

LIFE ON STATE

OUR STREET OUR VISION

Life on State Partnership



Sponsors



Prepared by





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OUR STREET
OUR VISION

BACKGROUND

1.0 BACKGROUND

1.1 Life on State

The Life on State project establishes a shared vision for the future of our valley's central, historic corridor.

Life on State is a collaborative effort of:

- Wasatch Front Regional Council
- Utah Department of Transportation
- Utah Transit Authority
- Salt Lake County
- Salt Lake City
- South Salt Lake
- Murray
- Murray Chamber of Commerce
- Midvale
- Sandy
- Draper
- The Salt Lake Chamber
- Downtown Alliance

The broad coalition behind the this project will work together to ensure a vibrant future for Utah's first grand corridor.

The vision detailed in this document has been built on broad involvement from residents and stakeholders along State.

The partnership believes that its coordinated efforts can create a safe environment for private investment consistent with the Vision; a move in a new direction is not a risky proposition if it is backed by a strong, enduring commitment from the Life On State partnership.

1.2 State Street Today

State Street is a 17-mile-long corridor running north and south through the Salt Lake Valley. State has a long history as a transportation, economic, and social center in both the valley and the state.

State Street is US Highway 89 through the valley and was the key transportation corridor until the construction of I-15. Historic drive-in motels are still prominent landmarks along the corridor. Commuters often use State as an alternative to I-15 during construction and when accidents cause delays.

Because of the steady flow of traffic before I-15 and its social and entertainment roles, State Street evolved into an important economic corridor and maintained that importance for much of the last century.

The transportation and economic importance of State Street meant it was a lively corridor during business hours. This vitality carried into the evenings as well. State became a social center for the valley, with theaters and drive-in restaurants. Residents growing up in the valley in the 50s and 60s recall Saturday nights spent dragging State.

I-15 and other corridors have reduced traffic demands on State. Retail, commercial, and entertainment centers have emerged elsewhere in the valley and drawn away business, and patrons.

In many areas along the corridor, there is now an over supply of retail square footage and a lack of homes to support the existing retail. Vacancies and low-rent tenants have moved in as businesses have closed their doors or changed locations.

State Street along much of its length now lacks a sense of place and characteristics for the community to take pride in. In short, it lacks beauty and divides the communities it flows through, rather than bringing them together.

1.3 Document Organization

This document first looks at the process used to create the Life on State Vision, then conveys the key goals the vision will work toward. The key recommendations are organized as fundamental principles intended to guide the more specific implementation steps that are the purview of each individual Life on State partner. The vision map graphically conveys all of the geographic elements of the principles.



State Street has long served a commercial and social function in the Salt Lake Valley.



In the early 1900s, State Street was part of an extensive trolley system in the Salt Lake Valley.



The Utah State Capitol sits at the northern terminus and lends State Street its name.

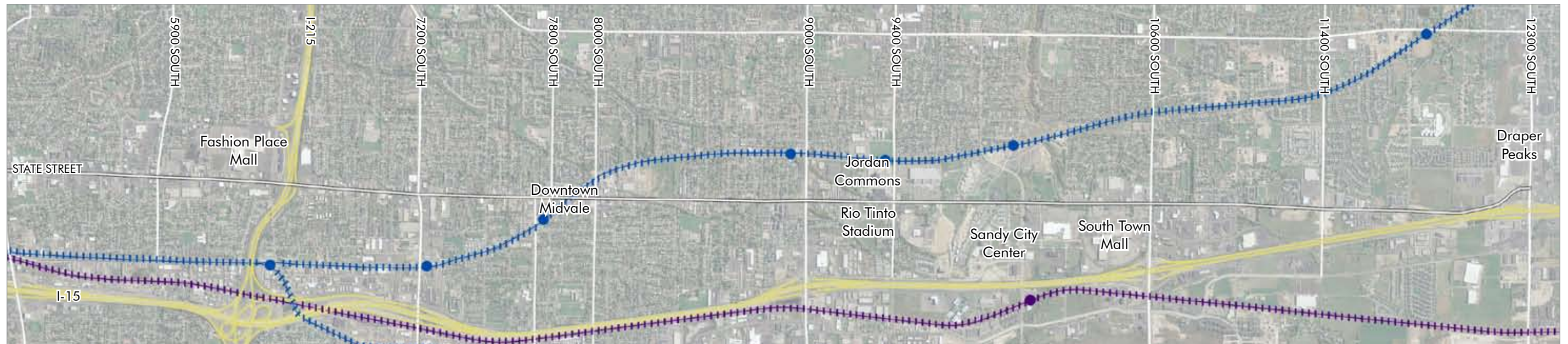


State is a prominent feature in the Salt Lake Valley. It can be seen extending from the Capitol to the point of the mountain.

