

# CIRCULATION AND STREETSCAPE AMENITIES

*Plan for the Sugar House Business District*

DECEMBER 2012



Prepared for:



**SLCRDA**

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## CHAPTER 1: INTRODUCTION

The Circulation Plan for the Sugar House Business District (the Plan) document was completed by Fehr & Peers under the direction of Salt Lake City's Redevelopment Agency (RDA) and the Community and Economic Development Department (Transportation Division). A stakeholder committee comprised of staff from a range of departments, as well as property owners, business owners, and representatives from local institutions, provided guidance throughout the process.

Sugar House is a unique community that attracts a broad range of local and national retailers. Its festivals and markets (i.e. farmer's market, arts festival, Fourth of July fireworks, etc.) draw crowds from many areas of the Salt Lake region. The residential neighborhoods in and around the Sugar House Central Business District (CBD) provide for those seeking a rich urban lifestyle as well as those seeking a house and a yard on a quiet, leafy street.

As a result of this success, several of Sugar House's CBD streets are approaching their effective motor vehicle capacity during the peak hours of the day, and there are few opportunities or desire to expand capacity to accommodate more cars. For the Sugar House CBD to continue to thrive, it must make more efficient use of its existing transportation infrastructure. This means making better use of transit, managing parking supply more carefully, and increasing the walkability and bikability of CBD streets so that intra-CBD trips will primarily be served by walking, biking, and transit rather than driving.

This report is structured around these principles, and its chapters are arranged accordingly:



- **Chapter 2: Study Area Description**, provides multi-modal existing conditions information and data within the study boundaries of the plan.
- **Chapter 3: Vision and Goals**, identifies the community and stakeholders desires and goals.
- **Chapter 4: Project Evaluation**, examines the feasibility of specific transportation related projects in the study area.
- **Chapter 5: Implementation Plan**, includes a summary of the key projects, actions, and strategies.
- **Chapter 6: Next Steps**, identifies the next steps to achieve the circulation goals.
- **Chapter 7: Streetscape Amenities Plan**, identifies street amenities to enhance the visual characteristics of the corridors.

## CHAPTER 2: STUDY AREA DESCRIPTION

The *Plan* Study Area is within the area bounded by 1300 East to the east, 900 East to the west, Interstate-80 (I-80) to the south, and Ramona Avenue to the north (see Figure 2-1).

### 2.1

#### *Land Use*

The Sugar House neighborhood is located in east-central Salt Lake City, Utah, along the Wasatch Front (the western slope of the Wasatch Mountain Range) (see Figure 2.1-1). Sugar House, one of the original streetcar communities of Salt Lake City and one of the oldest neighborhoods, includes a broad mix of land uses, including commercial, office, and residential. The portion of the corridor between 900 East and 1300 East is one of the few areas along the Wasatch Front with the mix and density of land uses that could facilitate active transportation (pedestrian and bicycle) investment. The area has a higher-than-average residential density and is within a convenient walk distance of many businesses. In addition, there are a number of potential redevelopment sites in the Study Area that could result in mixed-use development in areas surrounded by existing residential uses.



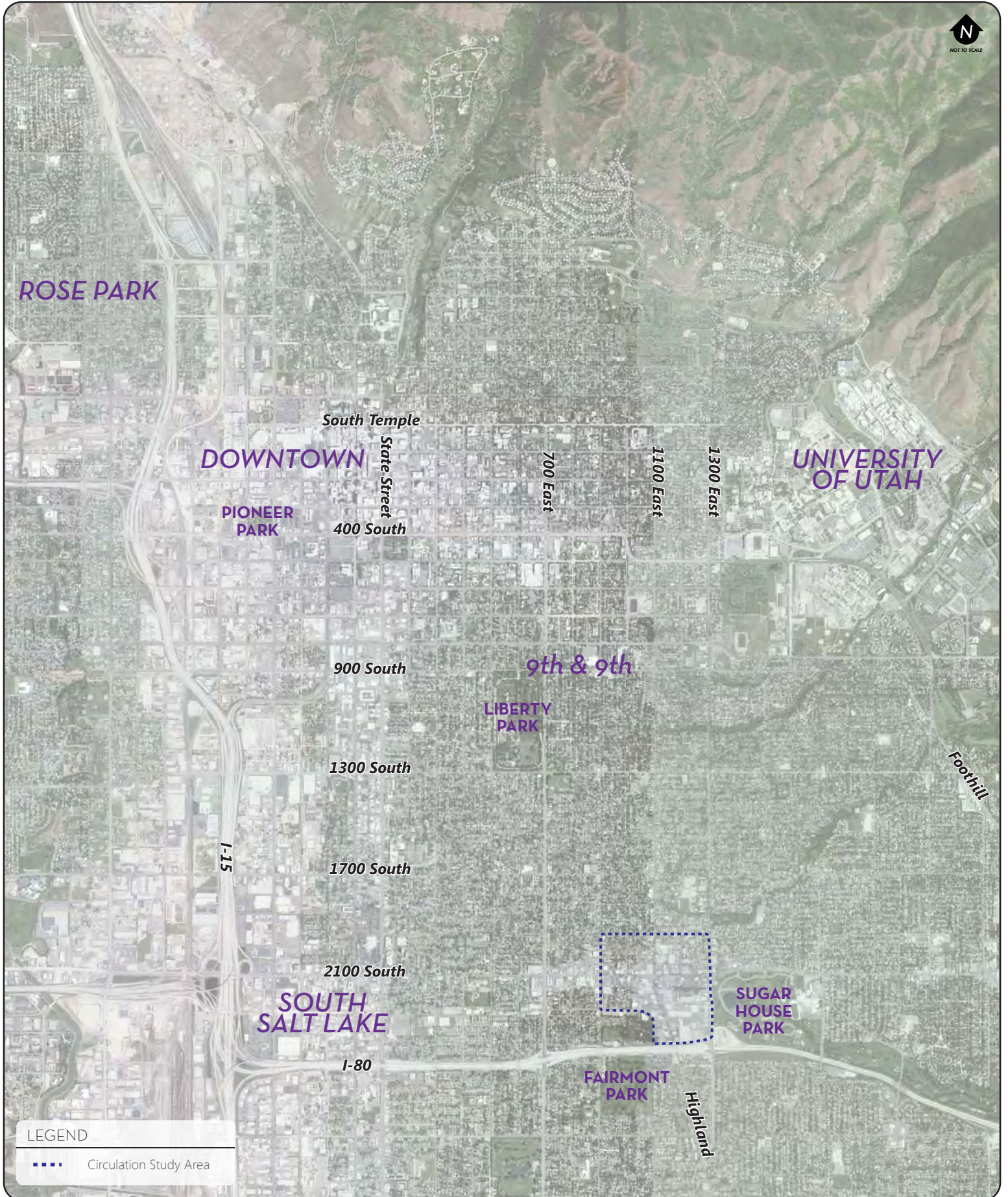
The north part of the Study Area is predominately single-family residential with clusters of neighborhood commercial and a few mixed residential/business corridors, such as 1100 East and 2100 South. Several parks and institutional uses are dispersed throughout the outer boundaries of the Study Area. The close proximity of many mixed uses promotes walking as a mode of transportation.

In addition to the general land uses described above, the following major activity centers are located within the Study Area:

- Sprague Library (Highland Drive)
- Sugar House Shopping Center (Highland Drive)
- Sugar House Shopping Commons (Highland Drive and 2100 South)

# CIRCULATION STUDY AREA - REGIONAL

Figure 2-1.1 | Sugar House Business Plan Circulation Plan



# CIRCULATION STUDY AREA - NEIGHBORHOOD

Figure 2-1 | Sugar House Business District Circulation Plan



Within one mile of the Study Area the following attractors also exist:

- Fairmont Park and Aquatic Center (Sugarmont Park)
- Sugar House Park (1300 East and 2100 South)
- Forest Dale Golf Course (900 East)
- Intermountain Health Center (900 East)
- Highland High School (2100 South)
- Westminster College (1300 East)

The Study Area and existing major activity centers are shown in Figure 2.1-2. In addition, four additional important activity centers are expected to soon be added to the Study Area:



- The Granite Block (on the south side of 2100 South at 1100 East). The Granite Block in downtown Sugar House is planned for redevelopment with a mix of residential, commercial, and office use. Development plans include 200 new residences and 200,000 square feet (SF) of commercial/office over the next several years.

- Westminster Student Housing (on the west side of 1300 East between Wilmington Avenue and 2100 South). The Westminster Student Housing project has begun construction on a mixed-use development with 16,000 SF of academic space; 14,000 SF of retail space; and 54,000 SF of housing.

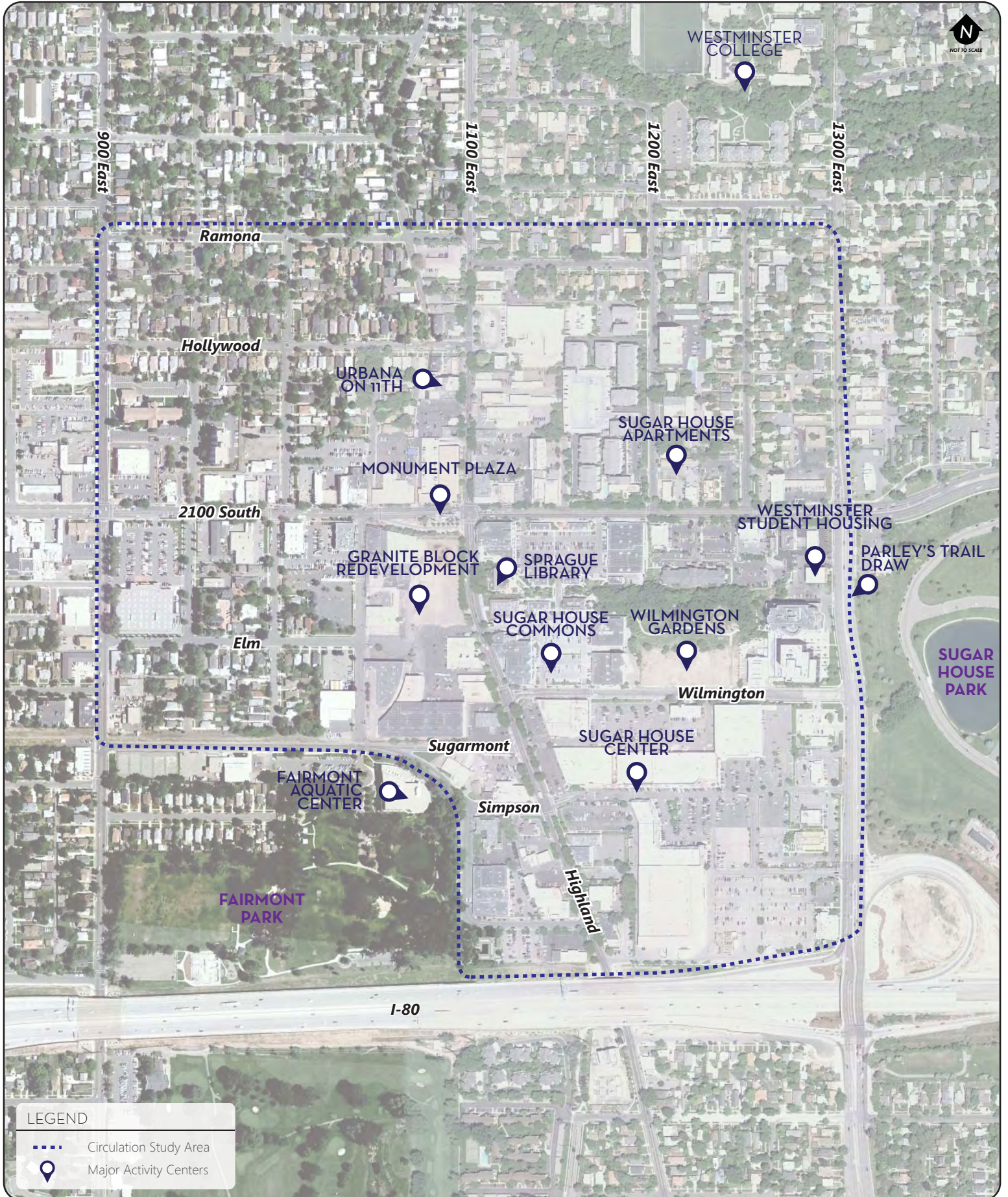
- Wilmington Gardens (Wilmington Avenue between Highland Drive and 1300 East). Wilmington Gardens in Sugar House is planned to be redeveloped with a mix of residential, community space, commercial, and office use.



- Development plans include 100,000 SF of residential with 20% affordable units; approximately 84,000 SF of commercial/office; and 45,000 SF of community space. Plans for Wilmington Gardens incorporate academic space for Westminster College.

# MAJOR ACTIVITY CENTERS

Figure 2-1.2 | Sugar House Business District Circulation Plan



- Sugar House Center (south of Wilmington Avenue between Highland Drive and 1300 East). The Sugar House Center is planned to be a mixed-use redevelopment project separated into multiple phases. Full build-out plans include 800 residential units, 380,000 SF of commercial/office use. A structured parking garage is also planned for this development site.
- The Parley's Trail Draw (1300 East on the south side of Westminster Student House). The Parley's Trail Draw project is a tunnel under 1300 East connecting Sugar House Park to Hidden Hollow, an integral part of the Parley's Trail.

## 2.2 *Development Plans*

Planning for the Sugar House Streetcar Phase 1 Project has generated interest in the development community. The following developments within the Study Area have recently been constructed, are underway, or are approved, and are shown in Figure 2.2-1.

- Urbana on Eleventh—29 condominiums and 750 SF of ground floor retail. This project is 100 percent constructed.
- John Gardiner Apartment Complex—70 apartment units. This project is currently under construction and will be complete by 2014.
- Westminster Mixed-Use Project—44 three- and four-bedroom apartment units with a total of 164 beds, approximately 15,000 SF of office space, and 8,500 SF of retail space. Residential development associated with this project is part of the Westminster College expansion, and will serve as student housing. This project is currently under construction and will be complete by fall 2012.
- Wilmington Gardens Project—between 212 residential units, including 5 townhomes; approximately 30,000 SF of office; and 60,000 SF of retail development. This project will be complete by 2013.
- Olsen Development—residential and retail space is planned to front Wilmington Avenue on the Olsen property, which is located directly across the street from Wilmington Gardens. This project is in partnership with Wilmington Gardens, and the



# PROPOSED DEVELOPMENT LOCATIONS

Figure 2.2-1 | Sugar House Business District Circulation Plan



developers are working together to implement a new vision for Sugar House over several acres. At the corner of Highland and Wilmington Avenues, the group is planning retail, office, and residential development. The group estimates that by 2015, an additional 100 residential units and 60,000 square feet of retail will be completed.

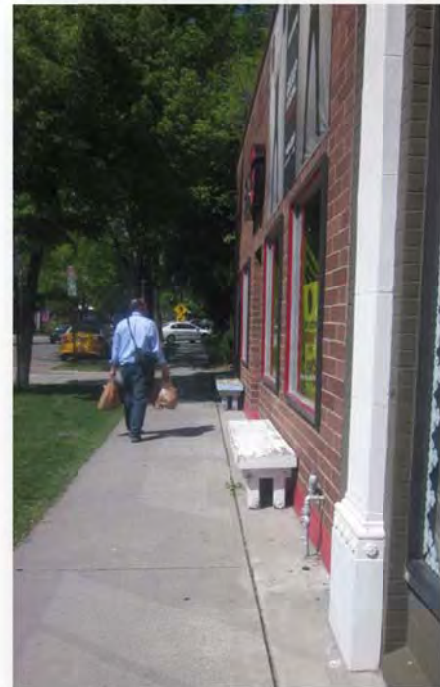
- Granite Block Development—210 residential units and 56,000 SF retail space by 2015, with the addition of 50,000 SF of office space by 2030.
- Boulder Venture Project – 20,000 SF of retail and 30,000 SF of office. This project is currently under construction and will be complete in the spring of 2013.
- Cowboy Partners Project – 170 residential units and 1,200 SF of retail. This project will be completed in 2014.

## 2.3 *Transportation*

The urban pattern in the Study Area is built on a network of arterial and collector roads, generally running in a north-south/east-west grid pattern, bus routes and stops, pedestrian connections (sidewalks), and only a few bicycle lanes.

