholders, city staff and Advisory Committee members.

The five key strategies that support the proposed plan vision are:

- Increase Connectivity
- Enhance Crossings
- Enliven the Corridor
- Brand a Fresh Identity
- Encourage Business Growth

INCREASE CONNECTIVITY

The proposed plan recommends extending the level of service and connectivity for cyclists and pedestrians throughout the entire four-mile study area.

WIDENED SIDEWALK

The plan proposes to widen the sidewalk along the north side of West O Street, from Sun Valley Boulevard to NW 48th Street. The widened sidewalk is an eight-foot walk that will support both pedestrian and cyclists as a multi-use facility. Although not technically a ‘trail’, this widened sidewalk will serve as a local connector to the existing trails on either edge of the project area – Salt Creek Trail and the regional trail along SW 40th Street and NW 48th Street. The enhanced walk is proposed along the north side of the street because:

1. The neighborhoods to the north will be better connected.
2. It eliminates an additional roadway crossing for cyclists at NW 48th Street.
3. There are less overhead utility lines.

The widened walk is located a minimum of eight feet from the street curb for nearly all portions along the corridor. There are only a few locations along the corridor that cannot maintain this minimum distance (such as when there is a right turn lane or near Schmick’s and West Gate Bank). This buffer distance creates a space for snow storage when the street is plowed during winter months and allows for a safer, cleaner sidewalk. Because this walk is shared by both pedestrian and cyclists, and also crosses many private drives along the corridor, the eight feet widened walk is a more desirable width than a ten-foot walk as the narrower width naturally cues cyclists and pedestrians to be more cautious when using the facility and serves as a traffic calming solution for cyclists, too.

OTHER BIKE CONNECTIONS

The map in Figure 3.4 illustrates other systematic recommendations and considerations as a result of this planning process. These suggestions include:

- Utilizing one of the few bridges that connect people from the north and south sides of Interstate 80 along NW 27th Street by exploring “share the road” pavement markings and signage that indicate this street connection is inclusive of cyclists.
- Adding “share the road” pavement markings and appropriate signage to major cyclist destinations, such as along South Coddington Avenue to connect to Zipline Brewing Co.
- Incorporating additional signage along bike routes, specifically when they change in facility types.
- Exploring the re-use of the property located at the northeast corner of NW Roundhouse Drive as a potential trailhead opportunity (See figure 3.1).
- Identify if utilizing the disused railroad spur of BNSF and utilizing their disused bridge as a potential additional trail link over Salt Creek for a more direct connection between the Capitol Beach and Haymarket neighborhoods.

SIDEWALK EXTENSION

Much of the sidewalk connectivity west of Highway 77 is non-existent. This plan recommends the construction of a new six-foot sidewalk along the south side of the street from the Highway 77 interchange to NW 48th Street.

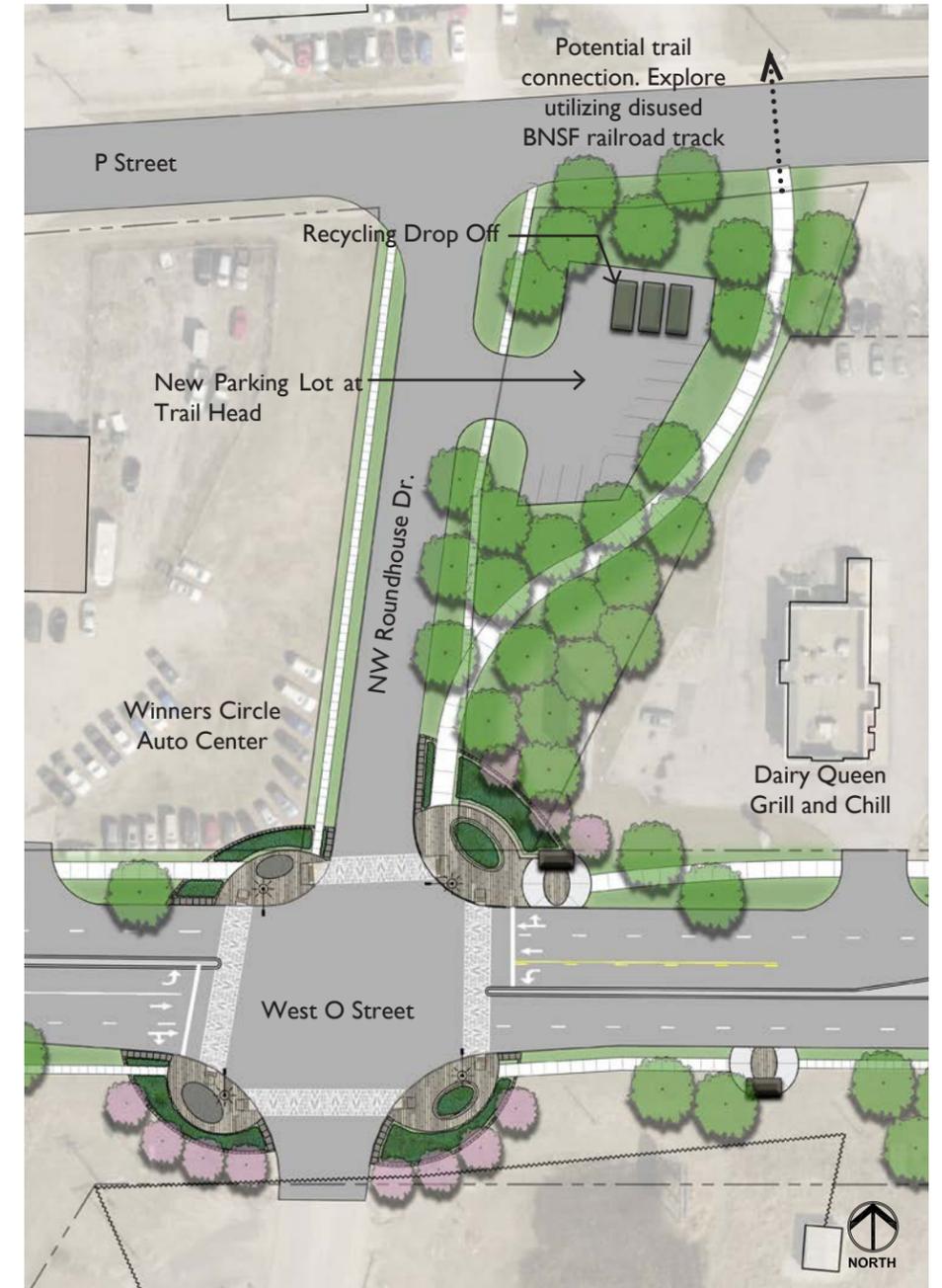


Figure 3.1 Trailhead at NW Roundhouse Boulevard

BUS STOP IMPROVEMENTS

A simple yet important improvement to enhance the connectivity along the corridor is to provide a direct walk connection between the curb and adjacent sidewalk for bus riders. As shown in Figure 3.2, many bus stops lack a walk connection from the existing walk to where users would board the bus. This plan recommends providing a walk connection between the sidewalk and boarding location for riders to use when boarding or exiting the bus.



Figure 3.2 Existing Bus Stop Condition, Looking East Near NW 27th Street



Figure 3.3 Proposed Bus Stop Condition, Looking East Near NW 27th Street

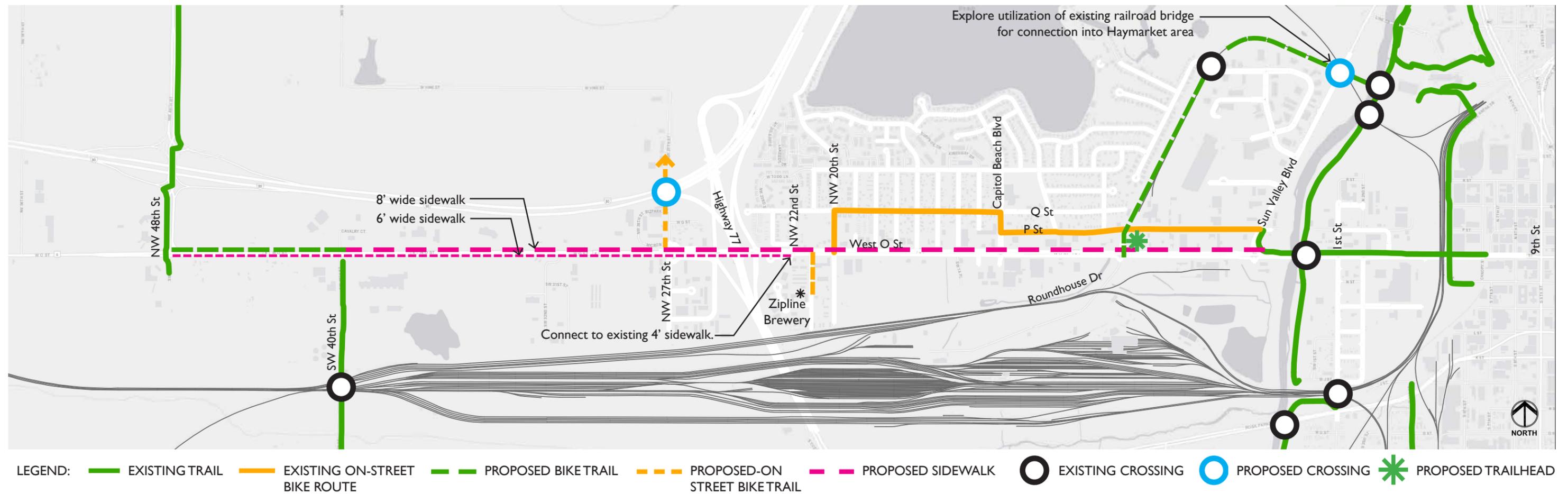


Figure 3.4 Proposed Connectivity Plan Diagram

PLAN VISION

ENHANCE CROSSINGS

In addition to providing more connectivity for cyclists and pedestrians, this plan also recommends enhancing and improving the existing intersections and driveway crossings along the corridor to improve safety and overall corridor aesthetics for all users. There are three different ways this plan recommends enhancing intersections along West O street:

- Improve aesthetics at existing signalized intersections to indicate to drivers there are other modes of transportation occurring along the corridor.
- Provide more frequent crossings for pedestrians.
- Improve crosswalk visibility and pattern to a human scale.
- Explore driveway consolidation.

There are currently seven existing signalized intersections along the corridor today. This plan proposes to increase the number of signalized and enhanced intersections to nine to improve the safety and aesthetics of these junctions along the corridor. The nine intersections are categorized into two different categories: primary and secondary intersections.

PRIMARY INTERSECTIONS

Primary intersections include NW 48th Street, Highway 77 interchange, and Sun Valley Boulevard. These intersections would receive gateway monuments and/or art, improved crosswalks, specialty paving, site furniture, specialty landscape, and accent lighting. The following text highlights the importance of these three intersections.

NW 48th Street

This intersection will receive primary and secondary gateway monuments as it is a primary entry into the City of Lincoln as well as the West O Corridor. This intersection does have a decent amount of space to have additional improvements at each corner of the intersection, which would receive specialty paving and a raised planting bed with a raised edge to serve as a bench. Lush landscaping is proposed as a backdrop to all four corners.



Figure 3.5 Proposed NW 48th Street Intersection Birds Eye, Looking Southwest

Highway 77 Interchange

Although this interchange provides access to corridor users to the middle of the West O project area, this entrance to the corridor is also considered a primary intersection. Because there is minimal real estate available for improvements, specifically gateway entry monuments, this intersection proposes to utilize art and lighting beneath the interchange to provide a sense of entry. Additional crossings at on and off ramp locations with added pedestrian push light functionality are proposed to increase pedestrian safety as well. Groupings of plantings along the sloped DOT lawn are also proposed.



Figure 3.6 Proposed Highway 77 Underpass, Looking East

Sun Valley Boulevard

To acknowledge the east entrance into the West O Corridor, Sun Valley Boulevard is categorized as a primary intersection. Since it is a primary entry into the West O Corridor only, the primary gateway monument is the only proposed monument. Enhanced plantings, crosswalks, specialty paving and accent lighting are proposed at all four corners, with an emphasis at the northwest and southwest corners.



Figure 3.7 Proposed Sun Valley Boulevard Intersection Birds Eye, Looking North

SECONDARY INTERSECTIONS

Secondary intersections include SW 40th Street, NW/SW 27th Street, NW/SW 20th Street, Capitol Beach Boulevard, NW Roundhouse Drive, and N/S 1st Street. These intersections were chosen based on their connectivity to other uses or communities nearby and would receive similar improvements that primary intersections would receive, except for no gateway monuments and/or art due to their smaller scale. The text below explains the importance of each secondary intersection.

SW 40th Street

SW 40th Street has a trail connector that can tie cyclists into the regional system, specifically to southern neighborhoods in Lincoln. There are not a lot of connections across the railyards to the south of West O.

NW/SW 27th Street

NW/SW 27th Street provides a connection north of Interstate 80 from West O. The plan proposes to highlight this intersection as a secondary intersection to illustrate this connection is available and important.

NW/SW 20th Street

This intersection is one of the main roads into the Capitol Beach neighborhood, connecting corridor users to the areas around the entire Capitol Beach lake.

Capitol Beach Boulevard

Capitol Beach Boulevard is the “spine” or “Main Street” to the Capitol Beach neighborhood, connecting to Lakeview Elementary school.

NW Roundhouse Drive

Roundhouse Drive is a direct connection into the BNSF (Burlington Northern Santa Fe) railyard. Also, this intersection has adjacent city property that can be utilized as a potential trailhead location.

N/S 1st Street

This intersection provides the only north/south connection on either side of West O Street and can connect south of Rosa Parks Way.

+ ADDITIONAL SIGNALIZED INTERSECTIONS (FUTURE)

Today, a pedestrian is only provided the opportunity to cross West O Street at signalized intersections spaced at approximately half a mile each. Some areas are spaced even farther than this, but most signalized crossings are a ten-minute walk. This is much of the reason why pedestrians cross West O Street wherever is convenient to them because there is not an opportunity to do so that is safer and more direct.

These proposed additional signalized crossing locations provide a safe crossing for pedestrians at least every quarter mile. This provides the pedestrian the opportunity to cross more frequently and minimize the jay walking that happens across the corridor today. The addition of signalized intersections will also help slow traffic along the corridor, further improving the overall safety and experience for cyclists and pedestrians. Unlike the primary and secondary intersection enhancements previously identified, there is no funding identified for these additional signalized intersections, which are being suggested for the long-term vision only. A traffic signal warrant study to determine whether a traffic signal is justified at each particular location would also be performed prior to installation. Ideally, these intersections would receive similar aesthetic treatments to the secondary intersections if improved.

DRIVEWAY REDUCTION

Furthermore, pedestrians and cyclists can have improved conditions to increase safety by reviewing the number of driveways accessible directly from West O Street. Currently, there are 40 driveways along the north side of West O Street, and 36 driveways along the south side (excluding intersections). The City should explore potentially consolidating drives that could be used by adjacent properties and encourage cross-property circulation and connectivity. Lessening the amount of drives that pedestrians and/or cyclists have to traverse will reduce the amount of opportunities for conflict between drivers and pedestrians.

CROSSWALK IMPROVEMENTS

For all key intersections that have signalization, existing or proposed, or any future signalized locations, this plan recommends integrating a highly contrasting crosswalk material that provides a visual signal to drivers that a pedestrian may be in this zone. The proposed material should be a more durable material than standard crosswalk paint, such as thermoplastic print or a printed/stamped concrete. The product used for this should not only provide high contrast to the roadway itself, but should also be long lasting, easy to install and maintain.

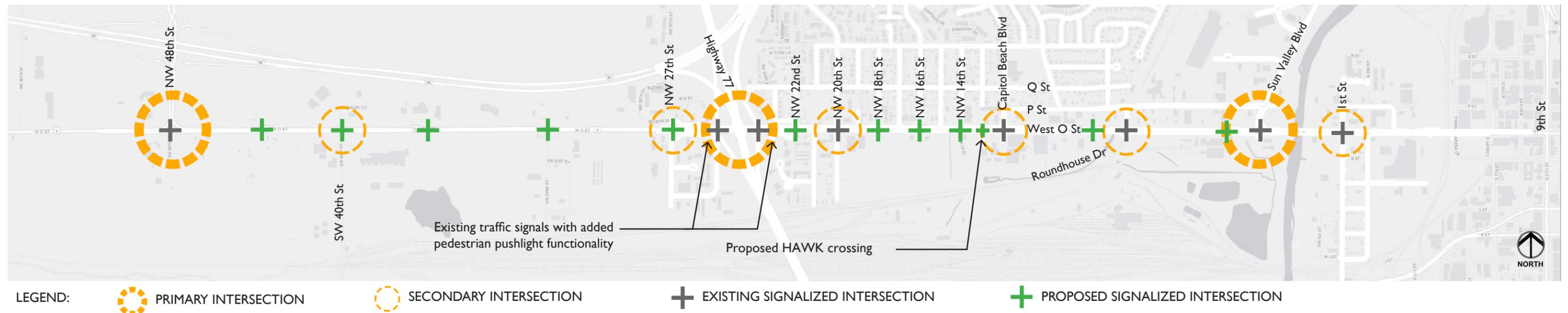


Figure 3.8 Proposed Intersections / Crossings Plan Diagram

PLAN VISION

ENLIVEN THE CORRIDOR

One of the most economical yet impactful design solutions for the West O Corridor is to plant trees. Trees are a simple yet powerful improvement. Although this does not necessarily ‘brand’ the corridor or create a unique identity, it does improve the overall experience for all corridor users, helps to reduce traffic speeds and increase safety, reduces noise, provides cleaner air, shades the large amounts of concrete and infrastructure, and provides a human scale to a vast five-lane corridor. Trees were highly supported by the Advisory Committee members and public and are integrated into the master plan along the street and within medians. See figure 3.10 for a diagram that illustrates the proposed corridor approach.

STREET TREES EAST OF HIGHWAY 77

From Highway 77 to the east edge of the corridor, street trees are proposed in most all locations directly between the curb and sidewalk location. This is due to a very consistent, relatively flat, tree lawn that exists today. There are some areas where overhead utilities do exist (illustrated on the plan enlargements found later in this chapter) but are distant enough from the proposed trees that both can coexist. To minimize visual clutter and to allow the trees to fully thrive, it is recommended to bury any overhead utility lines over time and as development occurs.

STREET TREES WEST OF HIGHWAY 77

From west of Highway 77 to NW 48th Street, much of the roadway is unimproved without curb and gutter and a consistent situation outside of the roadway. These conditions include either a flat area, overhead utilities, a drainage ditch or a combination. Over time and as private development occur, the roadway will become improved and overhead utility lines should be buried to help eliminate clutter. This will also allow additional street trees to be planted throughout this portion of the corridor. For now, the master plan illustrates where trees make sense to plant within the next five to ten years.

EXISTING CONCRETE MEDIANS

There are a handful of existing concrete medians along the corridor – most exist primarily west of Highway 77, with only a few to the east of Highway 77. A simple yet impactful improvement to enhance the corridor and provide life to an infrastructure heavy and impervious corridor character is to remove the concrete within each of these medians and replace with soil, sod and trees. The proposed master plan identifies each of these concrete medians in the plan enlargements found later in this chapter.

PROPOSED NEW MEDIANS

The proposed master plan illustrates new vegetated medians from Capitol Beach Boulevard to Sun Valley Boulevard. New medians would provide additional tree canopy and coverage along West O as visitors get closer to the downtown area. These medians also incorporate U-turn locations (for appropriately three cars to queue) where vehicles can quickly turn around to access individual businesses. Although not illustrated on the plans, the idea of incorporating additional medians from Capitol Beach Boulevard to NW 22nd street to further beautify the corridor was supported by city staff and LTU.

The design team understands the importance of providing attractive access to adjacent businesses along this portion of the corridor, but it does not come without challenges. One of the largest barriers this new idea faces is lack of funding available for the implementation and construction of new medians. In addition to funding, delivery services must also be addressed. Depending on how the U-turn is engineered, delivery trucks may be restricted to utilize these locations as the turning radius’s needed by trucks are larger than standard cars. However, nearly every business along this portion of West O is also accessible from P Street. Larger trucks and deliveries could be redirected to access businesses from P Street rather than West O.

Lastly, the growth of trees would need to be maintained (tree trimming, watering and care) by the TIF district over time to allow for traffic clearance. Street lighting may also be impacted as the tree grows and will need to be reviewed during its development. Because of these things, the proposed medians shown on the plans are very distant from implementation but support the long-term vision of beautifying and increasing safety for this corridor.

LANDSCAPE SCREENING

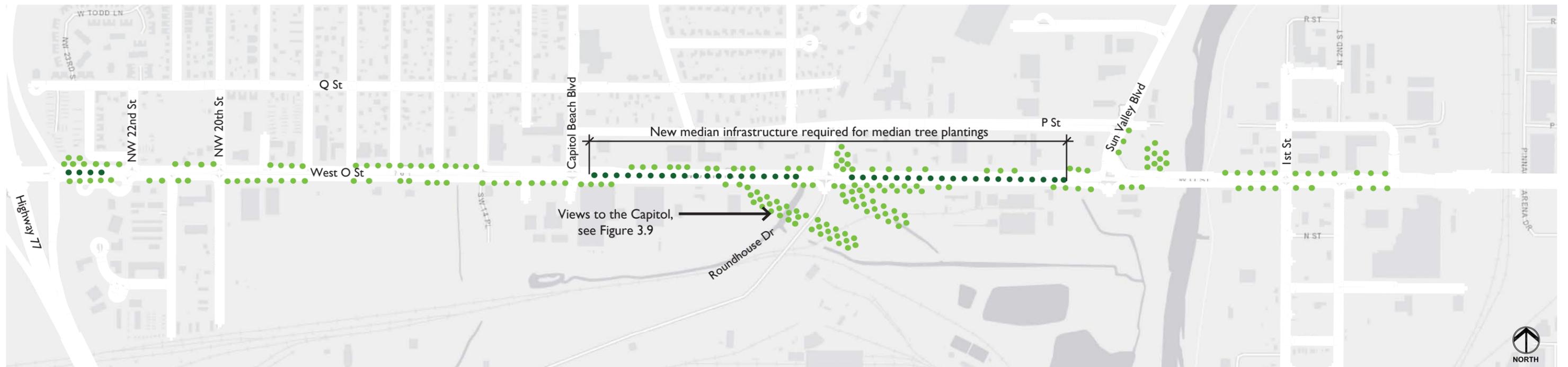
Screening uses that are unsightly and unwelcoming, such as unkept properties, industrial uses or heavy commercial uses, is recommended along the corridor. This is shown and labeled on the plan enlargements primarily east of Highway 77. Plants to use within these screening areas should provide all year interest and be approximately three feet in height.

VIEWS TO THE CAPITOL

Lastly, the plan identifies a way to utilize street tree beautification to highlight a unique viewshed opportunity that focuses on the Capitol Building. This improvement is located near NW Roundhouse Drive intersection on private (railroad) property. The future implementation of these enhancements should explore conversations with the property owner.



Figure 3.9 Proposed View to the Capitol Building near NW Roundhouse Dr, Looking East



LEGEND: ●●●● STREET TREES ●●●● MEDIAN TREES

NOTE: TREES ARE DIAGRAMATIC AND REPRESENTATIONAL ONLY. PROPOSED TREE LAYOUT CAN BE FOUND IN PLAN ENLARGEMENTS LATER IN THIS CHAPTER.

Figure 3.10 Proposed Trees Plan Diagram

PLAN VISION

BRAND A FRESH IDENTITY

For West O Street, strengthening the corridor’s brand is a step toward expressing it is ready for business, redevelopment, and private investment. It helps transform a space into a place – something that lacks uniqueness and changes it to something that is identifiable and embraces its character to create a destination or a district.



Figure 3.11 West O Brand Theming Ven Diagram

INSPIRATIONS

After the results from the public and Advisory Committee, the design team developed a combined identity and brand for the West O Corridor that merged the three ideas that they preferred: Art Deco, Auto-Centric and incorporation of the DLD History that has already been implemented throughout the corridor.