CAPITOL TO 5300 SOUTH



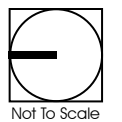
5300 SOUTH TO 12300 SOUTH



TRAX
 FrontRunner

TRAX Station
 FrontRunner Station

Freeway
 Major Roads





OUR STREET
OUR VISION

PUBLIC PROCESS

2.0 PUBLIC PROCESS

The Life on State Vision is built on public input. The process incorporated four main input opportunities; a survey, workshops, a charrette, and open houses.

2.1 Partnership Committee

A partnership committee led the Life on State process. This committee consisted of representatives from:

- Wasatch Front Regional Council
- Utah Department of Transportation
- Utah Transit Authority
- Salt Lake County
- Salt Lake City
- South Salt Lake
- Murray
- Murray Chamber of Commerce
- Midvale
- Sandy
- Draper
- The Salt Lake Chamber
- Downtown Alliance

2.2 Life on State Survey

A survey was posted on the Life on State website and made available at meetings throughout the process. 340 people responded to the online survey and an additional 151 people participated at meetings.

The survey was designed to assess the public's view of State Street, their ideas on how to improve the corridor, and ideal building types and orientation.

The majority of respondents (49%) cited "ugly appearance" as State Street's biggest problem. The second most common response was "poor walking environment" (18%).

67% of respondents cited either "ugly appearance" or "poor walking environment" as State Street's biggest problem.

When asked about what improvements they would most like to see, answers were closely related, with aesthetics (25%) and pedestrian amenities (23%) as the top two responses.

Answers followed the same pattern when respondents were asked to rate their most desired improvements, even if tax increases were necessary to pay for the improvements. Street trees (22%) and landscaping (21%) were the two most common responses.

The survey also showed that while people are most concerned about aesthetics and pedestrian environment, congestion and traffic issues are also important. "Traffic" ranked third (13%) as State Street's biggest problem. "More efficient intersections" ranked fourth (12%) of improvements people would most like to see, even if tax increases were necessary to pay for the improvements.

Preferred Images

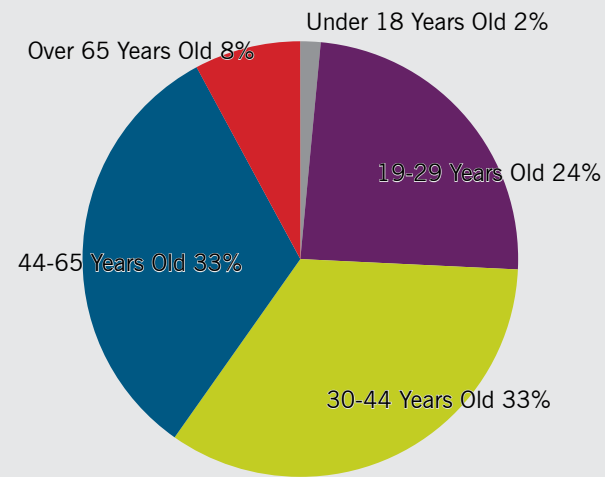
The survey included an image preference survey. Respondents were asked to rate how well images fit into their vision for State Street. Below are the four highest ranked images.