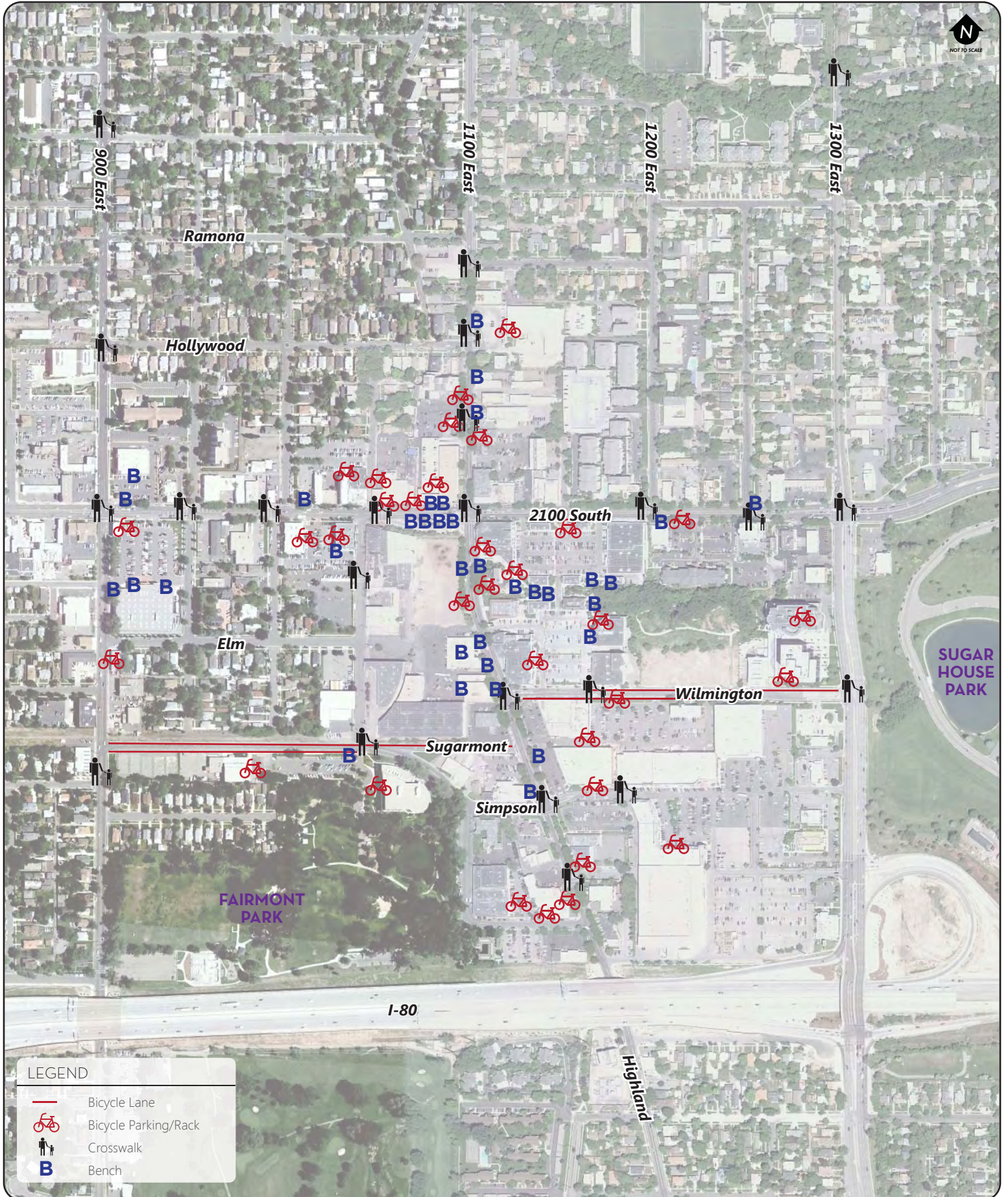
### 2.3.1 Pedestrian Network

All streets in the Study Area, except Sugarmont, include sidewalks, which are the foundation of the pedestrian network. This foundation is improved with a good trail network in areas such as the large parks near the Study Area (see Figure 2.3-1 for existing pedestrian facilities). Two regional trails are planned in the Study Area. The eight-mile Parley's Trail will transect the Study Area. Further detail on the route of the trail is explained in subsequent chapters. The trail will regionally connect Parley's Canyon on the east side of the County to the Jordan River on the west side of the County. The proposed Jordan and Salt Lake Canal Trail will enter the Study Area along McClelland Street before curving around the east side of Fairmont Park. This trail is proposed to run from 800 South to 3300 South in Salt Lake City along an historic canal. The walk travel times along key pedestrian routes in the Study Area are shown in Figure 2.3-2



# EXISTING PEDESTRIAN AND BIKE AMENITIES

Figure 2.3-1 | Sugar House Business District Circulation Plan



# WALK TIME COMPARISON

Figure 2.3-2| Sugar House Business District Circulation Plan



### 2.3.2 Bicycle Network

Sugarmont Drive and Wilmington Avenue are the only streets in the study area with designated bicycle lanes (see the previous Figure 2.3-1 for existing bicycle lanes). Salt Lake City performed bicycle counts on 2100 South at 1100 East in September 2011. The bicycle counts indicate the average number of bicycles on 2100 South on a weekday is approximately 102. Each direction (north, south, east, and west) is about equal in number of bicyclists. Approximately 46% of the weekday bicyclists were travelling on 2100 South and the remaining 54% were travelling on 1100 East. The average number of bicyclists who ride on the sidewalk ranged from 53% to 80% and the remaining percentage rides on the road.



### 2.3.3 Transit Network

Existing transit facilities (see Figure 2.3-2) in the Study Area include several bus routes, with TRAX lines located two miles west and north of the Study Area. Bus routes that operate in the Study Area are routes 17, 21, 209, 213, and 220. Table 2.3-1 shows nominal headways for each of the routes in the travel shed:

Table 2.3-1. Nominal Headways in Minutes

<i>Route</i>	<i>Mode</i>	<i>Peak</i>	<i>Off-Peak</i>	<i>Evenings</i>	<i>Saturday</i>	<i>Sunday</i>
<b>17</b>	Local Bus	30	30	0	0	0
<b>21</b>	Local Bus	15	15	30	30	80
<b>209</b>	Local Bus	15	15	30	30	60
<b>213</b>	Local Bus	30	30	30	60	0
<b>220</b>	Local Bus	20	20	30	30	60

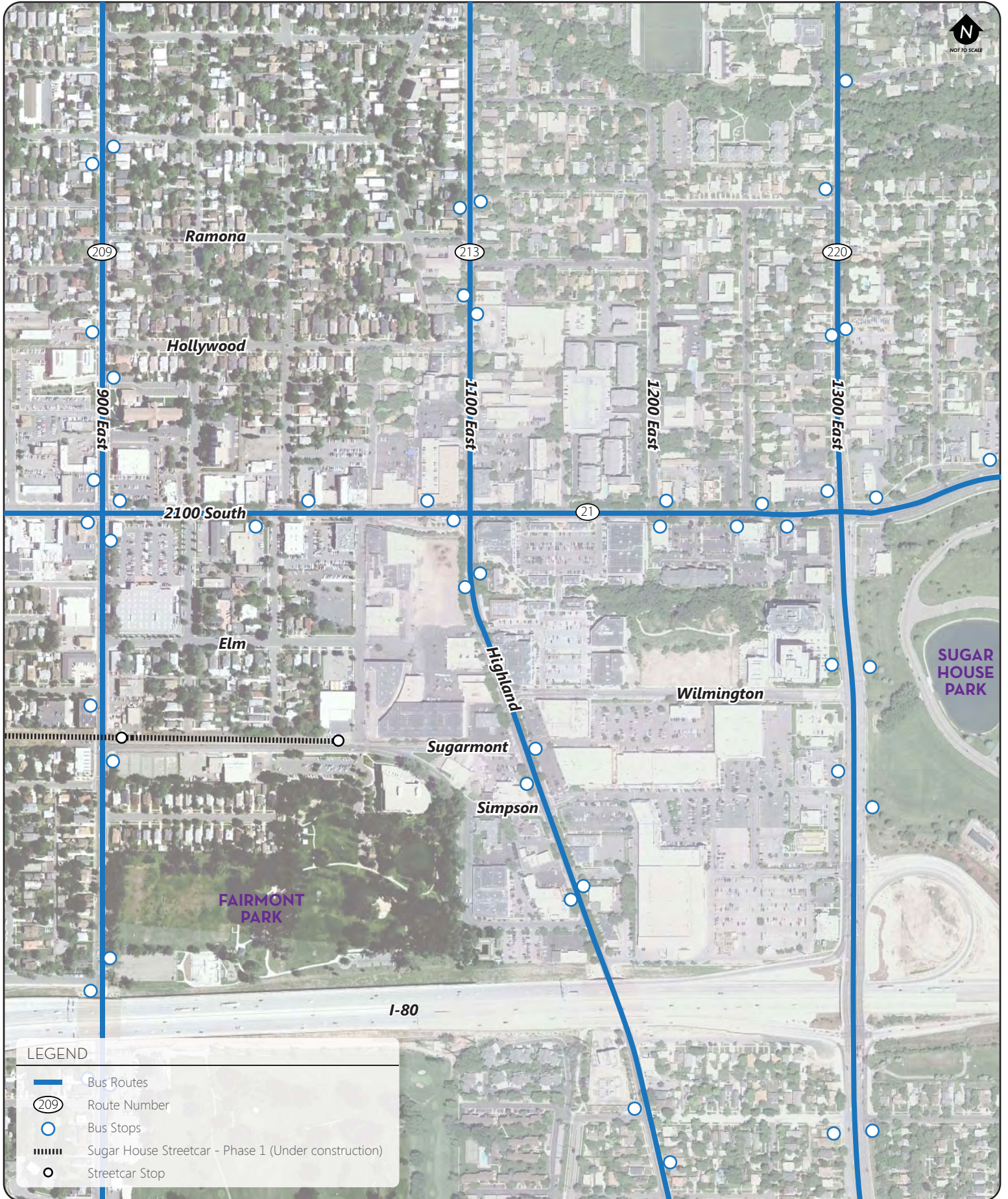
Source: UTA 2011

Route 21 travels along 2100 South within the Study Area. This route parallels the Sugar House Streetcar Phase 1 Project. The current bus runs one to three minutes late in the peak hour, but is still considered on-time for UTA performance (which is up to five minutes late for a local bus).

With the completion of the Sugar House Streetcar Phase 1 Project (currently under design and construction); the north-south portion of TRAX will be connected to the Sugar House area as far east as 1050 East/McClelland. This link will connect a thriving, regional commercial center (the Sugar House CBD) to the highly successful regional TRAX and commuter rail.

# EXISTING TRANSIT NETWORK

Figure 2.3-3 | Sugar House Business District Circulation Plan



An Alternatives Analysis (AA) is currently in progress for an extension of the Phase 1 Sugar House Streetcar. The AA is evaluating possible mode and alignment alternatives. The Locally Preferred Alternative would take the streetcar eastbound from McClelland onto Simpson Avenue, north on Highland Drive to the monument plaza at 2100 South, returning south on Highland Drive to Sugarmont Avenue, and westbound on Sugarmont Avenue to McClelland Street and onward.

### 2.3.4 Roadway Network

The important minor arterials are 1300 East, Highland Drive/1100 East, 900 East, and 2100 South. A network of local collector streets serves the communities between these major and minor roads. The primary roadways in the Study Area are described below:



- **900 East** is a north-south arterial road with one travel lane in each direction and a center two-way left-turn lane. 900 East has a posted speed limit of 30 miles per hour (mph).
- **Highland Drive/1100 East.** 1100 East becomes Highland Drive just south of 2100 South. 1100 East is a two-lane collector street with on-street parking. Intersections are full-movement, and major intersections have separated left-turn lanes. Highland Drive between 2100 South and Stringham Avenue is a four-lane arterial. South of Stringham Avenue, Highland Drive becomes a two-lane road with on-street parking. Highland Drive/1100 East has a posted speed limit of 30 mph.
- **1300 East** is a north-south arterial in the Salt Lake Valley. In the Study Area, north of 2100 South, 1300 East consists of a single travel lane in each direction with a continuous center two-way left-turn lane. South of 2100 South, it consists of three travel lanes in each direction, a raised center median, and single-lane protected left-

turns at the major intersections. It intersects with I-80 at about 2300 South. 1300 East has a posted speed limit of 35 mph.

- **2100 South** is an east-west arterial in the Salt Lake Valley. In the Study Area, it consists of two travel lanes in each direction. Some intersections have left- and right-turn lanes. 2100 South has signalized intersections at 1300 East, Highland Drive/1100 East, and 900 East. 2100 South has a posted speed limit of 30 mph.
- **Wilmington Avenue** is an east-west local road with a posted speed limit of 30 mph. Wilmington Avenue has one travel lane in each direction with on-street parking and bicycle lanes on both sides.
- **Sugarmont Drive** is an east-west local road with a posted speed limit of 25 mph. Sugarmont Drive has one travel lane in each direction and bicycle lanes on both sides. The Sugar House Streetcar Phase 1 and Parley's Trail will run parallel with Sugarmont Drive to the north of the road. The eastern 500 feet of Sugarmont Drive is a westbound one-way street.

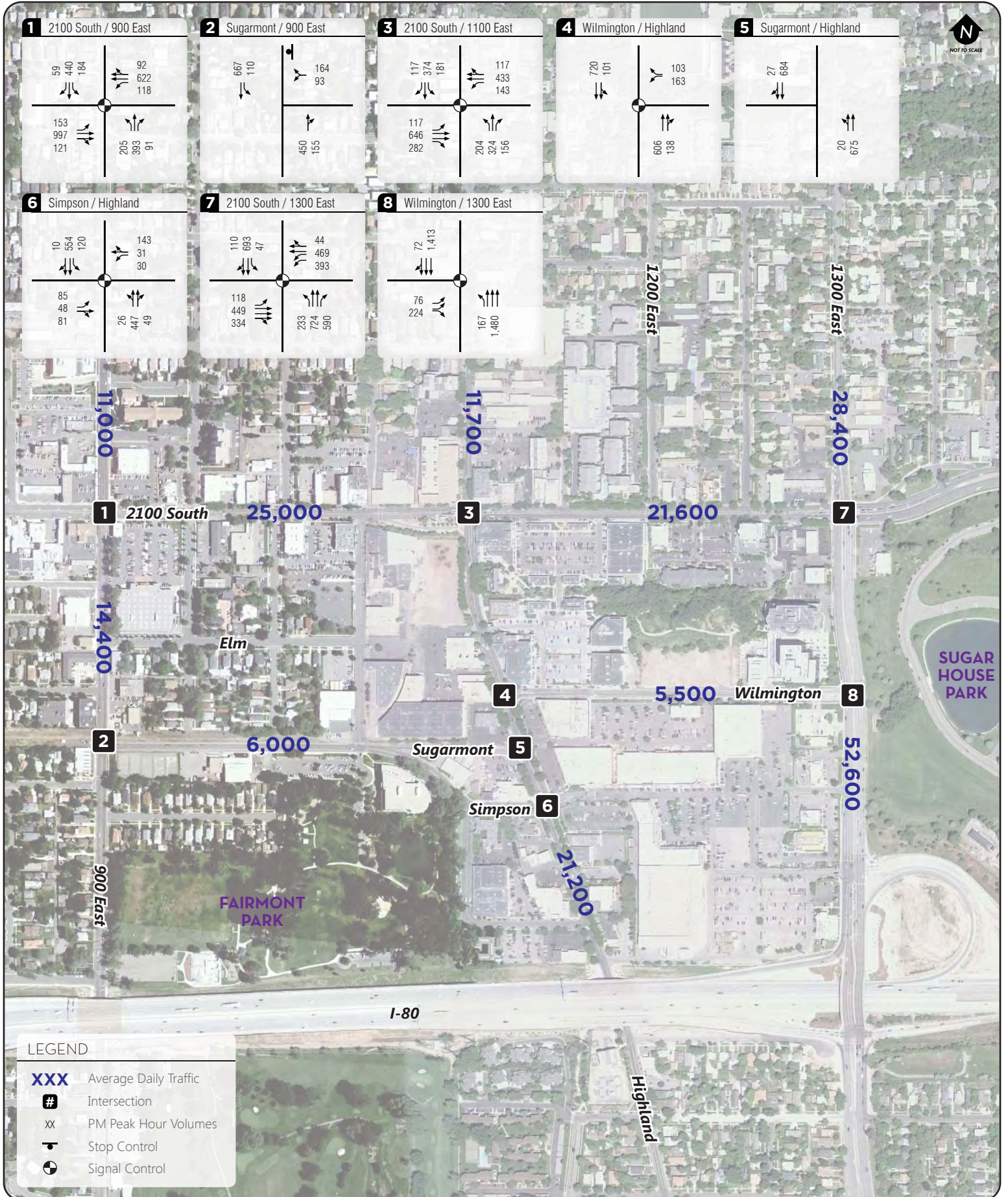
### 2.3.5 Traffic Conditions

Figure 2.3-3 shows the Average Daily Traffic (ADT) on the key roadways within the study area. The ADTs are based on 2010 counts from UDOT's Traffic on Utah Highways database, with the exception of Sugarmont Drive and Wilmington Avenue, of which the ADTs were calculated based on the rule of thumb that the PM peak hour volume equals approximately 10% of the ADT. The weekday PM peak hour experiences the highest traffic congestion than any other time the day in the Sugar House area. PM peak hour traffic volumes were gathered from previous traffic studies done in the Sugar House area and new traffic counts were collected at 2100 South / 1100 East and Simpson Avenue / Highland Drive in October 2011 and April 2012, respectively. Figure 2.3-3 also shows the PM peak hour turning movement volumes at the key intersections in the study area. Many of the major roadways in the Sugar House CBD area have less traffic than they did three to four years ago, contributing to slightly less congested conditions than five years ago. The decrease in traffic volumes could be due to a combination of several factors including: fuel prices, economy, other modes being used, etc.

Level of Service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 2.3-2 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections. The Highway Capacity Manual 2000 (HCM 2000) methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For unsignalized intersections, LOS is

# EXISTING TRAFFIC CONDITIONS

Figure 2.3-4 | Sugar House Business District Circulation Plan



reported based on the worst movement. The software package Synchro / SimTraffic was used for this study.

Table 2.3-2. Level of Service Descriptions

<i>LOS</i>	<i>Description</i>	<i>Signalized Intersections (Avg Delay: sec/veh)</i>	<i>Unsignalized Intersections (Avg Delay: sec/veh)</i>
<b>A</b>	Free Flow / Insignificant Delay	0 to 10	0 to 10
<b>B</b>	Stable Operations / Minimum Delays	>10 to 20	>10 to 15
<b>C</b>	Stable Operations / Acceptable Delays	>20 to 35	>15 to 25
<b>D</b>	Approaching Unstable Flows / Tolerable Delays	>35 to 55	>25 to 35
<b>E</b>	Unstable Operations / Significant Delays Can Occur	>55 to 80	>35 to 50
<b>F</b>	Forced, Unpredictable Flows / Excessive Delays	>80	>50

Source: Fehr & Peers Descriptions, based on Highway Capacity Manual 2000 Methodology (Transportation Research Board)

The existing PM peak hour LOS for the key intersections within the study area are shown in Table 2.3-3. As shown in Table 2.3-3, traffic conditions in the Sugar House CBD are generally stable with the exception of the intersection of 1300 East / 2100 South which experiences heavy delays during the peak hours of the day.

Table 2.3-3. Existing PM Peak Hour Level of Service

<i>ID</i>	<i>Intersection</i>	<i>Control</i>	<i>Delay (sec/veh)</i>	<i>LOS</i>
1	900 East / 2100 South	Signal	34.1	C
2	900 East / Sugarmont Dr	WB Stop	16.0	C
3	1100 East / 2100 South	Signal	32.1	C
4	Highland Dr / Wilmington Ave	Signal	10.1	B
5	Highland Dr / Sugarmont Dr	-	5.7 <sup>1</sup>	A
6	Highland Dr / Simpson Ave	Signal	10.0	B
7	1300 East / 2100 South	Signal	106.9	F
8	1300 East / Wilmington Ave	Signal	19.0	B

Notes:

<sup>1</sup>Represents the worst movement (northbound left-turn)

Source: Fehr & Peers, July 2012

## CHAPTER 3: VISION AND GOALS

The RDA initiated the *Plan* to create a coordinated plan for infrastructure improvements around the Sugar House CBD. The goals of the *Plan* are to provide recommendations that will improve local and regional mobility and access while retaining the special character of the Sugar House community.