The design team was able to blend these three ideas by combining materiality, form, and the Art Deco era’s specific details and colors to create the West O Brand. This brand is not only used for streetscape elements such as the paving pattern or banner design, but also incorporated into the overall signage as people enter, experience and leave the corridor and City of Lincoln.

Material

Influenced much by the materiality of the State Capitol Building, the Harris Overpass, and the existing DLD highway markers, a limestone or cast stone material is prominent in the West O Brand.

Shape and Form

Inspired by the circle shapes and forms associated with automobiles, the beacon elements at the Harris Overpass or other City of Lincoln entry signs, as well as the Capitol’s dominant form, these design shapes and forms inspired the expression of each streetscape amenity.

Details

Patterns are inspired by design expressed during the Art Deco era, specifically the iron/metal pattern from the Lincoln Steel Building. Fonts are influenced by the elements along the West O Corridor, such as the signage at the Lincoln Steel Building and Harris Overpass lettering.

Colors

In addition to the buff limestone / cast stone colors seen at the State Capitol Building, Harris Overpass and DLD highway markers, the West O brand uses the same colors expressed in the DLD light post sign banners (black and white), as well as gold as an added accent color (typically found during the Art Deco era) to its identity.

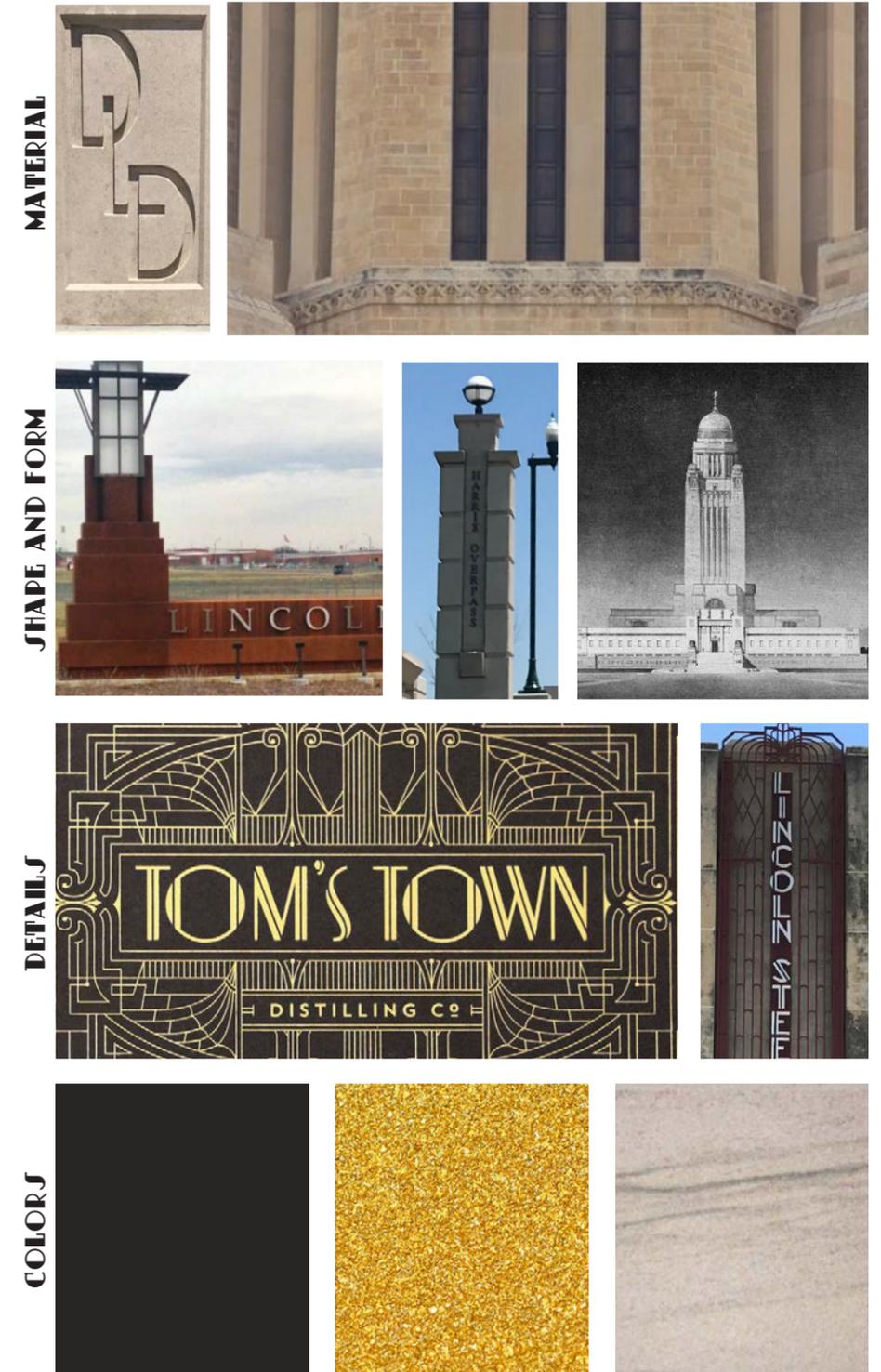


Figure 3.12 West O Theme Inspiration Images

IDENTITY AND BRAND AMENITIES

There are many ways the identity and brand are incorporated into the streetscape amenities including streetlight attachments, textures on panels, ironwork, light beacons, paving design and seating shapes. They are explained on the following pages.

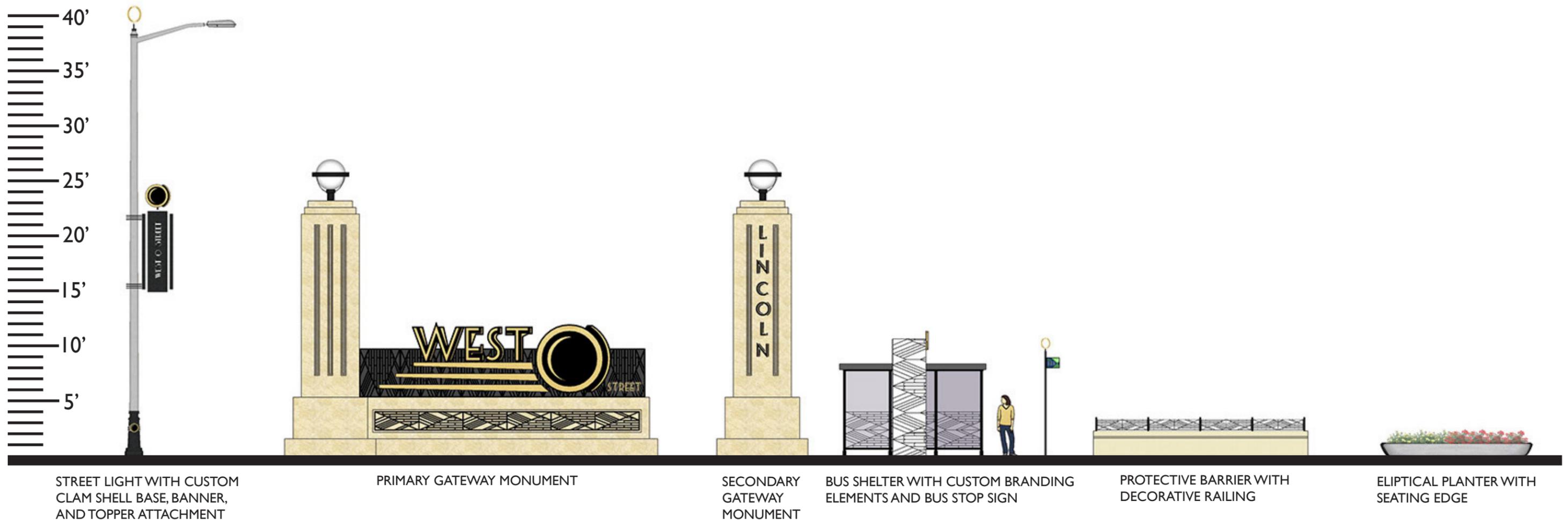


Figure 3.13 West O Amenities Elevation + Supporting Images

PLAN VISION

Streetlight Clam Shell Base, Banner and Topper Attachments

The design team is proposing to utilize existing streetlights along West O to add additional branding elements consistently along the corridor. There are three attachments proposed to the existing streetlights: a clam shell base, a metal banner, and a streetlight topper. The clam shell base would be an additive “wrap” around the base of the streetlight. It is a black aluminum wrap that attaches to the base of the pole, with three individual white bands that wrap around the clam shell base. Intersecting these white bands is the branded, golden “O” on two sides of the light base, oriented toward the street as well as the sidewalk.



Figure 3.14 Proposed Light Pole Banner and Clam Shell Base and Topper

Approximately 15’ above the finish grade is a branded metal banner attached to the streetlight by three black metal bands at the top and bottom of the corners of the banner. This banner would be double sided, with a black mesh separating the text on either side to maintain readability. The banners form has a taller framed core metal mesh segment that is flanked by two shorter and thinner framed metal meshes for decorative purposes and to further enhance the art deco theme. At the top of the three framed metal meshes is a decorative, golden “O” that also incorporates lighting. Future analysis of streetlight attachments and wind load analysis will need to be further coordinated with LES. At the very top of the light pole is a golden topper that is proposed to move when the wind blows.

Primary Gateway Monument

A primary gateway monument will exist at two major locations along the West O Corridor. One will reside at NW 48th Street intersection, while the other will be at the east edge near Sun Valley Boulevard intersection. These primary gateways are the largest streetscape branding amenity that brands and defines the corridor. It is influenced by other gateways throughout the City of Lincoln, such as Cornhusker Highway entry monuments and the State Capitol. It respects these forms, while still expressing its brand and identity of the West O Corridor. Its attributes consist of a horizontal and vertical form to combine as one. A beacon of light is at the top of the strong vertical form, which is carved of three voids on all sides. The main horizontal form houses the text “West O Street” and will illuminate and glow at night. The main “West O Street” text is formatted directly atop a metal sign blade that has a two-tone texture that expresses the art deco pattern created and inspired by the era’s ironwork displayed on the Lincoln Steel Building. This pattern is also expressed in the ironwork at the base of the horizontal form of the monument.

Secondary Gateway Monument

A secondary gateway monument will exist at NW 48th Street to support and emphasize the western entrance into the City of Lincoln. This gateway will be opposite the primary gateway monument on the other side of the NW 48th Street intersection (northeast corner). The monument is only vertical in form, with a beacon of light at its top and three carved voids on three sides. The side that faces west has only two voids, centered around the word “LINCOLN” spelled vertically top to bottom. This is also influenced by the signage that exists along West O Street today.

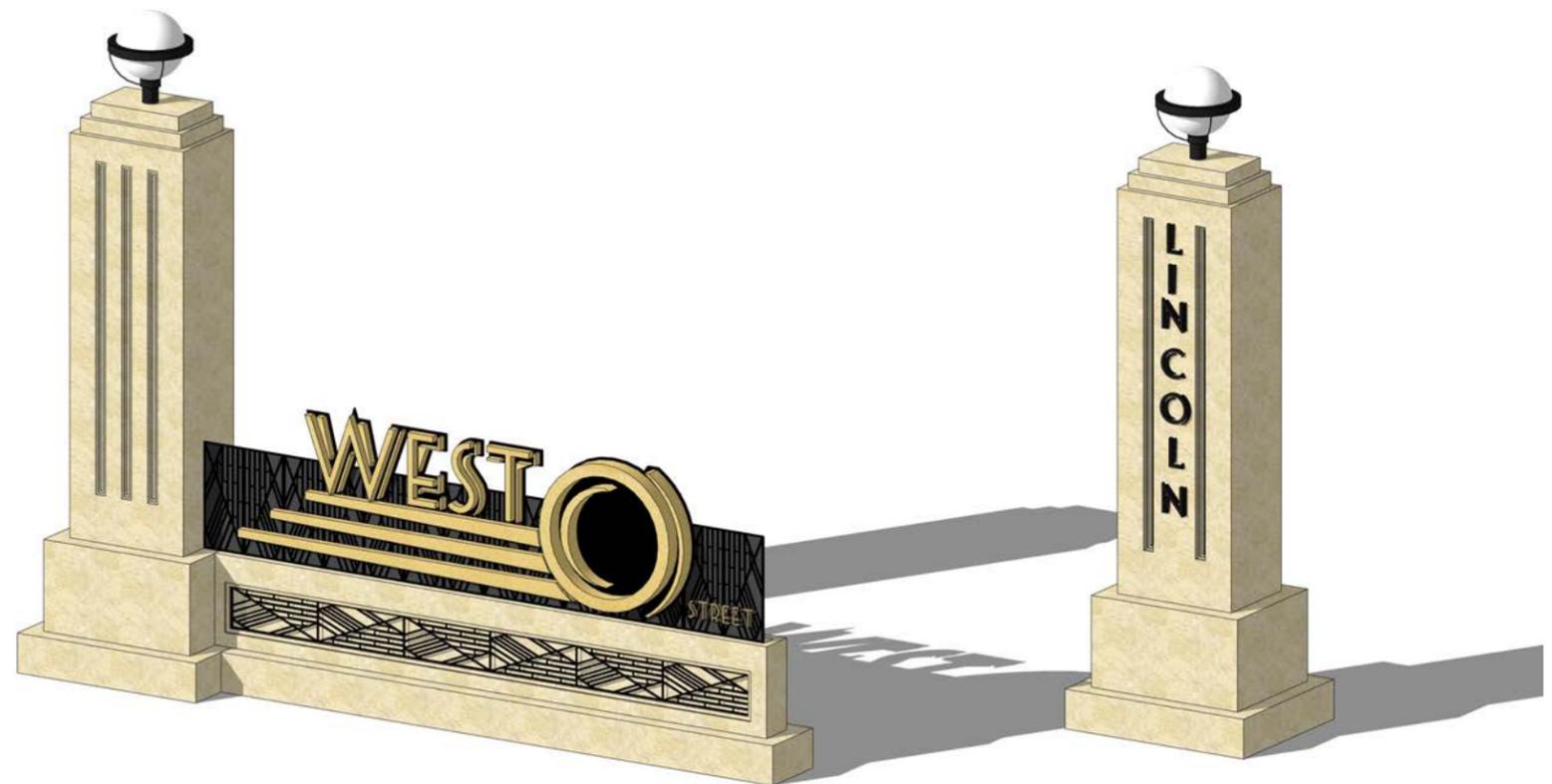


Figure 3.15 Proposed Primary (left) and Secondary (right) Gateway Monuments

Protective Barrier with Decorative Railing

In areas where the pedestrian needs to be protected, such as across Salt Creek and beneath the Highway 77 underpass, the master plan proposes to add a protective barrier with a decorative railing. This amenity is primarily functional yet provides an opportunity to incorporate a piece of the branding. The base of the barrier is like what is seen along the Harris Overpass with a designed relief along the side and would be constructed of reinforced colored concrete. Atop the concrete, a decorative iron railing exists that plays off the iron work on the Primary Gateway as well as the crosswalk design.

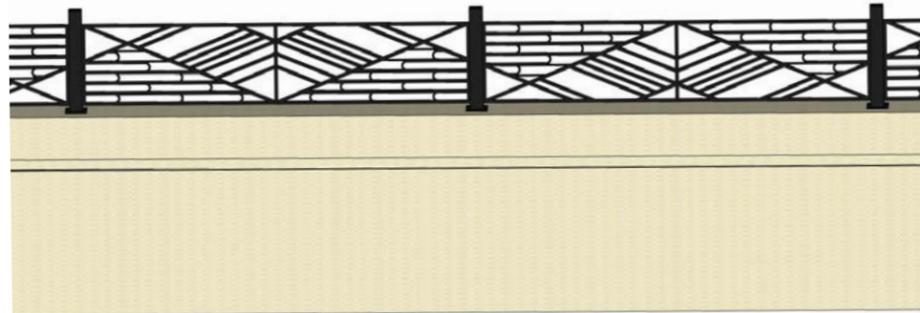


Figure 3.16 Proposed Protective Barrier with Decorative Railing

Elliptical Planter with Seating Edge

Along the corridor, there are elliptical raised planters proposed to serve as a highlighted planting area as well as a seat for pedestrians. These are only located at key intersections and are typically a result of additional real estate available at intersections to allow for this type of amenity. The elliptical shape ties into the overall brand and identity of the corridor.



Figure 3.17 Proposed Elliptical Planter with Seating Edge

Crosswalk Design

The pattern designed for the crosswalk pattern is to resemble the similar pattern seen at the base of the primary gateway monument as well as the decorative railing.

Bus Shelter and Stop with Custom Branding Elements

Another way to increase branding along the corridor is to incorporate the brand at bus stops. The plan proposes each bus stop to hold a bus shelter, a bench, a trash receptacle, and specialty paving to highlight the different use along the corridor. There are 15 total bus stops along the West O Corridor that are proposed to receive this enhancement. The bus route does go into the surrounding neighborhood north of West O Street, but no improvements in the residential areas are proposed to maintain minimal impact on the adjacent neighbors.

Each of the 15 bus stops is proposed to have a standard off-the-shelf shelter (standard to StarTran) with a custom white aluminum cabinet that ‘wraps’ the shelter. The aluminum will have a vinyl art deco pattern applied to it, with individual “West O” letters attached to its top viewable from the approaching side. The bus shelter’s glass will be partially custom, with the art deco pattern expressed as a texture throughout. Any bench or trash is proposed to be simply black. Bus stop flag signs are proposed to be standard except for adding a gold circular, three-ringed topper that accents the West O route and ties into the streetlight topper as well.

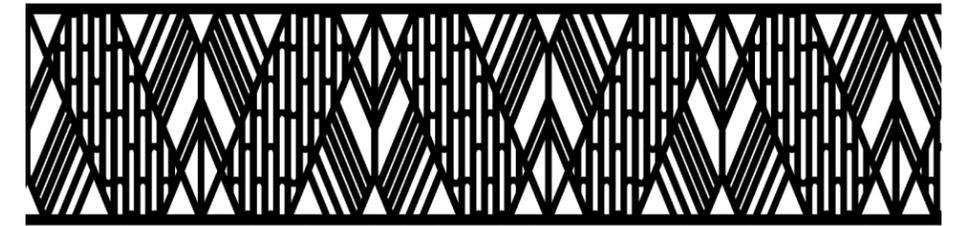


Figure 3.18 Proposed Crosswalk Design

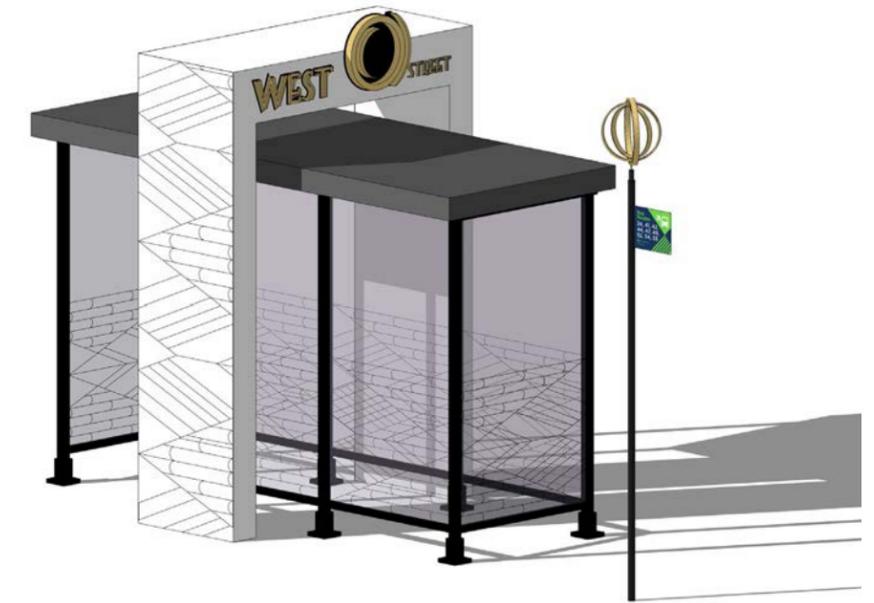
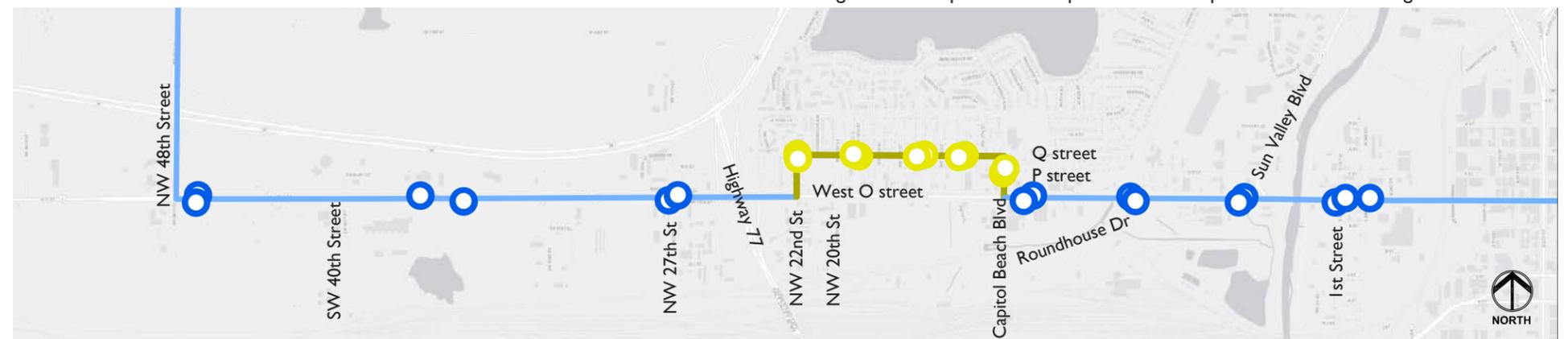


Figure 3.19 Proposed Bus Stop Shelter and Stop with Custom Branding Elements



LEGEND:
— EXISTING BUS ROUTE 46 (COMMERCIAL)
— EXISTING BUS ROUTE 46 (RESIDENTIAL)
○ WEST O BRANDED BUS STOPS
○ EXISTING BUS STOPS, RESIDENTIAL

Figure 3.20 Proposed Bus Stop Plan Diagram

PLAN VISION

ENCOURAGE BUSINESS GROWTH

The City of Lincoln commissioned a Blight and Substandard Determination Study in June 2005 that “concluded that the number, degree and distribution of blighting factors warrant designating the area blighted and substandard.”

The City recognizes that continuing blight and deterioration is a threat to the stability and vitality of the West O Street corridor and surrounding area.

Public action, such as the development of this Streetscape Enhancement Plan, and the future implementation of phase one beautification efforts will help impact and influence revitalization efforts. The West O Streetscape Enhancement Plan represents the City’s efforts to help guide and serve as a catalyst to encourage private redevelopment of the area.

CORRIDOR POTENTIAL

Development is starting to occur along West O, such as the new buildings west of Schmick’s market on both north and south sides of West O, and the soon to be Sports Plex that is being built just south on SW 14th Place with the potential to spur additional development.

A series of before and after images have been created as part of this study to illustrate the eventual transformation of the corridor. The location studied is near the intersection of Capitol Beach Boulevard and West O Street intersection.

Existing Conditions

Figure 3.21 illustrates the auto-dominated nature of the existing corridor, including wide travel lanes for 40 mile per hour traffic, driveway aprons leading into surface parking lots, and narrow sidewalk conditions for pedestrians.

Proposed Streetscape Enhancements

Figure 3.22 illustrates the proposed improvements to the corridor including new trees and planted median, streetscape branding attached to existing light fixtures, enhanced and widened sidewalk along the north side of the street for pedestrians and cyclists, and upgraded bus shelter and stop enhancements.