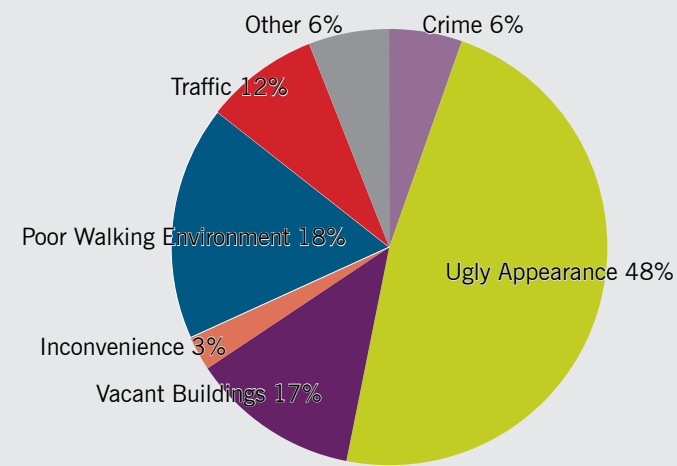
Survey Responses

The Life on State team designed a survey to discover citizen's visions for the future of State Street. The survey was available online and was given to participants at workshops. A total of 490 people responded to the survey.

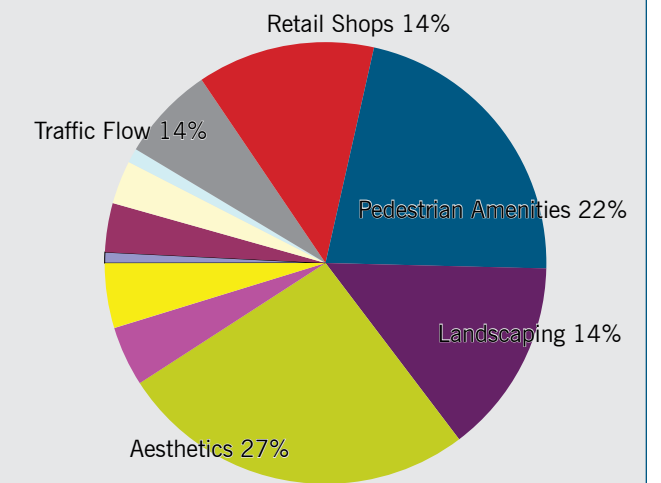
HOW OLD ARE YOU?



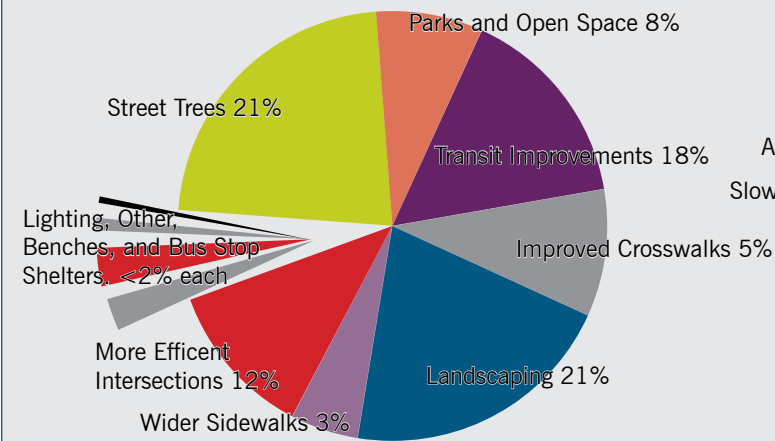
WHAT IS STATE STREET'S BIGGEST PROBLEM?



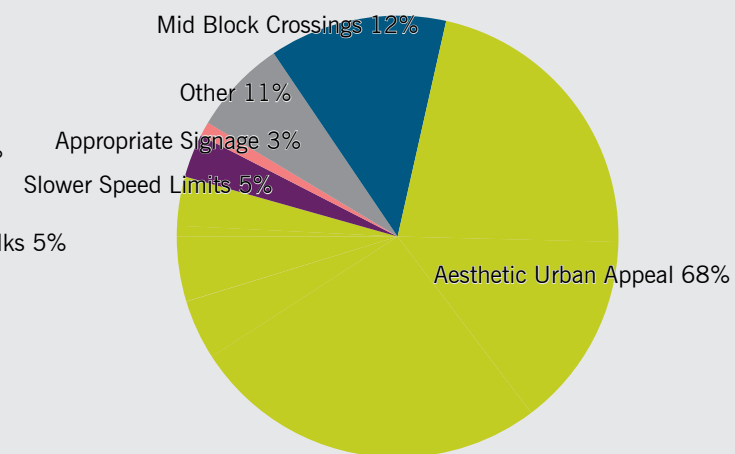
WHAT IMPROVEMENT WOULD YOU MOST LIKE TO SEE ON STATE STREET?