### 3.1 *Community Goals*

Review of the Sugar House Master Plan and consultation with approximately 25 stakeholders during a set of interviews, group workshops, and study area walking tour resulted in the identification of community goals and values for the *Plan*. A total of 24 stakeholders were involved from the following organizations:

- Bicycle Community
- East Central Community Council
- Gardiner Properties
- Mecham Management
- Olsen Properties
- Parley's Rails, Trails, and Tunnels Coalition
- Salt Lake City Fire Department
- Sprague Library
- Sugar House Community Council
- Sugar House Merchants Association
- Sugar House Park Authority
- Utah Department of Transportation
- Utah Transit Authority
- Wasatch Front Regional Council
- Westminster College
- Woodbury Corporation
- Zions Bank

The community's multi-modal transportation visions, principles, and goals are as follows:

- Extend transit service to serve a greater number of households, employment, student trips, and transit connections.
- Provide an alternative to auto travel to accommodate the increase in trips resulting from future development in the Sugar House CBD and the surrounding area.
- Support regional goals for livability, connectivity, and the improvement of air quality, transit ridership, and transit-oriented development.



- Provide a safe, attractive, and functional pedestrian environment to promote a walkable community.
  - Improve quality of life for residents and visitors to Sugar House; access to transit, jobs, and recreation centers; reduced expenditures on personal transportation; and improve health and air quality.
  - Provide or enhance multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards.
- 
- Divide larger blocks into smaller blocks.
  - Redesign the present circulation system to provide better internal access within the CBD.
  - Enhance pedestrian crossings along with traffic calming measures, and provide access through the district that connects Sugar House Park, Hidden Hollow, and Fairmont Park.
  - Provide or enhance a central public plaza with strong pedestrian connections to other blocks.
  - Evaluate the feasibility and impacts of realigning Sugarmont Drive with Wilmington Avenue at the Highland intersection; in addition to the extension of Elm Street to Highland Drive as a limited access or pedestrian way.
  - Plan for streetscape amenities, including transit shelters, a street lighting theme, benches, and street trees.
  - Utilize the Salt Lake Jordan Canal / McClelland corridor right-of-way as a pedestrian link, especially as it transects the "Granite Block".
  - Additional locations for pedestrians to cross 2100 South are needed and enhance existing crossings.
  - Evaluate the feasibility of making Highland Drive, south of 2100 South in the CBD a two-lane street, with a continuous center turn lane and angled or parallel on-street parking.
  - Connection of the Parley's Trail alignment should be pursued.
  - Link Hidden Hollow with the Parley's Creek trail corridor and the Salt Lake Jordan Canal / McClelland corridor with safe, elegant, and cost effective trailways.

- Evaluate the feasibility of installing pedestrian crosswalks across collector and arterial streets (as stated in the Sugar House Master Plan).
- Evaluate the feasibility of installing a button activated pedestrian traffic signal on 2100 South at 1200 East.
- Provide bicycle lanes where appropriate and feasible.
- Unite the parks and recreation areas with the open space trail system to develop a continuous bikeway system for inter- and intra-city travel for recreation as well as alternative transportation.
- Provide an alternative to auto travel to accommodate the increase in trips resulting from future development in the Sugar House Business District and the surrounding area.

The *Plan* was a collaborative effort to prepare a timeline for implementing projects in the short-term (2012-2014), mid-term (2014-2020), and long-term (beyond 2020). Conceptual projects were established based on input from the project stakeholders, the Sugar House Master Plan, and feasibility studies (including technical analysis) presented in Chapter 4.

## CHAPTER 4: PROJECT EVALUATION

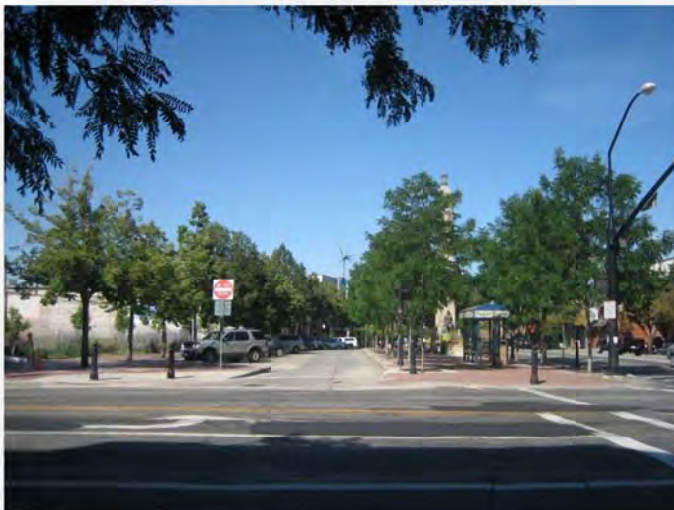
The following chapter evaluates the feasibility of six potential circulation related projects within the Study Area. The seven projects were selected by the RDA and the City Transportation Division based on the goals and visions stated in the Sugar House Master Plan. The following is the list of the projects:

- Reconfiguring and/or expanding the Monument Plaza on 2100 South and 1100 East into a town square.
- Realigning Sugarmont Drive and Wilmington Avenue.
- Reducing Highland Drive from four-lanes to three-lanes (Road Diet).
- Dividing large blocks into smaller blocks within the CBD.
- Adding bicycle lanes on 2100 South through the Study Area and beyond.
- Connecting the two ends of the Parley's Trail through the CBD.
- Raising the street level of Highland Drive between Sugarmont Drive and Simpson Avenue

### 4.1 *Monument Plaza on 2100 South*

This section summarizes the feasibility of expanding the Monument Plaza. The Plaza sits in the heart of the Sugar House CBD. Feedback from various stakeholders and community members from field trips and workshops have reiterated that the Plaza is “the heart of Sugar House – it’s where people want to be – it’s the focal point of Sugar House.” Expanding the Plaza is also a goal from the Sugar House Master Plan.

#### **Existing Conditions**



The Plaza is currently divided from the sidewalk to the south on 2100 South by an exclusive eastbound right-turn lane and 18 on-street parking stalls. The exclusive right-turn lane is occasionally blocked off for community events and activities such as the farmer’s market and festivals. Vehicular eastbound right-turns are then accommodated by sharing the outside eastbound through lane at the 1100 East / 2100 South intersection.

Adjacent to the Plaza, 2100 South carries approximately 25,000 ADT and 1100 East (south of 2100 South) carries approximately 21,200 ADT. The PM peak hour turning movement volumes are shown in Figure 4.1-1. Assuming the exclusive eastbound right-turn is not blocked off in existing conditions, the existing overall intersection LOS for 1100 East / 2100 South is a LOS C with an average of 32.1 seconds of delay per vehicle (see Table 4.1-1 below). The existing eastbound approach LOS for 1100 East / 2100 South is a LOS D with an average of 33.8 seconds of delay per vehicle. The existing 95<sup>th</sup> percentile queue for the eastbound approach is approximately 400 feet (about to McClelland Street).

**Expanding the Plaza**

Expanding the Plaza would consist of eliminating the exclusive eastbound right-turn. The vehicular eastbound right-turns are then accommodated by sharing the outside eastbound through lane at the 1100 East / 2100 South intersection. The impacts to traffic with this change are shown in Table 4.1-1. The 95<sup>th</sup> percentile queue for the eastbound approach would increase to approximately 900 feet (about the Subway restaurant).

Table 4.1-1. Monument Plaza on 2100 South Level of Service Analysis

Scenario	Eastbound Approach		Overall Intersection	
	Avg. Delay (sec/veh)	LOS	Avg. Delay (sec/veh)	LOS
Existing	33.8	C	32.1	C
No Exclusive EB Right-turn	86.4	F	51.7	D

Source: Fehr & Peers, July 2012

With this increase in queue length with the exclusive right-turn removed, it is likely motorists will use alternative routes more often during the peak hours. The alternative routes could include 900 East, Lincoln Street, 1000 East, and McClelland Street. An alternative to reduce delay and queue lengths for the eastbound direction of travel is to move the monument to the south or west to accommodate a 10 foot exclusive right-turn lane adjacent to the through lane; however, this is not a popular alternative to the public and it may not be a viable alternative if the streetcar locally preferred alternative (LPA) terminates in the plaza. This would still allow the expansion of the plaza to the south, but alleviate some of the impacts of losing the existing exclusive right-turn lane that bisects the plaza today.

The public (including the adjacent property owners and the project stakeholders) have expressed positive interest in the expansion of plaza. One property owner voiced concern with the expansion due to the loss of on-street parking that is adjacent to his property.

An extension (Phase Two) of the Phase One streetcar is now under consideration, and the LPA would take the streetcar eastbound from McClelland onto Simpson Avenue, north on Highland Drive to the Monument Plaza at 2100 South, returning south on Highland Drive to Sugarmont

Avenue, and westbound on Sugarmont Avenue to McClelland Street and onward. It should be noted that the traffic volumes used in this analysis do not account for the internal capture and streetcar ridership that will occur with the proposed redevelopment and/or the streetcar line. Figure 4.1-1 shows a conceptual illustration of the expanded plaza with the proposed streetcar line.

The following Table 4.1-2 summarizes the feasibility criteria for evaluation.

Table 4.1 -2. Monument Plaza on 2100 South Feasibility Criteria

<i>Project</i>	<i>Relationship to Goals</i>	<i>Mobility Benefits (ped/bike/veh /transit)</i>	<i>Technical Constraints</i>	<i>Project Cost (low/med /high)</i>
Monument Plaza on 2100 South	<ul style="list-style-type: none"> <li>Encourages pedestrian-first zone</li> <li>Provides pedestrian-scale activities in the Sugar House CBD by providing open space corridors</li> <li>Establishes the Sugar House Plaza Monument as the community focal point</li> <li>Provides a central public plaza with strong pedestrian connections</li> <li>Provides enhanced pedestrian crossings</li> <li>Encourages safer and increased levels of walking</li> <li>Provides potential end-of-line station location for streetcar</li> </ul>	+ / + / - / 0 <sup>1</sup>	<ul style="list-style-type: none"> <li>Loss of on-street parking (18 spaces)</li> <li>Increase of 19.6 seconds of average delay for overall intersection</li> <li>Increase of 52.6 seconds of average delay for the eastbound approach</li> <li>95th percentile queue increase of 500 feet for eastbound approach</li> </ul>	Medium

Notes:

<sup>1</sup>Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

# MONUMENT PLAZA RECONFIGURATION

Figure 4.1-1 | Sugar House Business District Circulation Plan



## 4.2 Sugarmont Drive / Wilmington Avenue Realignment

This section summarizes the feasibility of realigning Sugarmont Drive and Wilmington Avenue at Highland Drive. This realignment is included in the Sugar House Master Plan.

### Existing Conditions

Wilmington Avenue is a two-lane street about a ¼ mile in length in the Study Area from 1300 East to Highland Drive. The terminus of Wilmington Avenue at these two streets is a signalized tee-intersection. Wilmington Avenue has sidewalks and bicycle lanes on both the north and south side of the street. The ADT on Wilmington Avenue is approximately 5,500. Wilmington Avenue provides vehicular access to various commercial and office spaces, as



well as to the future Wilmington Gardens and Sugar House Center developments. There is also a pedestrian and bicycle connection from Wilmington to the Hidden Hollow. The signalized intersection of Wilmington Avenue / Highland Drive operates at a LOS A with an overall average delay per vehicle of 8.9 seconds.

Sugarmont Drive is a two-lane street about a 1/3 mile in length in the Study Area from Highland Drive to 900 East. All intersections along Sugarmont Drive and at the terminus are unsignalized, stop-controlled intersections. The eastern 450-foot portion of Sugarmont Drive that intersects with Highland Drive is one-way travel in the westbound direction until it merges with Simpson Avenue, then it converts to two-way travel. Sugarmont Drive provides access to the Fire Station, Fairmont Aquatic Center, and Fairmont Park. There are no sidewalks on the north side of Sugarmont Drive or about 300 feet on the westerly end (near the tennis courts) of the south side. The intersection of Sugarmont Drive / Highland Drive operates at an LOS A with an average worst movement (northbound left-turn) delay per vehicle of 5.7 seconds. The intersection of Sugarmont Drive / 900 East operates at an LOS C with a worst approach (westbound) delay of 16.0 seconds per vehicle.

### Realigning Sugarmont Drive and Wilmington Avenue

The realignment of Wilmington would likely occur with the east leg remaining in its current location and a new west leg extending from the Highland / Wilmington intersection to connect with Sugarmont near the McClelland intersection. Figure 4.2-1 shows a conceptual illustration

# REALIGNMENT - WILMINGTON & SUGARMONT

Figure 4.2-1 | Sugar House Business District Circulation Plan



of the realignment. Simpson Avenue would also connect to the new Wilmington alignment as well as a potential new north/south street bisecting the Granite Block. Global Positioning System (GPS) travel time runs were performed on three routes in the study area, as shown in Figure 4.2-2. The purpose of the travel time runs was to compare the time it takes to go from 1300 East / Wilmington Avenue to 900 East / 2100 South utilizing three different routes. Table 4.2-1 shows the travel time comparison. The route (Route #1) using Wilmington, Highland, Sugarmont, and 900 East is most similar to the route that would exist if Wilmington and Sugarmont were realigned.

Table 4.2 -1. Travel Time Comparison

<i>Route</i>	<i>Description</i>	<i>Eastbound<sup>1</sup></i>	<i>Westbound<sup>1</sup></i>	<i>Total<sup>1</sup></i>
1	Wilmington, Highland, Sugarmont, 900 East	2:55	3:00	5:55
2	Wilmington, Highland, 2100 South	2:43	3:00	5:43
3	1300 East, 2100 South	3:25	2:40	6:05

Notes:

<sup>1</sup>Represents the travel time in minutes:seconds

Source: Fehr & Peers, July 2012

As shown in Table 4.2-1, all routes are within 22 total seconds of each other, but Route #1 has the shortest total travel time. With that said, either of the routes could vary by up to a minute (higher or lower) depending on at what moment a vehicle arrives at an intersection during the cycle of the signal. One could assume that Route #1 would be similar in travel time to the route along the proposed realigned Wilmington and Sugarmont.

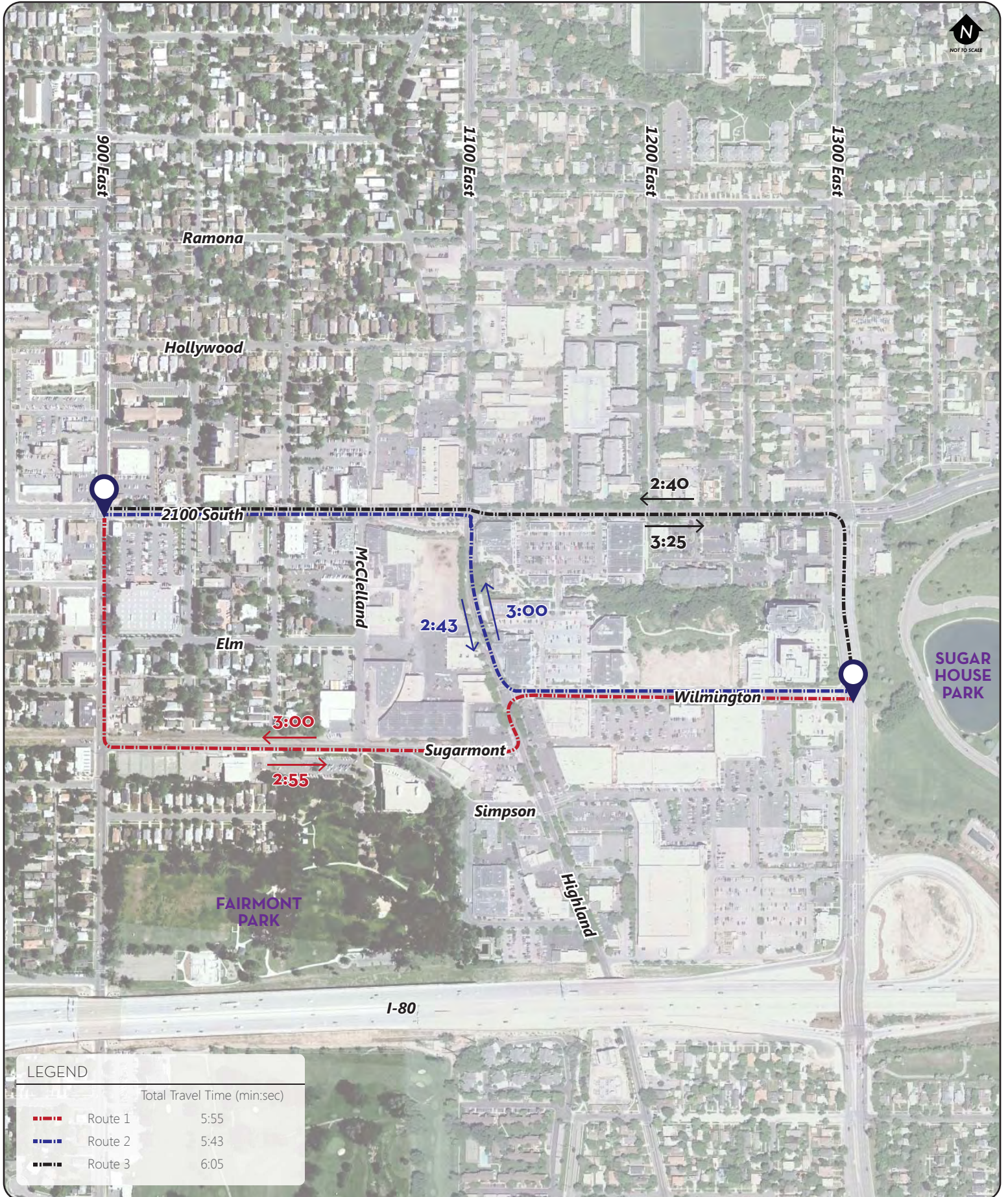
Route #2 could be reduced by implementing some minor modifications to roadway striping on the northbound approach of the 1100 East / 2100 South intersection (see Implementation Plan in Chapter 5). The eastbound travel time for Route #2 could increase with the elimination of the exclusive eastbound right-turn lane (see Section 4.1) at 1100 East / 2100 South.