Figure 3.21 Existing Conditions near the Surplus Center, Looking West



Figure 3.22 Proposed Streetscape Enhancements near Surplus Center, Looking West



Figure 3.23 Potential Redevelopment + Revitalization with Streetscape Enhancements near Surplus Center, Looking West

Potential Redevelopment + Revitalization

Figure 3.23 illustrates how public investment can spur potential private growth along the corridor. This area is currently a vacant lot along the corridor. With the enhancements along the street and the enlivening of street trees, there may be an opportunity for higher uses to infill along the corridor. New buildings could be encouraged adjacent or in proximity of the street right-of-way, with parking hidden from street view providing a strong relationship between buildings and the activity on the street. This truly transforms the personality and visual appearance of the existing corridor.

IMPLEMENTATION

WHAT'S NEXT?

The following pages illustrate the full master plan for the West O Streetscape Enhancement Plan. Unfortunately, not all these improvements will be funded with Phase I. After the competition of this document, the City will explore all additional funding opportunities and partnerships to help determine what can be executed during our Phase One construction period. Below illustrates the tentative project schedule for what's to come for the future of West O Street.



LIFECYCLE PLANNING

Lifecycle planning, at least in the context of streetscape improvement projects, is a fairly simple, straightforward concept that boils down to this: **In order to maximize the investment in and life of a project, it is essential that a realistic, executable plan be in place to guide long-term maintenance and repair and replacement efforts.**

Of course, the details of such a plan are not so simple, requiring the balancing of funding sources and departmental efforts, as well as the overall prioritization of resources. Lincoln staff has sought to tackle this issue in recent years, developing a number of tools and resources to improve lifecycle maintenance efforts. What follows is a summary of some of these tools. When developing a public way project, a review of the available tools should be completed to determine their usefulness in the lifecycle planning process.

ENDOWMENTS

Endowments have become a preferred tool for the City of Lincoln to use as a funding resource for maintenance and/or repair and replacement of public projects such as parks, art installations, entryway corridors and streetscapes. Endowments are funds – often originating from a private donation – to be used in the support of a specific project or program. They structured so that the principle amount is kept intact, while a percentage of the investment income is available for use. Administered by the Lincoln Parks Foundation, each endowment has a fund statement that outlines how it may be used.

CIP REPAIR AND REPLACEMENT PROJECTS

Every two years, the City of Lincoln updates its Capital Improvement Program (CIP). The CIP outlines and sets aside dollars for significant public improvements across the city. While CIP project cannot be used for standard maintenance, they can be used for repair and replacement of aged public improvements. In cases where endowments are not possible, a repair and replacement CIP project can be used to extend the lifecycle of a project. It is anticipated that the FY 2020/21 – 2025/26 CIP will include a project dedicated to repair and replacement of entryway corridor streetscape enhancements. However, the dollars available from this fund are likely to be stretched very thin and should not be expected to solve all future lifecycle needs.

CITY STREETScape MATRIX

In the spring of 2017, the city began using the City Streetscape Matrix (CSM) to track the maintenance of public right-of-way enhancement zones. The inspiration behind the creation of the CSM was to give the city a tool to plan for, budget and track the maintenance of our public right-of-way investments throughout their lifecycles. The matrix tracks three groups of right-of-way enhancement zones:

1. Zones maintained by City Staff;
2. Zones maintained by Contractors; and
3. Unique enhancement zones.

The third category refers to special projects that typically receive a higher level of enhancements. For instance, the recent improvements to downtown – like P Street, N Street and West Haymarket – qualify as unique zones. For each zone, maintenance and repair/replacement costs, funding sources, and other relevant information has been documented. Additionally, each zone has been assigned a city staff “champion.” It is the responsibility of the champion to monitor the area and provide recommendations on maintenance and repair and replacement needs.

During the creation of the matrix, the CSM Committee worked with local maintenance contractors to itemize annual maintenance and repair/replacement costs for each zone. However, the Committee acknowledged that this itemization process was something that ideally would have been completed during the design process. By integrating long-term maintenance considerations into the design phase, the thought is that smarter decisions could be made on the front end of a project. With that philosophy in hand, the Committee developed a Lifecycle Costs Template for future use on public improvement projects.

LIFECYCLE COSTS TEMPLATE

Building on the framework of the City Streetscape Matrix, the CSM Committee developed a Lifecycle Costs Template to be used during the design of public way projects. The template provides a straightforward, user-friendly mechanism for city staff and design consultant teams to anticipate the maintenance costs of a project throughout its intended lifecycle. Making this a priority step in the design process offers two major benefits:

- It forces city staff and design consultants to reckon with the long-term financial consequences of their design decisions.
- It allows those at the city who are involved in the maintenance of such spaces to plan ahead.

This second point is key. In recent years, the city has made a concerted effort to create endowments for the long-term maintenance of significant public spaces. In order to accurately fund these endowments, it is necessary to understand the specific maintenance needs of each individual project. Going through this process early on means that necessary funds can potentially be built into the project budget upfront.

Moving forward, design consultants working on public way enhancement projects will now be asked to complete a lifecycle costs worksheet in association with their cost estimates. This information can then be easily folded into the CSM.

For further guidance on how to incorporate lifecycle cost considerations into the design process, please contact the CSM Manager within the Planning Department.

MAINTENANCE PLANS AND PERFORMANCE STANDARDS

Maintenance plans are crucial in providing guidance and setting expectations for the upkeep of public way projects. In 2018, the city developed a set of performance standards for the maintenance of the Downtown and Haymarket Districts. They clearly lay out responsibilities and procedures to be followed in order to ensure the proper level of maintenance is being applied. The standards have been combined with other relevant information, like schedules, budgets and maintenance logs, forming a comprehensive maintenance plan. This plan should serve as a template for others that may follow.

When developing a plan, it is especially critical to include direction on how to maintain specialty products, materials or applications that may require unique attention or techniques. Bioretention beds, Silva Cell systems, and permeable pavers are just a few examples of such applications. In general, innovative and sustainable design solutions are the most likely to need a detailed maintenance plan, simply because the technology and techniques they rely on is ever-improving.

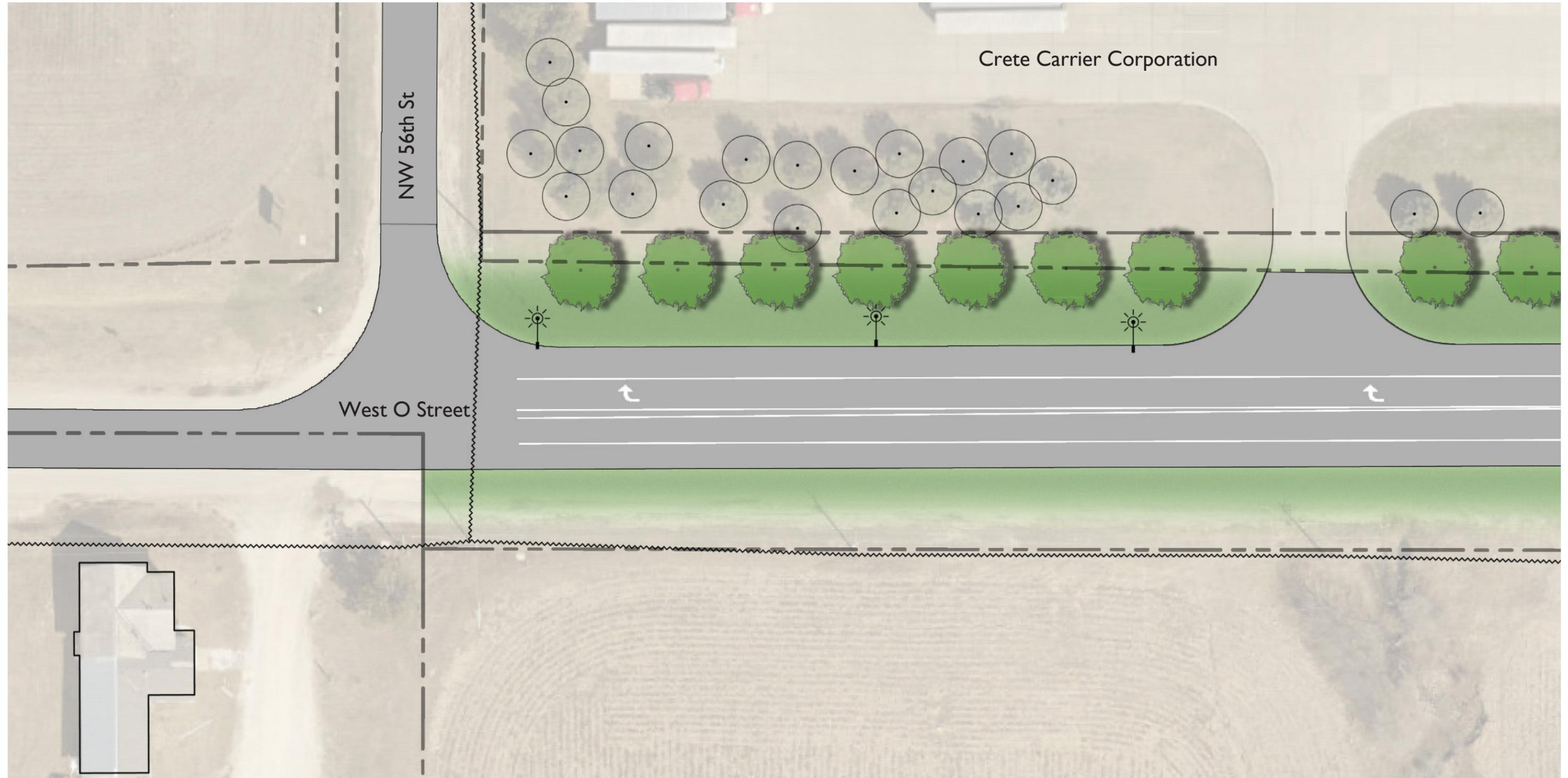
To facilitate this process, it is necessary that design consultants provide detailed maintenance plans for these specialty design applications. The only way to ensure this is to include clear expectations in all future contracts with design consultants.