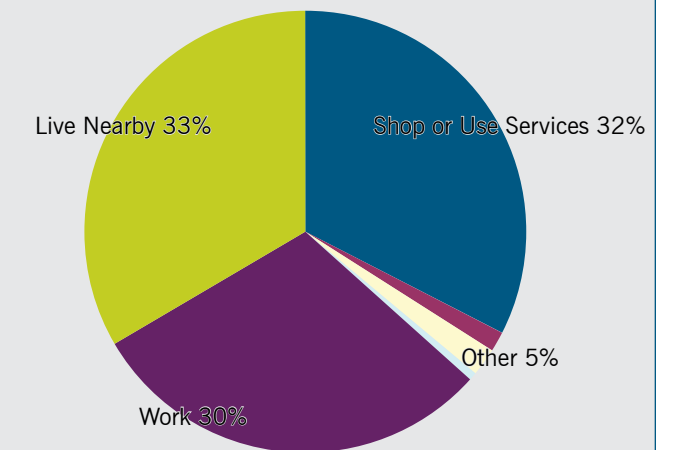
WHICH OF THE FOLLOWING IMPROVEMENTS DO YOU MOST SUPPORT, EVEN IF IT MEANS TAX REVENUE IS NEEDED TO PAY FOR IT?



WHAT IMPROVEMENTS ARE IMPORTANT FOR DOWNTOWN STATE STREET AS A GATEWAY TO UTAH?



WHAT IS THE BIGGEST REASON TO VISIT STATE STREET?



2.3 Workshops

Four public workshops were held in May and July of 2009. The workshops provided an opportunity for residents to discuss their ideas and desires for the future of State Street with neighbors and other interested citizens.

At the workshops, participants completed the survey using interactive keypad polling devices that displayed results on-screen.

Participants used place-type chips and colored markers to identify areas of change, areas of stability, development preferences, and transportation needs along the corridor.

Map results showed a strong desire for more pedestrian oriented building types and better pedestrian and bicycle infrastructure in many areas along the corridor. Participants typically thought segments near freeway interchanges and farther from the central city needed traffic improvements and preferred more auto-oriented building types. Workshop attendees were asked to identify areas where they prefer change or stability (map 1), development type preferences (map 2), and transportation needs (map 3).

Workshop Result Maps



■ More Desire for Stability
 ←————→
■ More Desire for Change

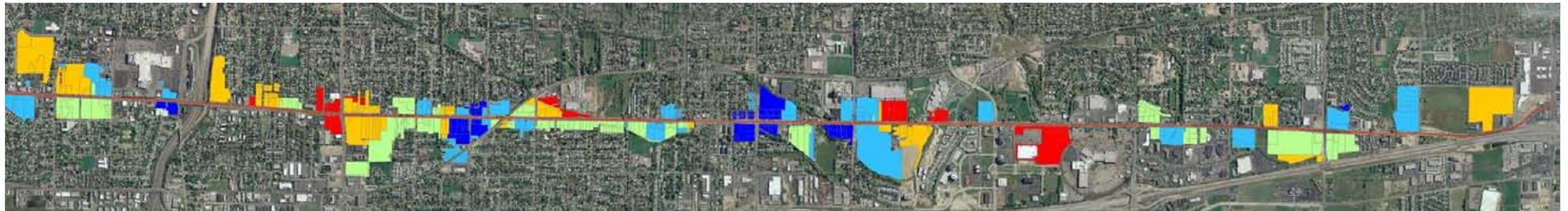


■ Pedestrian Orientation
 ←————→
■ Auto Orientation



■ Pedestrian Improvements Needed
 ■ Bicycle Improvements Needed
 ■ Auto Improvements Needed

Right: Participants desired change along most of State and typically opted for pedestrian-oriented buildings and bicycle and pedestrian street improvements.



2.4 Charrette

Following the workshops, the steering committee chose six sites to be studied in depth at a week long design charrette held in August. Architects, designers, and planners collaborated with residents and neighbors to produce detailed design plans for each of the focus areas.