Using the travel time data and traffic counts currently on the roadways, the change in PM peak hour traffic volumes was estimated. The traffic volumes at Wilmington / Highland increased (due to the addition of another intersection approach) by approximately 3% with the realignment which resulted in the LOS staying at a B and an increase of 2.7 seconds of delay per vehicle.

Pedestrian and bicycle amenities could be added to the new realignment to connect to existing pedestrian and bicycle facilities on Wilmington, Sugarmont and the Parley's Trail. The realignment could also be utilized as a route by the future streetcar extension.

# TRAVEL TIME COMPARISON

Figure 4.2-2| Sugar House Business District Circulation Plan



In summary, the realignment of Wilmington and Sugarmont would create more accessibility and connections for the Sugar House CBD area. The benefit of the realignment is more centralized to the core of Sugar House and is less of a regional mobility benefit due to the “t”-intersections on both ends of the route at 1300 East and 900 East. As redevelopment continues along the Granite Block and potentially at the tennis courts/community gardens at 900 East / Sugarmont, the need for the realignment could be more beneficial and important than it currently appears in the short-term.

The following Table 4.2-2 summarizes the feasibility criteria for evaluation.

Table 4.2-2. Sugarmont Drive / Wilmington Realignment Feasibility Criteria

Project	Relationship to Goals	Mobility Benefits (ped/bike/veh /transit)	Technical Constraints	Project Cost (low/med /high)
Sugarmont Drive and Wilmington Realignment	<ul style="list-style-type: none"> <li>Improves all modes of mobility including street and trail networks, transit, pedestrian and bicycle movement opportunities</li> <li>Creates useable connections to existing and future pedestrian and bicycle path systems</li> <li>Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards</li> <li>Redesigns the present circulation system to provide better internal access within the business district</li> <li>Evaluated the feasibility and impacts of realigning Sugarmont with Wilmington at the Highland Drive intersection</li> <li>Provides bicycle lanes where appropriate and feasible</li> </ul>	+ / + / 0 / 0 <sup>1</sup>	<ul style="list-style-type: none"> <li>Loss of commercial property (i.e. Zions Bank, and other Granite Block buildings)</li> <li>Cost to acquire land from property owners</li> <li>Access to property on one-way section of Sugarmont could potentially be lost</li> <li>Potentially challenging intersection where McClelland, Wilmington, Simpson, Sugarmont, Streetcar, and Parley's Trail all intersect.</li> </ul>	High

Notes:

<sup>1</sup>Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

### 4.3 *Highland Drive Road Diet*

This section summarizes the feasibility of converting Highland Drive from a four-lane cross section of traffic to three-lanes from 2100 South to the I-80 overpass. The evaluation of this conversion is included in the Sugar House Master Plan.



#### **Existing Conditions**

Highland Drive between 2100 South and Stringham Avenue is a four-lane arterial. South of Stringham Avenue, Highland Drive becomes a two-lane road with on-street parking on both sides. Highland Drive has a posted speed limit of 30 mph in the Study Area. Highland Drive has the following street widths:

- 60 feet (includes gutters) – consists of two travel lanes in each direction and parallel on-street parking on both sides. Located throughout sections between Wilmington Avenue and 2100 South.
- 48 feet (includes gutters) – consists of two travel lanes in each direction. Located primarily between Simpson Avenue and Wilmington Avenue. There is no parking in this section.
- 40 feet (includes gutters) – consists of two travel lanes in each direction. Located in various sections between Wilmington Avenue and 2100 South (where there is no on-street parking) and south of Simpson Avenue.

The existing LOS for the key intersections along Highland in the Study Area is shown below in Table 4.3-1.

### Highland Drive Road Diet

The road diet of Highland Drive would consist of a three-lane cross section with one travel lane in each direction, a center turn lane, parallel on-street parking (at existing locations only), and bicycle lanes between the I-80 overpass and 2100 South (approximately 1,900 feet in length). The center turn lane will need to terminate at the I-80 overpass in order for the three-lane section to join with the two-lane section that exists south of the overpass. The width of travel and bicycle lanes would vary based on the actual width of the roadway. The amount and location of on-street parking does not change with the implementation of the road diet. There is not enough right-of-way width to consider alternative parking configurations, such as angled parking. Figure 4.3-1 shows the extent and location of the road diet area and proposed cross sections. The following Table 4.3-1 shows the traffic operations results of reducing the number of travel lanes for the road diet. The existing lane configurations at 1100 East / 2100 South intersection would not change with the road diet.

Table 4.3-1. Highland Drive Road Diet Level of Service Analysis

<i>Intersection</i>	<i>Four Lanes (Existing)</i>		<i>Three Lanes (Road Diet)</i>	
	<i>Avg. Delay (sec/veh)</i>	<i>LOS</i>	<i>Avg. Delay (sec/veh)</i>	<i>LOS</i>
1100 East / 2100 South	32.1	C	30.6	C
Highland Dr / Wilmington Ave	10.1	B	13.0	B
Highland Dr / Simpson Ave	10.0	B	13.5	B

Source: Fehr & Peers, July 2012

As shown in Table 4.3-1, the impact to vehicle delay of implementing the road diet on Highland Drive is minimal.

The following Table 4.3-2 summarizes the feasibility criteria for evaluation.

# HIGHLAND DRIVE ROAD DIET

Figure 4.3-1 | Sugar House Business District Circulation Plan

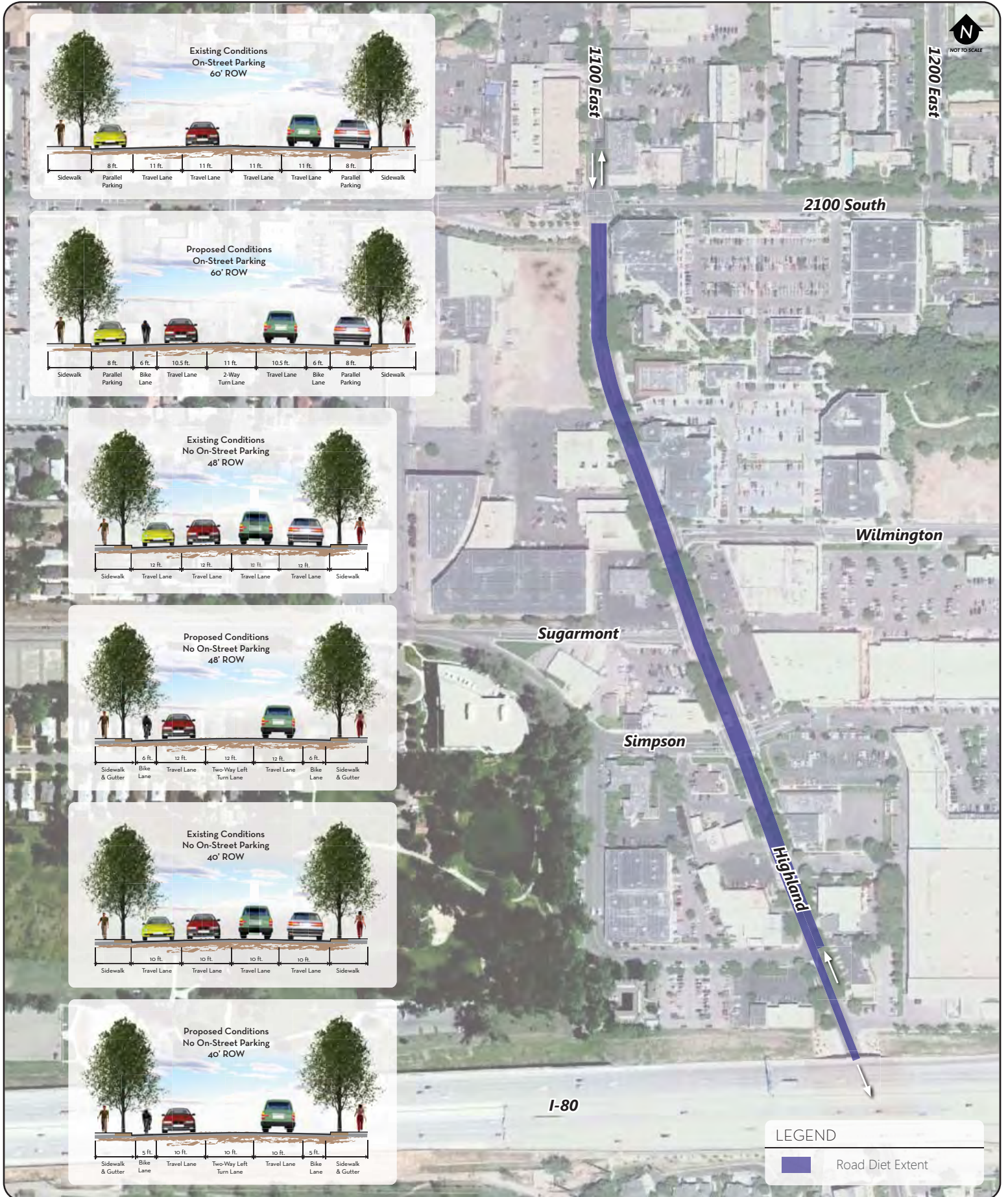


Table 4.3-2. Highland Drive Road Diet Feasibility Criteria

<i>Project</i>	<i>Relationship to Goals</i>	<i>Mobility Benefits (ped/bike/veh /transit)</i>	<i>Technical Constraints</i>	<i>Project Cost (low/med /high)</i>
Highland Drive Road Diet	<ul style="list-style-type: none"> <li>• Improves bicycle mobility</li> <li>• Provides a safe, attractive, and functional pedestrian environment to promote a walkable community</li> <li>• Creates useable connections to existing and future pedestrian and bicycle path systems</li> <li>• Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards</li> <li>• Provides bicycle lanes where appropriate and feasible</li> <li>• Evaluated the feasibility of making Highland Dr, south of 2100 South in the CBD a two-lane street, with a continuous center turn lane and angled or parallel on-street parking</li> </ul>	+ / + / 0 / 0 <sup>1</sup>	<ul style="list-style-type: none"> <li>• In areas where the street width is 40 feet, bicycle lane widths (five feet) and travel lane widths (10.5 feet) will likely need to be less than standard for Salt Lake City.</li> </ul>	Low

Notes:

<sup>1</sup>Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

In summary, the Highland Drive road diet would have minimal vehicular impact along the street and key intersections. Although the lane reduction would slightly increase average delay at two of the three key signalized intersections, roadway segment delay would likely decrease due to the center turn lane that would exist which removes stopped turning vehicles from the travel lane. In other words, turning vehicles will no longer be turning from a through travel lane – they will be in their own exclusive center turn lane. The road diet would also provide bicycle lanes which improve the multi-modal accessibility in the Study Area. Also, by reducing travel lanes and providing a buffer (bicycle lanes) between the sidewalk and the vehicle travel lanes

will create a better and more comfortable environment for pedestrians. The net supply of on-street parking remains the same in either condition.

## 4.4 *Division of Large Blocks*

This section summarizes the feasibility of dividing larger blocks into smaller blocks within the Study Area. The evaluation of this division is a goal from the Sugar House Master Plan.

### **Existing Conditions**

The Sugar House CBD consists of large blocks with minimal and/or undefined multi-modal connections to the existing street grid. The large blocks in the Study Area that need to the most improvement include: the Granite Block and the Sugar House Center block.

### **Division of Large Blocks**

Large blocks can be divided into smaller blocks with defined pedestrian, bicycle, vehicular, and/or transit connections. Smaller blocks create better accessibility, walkability, and distribution of traffic, which results in an increase in mobility and a decrease in congestion. Figure 4.4-1 shows the proposed division of blocks with pedestrian pathways (including trail systems and general walkways) and streets.

The following Table 4.4-1 summarizes the feasibility criteria for evaluation.

# DIVIDING LARGER BLOCKS

Figure 4.4-1 | Sugar House Business District Circulation Plan

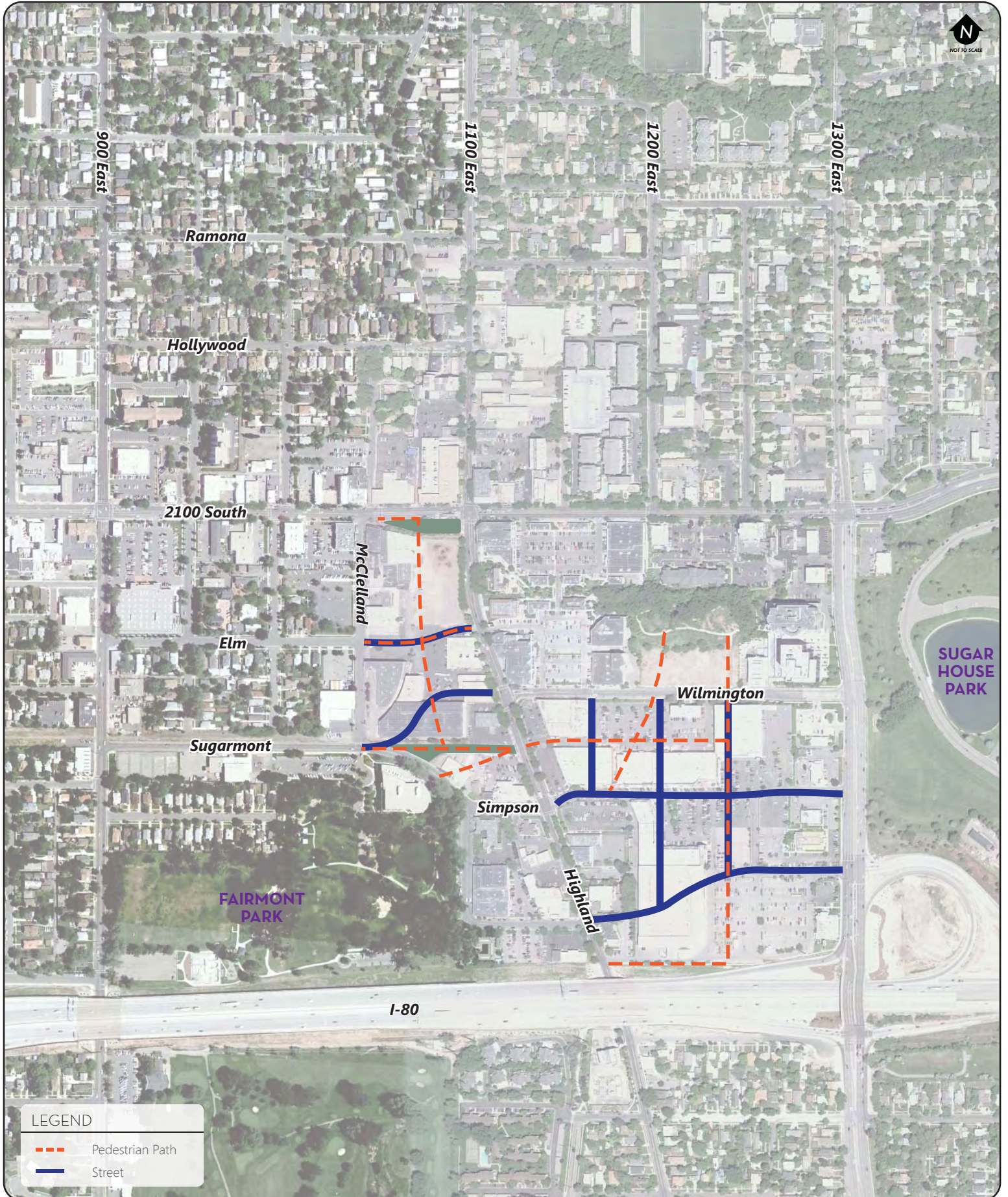


Table 4.4-1. Division of Large Blocks Feasibility Criteria

Project	Relationship to Goals	Mobility Benefits (ped/bike/veh /transit)	Technical Constraints	Project Cost (low/med /high)
Division of Large Blocks	<ul style="list-style-type: none"> <li>• Improves bicycle mobility</li> <li>• Provides a safe, attractive, and functional pedestrian environment to promote a walkable community</li> <li>• Creates useable connections to existing and future pedestrian and bicycle path systems</li> <li>• Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards</li> <li>• Provides better multi-modal connectivity</li> <li>• Provides better internal access</li> <li>• Divides large blocks into smaller blocks</li> </ul>	+ / + / + / + <sup>1</sup>	<ul style="list-style-type: none"> <li>• Collaboration with property owners for implementation</li> </ul>	Med to High

Notes:

<sup>1</sup>Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

## 4.5 Addition of Bicycle Lanes on 2100 South

This section summarizes the feasibility of adding bicycle facilities to 2100 South. Although the Study Area of this *Plan* is from 900 East to 1300 East, for this particular feasibility study the Study Area was expanded to include all of 2100 South within Salt Lake City boundaries. 2100 South is a major road in the heart of Sugar House, connecting it to residential neighborhoods to the east, and residential, commercial, and industrial districts to the west. The roadway is owned by Salt Lake City. Several goals and statements within the Sugar House Master Plan relate to this topic in various ways, including:



- Provide for multiple modes of transportation that are safe, convenient, and comfortable;
  - Provide a pedestrian and bicycle circulation plan and identify the right-of-way necessary to support multi-modal alternatives;
  - Evaluate the existing policy that prohibits cyclists from using the sidewalk in the Sugar House Business District and leaves the cyclist without a bicycle lane or path as an alternative;
- Ensure new land uses located adjacent to bicycle routes require installation of street improvements, and provide bicycle lanes where appropriate and feasible;
  - Provide safe bicycle routes to parks from residential areas, and establish a separate bicycle arterial system that connects Westminster College, the University of Utah, the Sugar House Business District, and other major destination points with one another;
  - Use American Association of State Highway and Transportation Officials (AASHTO) and National Association of City Transportation Officials (NACTO) standards for bicycle lane width and signage for new construction; and use road construction projects as opportunities to upgrade existing bicycle lanes to meet these standards;
  - Unite the parks and recreation areas with the open space trail system to develop a continuous bikeway system for inter- and intra-city travel for recreation as well as alternative transportation;
  - Connect bicycle routes with regional trail systems in other jurisdictions and neighboring communities;
  - Support the elimination of on-street parking on one side of roadways to allow the addition of bicycle lanes; and
  - Provide bicycle racks and lockers at destination points and at transit terminals;
  - Enhance pedestrian crossings along 2100 South;
  - A pedestrian first zone, reducing travel distances encourages safer and increased levels of bicycling and walking;
  - Pedestrians should have the right-of-way over all other modes of transportation;
  - Use a landscaped area to provide a buffer zone

### Existing Conditions

In the heart of Sugar House, 2100 South is a four-lane roadway with an occasional center turn median. The roadway has variable characteristics along its length between 300 West and Parley’s Way, which represents the majority of the urban roadway. Table 4.5-1 identifies major segments of the roadway and their characteristics.