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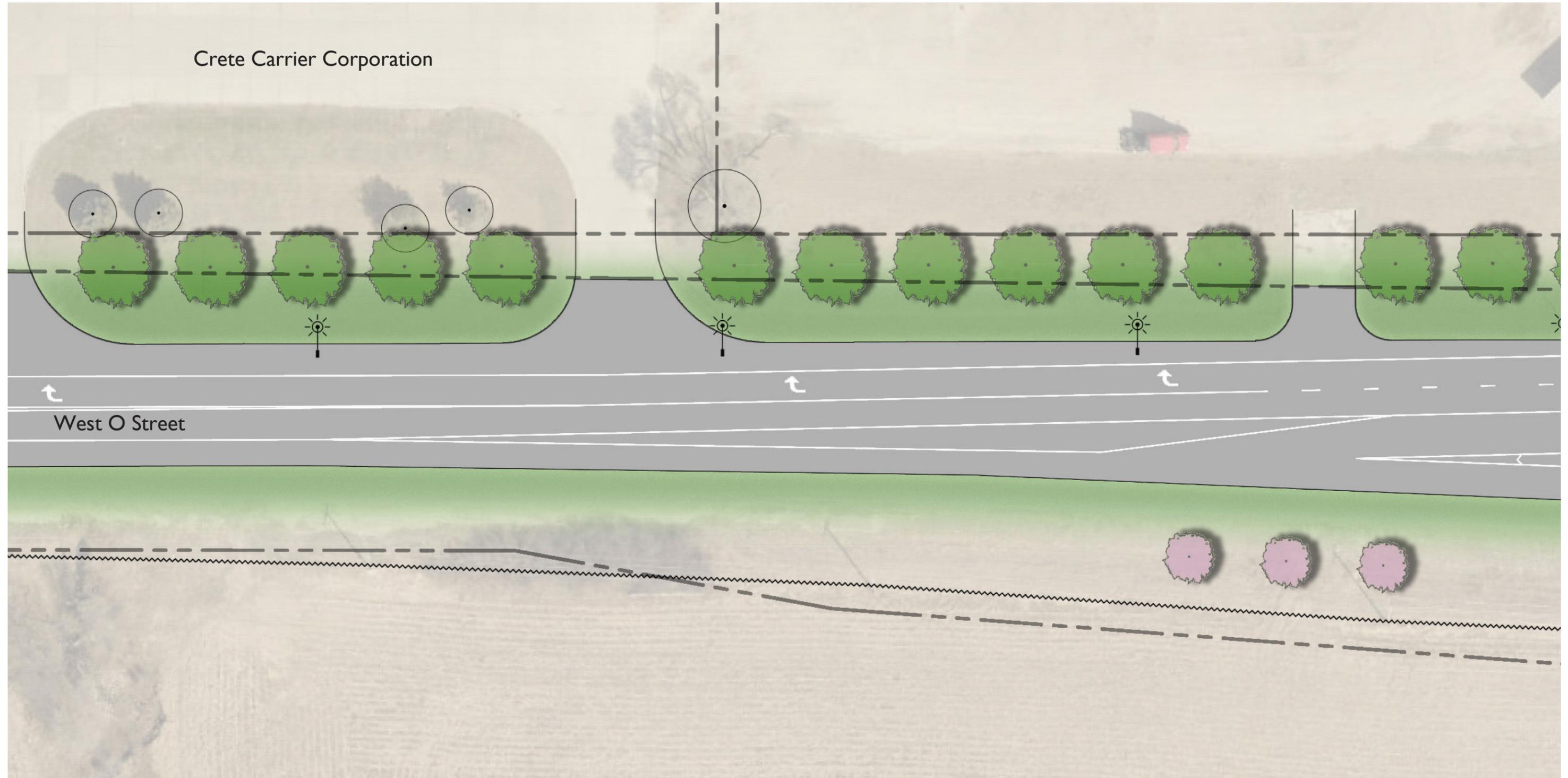
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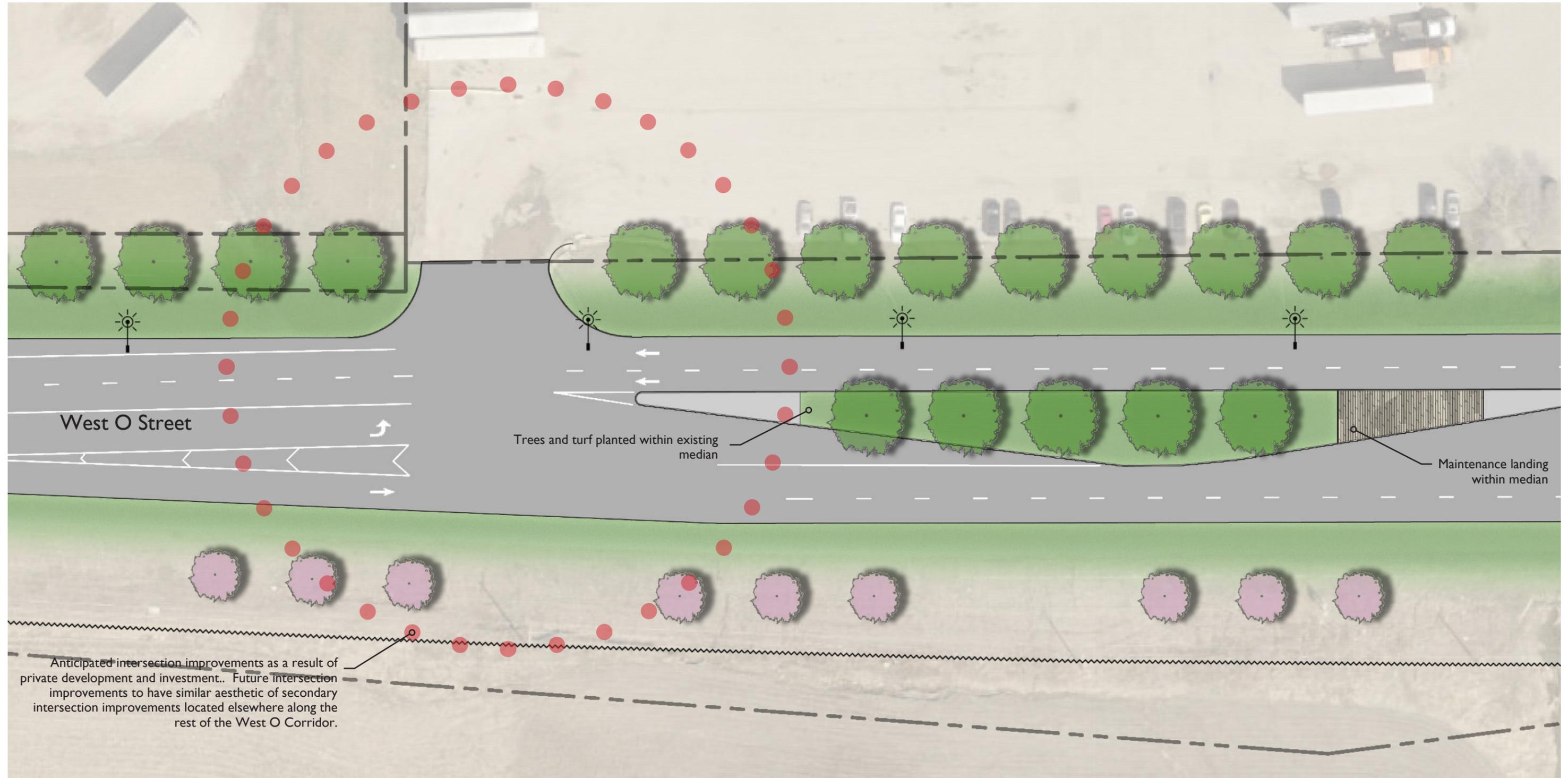
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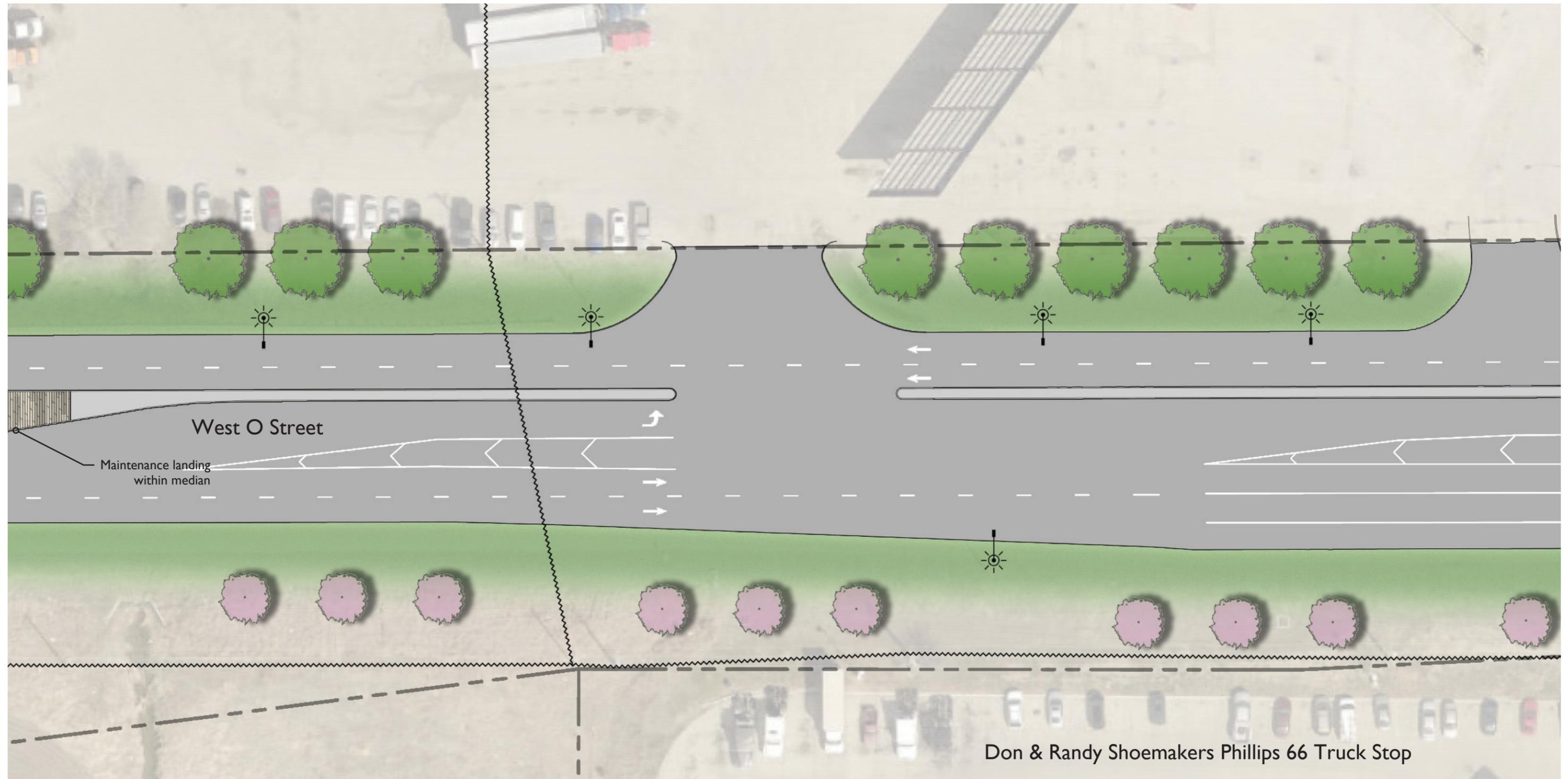
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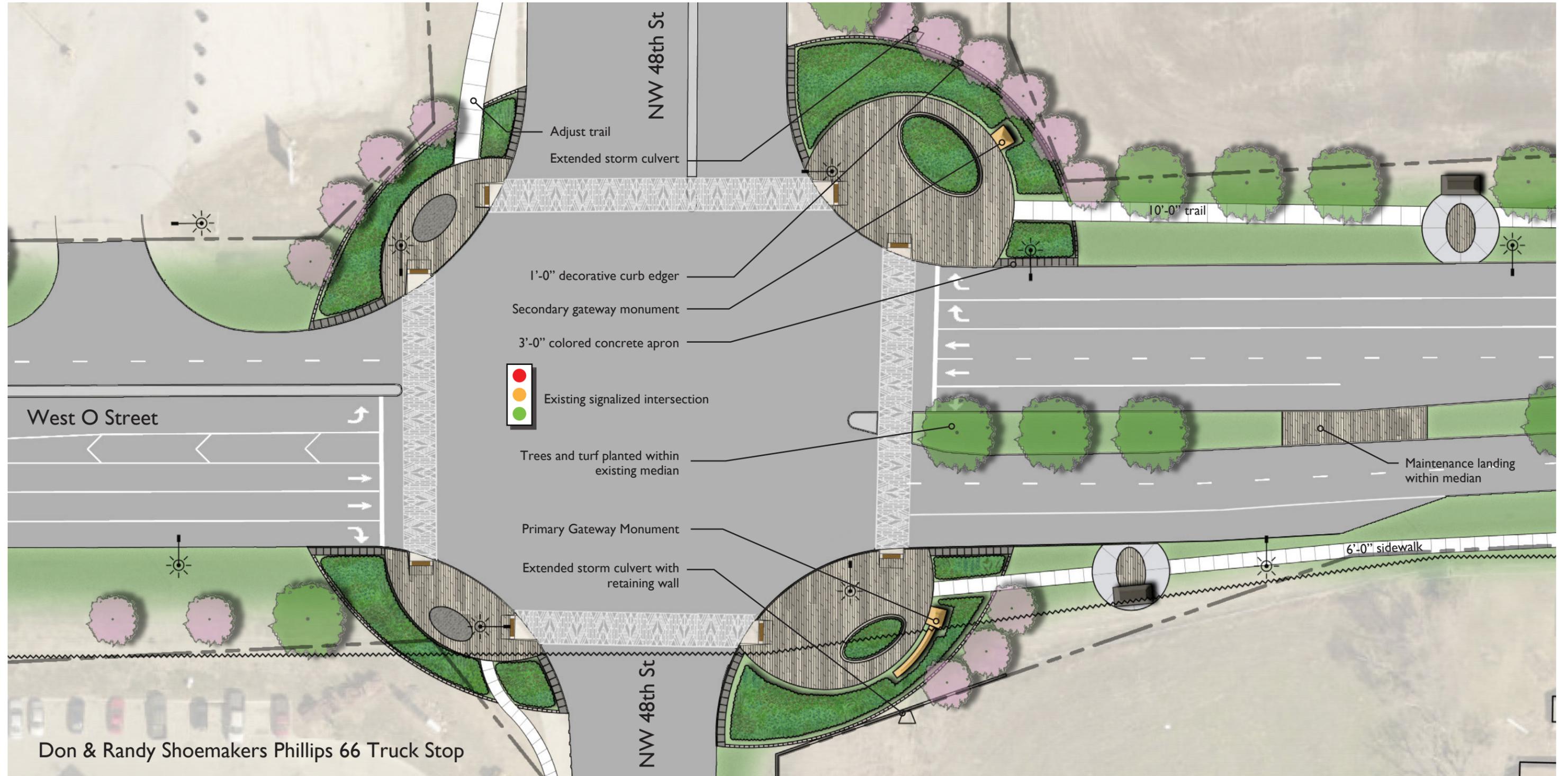
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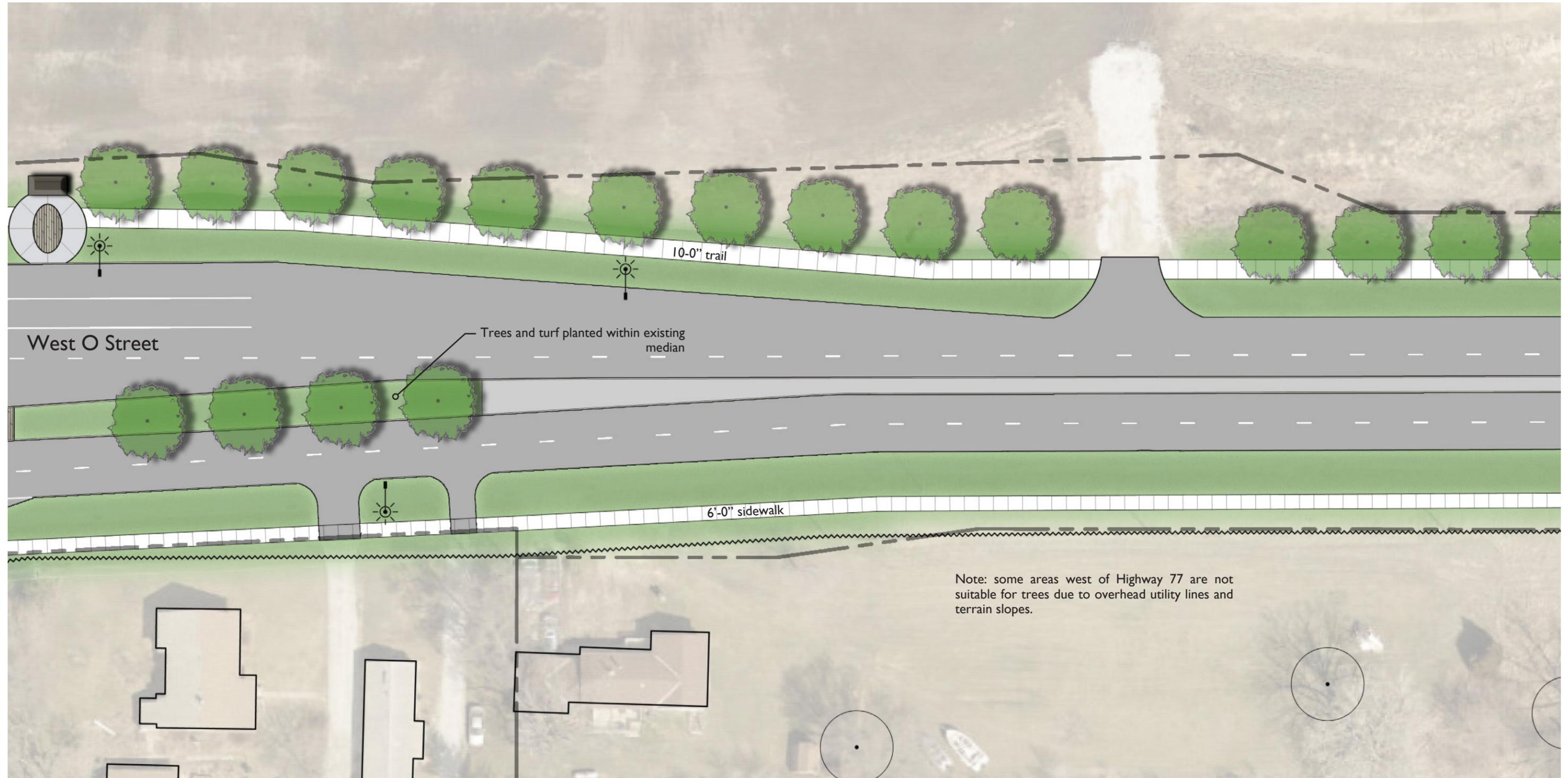
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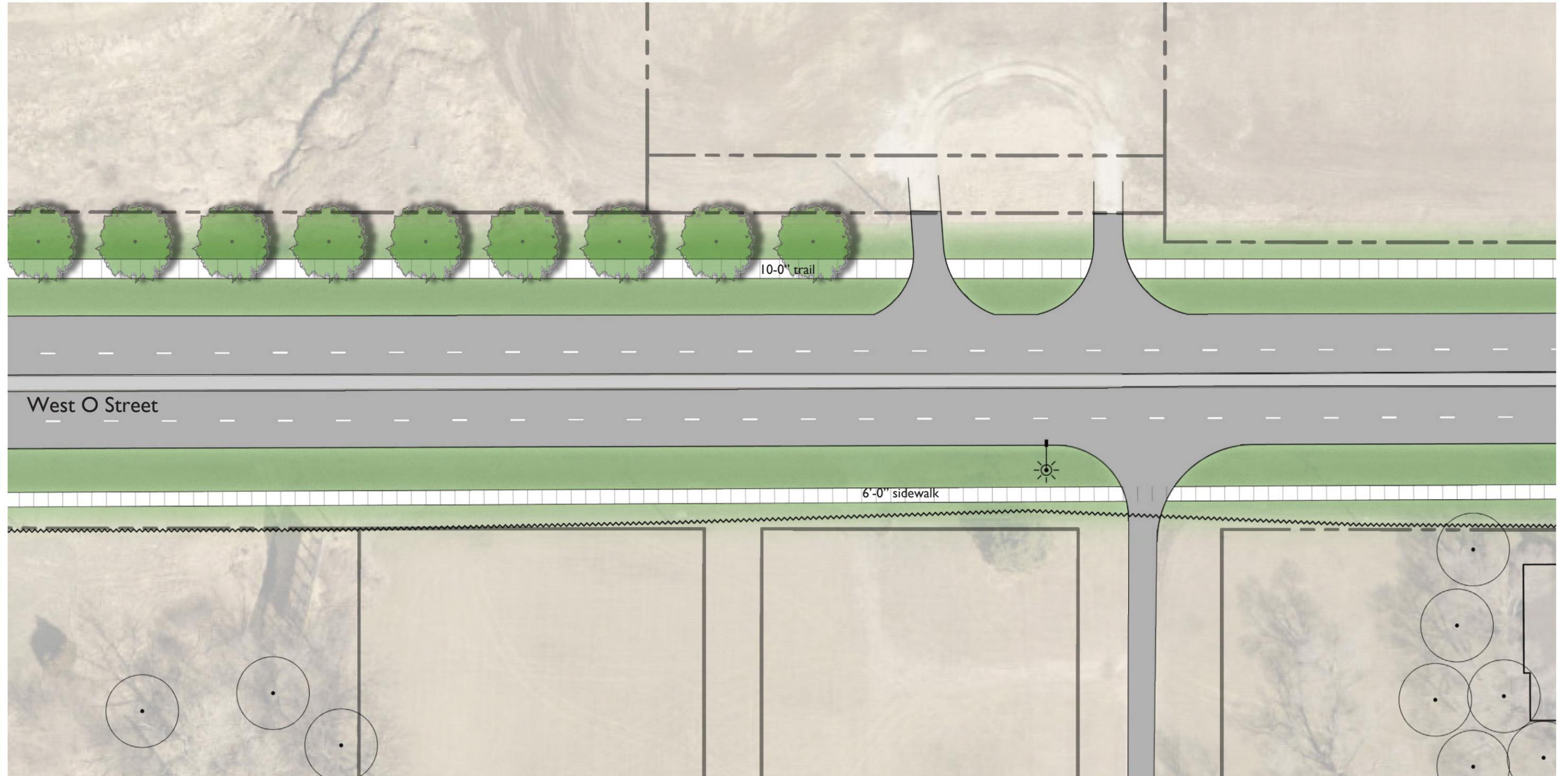
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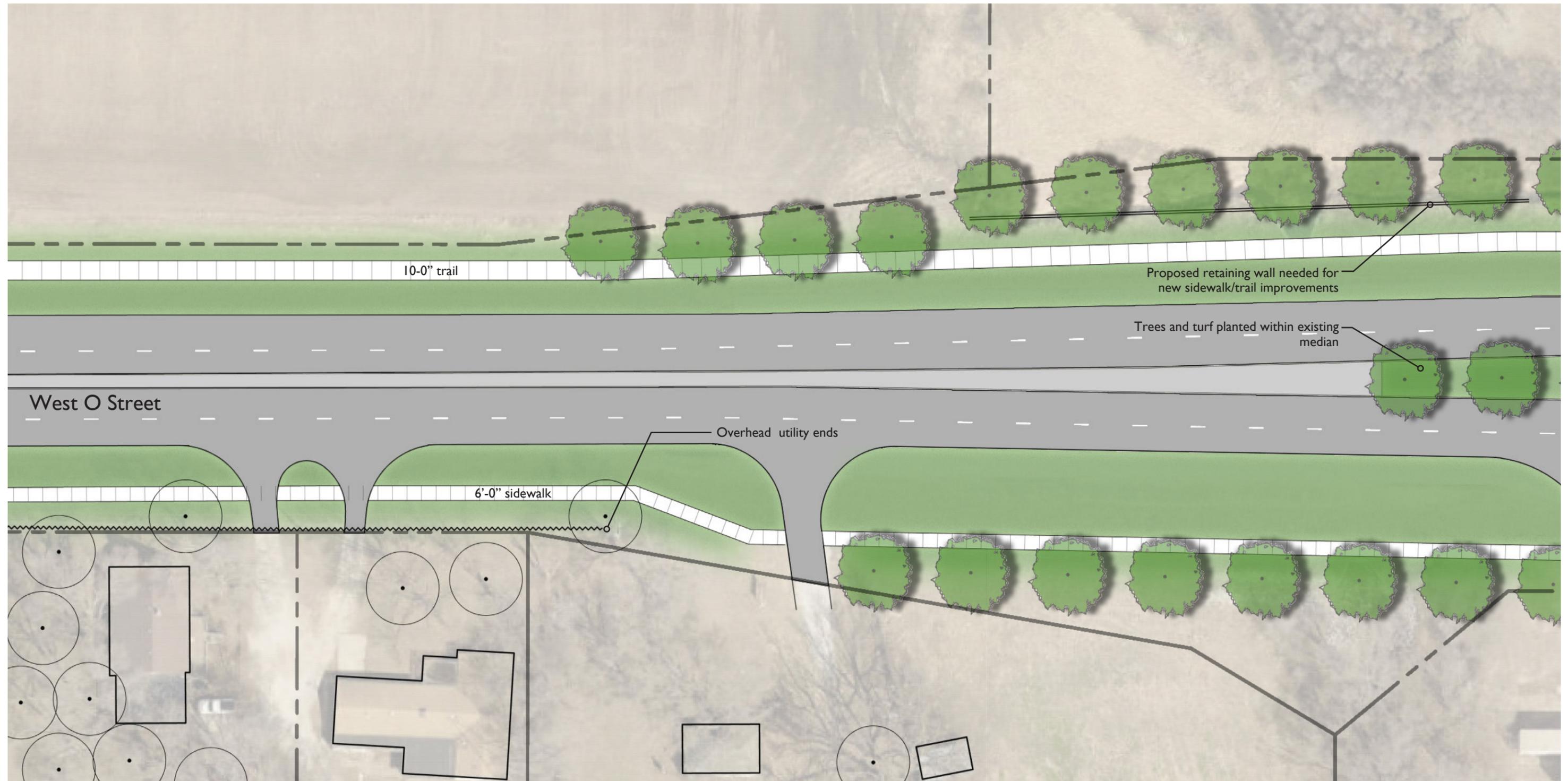
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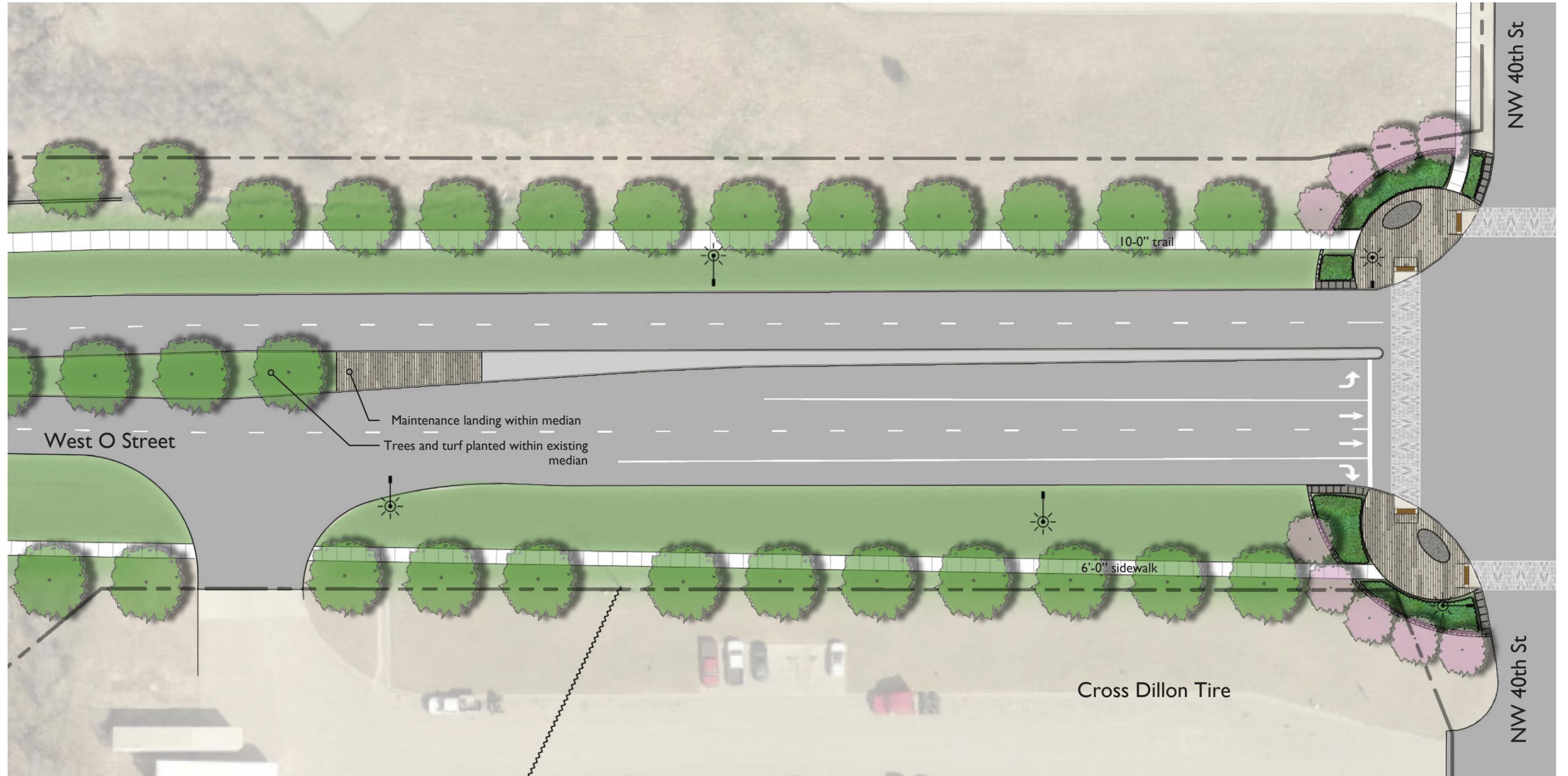