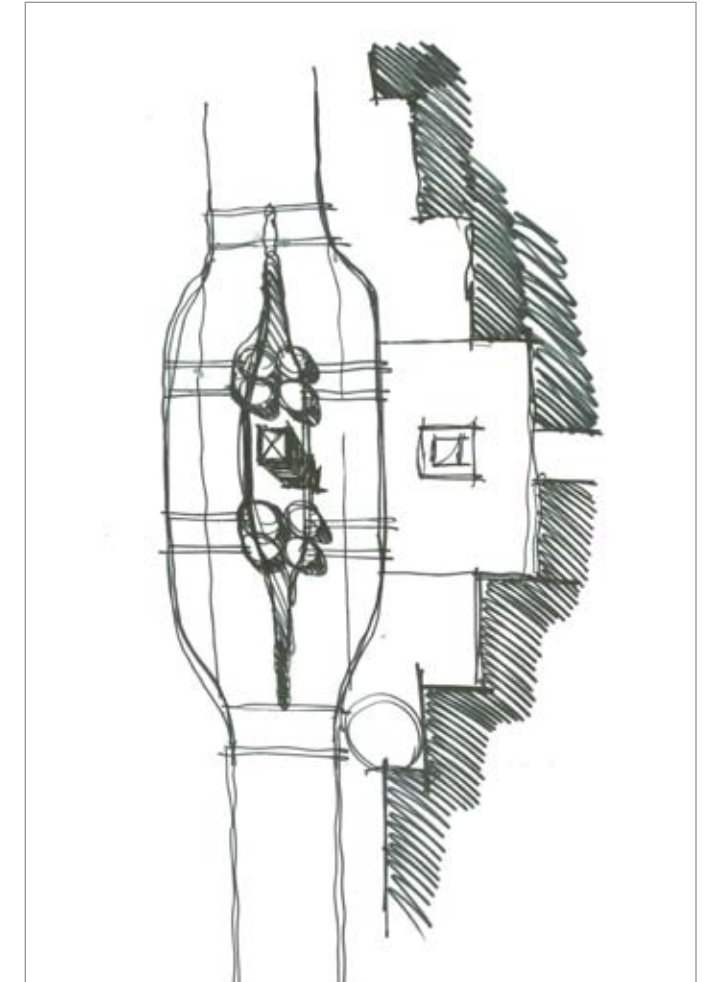
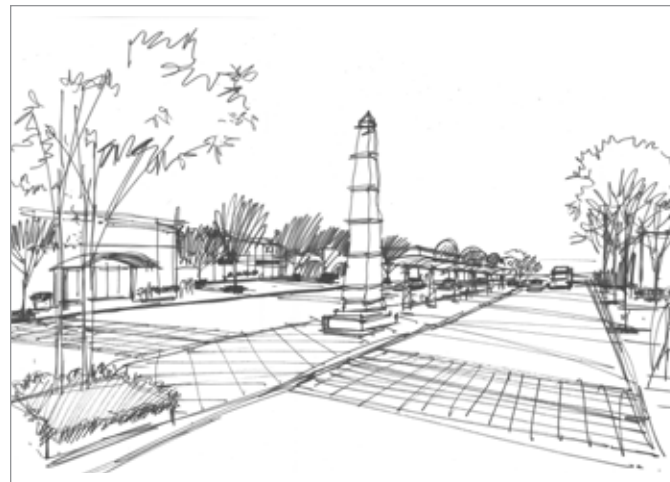
On each day of the charrette the public was invited to give their thoughts and ideas about a specific site. The design team sketched as the public discussed. These preliminary sketches and designs were then refined over the course of the week.

The Life on State team looked at every aspect of life in each of the focus areas, including transportation issues, building form, landscaping, pedestrian environment, and open space.

2.5 Open House

Two open houses were held in September of 2009 as forums for additional comment from the public and to close the loop on the public involvement aspect of the process.

Invitations were sent out to the attendees of the previous meetings and to city mailing lists to ensure those who had participated in the process were able to see how their ideas had influenced the Life on State project.



Residents, business owners, architects, designers, and planners collaborated during the charrette to find a new vision for State Street. The Life on State team looked at every aspect of living on State during the charrette. Ideas for increased parks and open space, infill, redevelopment, and more housing options were discussed.