Table 4.5-1. 2100 South Characteristics

<i>Segment</i>	<i>No. of Lanes</i>	<i>Sidewalks</i>	<i>Parkstrip</i>	<i>On-Street Parking</i>	<i>ADT<sup>1</sup></i>
<b>300 West to 200 East</b>	4	Yes	No	No	18,000
<b>200 East to 700 East</b>	4	Yes	Yes	No	17,000
<b>700 East to 900 East</b>	4	Yes	Yes	No	26,000
<b>900 East to 1300 East</b>	4	Yes	Yes	Some	25,000
<b>1300 East to 1700 East</b>	5	Yes	Yes	North side only	22,000
<b>1700 East to 2100 East</b>	4	Yes	Yes	No	19,000 <sup>2</sup>
<b>2100 East to Parley’s Way</b>	4	Yes	Yes	No	15,000 <sup>2</sup>

Notes:

<sup>1</sup>2010 Average Daily Traffic data from UDOT’s Traffic on Utah Highways.

<sup>2</sup>2010 Average Daily Traffic from Salt Lake City Transportation Division

Source: Fehr & Peers, July 2012

### Accommodating Bicycle Lanes

Salt Lake City could pursue several options for accommodating bicycle lanes on 2100 South. These include removing a traffic lane (also known as a “road diet”), removing on-street parking, widening the roadway, or establishing a shared bicycle/vehicle/transit on outside lanes. These options are outlined in Table 4.5-2.

Table 4.5-2. 2100 South Possible Bicycle Lane Alternatives

<i>Alternatives</i>	<i>Technical/Safety Constraints</i>	<i>Project Cost (low/med/high)</i>
Add bicycle lanes through a Road Diet on 2100 South	<ul style="list-style-type: none"> <li>Road diets for a four-lane to three-lane cross section can generally be successful with volumes up to 20,000 ADT depending on the application; see Table 4.1-8 for 2100 South ADT.</li> <li>Intersection at 2100 South and 700 East is frequently congested with high right-turn volumes.</li> <li>Potential delay for bus routes if congestion increases.</li> <li>East of 1300 East, a road diet is feasible in the eastbound direction by replacing the outside travel lane between 1300 East and 1700 East with an uphill bicycle lane. A cycle track is also a possibility in this segment.</li> <li>This alternative is not likely west of 1300 East.</li> </ul>	Low

Table 4.5-2. 2100 South Possible Bicycle Lane Alternatives

<i>Alternatives</i>	<i>Technical/Safety Constraints</i>	<i>Project Cost (low/med/high)</i>
Remove on-street parking to add bicycle lane	<ul style="list-style-type: none"> <li>On-street parking is only present in limited sections of 2100 South (see Table 4.1-8).</li> <li>Removes buffer between pedestrians and travel lanes.</li> <li>Potential for bus conflicts across bicycle lanes.</li> <li>Street lights would need to be relocated as well as parkstrip trees.</li> <li>Current on-street parking levels would need to be analyzed further to determine utilization.</li> </ul>	Medium
Shared bicycle/vehicle outside lane	<ul style="list-style-type: none"> <li>Frequent right turns and intersections create possible safety hazards.</li> </ul>	Low
Widen roadway to accommodate bicycle lanes	<ul style="list-style-type: none"> <li>Additional cost and building acquisition associated with widening between 600 East and 1300 East.</li> <li>Right-of-way may be available between 200 East – 600 East and east of 1300 East via removal of on-street parking or road diets.</li> </ul>	High
Widen the sidewalk to better accommodate cyclists <sup>1</sup>	<ul style="list-style-type: none"> <li>Additional cost and building acquisition associated with widening sidewalks between 600 East and 1300 East.</li> <li>Some street lights would need to be relocated.</li> <li>Some parkstrips would need to be removed.</li> <li>Conflicts between pedestrians and cyclists on the sidewalk.</li> <li>Safety issues with vehicles entering/exiting driveways, not expecting to see cyclists on the sidewalk.</li> </ul>	High

Notes:

<sup>1</sup>While this is not a typical preferred solution, it should be noted that bicycle counts conducted at the intersection of 1100 East and 2100 South revealed that 53 – 80% of the cyclists traveling through that intersection were on the sidewalk.

Source: Fehr & Peers, July 2012

### 200 East to 600 East

#### Conclusion

- It is feasible to add a bicycle lane through elimination of on-street parking between 200 East – 600 East on both sides of the street.

#### Considerations

- Further evaluate the necessity of on-street parking for businesses and residences throughout these areas.
- Safety concerns from a shared bicycle lane and bus stops would need to be addressed.

600 East to 1300 East

Conclusion

- An on-street bicycle facility is not recommended in this section, due to high traffic volumes and inadequate width for cyclists. Salt Lake City should support finding other east-west alternates for cyclists, such as Westminster Avenue or the proposed Parley's Trail. A road diet is not recommended based on the daily traffic volumes.

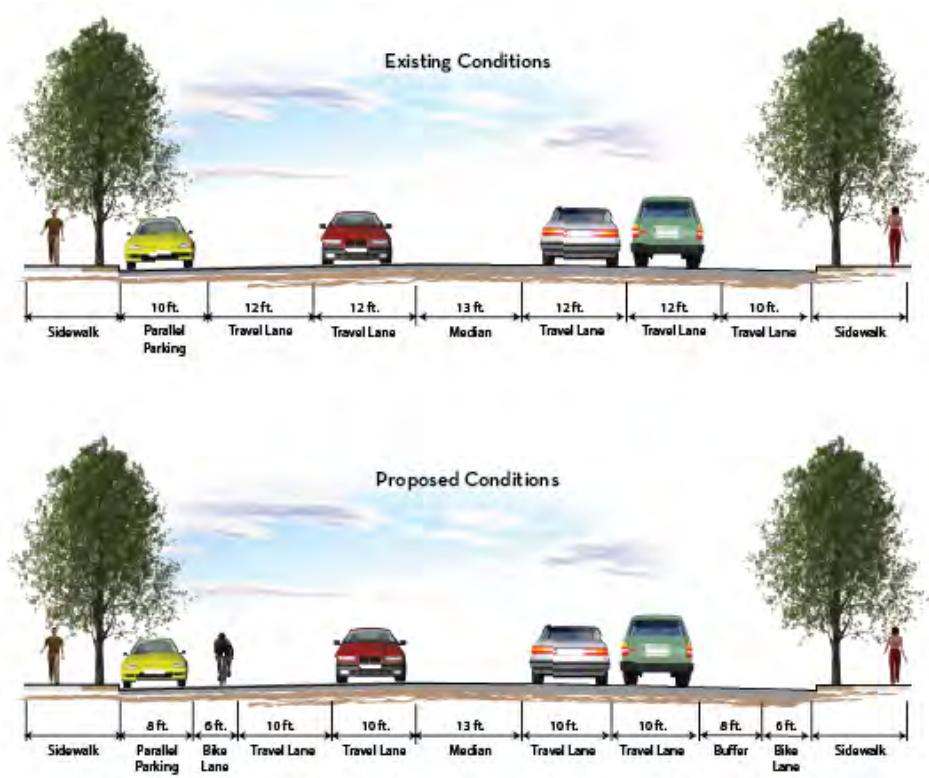
Considerations

- Percentage of total bicycles on 1100 East and 2100 South using the sidewalk ranged from 53% - 80%. The option of allowing cyclists to ride on the sidewalk is unconventional, but reflects the trends that are already occurring on the corridor. Given that these behaviors are already taking place, Salt Lake City may wish to consider safety treatments that alert motorists to the potential presence of cyclists on the sidewalk.

1300 East to 1700 East

Conclusion

- A road diet is feasible on eastbound 2100 South between 1300 East and 1700 East, and will allow space for a buffered bicycle lane. Narrowing westbound vehicle and parking lanes can provide adequate space for a westbound bicycle lane as well. These can be



accomplished without major resurfacing of the roadway. Space reallocations are demonstrated in the cross-sections on the previous page.

#### *Considerations*

- A two-way “cycle track” is also feasible on the south side of 2100 South if the existing outside eastbound lane is removed. Cycle track alignments would not continue west of 1300 East or east of 1700 East. Cycle track treatments would need to transition at these intersections to match bicycle treatments in adjacent roadway segments. Intersections between 1300 East and 1700 East will require special treatments as well in order to accommodate a cycle track.

#### 1700 East to 2300 East

#### *Conclusion*

- It is feasible to add a bicycle lane in both directions by instituting a road diet, through eliminating the outside travel lane and adding bicycle lanes plus a center turn lane. Another option would be to establish outside shared lanes eastbound and westbound, using shared lane markings and “Bikes May Use Full Lane” signage.

#### *Considerations*

- Any transition between bicycle treatments on the corridor (bicycle lanes vs. shared lane markings) will need to be carefully designed to minimize confusion and enhance bicyclist safety.
- Salt Lake City should conduct a traffic analysis to verify that a road diet will not result in undue traffic congestion in this corridor; it is possible that the surrounding neighborhoods will voice concerns regarding cut-through traffic. It is recommended that the City perform public outreach prior to implementation of a road diet.
- Safety concerns from a shared bicycle lane and bus stops would need to be addressed.
- Logical termini for bicycle lanes on 2100 South is 2300 East due to the presence of bicycle lanes on this roadway; adequate space may exist east of 2300 East to accommodate a bicycle lane on the shoulder, but the roadway eventually transitions into a freeway on-ramp without space for cyclists. Other logical connections east of 2300 East may be considered if bicycle lanes were to continue further.

## 4.6 *Parley’s Trail Connection*

This section summarizes options for a Parley’s Trail alignment between the Fairmont Aquatic Center (located on Sugarmont Avenue and McClelland Avenue) and Hidden Hollow Park (located west of 1300 East and north of Wilmington Avenue). Establishing a Parley’s Trail connection meets several goals from the Sugar House Master Plan, such as:

- Provide for multiple modes of transportation that are safe, convenient, and comfortable;
- Provide a pedestrian and bicycle circulation plan and identify the right-of-way necessary to support multi-modal alternatives;
- Provide safe bike routes to parks from residential areas, and establish a separate bicycle arterial system that connects Westminster College, the University of Utah, the Sugar House Business District, and other major destination points with one another;
- Unite the parks and recreation areas with the open space trail system to develop a continuous bikeway system for inter- and intra-city travel for recreation as well as alternative transportation; and
- Connect bike routes with regional trail systems in other jurisdictions and neighboring communities.

### Planning Context

Several factors must be considered when evaluating options for the Parley’s Trail in this section. These include adjacent Parley’s Trail sections and their design treatments, potential transportation investments in the area, and development plans for private property parcels in the section under study.

#### Adjacent Trail Sections

West of McClelland Avenue, the Parley’s Trail is planned for co-location with the Sugar House Streetcar, generally within the UTA right-of-way. East of Hidden Hollow, a tunnel (The Draw) will soon be under construction at 1300 East which will connect trail users from Hidden Hollow to Sugar House Park, and to trail links eastward from there. The trail from Hidden Hollow to 1700 East will be paved for use by both bicyclists and pedestrians, but separated from vehicles.



#### Potential Transportation Investments

Two potential transportation investments between McClelland Avenue and Hidden Hollow are noteworthy for the Parley’s Trail. First, Salt Lake City has, for some time, considered realigning Wilmington Avenue with Sugarmont Drive. Both roads terminate at Highland Drive, and currently do not align. A realignment of

these two roads could potentially join the two roadways together and create better accessibility of traffic in the Sugar House area (see Section 4.1.2 and the figure above). It could establish an on-street Parley's Trail alignment, placing trail users on bike lanes and pedestrians on sidewalks to connect between McClelland Avenue and Hidden Hollow. However, realignment is not feasible in the short-term, but could be more viable in the mid- to long-term as redevelopment continues along Sugarmont Drive and land is acquired on the Granite Block. Since the realignment is not considered feasible in the short-term future, it is also not currently available as an option for the Parley's Trail.



Another potential transportation investment in the area is Phase Two of the Sugar House Streetcar. Phase One of the Sugar House Streetcar extends from the 2100 South (Central Pointe) TRAX Station to McClelland Avenue, and began construction in spring 2012. An extension (Phase Two) is currently under consideration, and would take the streetcar eastbound from McClelland onto Simpson Avenue, north on Highland Drive to the monument at 2100 South, returning south on Highland Drive to Sugarmont Avenue, and westbound on Sugarmont Avenue to McClelland Street and onward. The following figure illustrates the locally preferred

alternative (LPA) alignment for the streetcar in this area. An eventual streetcar extension along 1100 East to 1700 South may be considered in the future. Sugarmont Drive, currently a one-way road westbound with on-street space for bicyclists and pedestrians, would be closed to vehicles other than the streetcar.

### Development Plans

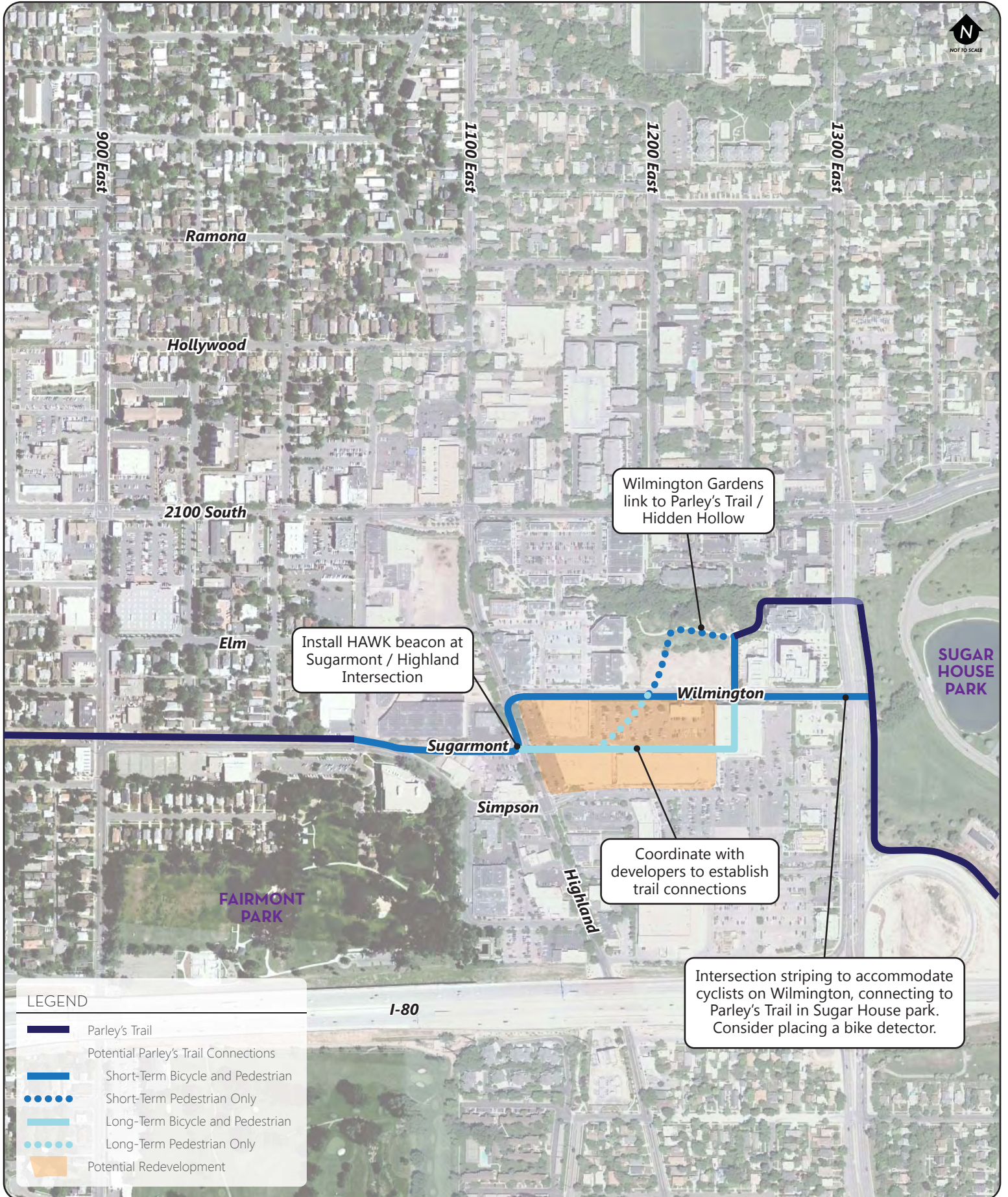
As previously discussed in Section 2.1.2, several major redevelopment projects are progressing in the Sugar House area. This includes Wilmington Gardens between Highland Drive and 1300 East north of Wilmington Avenue, and Sugar House Center between Highland Drive and 1300 East, south of Wilmington Avenue. Both projects involve developers who are supportive of the Parley's Trail concept and bicycle and pedestrian facilities in general. The Wilmington Gardens project will establish a bicycle-specific trail on the east edge of their project to accommodate cyclists exiting Hidden Hollow using the Parley's Trail, while pedestrians may connect from the trail in Hidden Hollow to Wilmington Gardens from a pedestrian plaza and corridor in the center of the project. Development plans at the Sugar House Center are in a preliminary stage, and will become more detailed after this Plan is complete.