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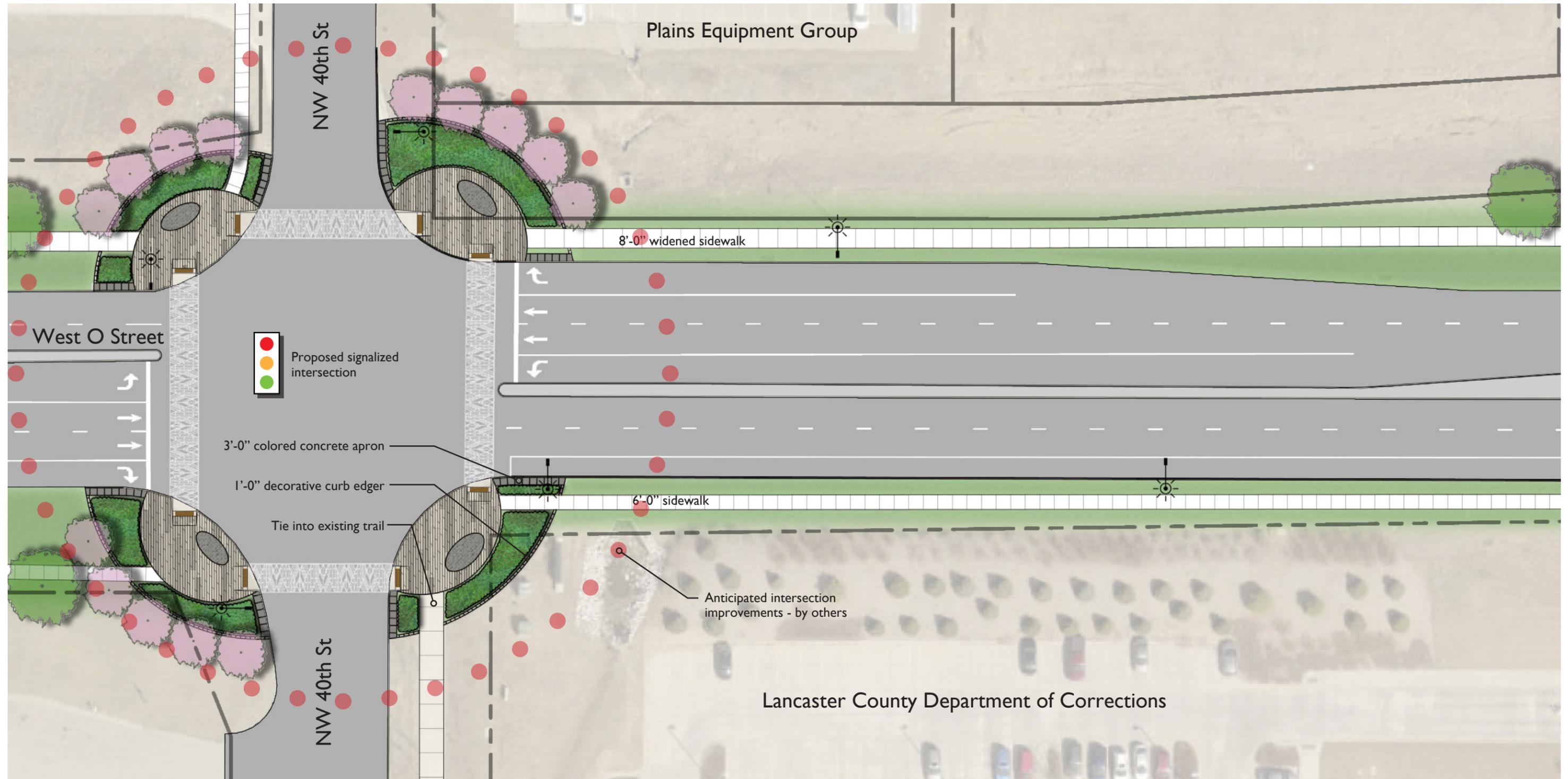
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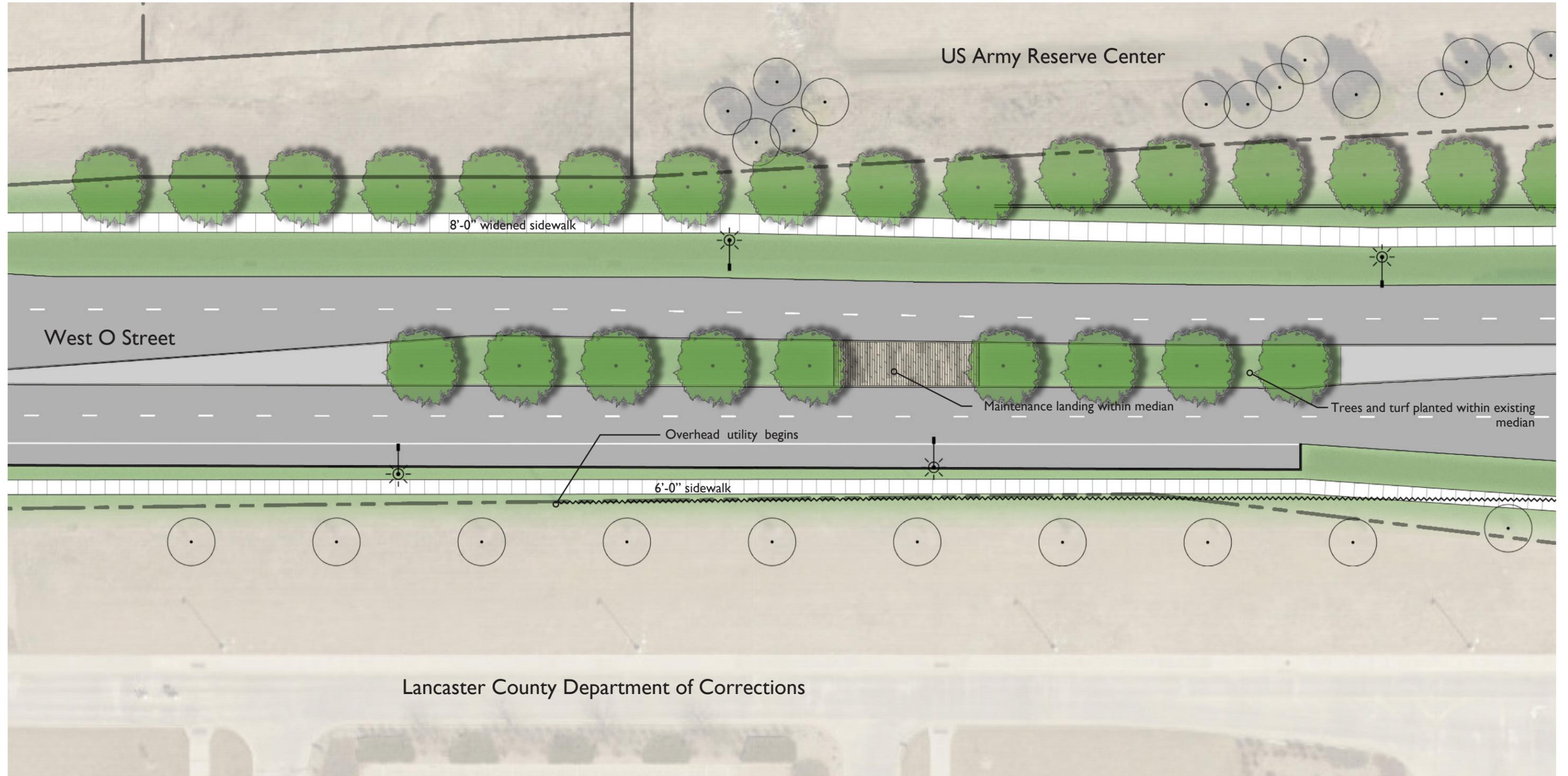
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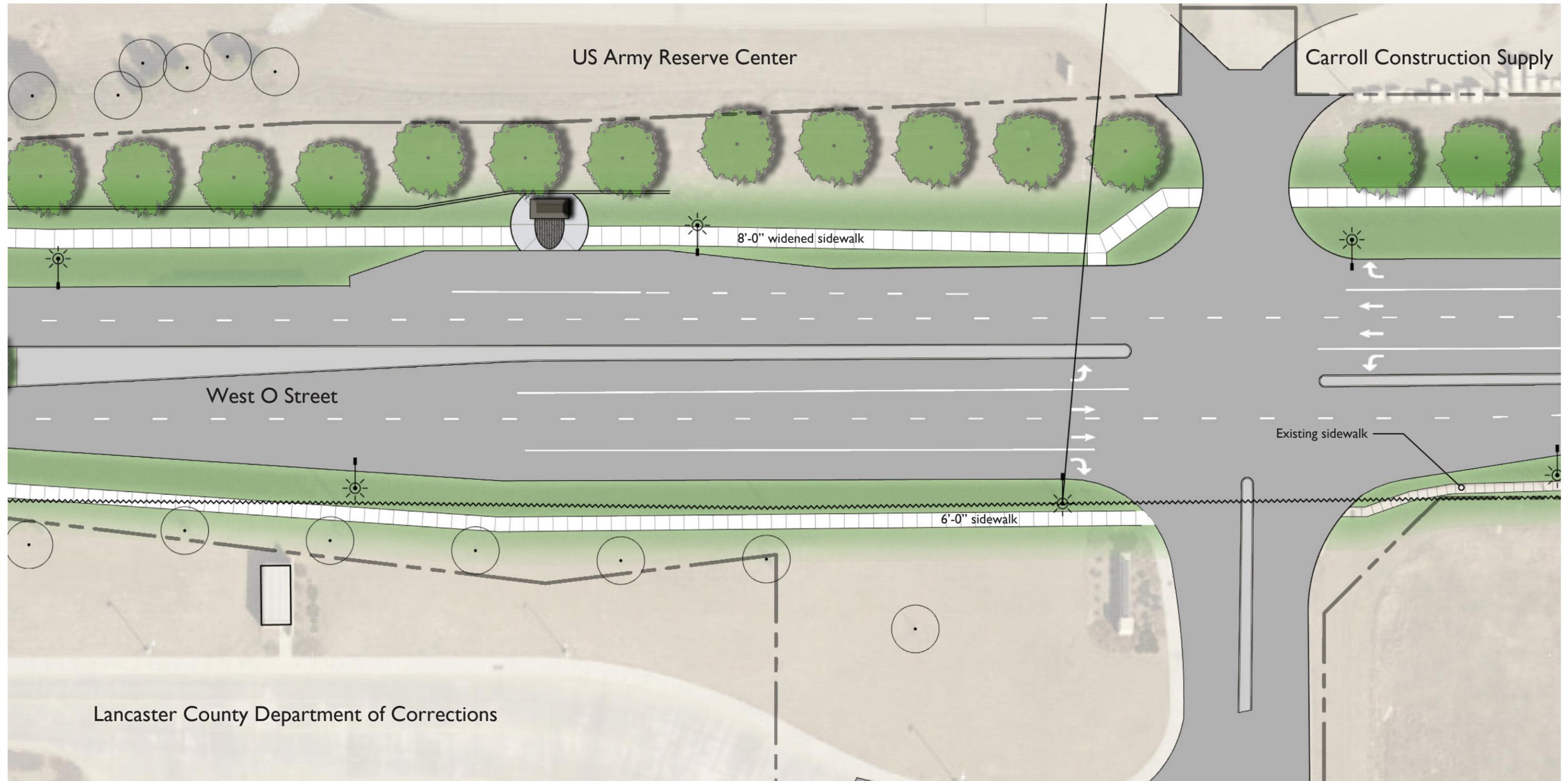
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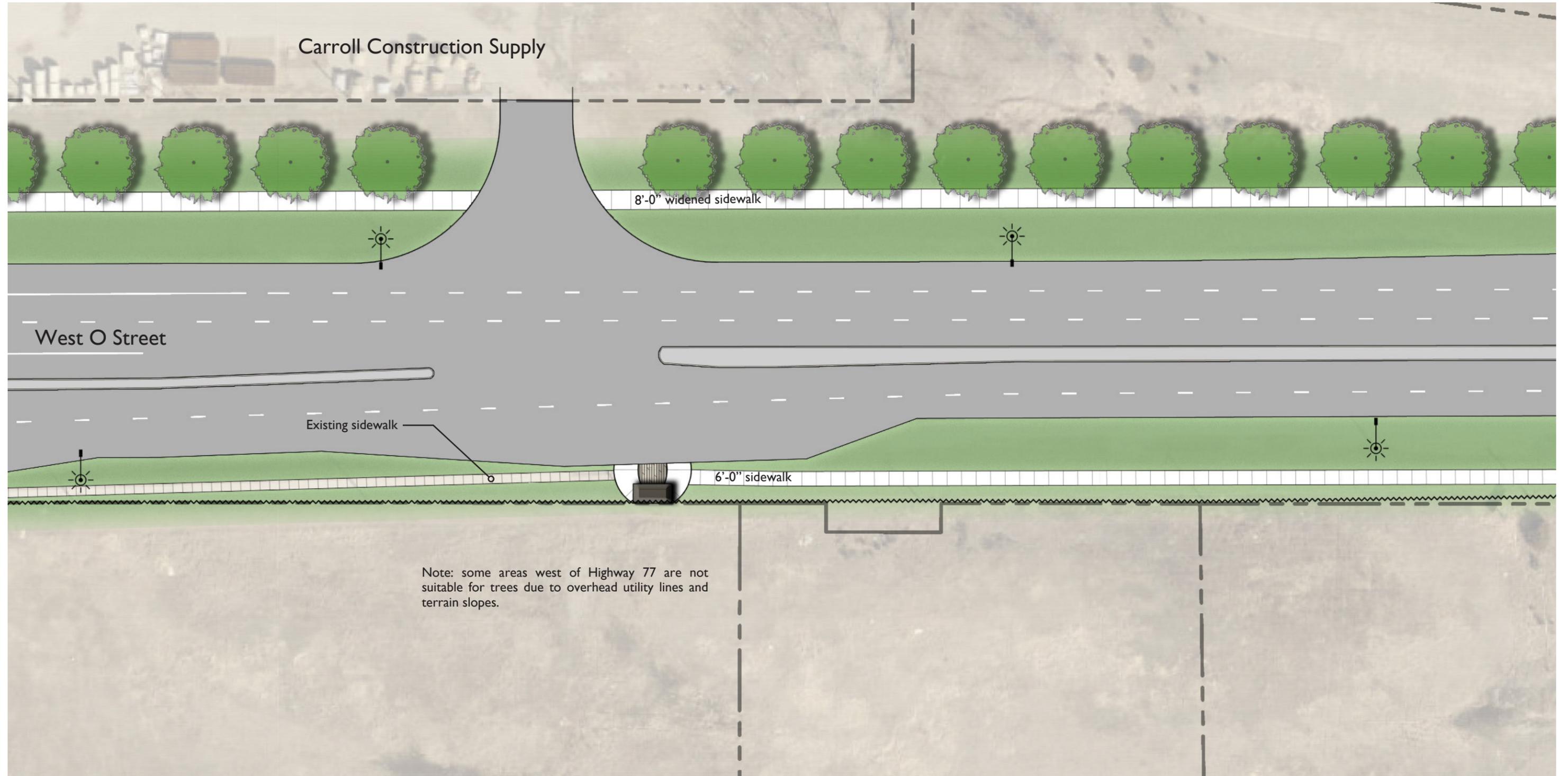
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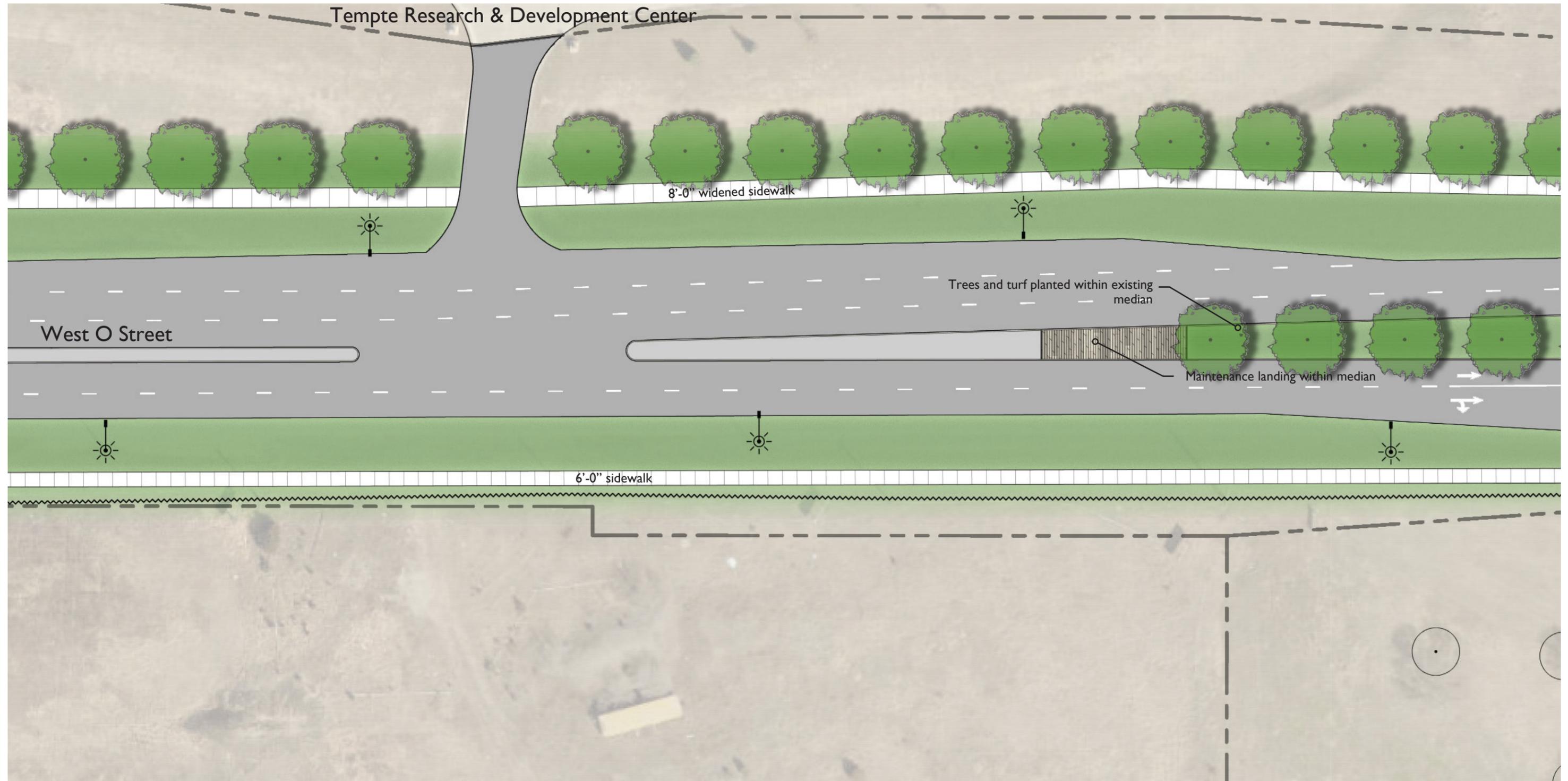
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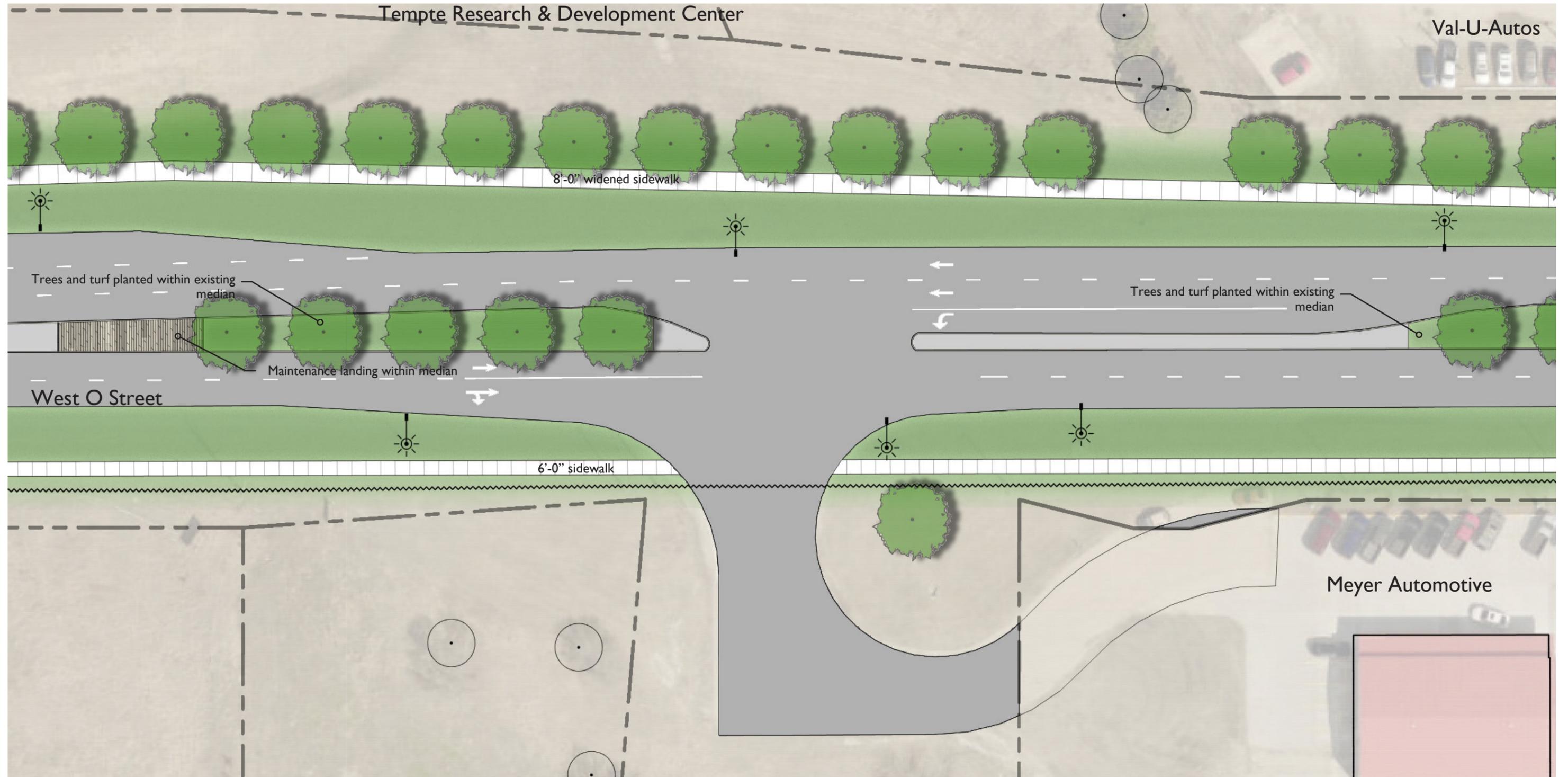
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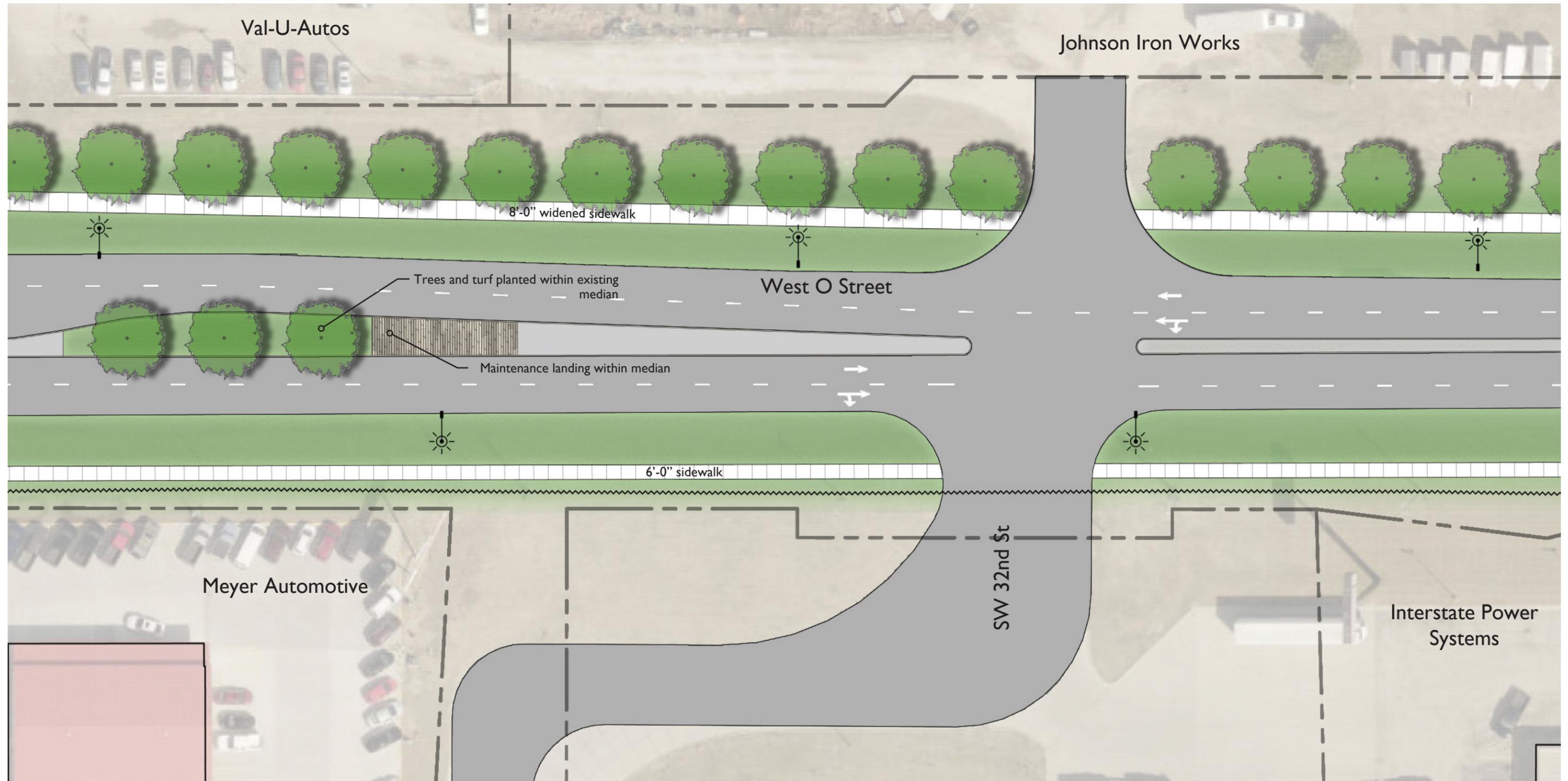
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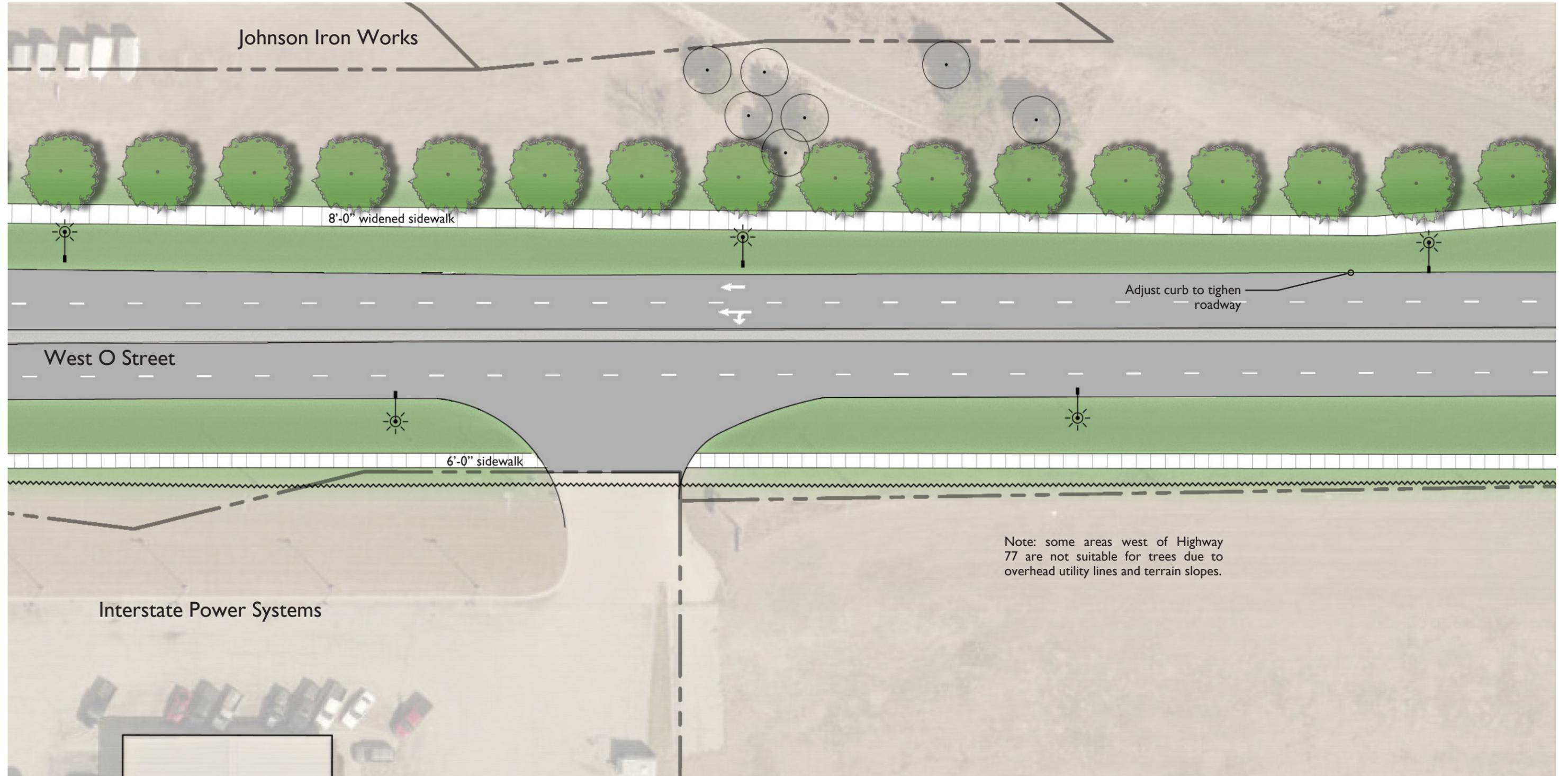