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THE STATE STREET PRINCIPLES

3.0 STATE STREET GOALS AND PRINCIPLES

3.1 Preamble

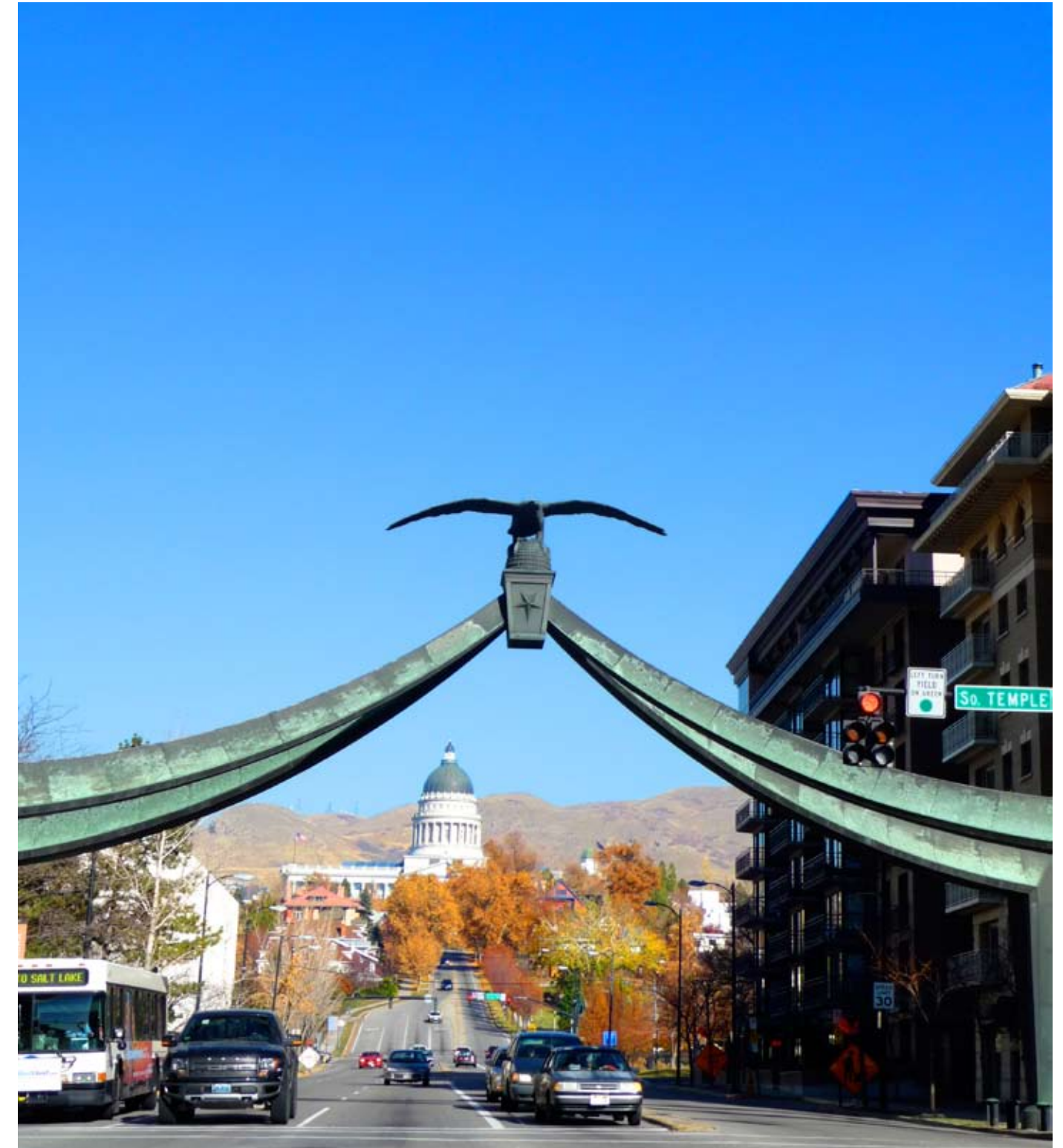
This vision for State Street represents the combined effort of residents and leaders from Draper, Midvale, Murray, Salt Lake City, Sandy, South Salt Lake, Salt Lake County, Utah Transit Authority, Utah Department of Transportation, the Salt Lake Chamber and the Downtown Alliance. These entities are united in the desire to revitalize the street as a place for people to work, shop, live, and travel along.