### Recommendations and Considerations

The recommendations for the Parley's Trail are shown in Figure 4.6-1. Specific improvements associated with the recommendations include:

# PARLEY'S TRAIL CONNECTION

Figure 4.6-1 | Sugar House Business District Circulation Plan



- The Wilmington Gardens project has planned for the Parley's Trail users to use separate connections in the Wilmington Gardens project to travel between Wilmington Avenue and Hidden Hollow: bicyclists will use the trail on the eastern edge of the property, and pedestrians through the corridor and plaza in the center of the project.
- Existing bicycle lanes on Wilmington Avenue should be restriped, including accommodations for cyclists to make left turns at both ends of the corridor. Bicycle detector loops should be considered.
- For the near future, trail users should use Wilmington Avenue and Highland Drive to connect to the Sugar House Streetcar greenway on Sugarmont Drive.
- Salt Lake City should continue discussions with the developers of the Sugar House Center to establish pedestrian corridors linking from Wilmington Gardens to Sugarmont Drive.
- A HAWK beacon at the intersection of Sugarmont Drive and Highland Drive is recommended; this would ideally connect interior pathways at the Sugar House Center to the Sugar House Streetcar and greenway. This will become more critical as pedestrian connections are established through the Sugar House Center and if the proposed streetcar line extends to Highland Drive.
- Adequate space exists on Sugarmont Drive, with roughly 35 feet of right-of-way, to accommodate both the streetcar and the Parley's Trail along the streetcar's south side. The turning radius for the streetcar may necessitate more space from the trail area; if this is the case, the trail could be shifted slightly southward into property owned by Salt Lake City that is planned for redevelopment.

## 4.7 *Raised Street Level on Highland Drive*

This section summarizes the feasibility of raising the street level of Highland Drive between Sugarmont Drive and Simpson Avenue. The evaluation of this project was recommended by RDA staff.

### **Existing Conditions**

Highland Drive has a four-lane cross section between Sugarmont Drive and Simpson Avenue and has a posted speed limit of 30 mph. The ADT on Highland Drive is approximately 21,200.

### **Raised Street Level**

A raised street would consist of raising the street level to the same elevation as the sidewalks and future proposed plazas in the area. With the redevelopment of the Sugar House Center and the Deseret Industries block, as well as the proposed plaza at Sugarmont – the raised street level could tie all the developments and plazas together creating a synergy between them, the

plazas, and Fairmont Park. As previously discussed, this is also the proposed location for the Parley’s Trail connection. The streetscape and amenities plan should provide further evaluation of this project.

The following Table 4.7-1 summarizes the feasibility criteria for evaluation.

Table 4.7-1. Raised Street Level on Highland Feasibility Criteria

<i>Project</i>	<i>Relationship to Goals</i>	<i>Mobility Benefits (ped/bike/veh /transit)</i>	<i>Technical Constraints</i>	<i>Project Cost (low/med /high)</i>
Raised Street Level on Highland	<ul style="list-style-type: none"> <li>Improves bicycle mobility</li> <li>Provides a safe, attractive, and functional pedestrian environment to promote a walkable community</li> <li>Creates useable connections to existing and future pedestrian and bicycle path systems</li> <li>Provides multi-modal transportation options that include transit, bicycle and pedestrian facilities, as well as improved public streets to facilitate better mobility, access, and reduce traffic hazards</li> <li>Provides better multi-modal connectivity</li> </ul>	+ / + / 0 / 0 <sup>1</sup>	<ul style="list-style-type: none"> <li>Streetcar design (going up and down the elevation change)</li> <li>Bollards (or something similar) may need to be placed on either end to visually segregate pedestrian plazas from the raised street area</li> </ul>	Med to High

Notes:

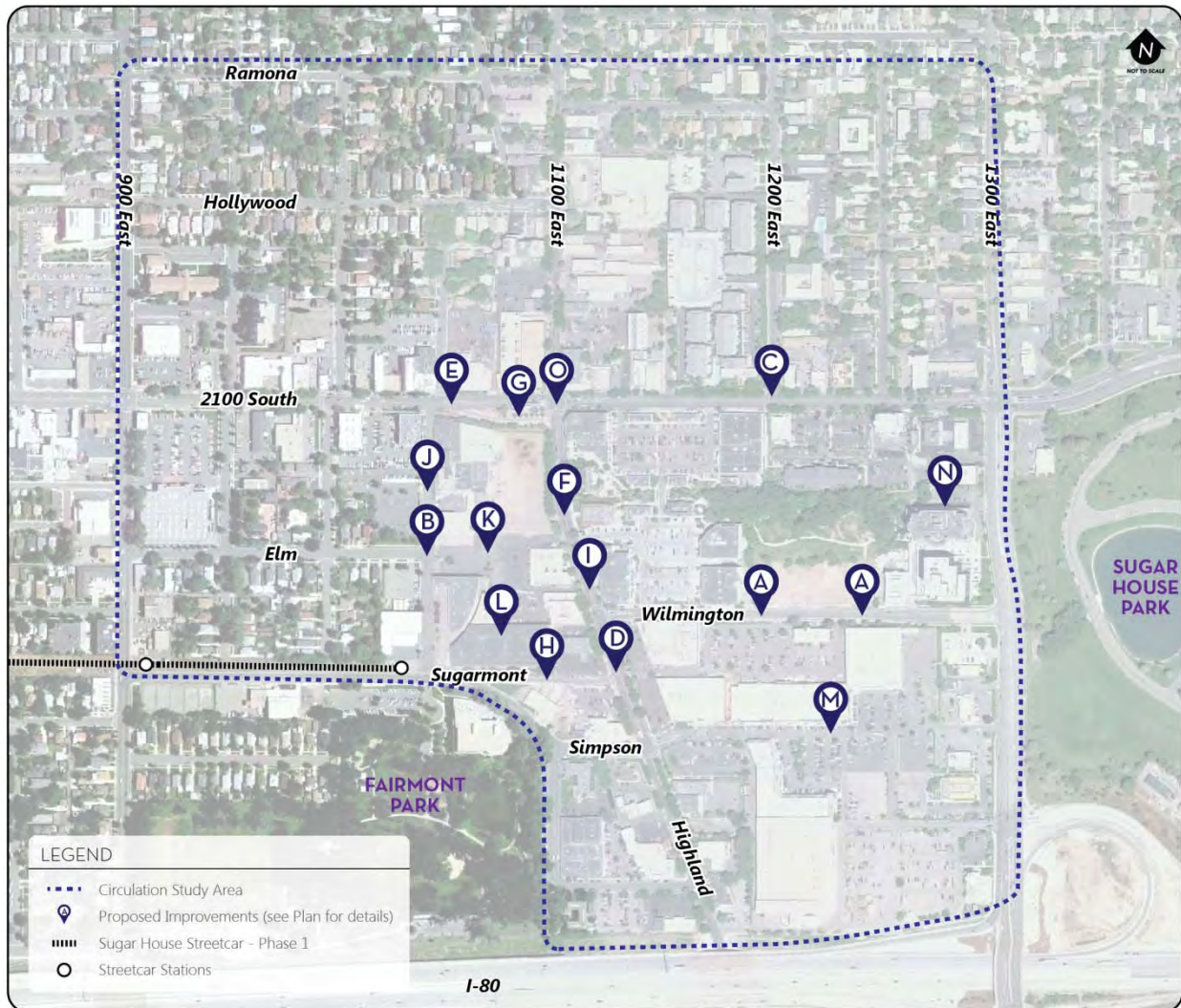
<sup>1</sup>Represents a positive (+), neutral (0), or negative (-) impact for the respective travel mode.

Source: Fehr & Peers, July 2012

# CHAPTER 5: IMPLEMENTATION PLAN

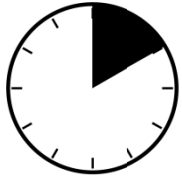
## 5.1 Proposed Improvements – Specific Locations

The figure below illustrates locations where opportunities for specific improvements were identified. A series of Project Sheets follow that correspond with map locations. It should be noted that the improvements shown on some of the Project Sheets can serve as prototypical improvements that could be applied at other locations. Also note that currently no safety studies have been conducted in these locations. These studies, along with greater examination of drainage and parking impacts, are necessary before making any determination on how to proceed. This *Plan* was a collaborative effort to prepare a timeline for implementing projects in the short-term (2012-2014), mid-term (2014-2020), and long-term (beyond 2020). Conceptual projects were established based on input from the project stakeholders, the Sugar House Master Plan, and feasibility studies (including technical analysis) presented in Chapter 4.



## 5.2 Mid-Block Crossings

### A. Wilmington Avenue



Short Term

#### Existing Site Characteristics

- Currently, there is one mid-block crossing on Wilmington near Highland and a crosswalk at the intersection of Wilmington and 1300 East.
- The nearest crossing point to the proposed crossing area is 250 feet away.
- Wilmington Avenue is a low-volume road.

#### Design Recommendations

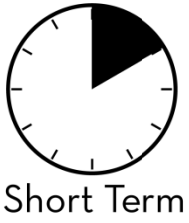
- Improve visibility through signage and striping
- Possibly raise crosswalk and texture
- Cost may be associated with development projects

#### Possible Concerns

- As development occurs along Wilmington, roadway volumes may increase.



B. McClelland at Elm



**Existing Site Characteristics**

- Currently, there is one mid-block crossing on McClelland Street, 230 feet north.
- McClelland Street is a low-volume road, with a number of development plans along both sides.
- A Sugar House Streetcar station will be located 375 feet south of this intersection.

**Design Recommendations**

- Improve visibility through signage and striping
- Possibly raise crosswalk and texture (see Complete Streets/Streetscape Amenities in Chapter 7)

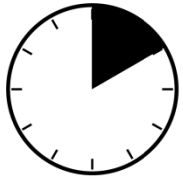
**Possible Concerns**

- Conflict with proposed cycle track and trail users.



5.3 *HAWK Beacons*

C. 2100 South at 1200 East (already funded by the City)



Short Term

**Existing Site Characteristics**

- The crossing features flags for pedestrians to use to increase visibility on both approaches.
- UTA bus stop is close to crosswalk.
- Westminster sees 1200 East as a pedestrian connection to the college.

**Design Recommendations**

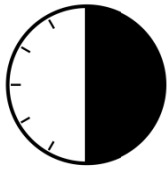
- Improve visibility of crossing through electronic signals.

**Possible Concerns**

- Ability to retain street trees.



D. Highland at Sugarmont



Mid Term

**Existing Site Characteristics**

- Signalized crossings are located 170 and 220 feet away.
- Will become a crossing for the Parley's Trail, currently being constructed alongside the Sugar House Streetcar.
- Connects Sugar House Park and Fairmont Park.

**Design Recommendations**

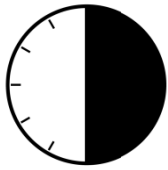
- Construct a HAWK beacon to facilitate trail users and streetcar riders.

**Possible Concerns**

- Spacing to the Wilmington and Simpson traffic signals.



E. 2100 South at McClelland



Mid Term

**Existing Site Characteristics**

- The crossing features flags for pedestrians to use to increase visibility on both approaches and button actuated flashing yellow lights.
- Will become a crossing for the proposed Jordan Salt Lake Canal Trail.

**Design Recommendations**

- Construct a HAWK beacon to facilitate pedestrian and bicycle users when the Jordan and Salt Lake Canal Trail is constructed, streetcar users when the Sugar House Streetcar is completed, and users of the redevelopment of the Granite Block.

**Possible Concerns**

- Eastbound vehicle queue spillback from the 2100 South / 1100 East intersection.

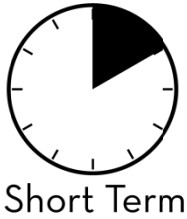
**Design Recommendations**

- Improve visibility and compliance of crossing through electronic signals.



5.4 Road Diet

F. Highland



Short Term

**Existing Site Characteristics**

- Highland Drive is currently two lanes in each direction with pockets of on-street parking.
- Delay occurs as drivers wait in-lane to turn left.

**Design Recommendations**

- From 2100 South to Stringham Avenue, convert roadway into one lane in each direction, with a center turn lane, and bike lanes in both directions. Maintain on-street parking where it exists.

**Possible Concerns**

- An increase in ADT with less capacity as future developments come on line in the Study Area.

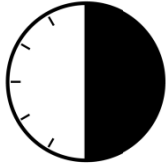
**Possible Benefits**

- Creates a better complete street.
- Left-turning vehicles are in TWLTL, thereby reducing delay in through lanes and potential for rear-end crashes.



## 5.5 Plazas

### G. Monument Plaza



Mid Term

#### Existing Site Characteristics

- Stop-controlled, eastbound right-turn bay.
- Plaza area with monument, bus stop, and trees.
- Angled parking along south side of right-turn bay.

#### Design Recommendations

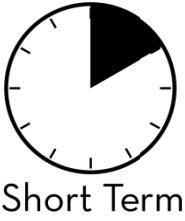
- Close Plaza to automobile traffic and remove parking.
- Provide space for streetcar to enter plaza in short-term and for streetcar station in long-term.
- Make plaza space at one, consistent level.
- Allow fronting development to use Plaza as sitting and dining space.

#### Possible Concerns

- Removal of trees.
- Removal of 18 on-street parking stalls.
- Loss of exclusive eastbound right-turn lane. This would increase vehicular delay and eastbound queue length.



## H. Sugarmont between McClelland and Highland



### Existing Site Characteristics

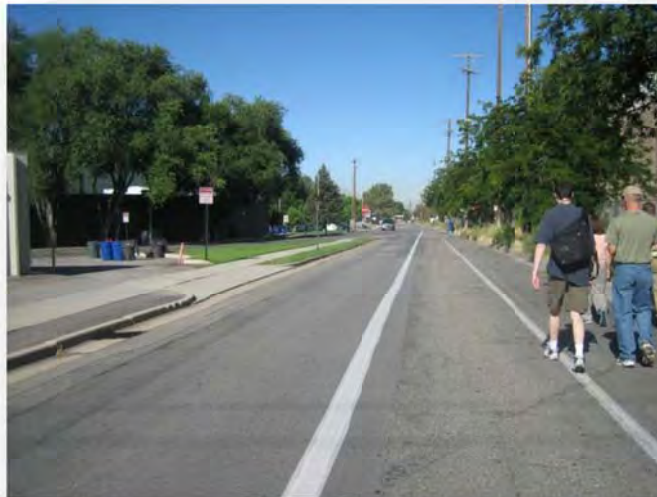
- One-way, westbound traffic with bike lane.
- Provides access for returning fire department vehicles.

### Design Recommendations

- Close Sugarmont to automobile traffic, with exception for fire department vehicles.
- Provide space for streetcar and Parley's Trail users.
- Make plaza space at one, consistent level.
- Allow fronting development to use Plaza as sitting and dining space.

### Possible Concerns

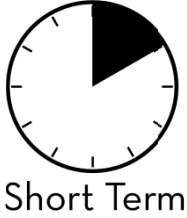
- None



## 5.6 Bicycle Lanes

Bicycle lanes are needed on both Highland Drive and McClelland Street to improve the bicycle network and connectivity in the Sugar House area.

### I. Highland



#### Existing Site Characteristics

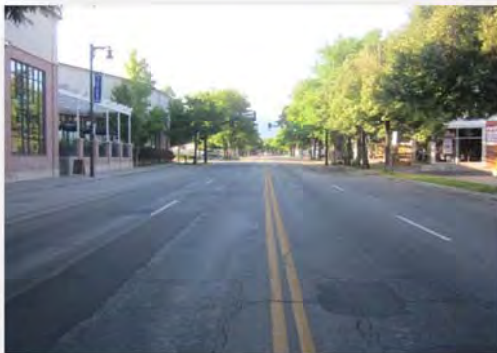
- Highland Drive is currently two lanes in each direction with pockets of on-street parking.
- There are no bicycle lanes.

#### Design Recommendations

- From 2100 South to Stringham Avenue, convert roadway into one lane in each direction, with a center turn lane, and bicycle lanes in both directions. Maintain on-street parking where it exists.

#### Possible Concerns

- None.



J. McClelland from 2100 South to Sugarmont



**Existing Site Characteristics**

- One travel lane in each direction with unsigned on-street parking.
- No striping on roadway.
- Low traffic volumes set to increase with redevelopment on both sides of roadway.
- Future alignment for Jordan and Salt Lake Canal Trail.



**Design Recommendations**

- McClelland Street will become a gateway between the Business District, Sugar House Streetcar, and Parley's Trail. The proposed Jordan and Salt Lake Canal Trail uses McClelland as a link between the section of the trail north of 2100 South and the section south of Sugarmont. With the projected increased in residential and commercial uses along McClelland in the near future, a separate bicycle facility is needed to accommodate both streetcar and trail users.
- Two-way cycle track on east side of roadway.
- Cycle track minimum width of 12 feet.
- Parking in one direction should be maintained.
- Physical buffer separation from vehicular traffic.



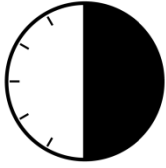
**Possible Concerns**

- Driveway/minor street crossings.
- Entering/exiting cycle track.



## 5.7 Pedestrian Connections

### K. Various Locations



Mid Term

#### Existing Site Characteristics

- A number of large developments with limited inviting pedestrian spaces and large parking lots.

#### Design Recommendations

- Create clearly delineated and signed pedestrian pathways through large blocks.
- As part of the development review process for new developments/reuse of existing developments, encourage the construction or conversion of larger blocks into smaller blocks separated by a network of narrow, short streets and/or pedestrian and bicycle corridors (see Chapter 7 for design details)

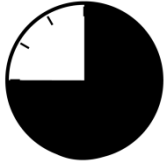
#### Possible Concerns

- None.



## 5.8 New Roadways

### L. Wilmington Extension



Long Term

#### Existing Site Characteristics

- The Sugar House Master Plan recommends the evaluation of this concept.
- Wilmington Avenue exists from 1300 East to Highland Drive.
- Current configuration is one lane in each direction with bike lanes.

#### Design Recommendations

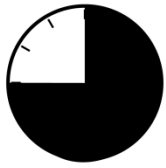
- Extend Wilmington through Granite Block to Sugarmont at intersection of McClelland.
- One travel lane in each direction with bike lanes and on-street parking.