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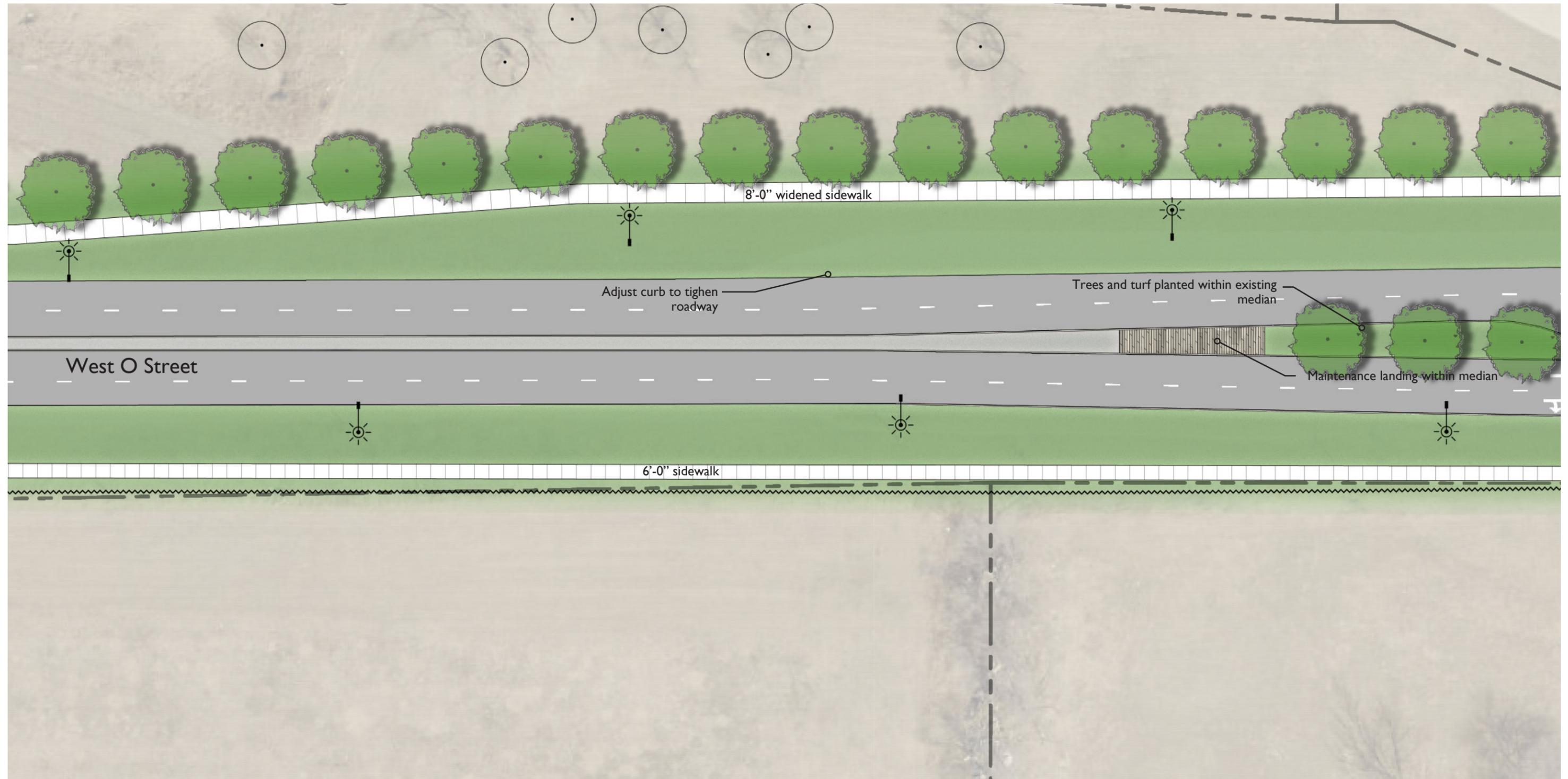
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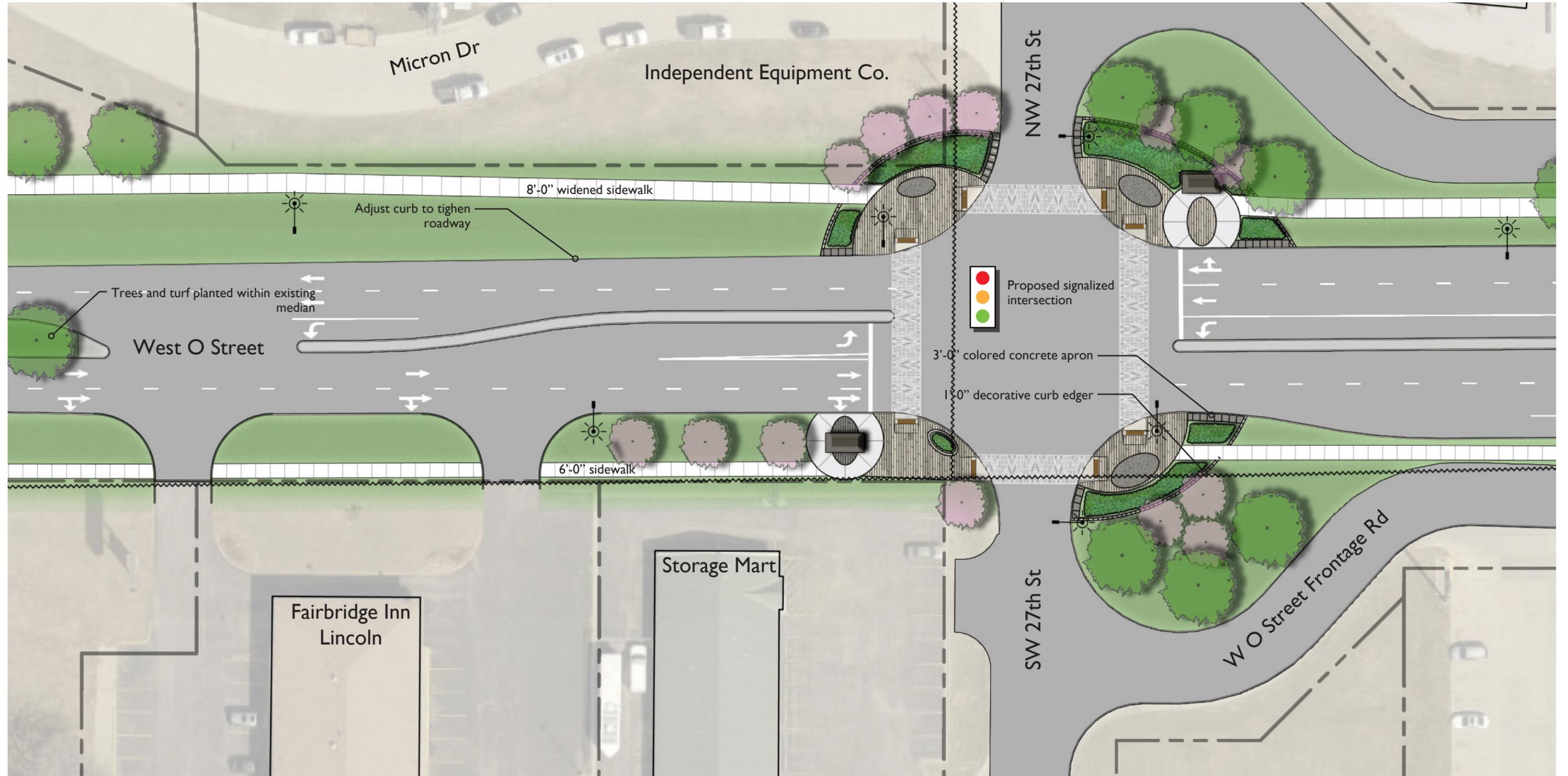
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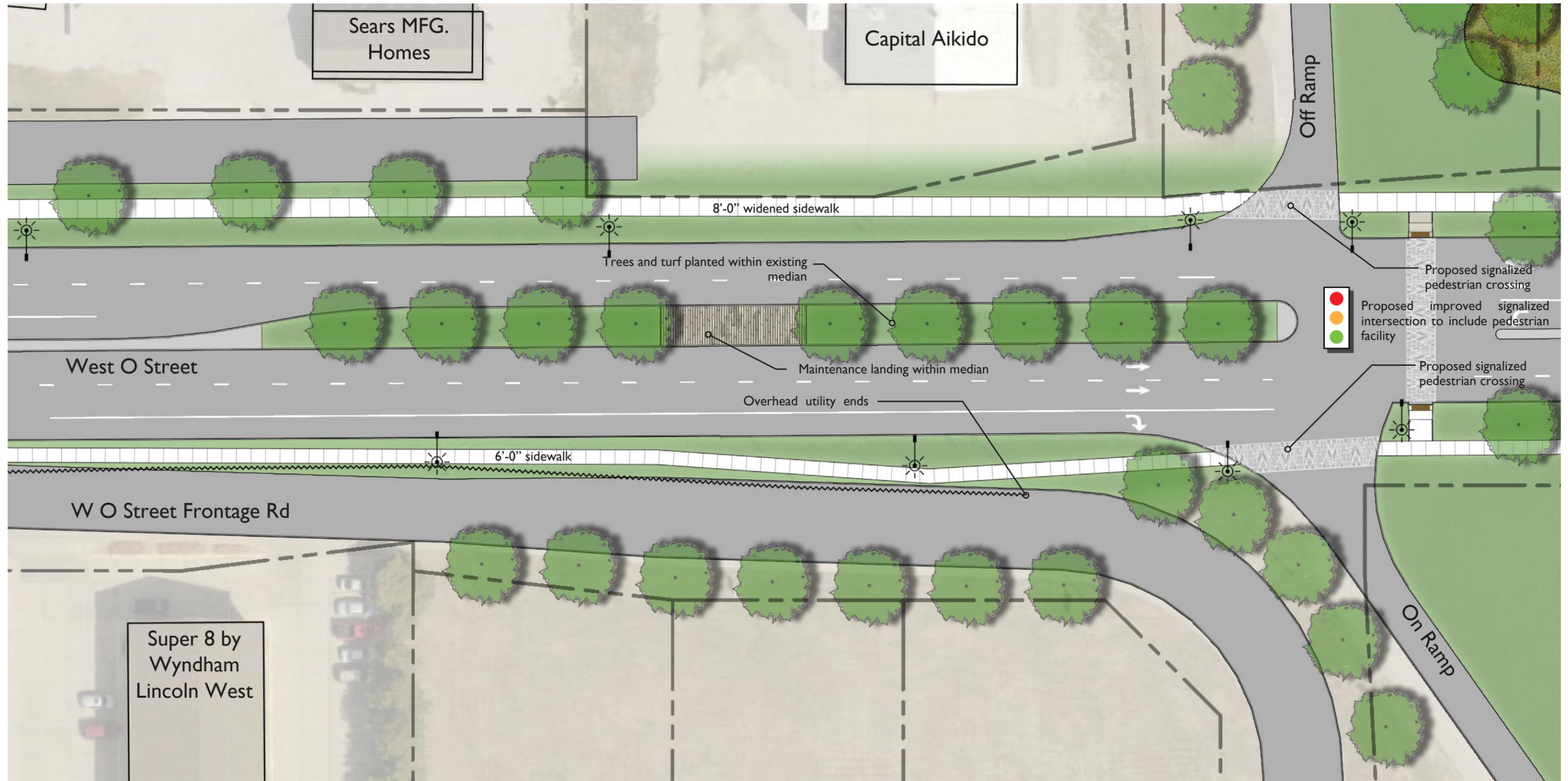
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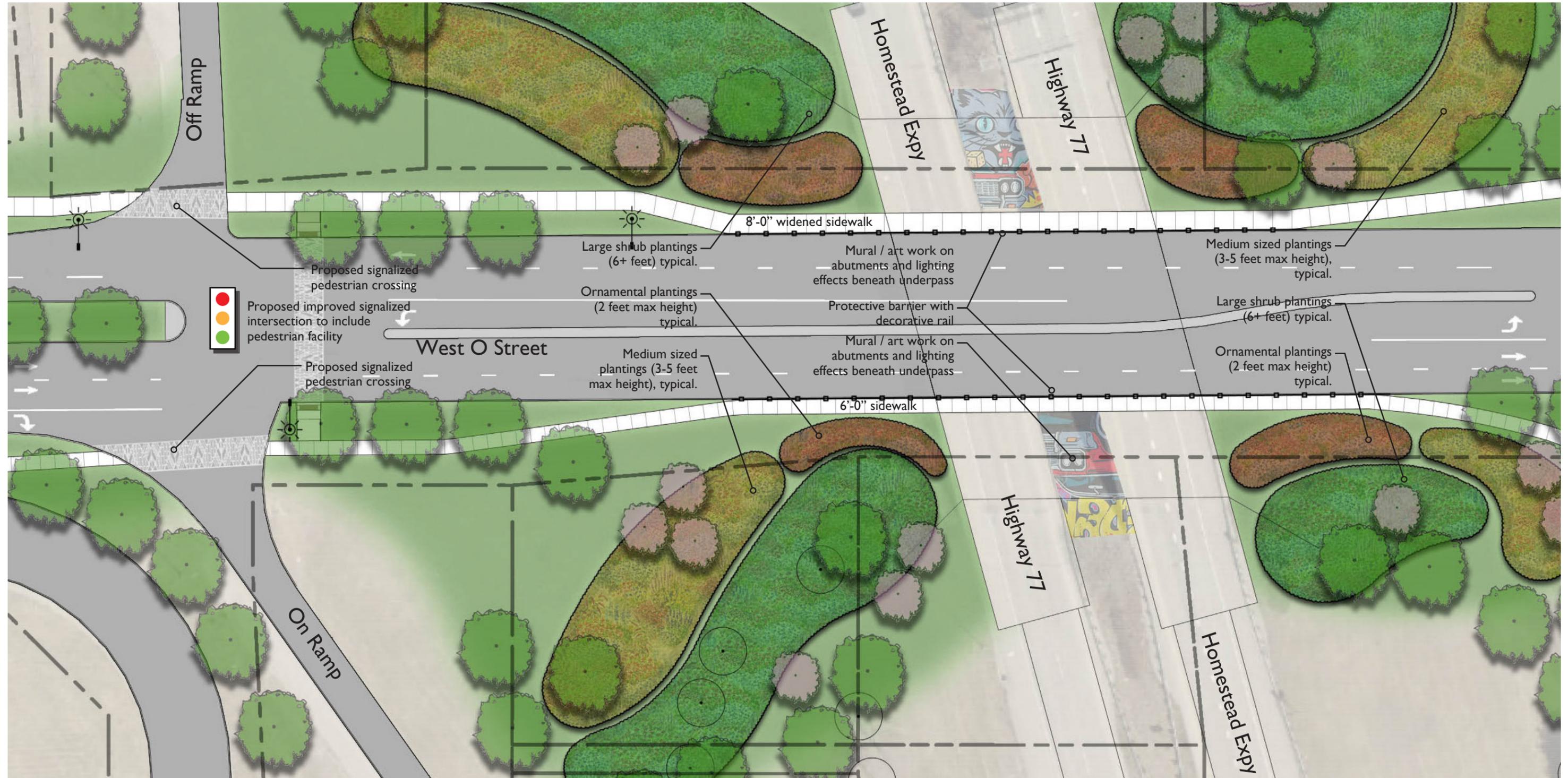
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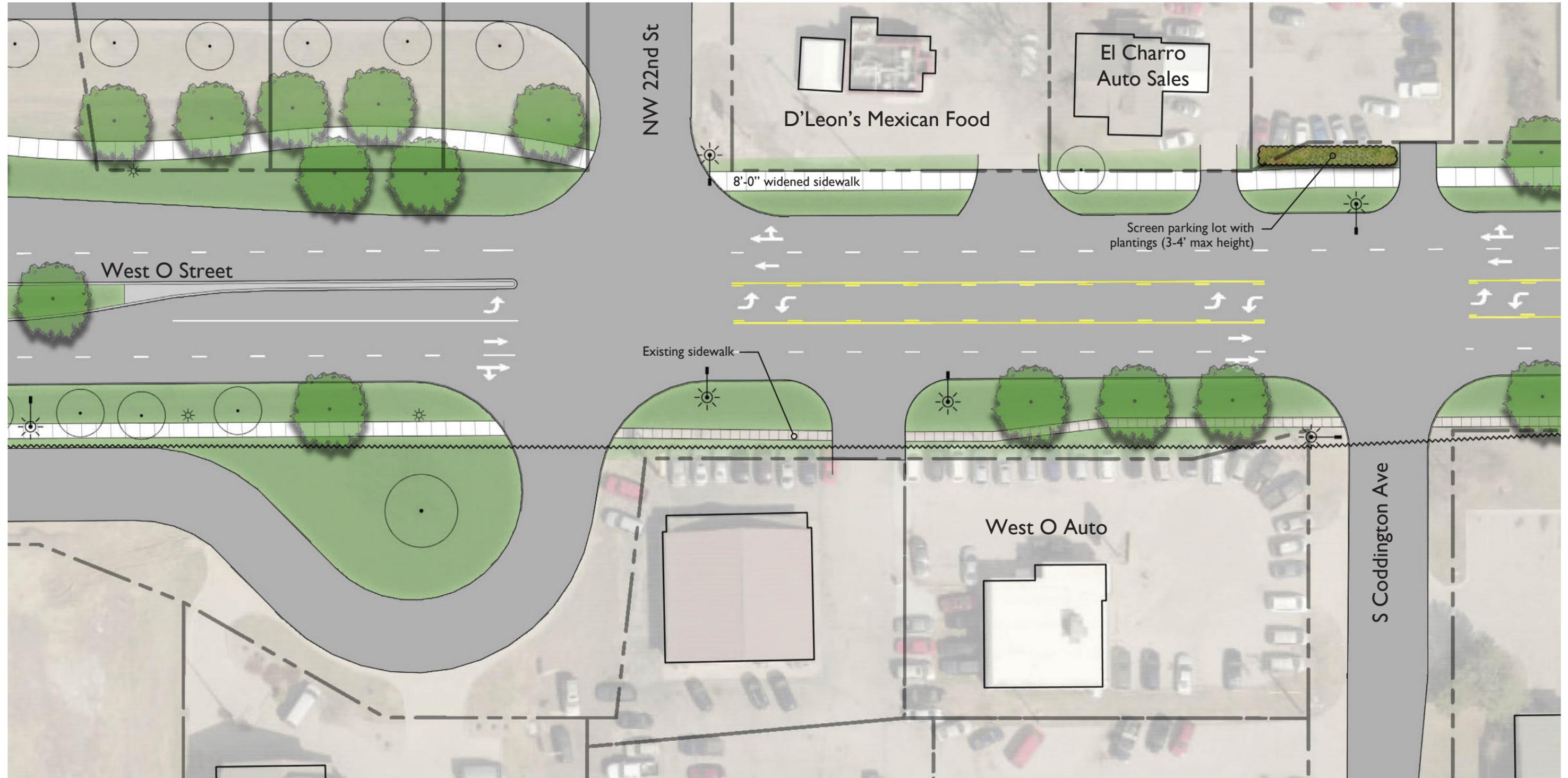
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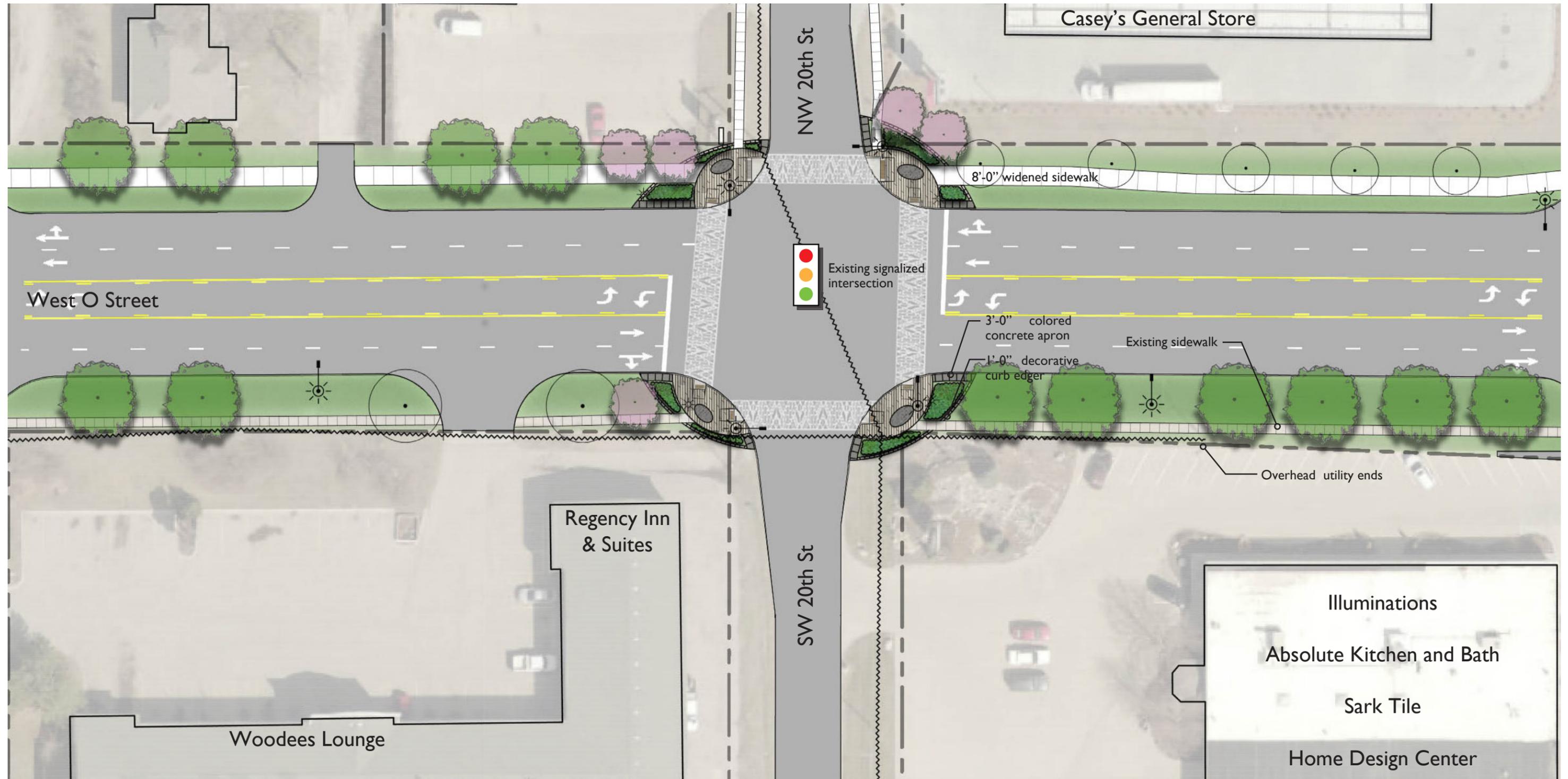
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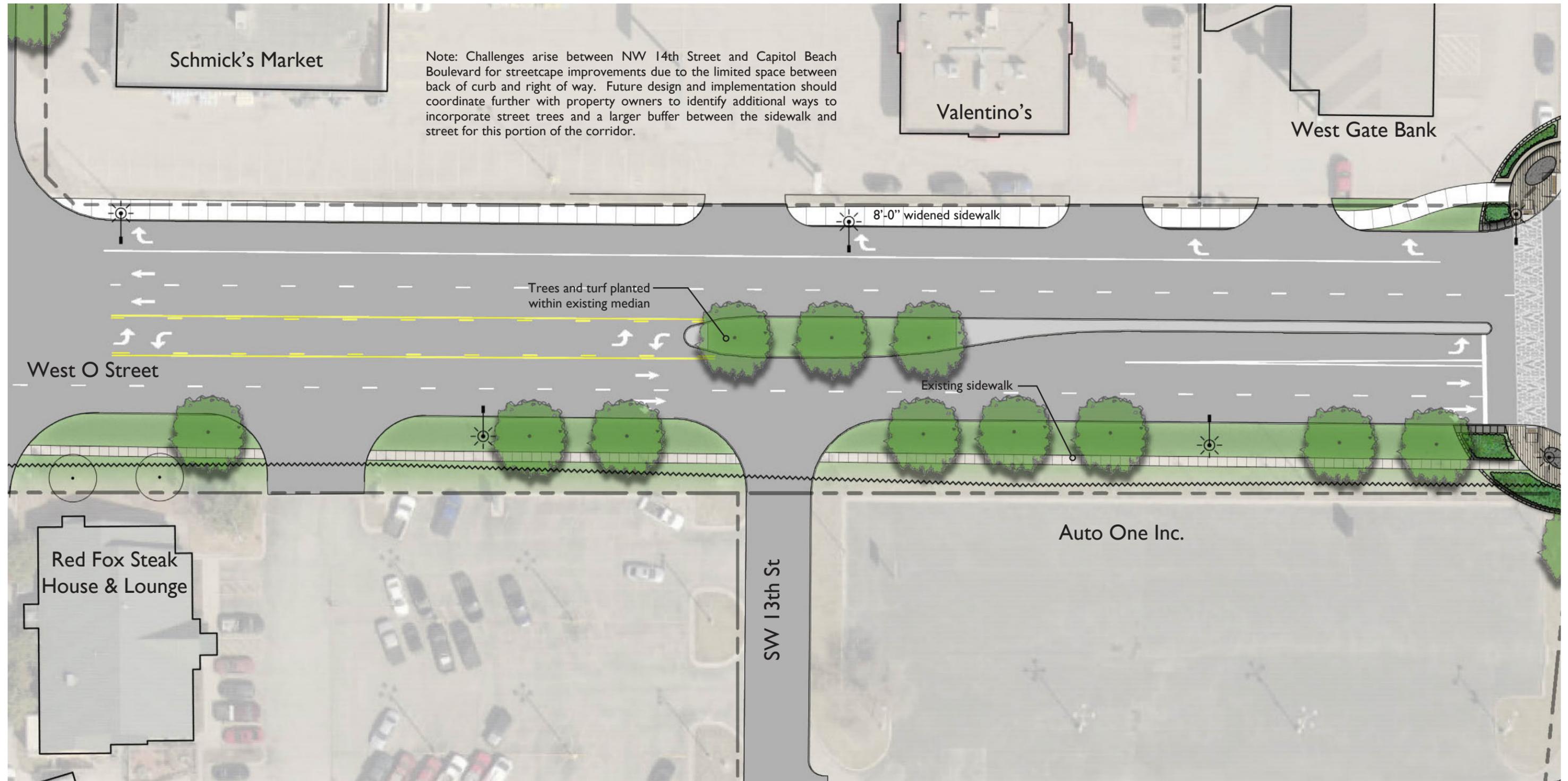
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LEGEND