This shared vision helps ensure we are all working toward the same end and not at cross-purposes. If we hold to the vision and implement it each in our own spheres, a dramatic change can occur overall to the quality of our State Street.

3.2 Goals

The State Street Vision aims to:

1. Create a beautiful place in the heart of the State Street cities that is a source of civic pride
2. Help unite communities to the east and west of State Street
3. Enhance the ability of the State Street corridor to move people
4. Reduce the need for people in the region to travel long distances
5. Encourage better utilization of urban land through infill and reuse
6. Encourage new homes and businesses where they can take advantage of existing infrastructure, reducing the need for new infrastructure investments elsewhere
7. Encourage green, sustainable development on State Street
8. Help the State Street cities provide mobility options for people of all ages and abilities
9. Improve community health by creating a walkable and bikable environment
10. Provide housing choices for Utah's changing population



Life on State aims to create a beautiful place in the heart of the State Street cities that is a source of civic pride.

3.3 Principles

The following principles are the primary keys to achieving the Life on State goals. These principles are intended to guide implementation steps of all the Life on State partners.

I. CULTIVATE STATE STREET'S IDENTITY

State Street can once again be a grand, stately boulevard. State is a principal gateway into downtown Salt Lake, where the vista terminates into Eagle Gate Bridge and the state Capitol. The essence of this grandeur can be periodically created along all of State.

The public experience of walking, bicycling, dining outdoors, and driving should remind the visitor that he or she is on Salt Lake County's central grand artery - our version of route 66 - a street unlike any other in Utah.

Improvements to walkability overall along State can be brought about by adding pedestrian amenities such as wider sidewalks, street trees, landscaped medians, benches, midblock crossings, attractive street lighting, and buildings near the sidewalk (where the context supports it) to help the pedestrian feel comfortable and less vulnerable.

Improved identity and grandeur can be accomplished by adding signature monuments, street trees, and distinctive lighting, and by reducing the visual clutter of signs.

I-A Signature Monuments

Signature monuments located strategically along the length of State will act as landmarks and increase visual interest for both residents and travelers. These monuments should be placed at regular intervals or to mark the transition from one city to the next. Monument styles should vary from city to city based on the character and history of their location.

I-B Thematic Street Lights

Street lights should mark the length of State, reflecting the character and identity of both the street and the communities it runs through. Each city should

consider the street lights of adjacent cities as it selects improvements that also reflect the unique character of each particular segment of State Street.

I-C Stately Street Trees

Street trees are appropriate along the entire length of State Street. Consistently spaced trees from Salt Lake City to Draper will be a strong unifying visual feature that can be implemented quickly. The species of street tree may vary as needed based on taste, the needs of individual tree species, the desire for building visibility, or the need for pedestrian shade.

II. FIT SOLUTIONS TO STATE STREET'S DESIRED CONTEXTS

One size doesn't fit all: State Street's character and mobility needs vary along its length. It is both appropriate and desirable for the design of the street, adjacent buildings, and parks to be custom fit to their context. Context should be determined based on a vision of what we would like State Street to be, not simply based on today's context.

The Life on State Vision Map categorizes portions of State Street as Walkable Corridors and Transitways. These place-types should guide building form, site design, right-of-way design, and transportation solutions.

- WALKABLE CORRIDORS offer pleasant and comfortable walking environments where all other forms of travel are also welcome. Here, the primary goal is to provide a pleasant, high quality walking environment, but traffic flow should also be maintained as a secondary goal. A great walking environment is not just for pedestrians; it is for everyone that spends any time near the street not in a vehicle.
- TRANSITWAYS provide a welcoming and comfortable environment for transit use, while providing a convenient pedestrian and bicycling environment. Traffic flow is maintained.