#### Possible Concerns

- Intersection at McClelland/Sugarmont/Simpson.
- Development potential of parcels.



M. Simpson Extension



Long Term

**Existing Site Characteristics**

- Simpson currently exists from McClelland to Highland.
- Current configuration is one lane in each direction.

**Design Recommendations**

- Extend Simpson from Highland through Sugar House Center to 1300 East.
- One travel lane in each direction with on-street parking.

**Possible Concerns**

- Intersection at 1300 East will likely be restricted to right-in right-out movements only.



## 5.9 Parley's Trail

### N. Sugar House Connection



#### Existing Site Characteristics

- There is no planned connection between McClelland Street (end of Greenway corridor) and the Draw (at 1300 East between 2100 South and Wilmington).

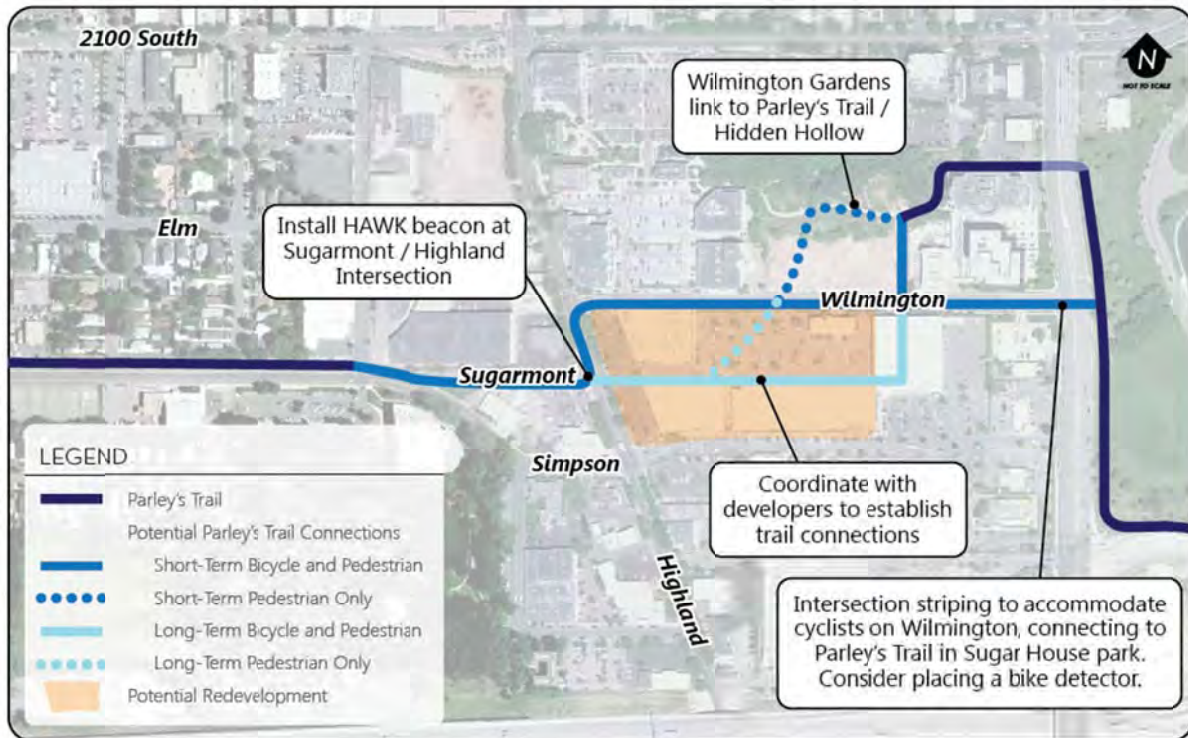
#### Short Term

#### Design Recommendations

- In short term, connect the Trail on-street via Wilmington, which has on-street bicycle lanes and sidewalks on both sides.
- The Wilmington Gardens development has planned connections, both pedestrian and bicycle, for the Parley's Trail.
- In long term, work with Sugar House Center developers to accommodate trail with possible redevelopment opportunities. This may require obtaining easements from the property owners.

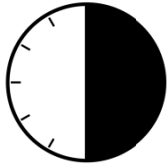
#### Possible Concerns

- Wayfinding.
- Ability to integrate trail into development plans.



## 5.10 Intersection Improvements

### O. 2100 South/Highland Eastbound Right-Turn Closure



Mid Term

#### Existing Site Characteristics

- The current eastbound configuration at the intersection of 2100 South and Highland is one left turn lane, two through lanes, and one right-turn lane.
- Right-turn lane is stop controlled and separated from the main intersection.
- The existing right-turn lane is on the south side of Monument Plaza.

#### Design Recommendations

- Close right turn lane to vehicular traffic and parking.
- Eastbound movement would become one left turn lane, one through lane, and one shared through-right turn lane.

#### Possible Concerns

- Small increase in overall delay at intersection. More substantial increase in eastbound delay. See Section 4.1 in Chapter 4 for additional details.
- Loss of 18 on-street parking stalls.
- Extended queue lengths eastbound on 2100 South.



## P. Northbound Approach Improvements at 2100 South/Highland



Short Term

### Existing Site Characteristics

- The current northbound configuration at the intersection of 2100 South and Highland is one left turn lane, one through lane, and one right-turn lane.
- Right lane is a trap lane, meaning all traffic in the right lane must turn right.
- Left turn lanes consistently exceeds storage lane, blocking northbound traffic.

### Design Recommendations

- Reconfigure northbound approach so that the left lane turns into a left-turn trap lane.
- Northbound right would become a turn pocket.

### Possible Concerns

- This configuration is only applicable prior to the implementation of the proposed Highland Drive road diet.



## CHAPTER 6: NEXT STEPS

- The City should undertake a prioritization and costing exercise beyond the scope of this Plan.
- In setting its priorities, the City should consider how these recommended projects help to achieve its circulation goals.
- The City should continue its engagement of property owners to help implementation the projects which are located on private property.
- Additional analysis may be needed for projects that could have a significant and unequal impact to certain modes.
- Salt Lake City should identify a variety of funding sources to construct the recommended projects described in the implementation section of this *Plan*.

## CHAPTER 7: STREETSCAPE AMENITIES PLAN

An opportunity for incorporating the Complete Streets concept is arriving in Sugar House. The streets within the Sugar House redevelopment area are transforming from an automobile intensive use and design to a multi-modal intensive use.

This document has been prepared to set the parameters for the implementation of amenities that will create a defining district. The following components have been included in this document to support this overall goal:

- Introduces the Complete Streets Concept
- Introduces Sustainable Sites Initiative
- Evaluates the current streetscape amenities within the Sugar House Business District
- Provides a design concept framework for streetscape amenities, and
- Establishes a set of streetscape amenity design standards.

These streetscape standards are designed to better accommodate the forthcoming multi-modal use of the area and guide the renovation of the Sugar House Business District to a Complete Streets environment. The primary objectives are to:

- Document existing amenities,
- Discuss how to build off and incorporate existing resources into an overarching Complete Streets context,
- Identify amenities that have served their lifecycle, are outdated, or underperforming, and
- Evaluate opportunities to enhance and unify the design theme.



*Sugar House Monument*  
Photograph by: Clint Gardner, creative commons license

### 7.1 *Background*

The Sugar House Master Plan states, “The Business District can be improved in terms of making it a more pedestrian-oriented experience. The City needs to think ‘pedestrian first’ when approving new developments or when implementing its own public works projects. This includes pedestrian circulation between blocks and within individual developments. It is

essential that pedestrian crossings on 2100 South are added and the existing crossings are enhanced. Furthermore, implementing a pedestrian first policy for the Business District to ensure the pedestrian is given priority consideration when developing new projects or programs is recommended.” The nationally recognized Complete Streets approach will assist with fulfilling the desired Master Plan goals.

### 7.1.1 Complete Streets Concept

Complete Streets are roadways designed to promote and implement safe, attractive, and comfortable access and travel for all user types, ages and abilities. Implemented through planning and urban design policy, Complete Streets are ideal tools for redevelopment areas.

A Complete Street is a roadway with accommodations provided for pedestrians, cyclists, automobiles, and, where applicable, mass transit. Connectivity, inclusive user accommodations, neighborhood character and quality of life are the defining attributes of a Complete Street. In contrast to roadways that function solely as an automobile thoroughfare, a Complete Street functions as more of a place and experience.

### 7.1.2 The Complete Street User

The user of a Complete Street can take the form of different types of mobility: pedestrians, cyclists, streetcars, buses and automobiles. Complete Streets utilize design and amenities to make streets and the surrounding streetscape safe and accessible to the needs of these different mobility types. Connectivity and the aesthetics of the streetscape environment are key factors for creating a Complete Street experience, especially for pedestrians and bicyclists. Well-designed streets allow motorists and public transportation modes to efficiently use the street without impeding or endangering other user groups.



photograph by: CRSA

*“We shouldn’t just use some antiquated language that says we have to post the speeds according to what 85 percent of motorists are doing. Instead we should take control of our streets. If 85 percent of our motorists are driving faster than we want them to, then we need to redesign the street, rather than letting the tail wag the dog. There’s something wrong with our street design if you’re getting 85 percent of our motorists to drive 10 miles an hour faster than is safe for the conditions.”*

-Dan Burden, Executive Director of Walkable Communities, Inc.

### 7.1.3 Complete Streets Features

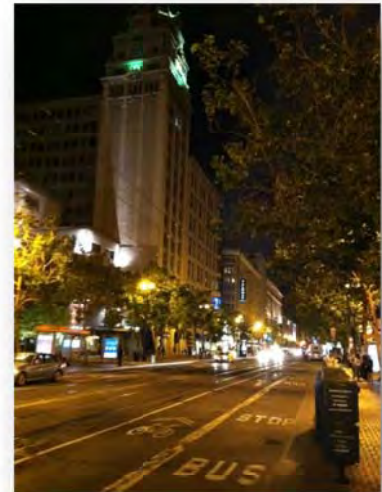
The context of Complete Streets is defined by more than just the design of the curb to curb space. The surrounding environment, from the architecture to the sidewalks and the landscaping to the lighting, all plays a large role in establishing a Complete Streets context. The design of Complete Streets incorporates multiple components of the streetscape, including:

1. Street Dimensions & Configuration
2. Sidewalk Dimensions & Configuration
3. Amenities & Aesthetics
4. Spatial Definition

#### 1. Street Dimensions & Configuration

The curb to curb travel areas of Complete Streets include designated or shared-use lanes for bicyclists and transit modes. In contrast to regular streets, Complete Streets incorporate components in the street space that may include narrower travel lanes, landscaped medians, and on-street parking. A key indicator of a Complete Street is the designation of bicycle lanes or shared-use lanes. Shared lanes allow for both auto and bicycles to use the travel lane while dedicated bicycle lanes separate the users. Dedicated bike lanes also provide protection for cyclists and encourage bike use. The travel way is enhanced and defined through the use of raised crosswalks, intersection designs, colored multi-use travel lanes and decorative paving. Street width is defined as the physical curb-to-curb space. Effective width can be defined by amenities that promote a Complete Streets environment, such as on-street parking, bike lanes, painted edge lines, or bulb-outs. The edges of travel ways are spatially defined through the use of amenities such as street trees, planted park strips, and bollards. These elements all work to create a safe and inviting environment designed for multiple users.

Improvements can be made in the existing street infrastructure to create a Complete Streets context. Bike and pedestrian corridors are an effective strategy for creating more walkable, dense development environments. The addition of these corridors can create



photographs by: CRSA

smaller blocks without adding additional automobile streets. This facilitates a higher degree of connectivity by creating more permeability among the development environment. Provision of pedestrian and bike only corridors allow them to flow through the network without needing to use busier streets.

## 2. Sidewalk Dimensions & Configuration

Complete Streets sidewalks function as more than just pedestrian walkways. When strategically designed, sidewalks become outdoor living rooms, where people eat, work, play and experience the public realm. Components of the sidewalk space can include outdoor dining, decorative planter boxes, street trees, outdoor retail space to extend store fronts, vendor kiosks, food carts, and lighting. At the corners of sidewalk space, bulb-outs extend the pedestrian space and act as buffers from faster moving traffic.

## 3. Amenities & Aesthetics

While in many city features form does follow function, good design can also be both aesthetic and functional. Textured streets, landscaping, building form and material, sidewalks and crosswalks enhance the aesthetic to a Complete Street system. Complete Street design helps to create a place and is inviting to all users.

One example of this is the street tree. Besides the environmental and sustainable features, trees bring design aesthetics to the streetscape. Visually speaking trees add vertical and spatial dimension to street spaces. Street trees help make up the urban forest ecology within cities. Tree diversity is a critical practice to maintain healthy urban forests. While consistent themes and design are important to the street aesthetic, this doesn't mean that all the trees and shrubs need to be mono-culture in species selection.

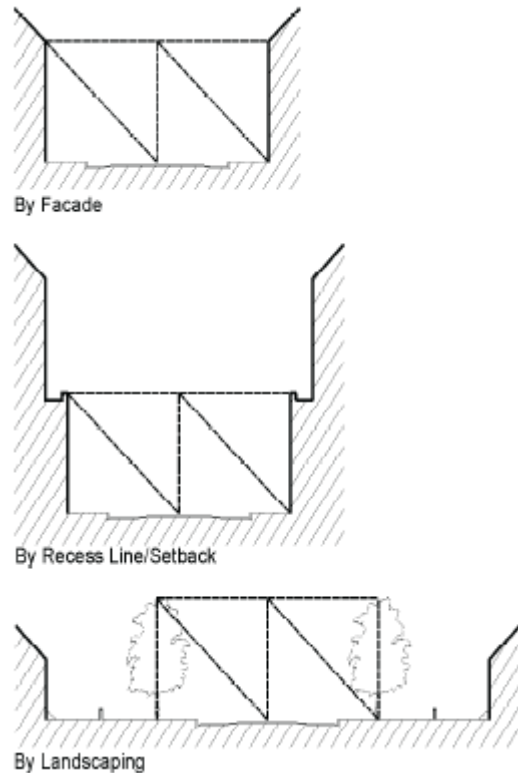


photographs by: CRSA

#### 4. Spatial Definition

The spatial definition of the street helps to frame the perspectives of the users. In addition to buildings that are designed to shape the street with their massing, form, and orientation, other elements can define these spatial ratios. These include amenities that are part of the Complete Streets context, such as street trees, landscaping, and public art or monuments. (See Figure 7.1).

The best current example of this in the SHBD is the Sugar House Monument, which contributes to defining the spatial form of the street and enhances the area around the intersection of 2100 South and Highland Drive.



*Figure 1: While spatial form is often best defined by primary building facades, landscaping and stepbacks/recessed facades also are elements that define the street.*

## 7.2 Sustainable Sites Initiative

The Sustainable Sites Initiative is a joint effort by the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center, and the United State Botanic Center to develop reference guidelines and benchmarks in support of sustainable design and construction. This initiative is similar in format and scope to the Leadership in Energy and Environmental Design (LEED) guidelines that are prevalent in the industry; however SITES is designed to be implemented in projects where LEED may not apply. SITES is specifically designed to apply to projects where development of a structure is not intended, such as a streetscape, a plaza, or a park. As the guidelines in this document are designed primarily for these types of projects SITES is an ideal benchmark for reference.

There are five areas of focus in the SITES program. These are summarized as follows.

1. Hydrology
2. Soils
3. Vegetation
4. Materials
5. Human Health and Well Being

## **1. Hydrology**

Water is a limited resource, especially in a desert region like Utah. Historically communities have tended to treat stormwater like waste, removing it from a site as quickly as possible. This approach can be expensive, requiring expensive infrastructure and long term maintenance. Additionally, by transporting the water away from the site it is not allowed to percolate into the soil. SITES advocates methods for harvesting water on site and using it for irrigation, water features and groundwater recharge. A project developed in the Sugar House Business District under these guidelines may seek to direct stormwater runoff to new surface treatment areas such as rain gardens rather than routing it directly into an existing storm drain.

## **2. Soils**

Healthy soils are important for many reasons. Healthy soils allow stormwater to percolate into the soil and support the growth of healthy plant materials. Common construction techniques fail to recognize the value of clean soils. An example of a project that seeks to protect soils would be one that recognizes an existing functioning soil horizon and develops methods for retaining topsoil and preventing erosion. In an urban infill situation like Sugar House the goal may be to repair the soil horizon by amending soils where plant materials will be placed.

## **3. Vegetation**

Many recognize the value of vegetation for aesthetic purposes. Trees, shrubs, and ground covers can create beautiful places. These materials can also help to create comfort. Trees provide shade and can cool the air improving the comfort of outdoor spaces for uses such as dining. Vegetation also is a part of the stormwater management system of a site. Reduced vegetation cover reduces soil health and soil structure. In urban sites like Sugar House the natural stormwater system may not be functioning well. The use of regional appropriate plant materials can help to improve the natural soil structure. Additionally, appropriate native materials will reduce energy needed for long term maintenance. Native and adapted materials will help to create a sense of place and establish the parameters of the district. In Sugar House where many streets are planted with common street trees it may not be appropriate to make significant changes to the tree canopy to avoid mismatching of tree themes. However, understory plantings can be changed significantly in the favor of native plantings to generate the benefits outlined by SITES.

## **4. Materials**

Materials are made from natural resources. We often overlook where these resources are mined or extracted. Often materials are shipped long distances (may apply to plant materials as well) for processing and then shipped long distances again for installation. Where possible, to reduce pollution from shipping and manufacturing, purchasing from local suppliers can be a positive choice. Projects in Sugar House may also benefit from materials manufactured in a

sustainable manner. Many of the materials are also easily recycled or deconstructed allowing them to be reused again. Sustainability can also apply to comfort of users and long term maintenance. For example, a project in Sugar House may seek to use materials that reduce the urban heat island affect. Reflective materials in conjunction with vegetation will reduce trapped heat which also can reduce wear and tear on mechanical equipment. Reduced air temperature can reduce the need for air conditioning in some instances.