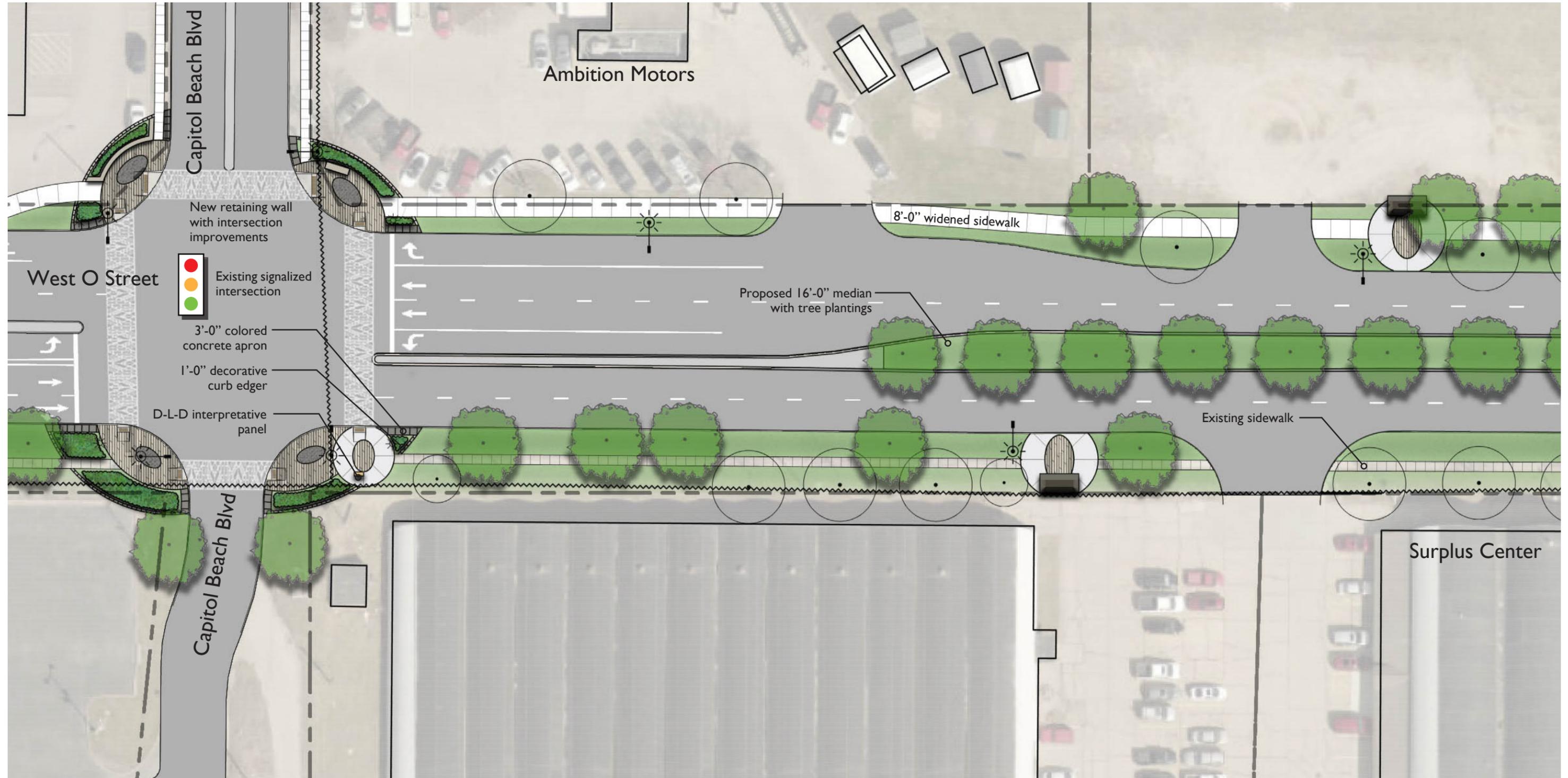
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CHAPTER THREE: PROPOSED MASTER PLAN

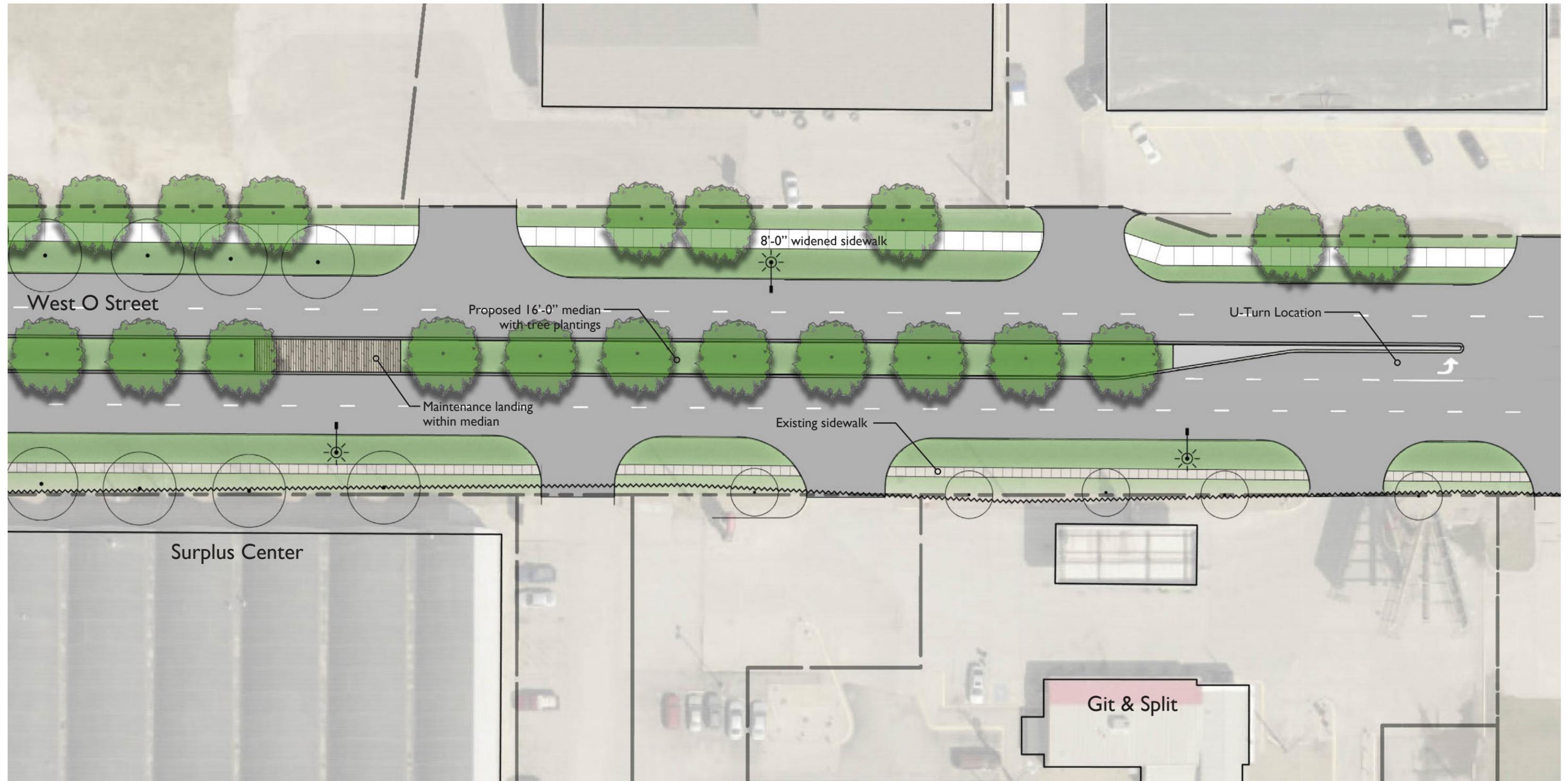
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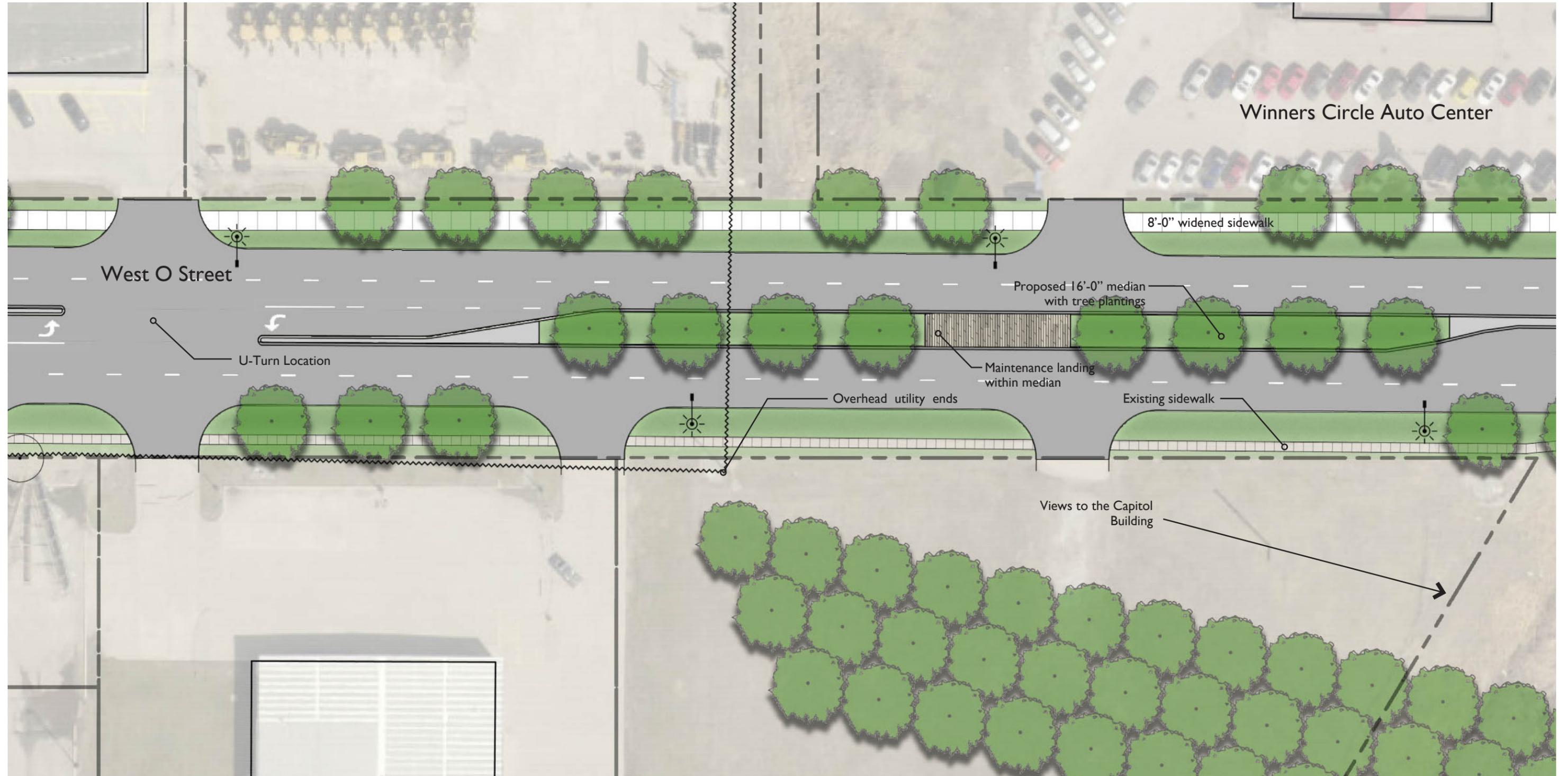
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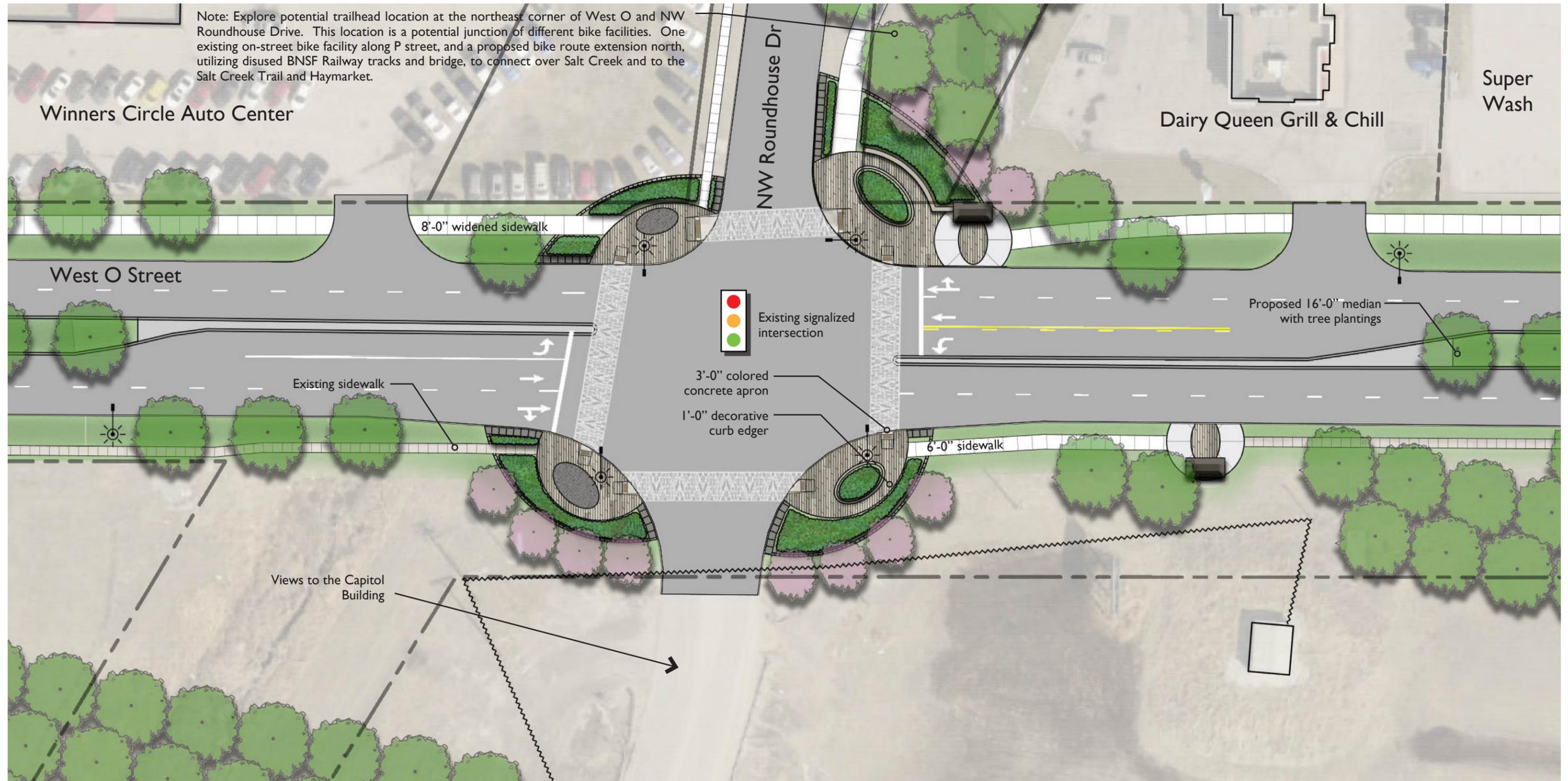
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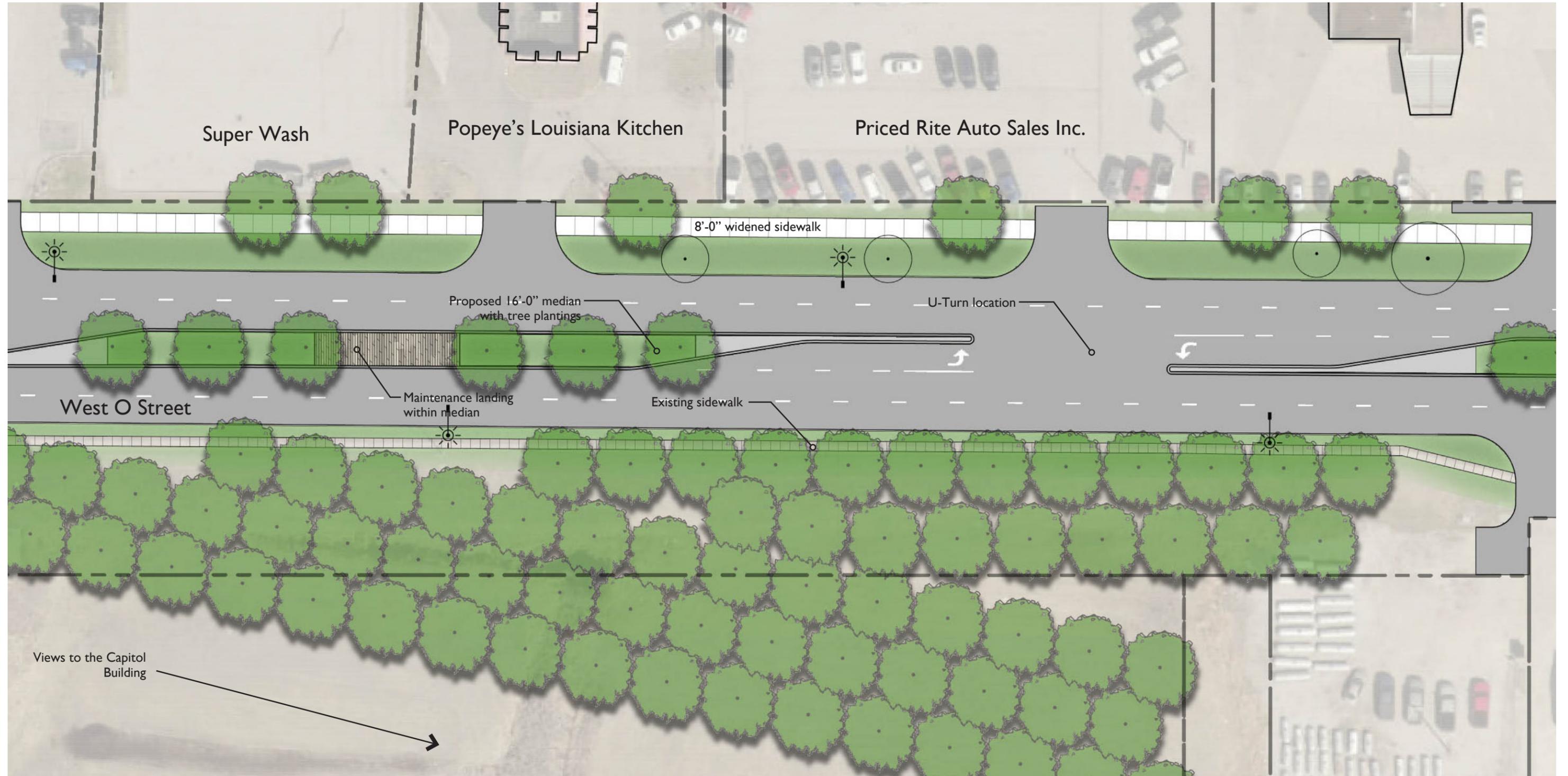
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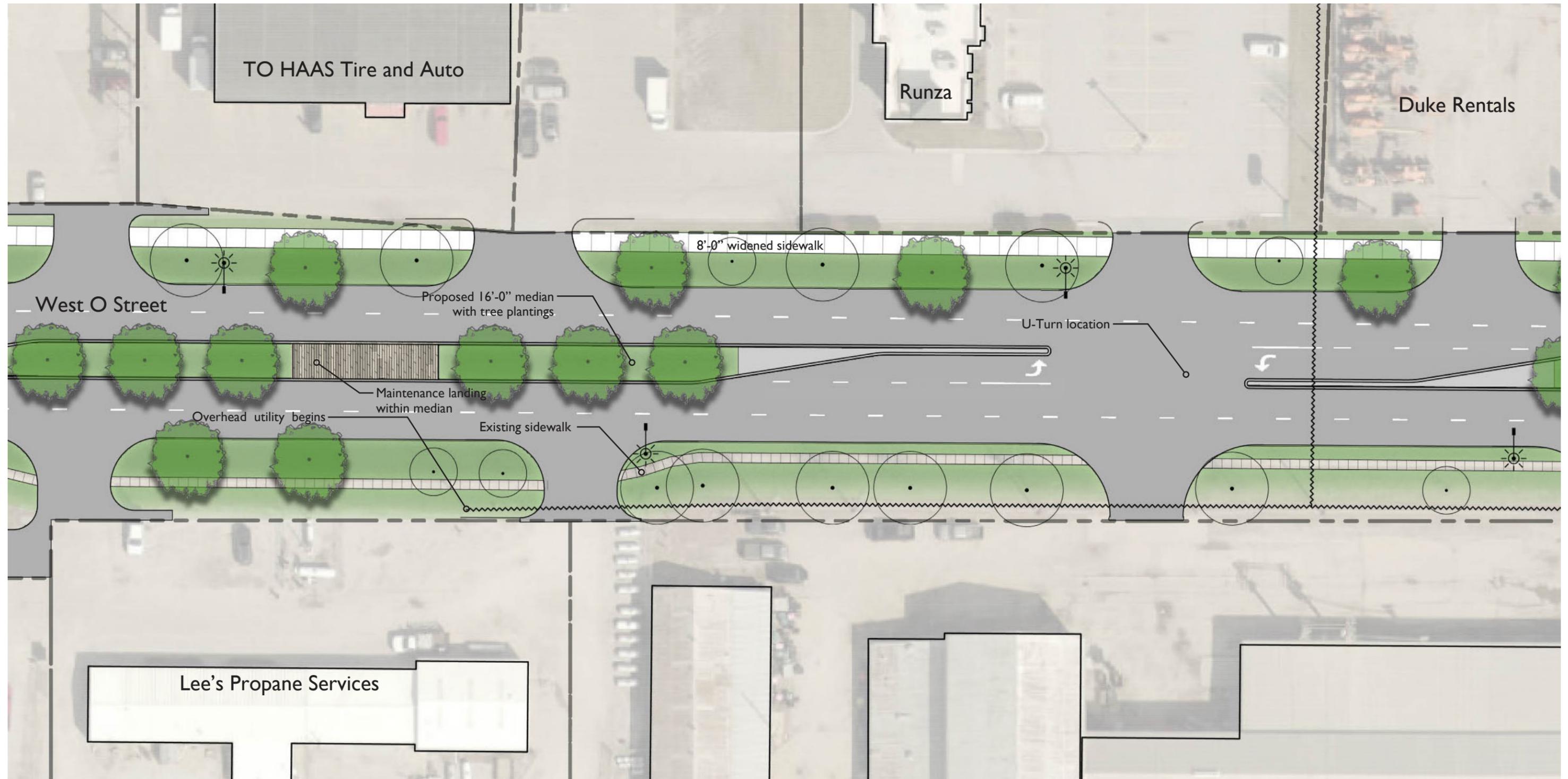
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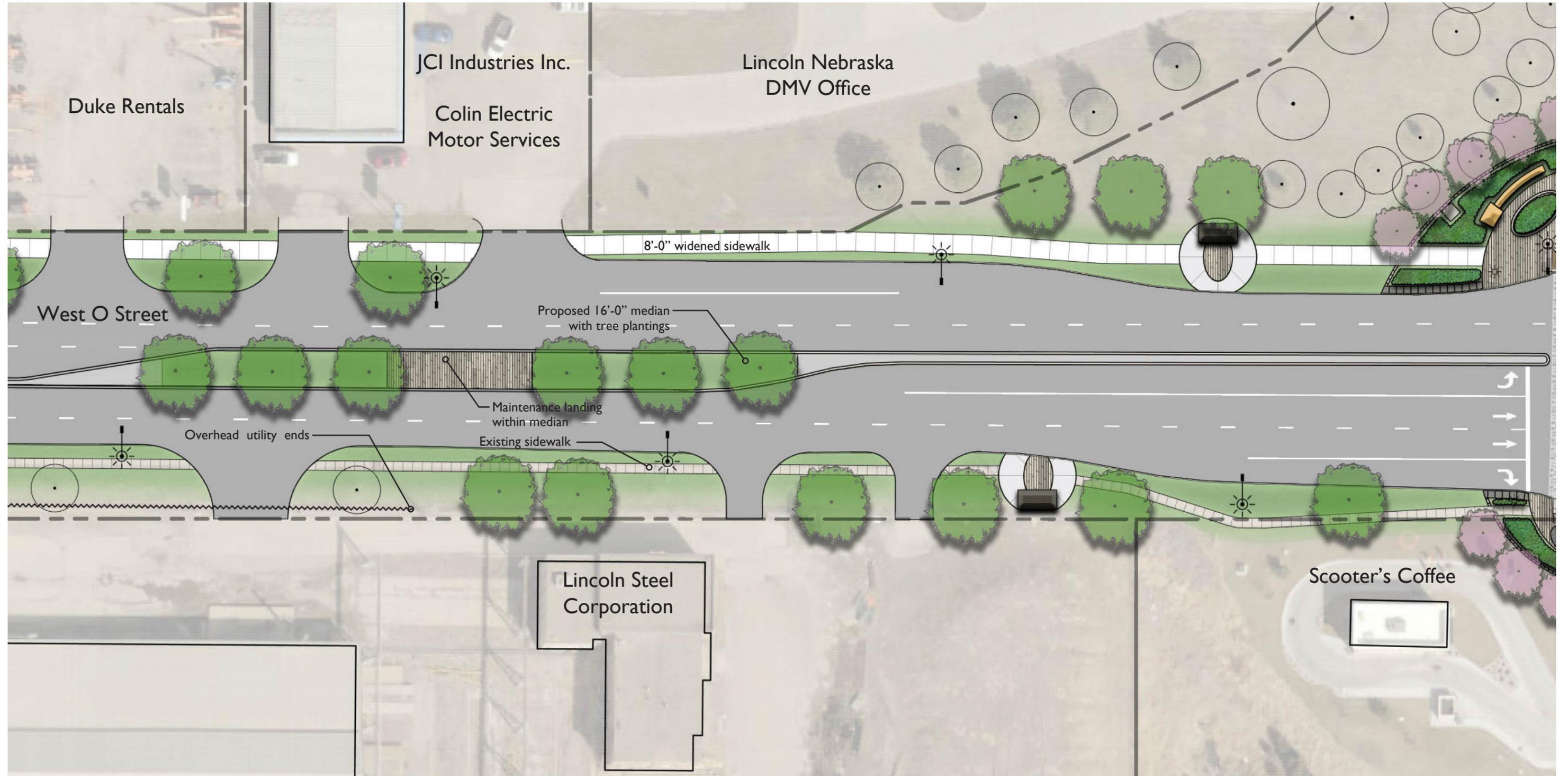
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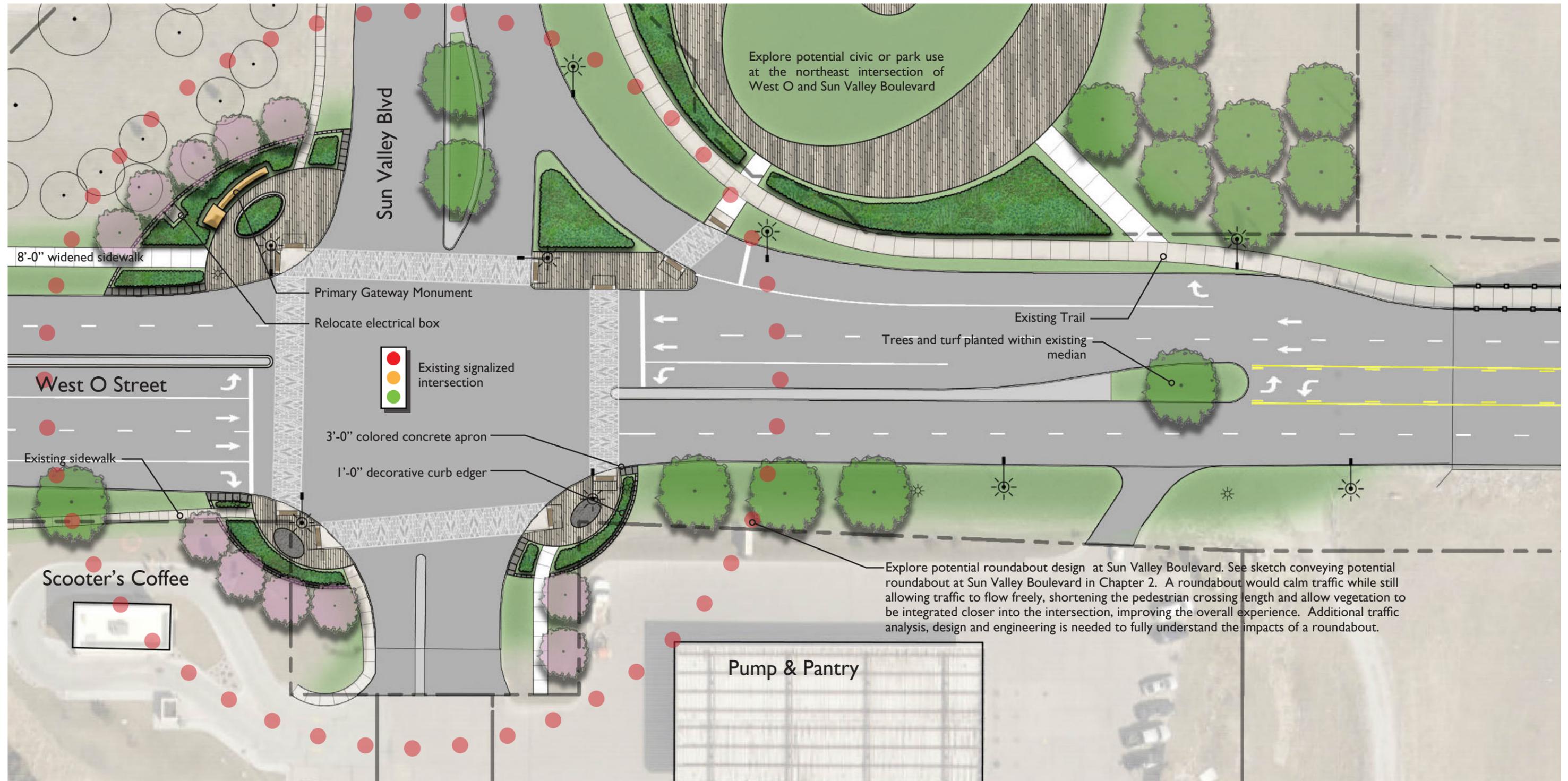
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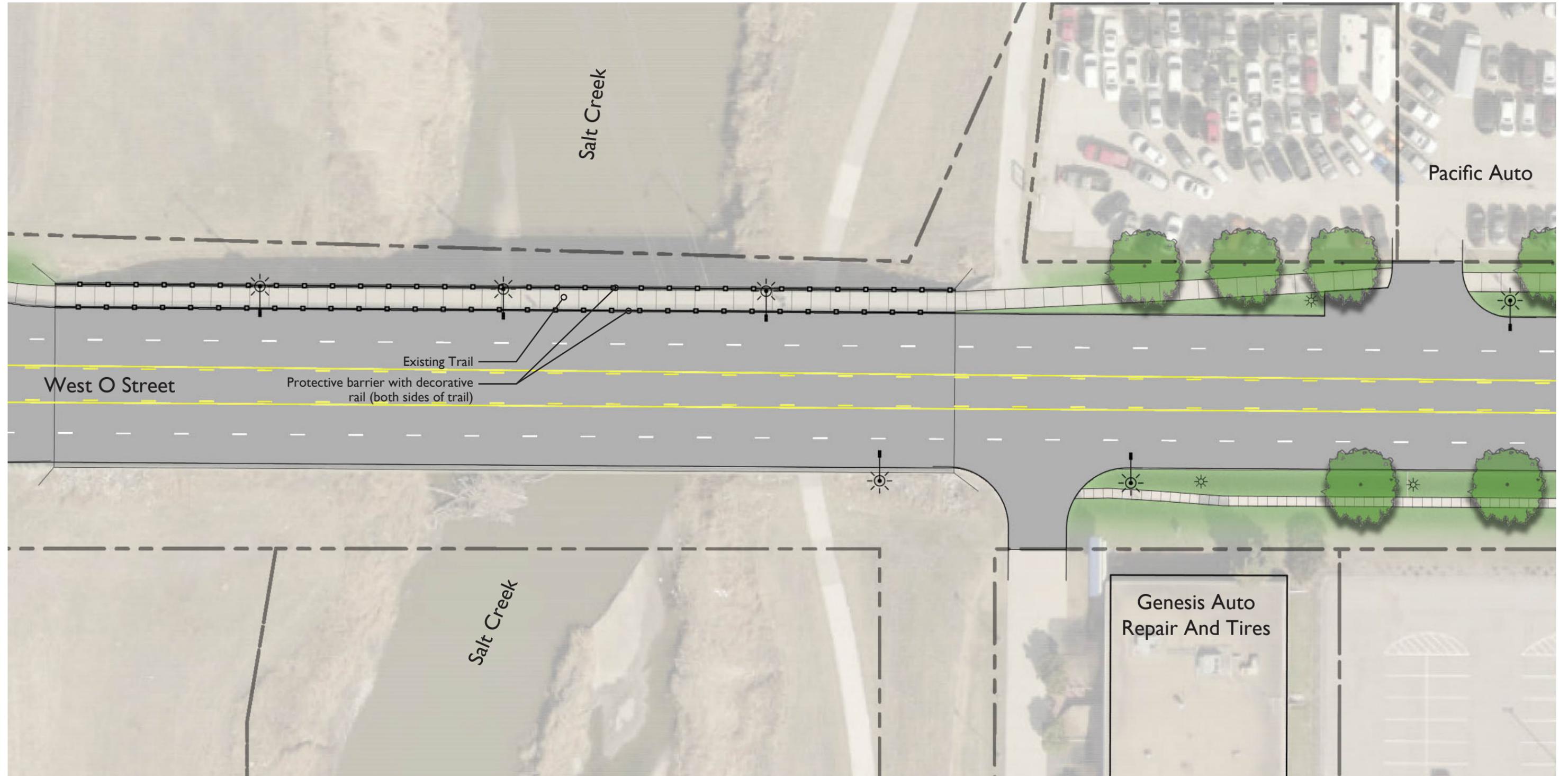
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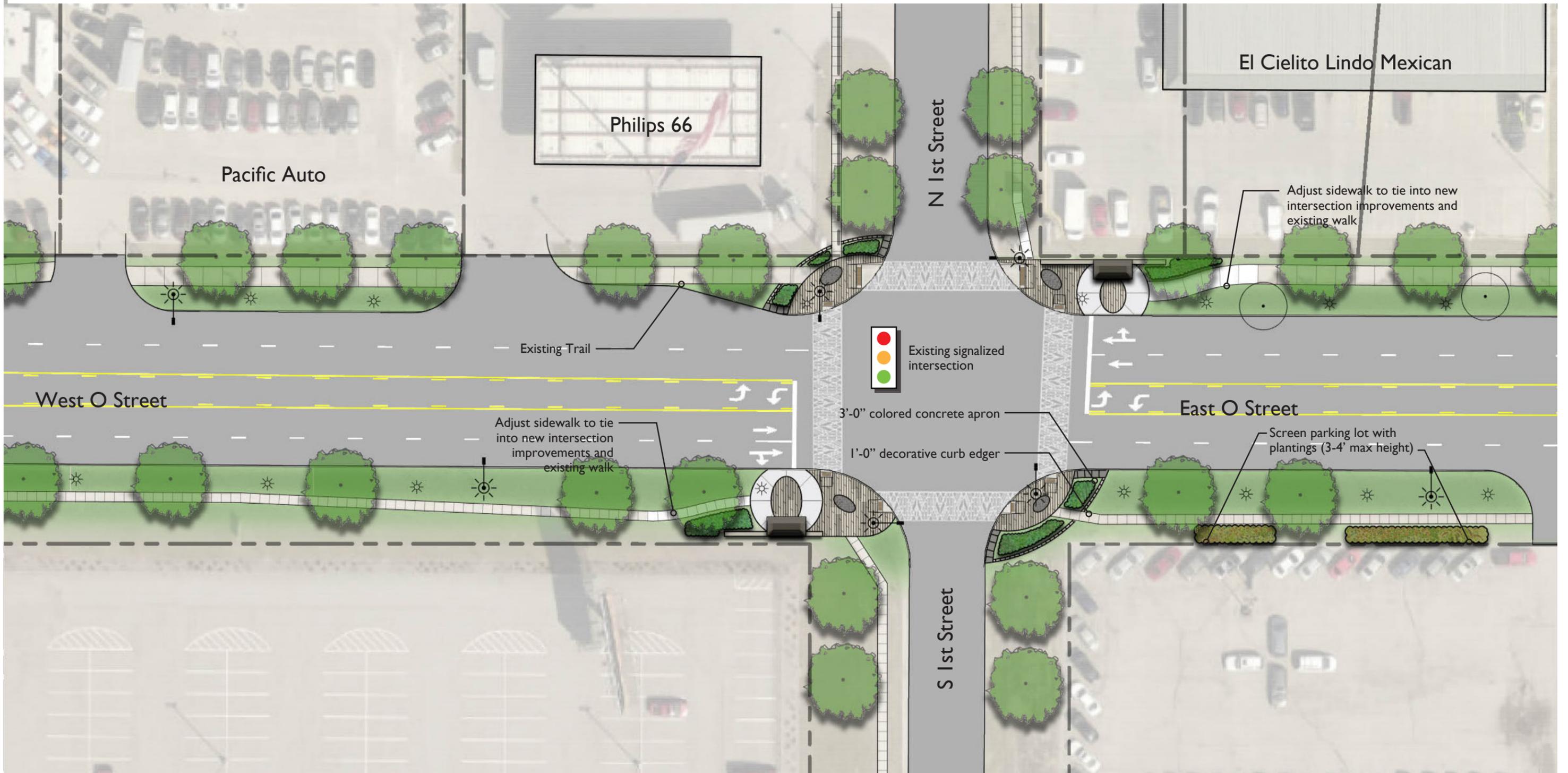
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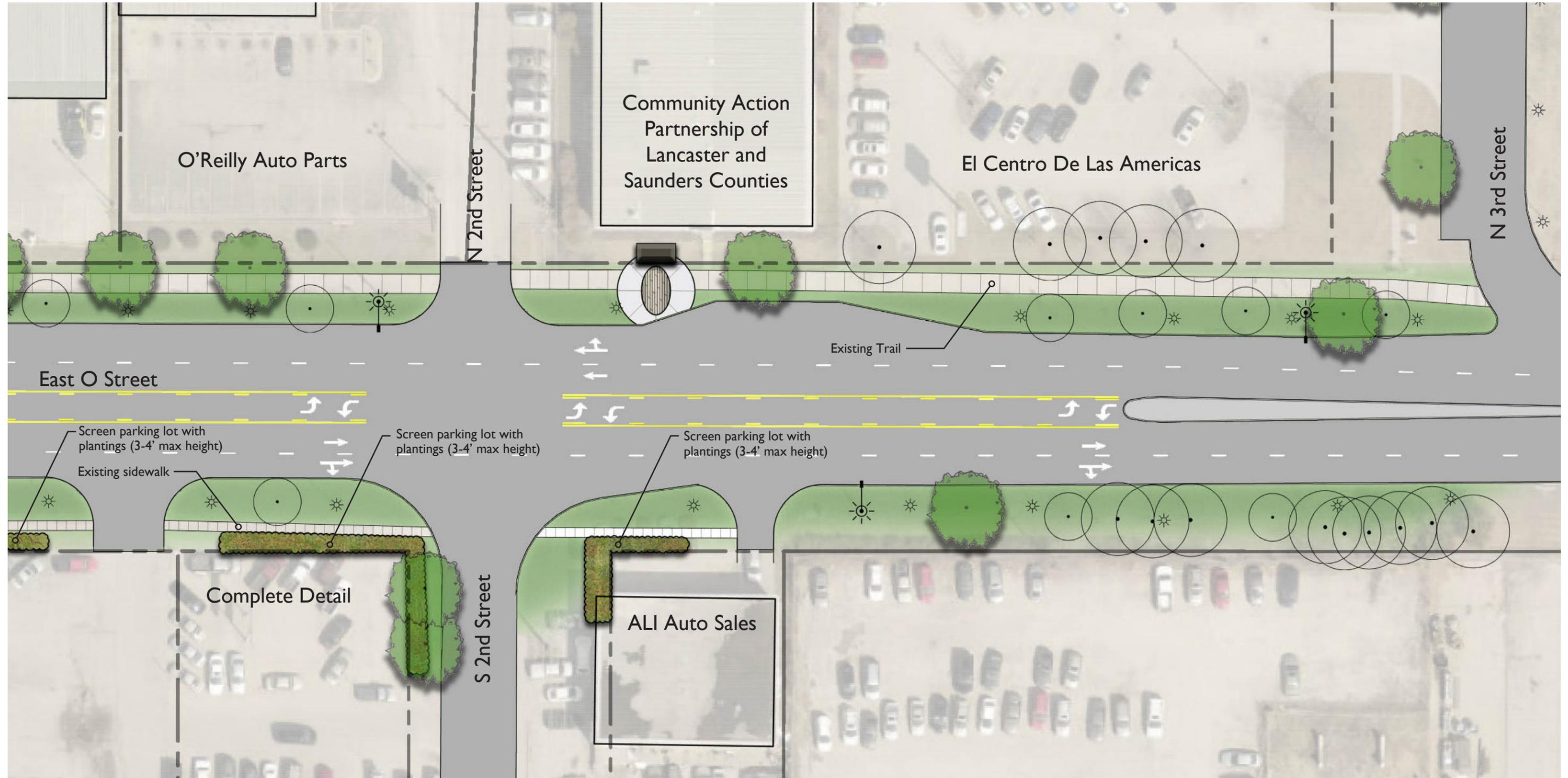
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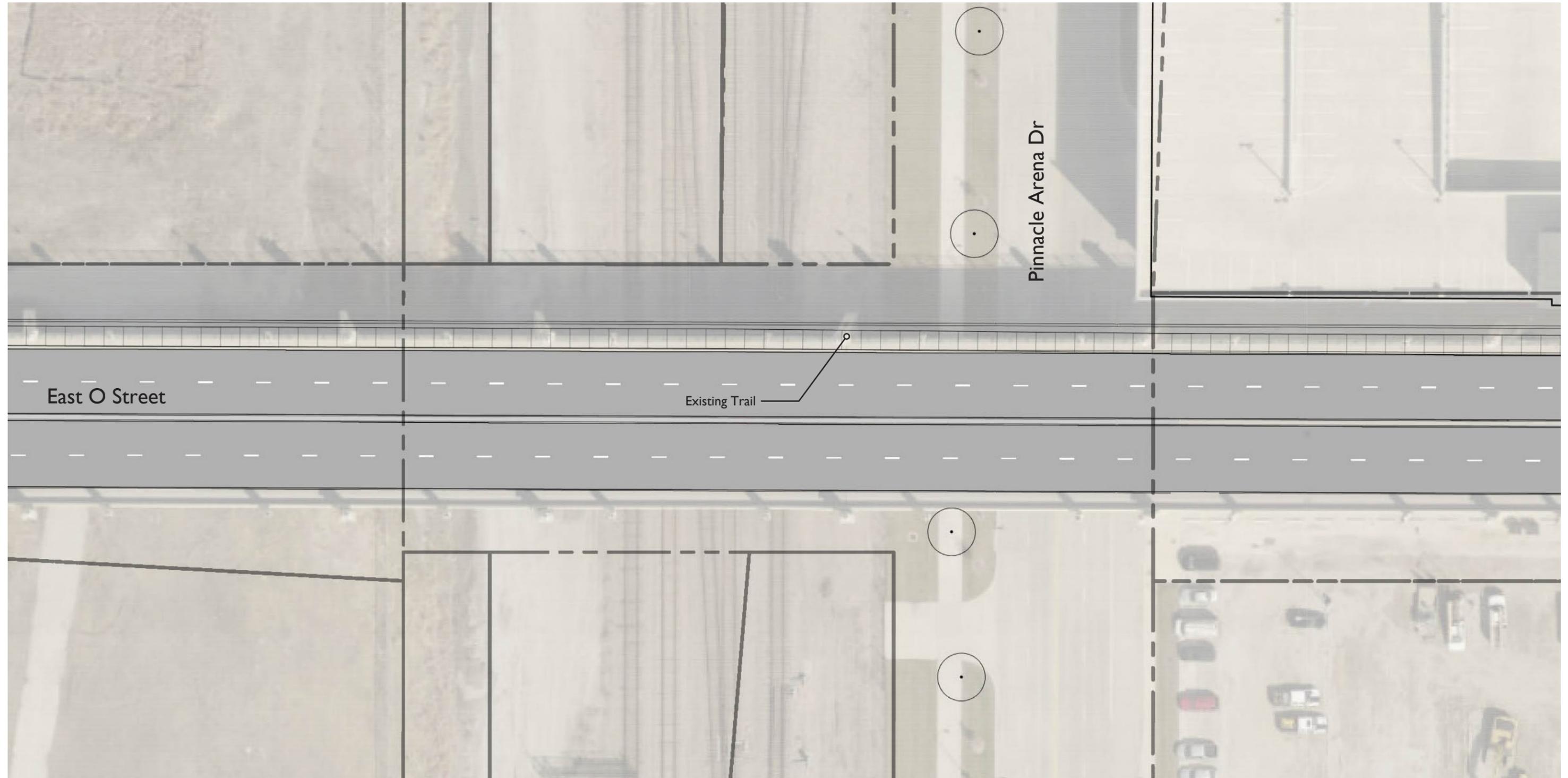
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