## 5. Human Health and Well Being

Positive projects that follow SITES guidelines will provide healthy, green environments for users. Users visiting this type of project will experience amenities that encourage social interaction in a comfortable environment. Projects may promote beautiful views, screen noisy distractions, and provide places for rest and relaxation. Healthy sites also have healthy ecosystems and promote the growth of plant materials. The project may also provide interpretive signs to help users understand the history or cultural legacy of a place. These types of features increase the social interaction of a place. All components of the SITES program contribute to the well-being of a site for use by humans.

### 7.3 *Existing Amenities*

The collection of existing streetscape amenities in the SHBD are representative of past and current efforts to improve the experience of people who come to Sugar House to shop, eat, work, and play.

In this section, documentation of the existing amenities that define the Sugar House Business District streetscape are catalogued. Following are recommendations for which of these amenities can play a role in defining the Complete Streets context of the SHBD, and how they can be supplemented/improved upon.

The following categories define the different types of streetscape amenities found in the SHBD:

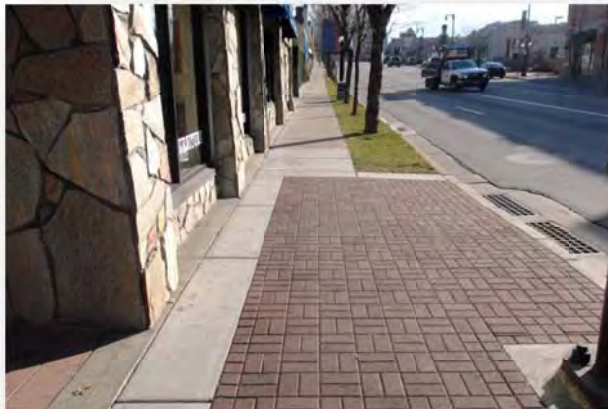
1. Hardscape
2. Softscape
3. Lighting & Signage
4. Furniture & Fixtures
5. Art & Culture

## 1. Hardscape

### Decorative Paving

Two types of decorative paving are currently used in the streetscape of the SHBD. The predominant type is a red, textured pavement. This textured paving material has been used in the most recent updates to areas of the SHBD, including the monument plaza, corner treatments, and bulb outs. Textured pavement locations include the Monument Plaza, areas along 2100 South, 1100 East, and Highland Drive.

The other type is a smooth surface, red brick. This treatment was installed along the north side of the Granite Block as sidewalk material. However, the smooth surface becomes slick when wet and snowy, leading to unsafe pedestrian conditions.



*Red textured paving*



*Smooth, red brick pavers and street trees*

### Bulb-outs

Bulb outs are used to narrow the crossing distance and/or to act as traffic calming devices. They also define areas of on-street parking. Locations include 1100 East, Highland Drive, and 2100 South. Many are delineated with the red, textured paving material. Bulb outs also provide more space for pedestrians who may gather to wait to cross a street.

### Crosswalks

The majority of cross walks in the SHBD are the standard striped crosswalk, defined by two parallel white painted lines. In a few locations, the more visible 'zebra' striping pattern is used. Overhead, pedestrian-activated crossing lights are located at the McClelland crosswalk on 2100 South. Additionally, orange pedestrian flags are located there and at the mid-block crosswalk just north of 2100 South on 1100 East.

## Recommendations

- Although the textured paving is fairly recent, the city should consider updating the paving scheme as the monument plaza and Granite Block are reconfigured. The smooth pavers should be replaced with a more durable, safe surface.
- Bulb-outs should be retained, although the paving material may be updated to be consistent with the monument plaza.
- Crosswalks should be updated with textured pavement or zebra striped lines to enhance visibility. Additional crosswalk enhancement may include HAWK lights at key locations.



*Bulb-out for on-street parking*



*Crosswalk with pedestrian-activated lights*



*Striped crosswalk and street trees*

## 2. Softscape

A variety of landscaping and other softscape treatments work to enhance the SHBD.

### Street Trees

Street trees have been in place in the SHBD since improvements done in the 1980s. In more residential areas surrounding the SHBD, mature trees also line the street. The primary tree used in the central SHBD is the honey locust.

## Tree Grates

Tree grates are used around street trees where the surrounding surface is hardscape.



Concrete planter

## Park Strips

A planted park strip separates the sidewalk from the street and contains street trees. Most areas that are not hardscaped incorporate a planted park strip.

## Plantings

Plants are located in the base of the monument as well as in low concrete planters in a few locations on the plaza and in front of the Granite Furniture building.

## Recommendations

- Select replacement of some street trees may be in order. The lifespan of the honey locust species is near its typical end. The varieties should be selected so that their canopies are of a height that maintains unobstructed passage of different user types, including vehicles and pedestrians and bicyclists. Spacing between trees and from buildings and other structures should be designed to allow for full canopy growth. Careful consideration should be given regarding the location of street trees in front of businesses so as not to obstruct signage or building identification.
- Tree grates may need to be replaced as street trees are reconfigured or replaced. Those that remain should be evaluated and repaired when necessary.
- Retention and enhancement of the planted park strip is recommended to maintain the softscape elements that convey a pleasant environment and balance the predominant hardscape of the street and plaza areas.
- Plantings should remain in the base of the monument. Previous evaluation of the re-installation of the water feature was not recommended due to damage the water caused the monument structure. Additional planters should be located throughout the SHBD.

## 3. Lighting & Signage

Street lights in the SHBD are primarily a black metal pole with teardrop light fixtures. The lights include a pair of lower pedestrian-scaled fixtures and a pole for hanging banners. The base includes lettering for "Sugar House" and a sugar beet emblem. These have been installed

throughout the SHBD over the past decade. This lighting fixture was chosen in response to SHBD Design Guidelines, which called for the following specifications:

- “Choose light poles, arms, and fixture designs to preserve the historic character of the streetscape.”
- “Select lighting to be in scale with the pedestrian experience.”

Signage in the SHBD is primarily of two different types. Concrete gateway signs with metal lettering that say “Sugar House” are located at entrance points to the SHBD. These are of two different eras and the newer versions have slightly different lettering than the originals.



*Black street lights with banner poles*



*Wayfinding signage with concrete planters*

Wayfinding signage is located throughout the SHBD. This signage has a blue and orange flat surface with arrows indicating the direction of local attractions. The signs are mounted on a brown metal frame.

#### Recommendations

- The street lights currently in place are recommended to remain. Some are in need of repair, and regular maintenance is necessary to maintain a safe environment and clean appearance. The addition of accent lighting is recommended to enhance seating areas and softscape elements.
- The signage theme for the SHBD should be unified. The concrete gateway signs have some historical significance and should likely remain. However, updates to match the style and font of the lettering on the signage are recommended. The wayfinding signs are not necessarily representative of a Sugar House color scheme. If one is identified, these signs should be updated/replaced to be consistent.

#### 4. Furniture & Fixtures

A variety of furniture and fixtures serve as amenities in the SHBD. These include transit canopies/shelters, benches, bike racks, bollards, and trash cans.

The transit canopies date back to the 1980s. These are located on the monument plaza and in front of Sprague Library.

Benches are primarily located on the monument plaza and consist of a treated wood product with metal arms/legs. Additionally, there are several concrete 'couches' that were installed as a public art commission that serve as bench seating.

Bike racks are located throughout the SHBD. The type and design vary.

Bollards are used in the main area of the SHBD to serve as barriers between pedestrians and the traffic lanes. The majority are a black metal bollard that is similar in style to the street lights. A few older concrete bollards remain on the north side of the Granite Block.

Trash cans are located throughout the SHBD. These are pebbled concrete and brown metal, and square in configuration.



*Transit canopy on Monument Plaza*



*Benches and plantings on the Monument Plaza*



*Black metal bollard and tree grate*



*Concrete bollard*



*Trash can*

## Recommendations

- The transit canopies are in need of replacement. While functional, they don't indicate the importance of transit users to the area. When amenities are provided at transit stop areas, the area is more immediately defined as a Complete Street environment to users of all types. Well-designed canopies with benches signal that the transit user is an integral and expected component of the Complete Street environment. Amenities that make the transit stops a comfortable place to sit and wait are a necessity. The location of the canopies and benches at transit stops need to be located far enough from the travel lanes to create a safe and comfortable space.
- The fixed-in-place benches are not frequently used, except during special events located around the monument plaza. Movable seating is recommended to replace or complement fixed benches. Seating opportunities should incorporate a range of options beyond benches and chairs. Low walls, planters, steps, and fountain edges. These additional elements function not only as seating, but also amenities that improve the aesthetics of an area and establish its niche as a public space.
- The current black metal bollards may continue to work, but replacement should be considered if they would be more consistent with other amenities that are part of the Complete Streets context in the SHBD.
- Trash cans should be replaced. Metal cans with more decorative features should be considered.

## 5. Art & Culture

There is a great deal of public art and cultural amenities located in the SHBD. The most recognizable piece of art is the Sugar House Monument. Other pieces of art have been installed through the RDA's funding for the Sugar House project area. These include bronze sugar beet sculptures, located in front of Sprague Library and at the entrance to Hidden Hollow, and metal fish sculptures, located along 2100 South. Anagram lettering is installed in the textured paving at several locations throughout the SHBD and reference aspects of the area's history.

A cultural marker located on the monument plaza indicates the location of the Jordan and Salt Lake Canal, which runs north through the Granite Block and across the west end of the plaza.



*Sugar House Monument*



*Bronze Sugar Beet sculpture*



*Canal marker*

#### Recommendations

- Existing art should be retained and highlighted as amenities. Additional art pieces are recommended and should be interactive, fun, and unique to the SHBD. The art pieces that people tend to gravitate to are those that invite closer inspection and interaction, such as the bronze sugar beets.
- The monument plaza should continue to be defined and highlighted as the 'center' of the SHBD. Other amenity types should work toward this objective.
- Additional cultural markers that spotlight historical or current facts about the area are encouraged to uniquely define the SHBD.

## 7.4 *New Amenity Guidelines & Standards*

While the business district currently contains many amenities, a consistent, coordinated theme has not been completed. Layers of amenities and improvements made over the past 30 years have led to the eclectic collection of amenities presented in the previous section. The implementation of the Complete Streets concept presents the opportunity to establish a design framework that further strengthens the identity of the area. These guidelines and standards represent the first step in that implementation process. They build off the efforts of the existing amenities while embracing the Complete Streets concept to truly make the streets of the SHBD accessible and defined by users of different mobility types. The guidelines and standards in this document are primarily for amenities located between the back of curb and the building facade or front lot line.

These streetscape amenity design standards are written to assist architects, engineers, design professionals, landscape architects, contractors, and SLC Corporation staff in understanding the preferences for amenities in the Sugar House Business District.

The goals of the standards are:

- To visually orient residents and visitors to the Sugar House Business District
- To provide a design framework that establishes consistent aesthetics and quality from project to project.
- To expedite the design and approval process of projects.

It is expected that these standards will be monitored by SLC Corporation staff to make updates that reflect new developments in building code requirements, manufacturing techniques, and design trends.

In this section, a layered design framework is laid out that includes the following elements:

1. Amenity Theme
2. Unifying & Defining Elements
3. Existing Amenity Anchor
4. Design Context Guidelines
5. Amenity Design Standards
6. Street Types - Examples

## **1. Amenity Theme**

The overall theme for amenities in the SHBD will be to have a classic base with opportunities for splashes of color and verve. Rather than lock into one particular ‘period’ look, the amenities will represent a cross-section of styles. With this approach, the amenities will contribute to the way the buildings in the business district represent the evolving history of the SHBD, which has accumulated over the past century. Both style and color will work to provide a recognizable branding of the Sugar House area.

## **2. Unifying and Defining Elements**

These guidelines include amenities that are recommended to be unifying in their design and those that are intended to be defining. Unifying amenity types are intended to be applied district-wide, while amenities classified as defining are intended to create identities for sub-areas within the SHBD. In addition, certain aspects of each amenity will work to link it with the others.

Unifying elements:

- Street lights
- Bollards
- Base sidewalk and plaza paving
- Signage
- Crosswalk treatments

Defining elements:

- Benches/seating
- Landscaping/planters
- Bike racks
- Tree grates
- Trash/Recycling cans
- Accent paving
- Intersection paving



### 3. Existing Amenity Anchor

The current black, metal street lights are recommended to serve as the primary anchor for new amenities in the SHBD. The streetlights represent the implementation of previous guidelines for the SHBD and have been installed on most of the major streets. Their overall look is classic, yet specific to Sugar House with vernacular details on the base of the pole. These are recommended to remain and establish the base upon which to link new amenities.



Unifying details:

- black,
- metal,
- classic design

Location:

- Tall street light with lower pedestrian lights on all street types except 'Residential Village' (see section 6: Street Types Examples); Lower single globe lights of the same style pole/base to be used on the 'Residential Village' street type.

#### 4. Design Context Guidelines

The design guidelines are intended to set the framework for the overall streetscape amenities. A few general examples are provided to establish context for the amenity design standards that follow.



Hardscape: Base Paving for Sidewalks

*Materials:* Concrete; colored and/or textured

*Color:* light to medium gray/slate

*Location:* Primary paving material for sidewalks; recommended to cover 85 to 95% of sidewalk paving, with the remainder for accent paving materials.

*Implementation Projects:* J & K

*Notes:* Limit implementation of smaller pavers in key pedestrian routes unless another primary route is available in an alternative material. Stamped or color concrete is recommended for primary routes.



Hardscape: Accent Paving for Sidewalks/Parkstrips

*Materials:* Concrete; colored and/or textured

*Color:* medium to dark gray/slate; bluish-gray; greenish-slate

*Location:* Accent paving material for sidewalks; recommended to cover 5 to 15% of paving on sidewalks and be located on streets with hardscaped park strips (2100 South between McClelland and Elizabeth Street; Highland Drive between Hollywood and Sugarmont/Wilmington; East side of McClelland between 2100 South and Sugarmont)

*Implementation Projects:* J & K



Hardscape: Base Paving for Plazas

*Materials:* Concrete; colored and/or textured

*Color:* medium gray/slate

*Location:* Primary paving material for plazas; recommended to cover 60 to 75% of plaza paving, with the remainder for accent paving materials. Base paving materials should be the same for all plazas.

*Implementation Projects:* G & H





Hardscape: Accent Paving for Plazas

*Materials:* Concrete; colored and/or textured

*Color:* dark gray/slate; bluish-gray; greenish-slate

*Location:* Accent paving material for plazas; recommended to cover 25 to 40% of plaza paving, with color specific to each individual plaza (e.g. bluish-gray for the SH Monument Plaza and greenish-slate for the new Sugarmont/Highland Drive Plaza)

*Implementation Projects:* G & H



Intersection Designs

*Materials:* Concrete; colored and/or textured

*Base Color:* medium gray/slate

*Accent Colors:* dark gray/slate; bluish-gray; greenish-slate

*Location:* Primary intersections - 2100 S & Highland Drive

*Implementation Project:* O



*Notes:* Bulb outs and/or clear areas around intersections provide additional space for pedestrians who may be waiting to cross the street. Consideration should be given to broad spaces at intersections. This also may increase the visibility and safety for motorists. Carefully consider placement of trees near intersections and crosswalks to improve visibility of pedestrians.



### Crosswalk Treatments

*Materials:* Zebra striped or raised with accent paving

*Base Paving Color:* medium gray/slate

*Accent Paving Colors:* dark gray/slate; bluish-gray; greenish-slate

*Location:* All major crosswalks

*Implementation Projects:* A, B, C, & D

*Notes:* Zebra crosswalks aid in providing visibility of pedestrians to motorists.



### Furniture: Benches

*Materials:* Metal

*Colors:* Stainless, blue, green, yellow

*Location:* Hardscaped parkstrips, plazas, transit stops (color and style can be unique to location)

*Implementation Projects:* G & H



Furniture: Trash/Recycle Cans

Materials: Metal

Color: black, stainless

Location: District-wide



Furniture: Bike Racks

Materials: Metal

Colors: Stainless, black, blue, green

Location: Hardscaped parkstrips, plazas, transit stops (color and style can be unique to location)

Implementation Projects: G & H





Fixtures: Tree Grates

*Materials:* Metal

*Color:* black, stainless

*Location:* District-wide

*Implementation Projects:* J & K

*Notes:* Tree grates with a narrow gap pattern are required for compliance with ADA guidelines.



Fixtures: Bollards

*Materials:* Metal

*Color:* black

*Details:* Solar powered lights; ram-tested for plazas

*Location:* District-wide

*Implementation Projects:* G & H



### Transit Canopies

*Materials:* Metal

*Colors:* Stainless, bronze, blue, green

*Location:* Major transit stops (color and style can be unique to location)



### Softscape: Street Trees

*Species:* Elm, Linden, Maple

*Location:* All sidewalks and plazas (retain older, residential street trees)

*North/South Streets:* Ash (to replace honey locust)

*East/West Streets:* Linden (retain existing on plaza, 2100 South)

*Corners:* Maple

*Implementation Projects:* J & K

*Notes:* Avoid where possible placing trees in locations that may exacerbate shading of north facing spaces.





Softscape: Landscape Parkstrips

*Plantings:* lawn or low groundcover

*Location:* All sidewalks not included in hardscape parkstrip description (lawn to be prioritized for areas with minimum 6' width)



Softscape: Landscape Planters

*Plantings:* native and/or drought-tolerant species

*Planter materials:* metal, concrete as accent

*Planter colors:* stainless; neutral - grey/buff

*Location:* Hardscaped parkstrips and plazas

*Implementation Projects:* G & H



## 5. Amenity Design Standards

The amenity design standards in this section are intended to give more specific direction on style, color, and texture for the streetscape elements covered in the prior section. Each streetscape element has an individual specification sheet that provides more detailed information and will allow for a cohesive result, even if implementation takes place over time and by different stakeholders.

Specification sheets are included for:

- Street lights - supplemental to existing historic light standard
- Bollards - light bollards
- Base sidewalk and plaza paving - paver types
- Accent paving - paver types
- Benches/seating - two options
- Landscaping/planters
- Bike racks
- Trash/Recycling cans
- Tree Grates
- Street trees
- Transit shelter - solar roof and,
- Transit canopy

## 6. Street Types - Examples

Three examples of street types are provided as a reference for how the different street types within the SHBD reflect current and future development. The matrix for each street type provides classification standards.

There are four types of street designs:

- Urban Village
- Urban center
- Residential Village
- Transit Village
- Transitional Mix