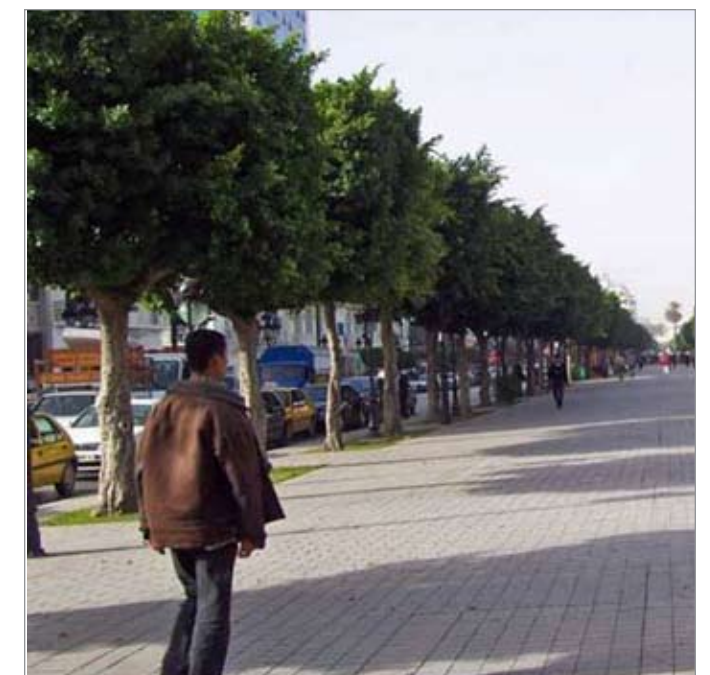
The recipe for each of these corridor types varies:



Signature monuments can be located at transit stops, in business districts, or at city entrances. They can also help to calm traffic and provide a safer, more comfortable pedestrian crossing.



Street lights should reflect the character and identity of both the street and the communities it runs through.



Street trees are appropriate along the entire State Street corridor. Size and species may vary.

II-A. WALKABLE CORRIDORS: A PLEASANT SIDEWALK EXPERIENCE

A quality pedestrian environment is important for more than just people who walk. It creates a place where the public experience is beautiful, where a positive sense of place enhances the quality of life for everyone who visits the area, regardless of their mode of transportation.

If State becomes a more comfortable, safer corridor for pedestrians, people will see the benefits of living and working on State Street and more will choose to do so.

Intersections are typically what limits State's ability to move cars. By increasing an intersection's ability to handle higher traffic volumes, we can explore changes to the street in between intersections that improves the quality of the pedestrian experience.

THE WALKABLE CORRIDOR RECIPE

- **Traffic flow** is an important secondary goal of Walkable Corridors, but the top goal is creating a high quality pedestrian environment.
- **Wide, ample, sidewalks should accompany walkable corridors, just as we often require parking spaces to handle anticipated drivers .**
- **The walking or sitting experience** on the sidewalk should be comfortable and pleasant, in addition to being convenient and safe.
- In these areas, **crossing State** at designated locations should be safe and convenient for pedestrians.
- **Buildings, windows, and front doors** should face sidewalks, helping to direct walking along their lengths.
- Buildings should **cohesively front the street** - similar to teeth in a beautiful smile. The walking experience should be lined by buildings and interesting things to

look at and not interrupted by parking or auto access where possible. Where parking must or already does interrupt the street wall, it should be shielded by a low, decorative wall that maintains the walker's edge. These walls typically have many openings and primarily help the pedestrian feel less vulnerable or in-the-open.

- **Parks and plazas** should generally be designed to handle events and programmed activities. Large landscaped buffers meant to be looked at only should be avoided; all landscaping should be designed for active use.
- **On-street parking is desirable** because it decreases the need for large private parking lots and creates a barrier between pedestrians and traffic.
- Because parking separates and reduces the number of destinations a pedestrian can reach, the private sector should provide **"just enough" parking** for anticipated demand, and local governments should

not require more parking than will be heavily utilized in a typical week. Parking should be shared by as many businesses as possible to ensure it is efficiently utilized. Prioritize first on-street parking, then publicly shared off-street parking, followed by private shared off-street parking.

- Cities should consider pedestrian enhancements for State Street, including sidewalk bulb-outs, textured or colored pavement, lighting, and landscaping.
- Within 1/8 mile or more of a future Streetcar station, landowners and cities should work for a minimum of 25 employees per acre or 20 housing units per acre.

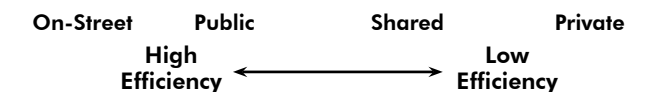


This example of State Street between 900 South and 1100 South shows some quality pedestrian-focused improvements.



Locating parking behind buildings helps minimize walking distances.

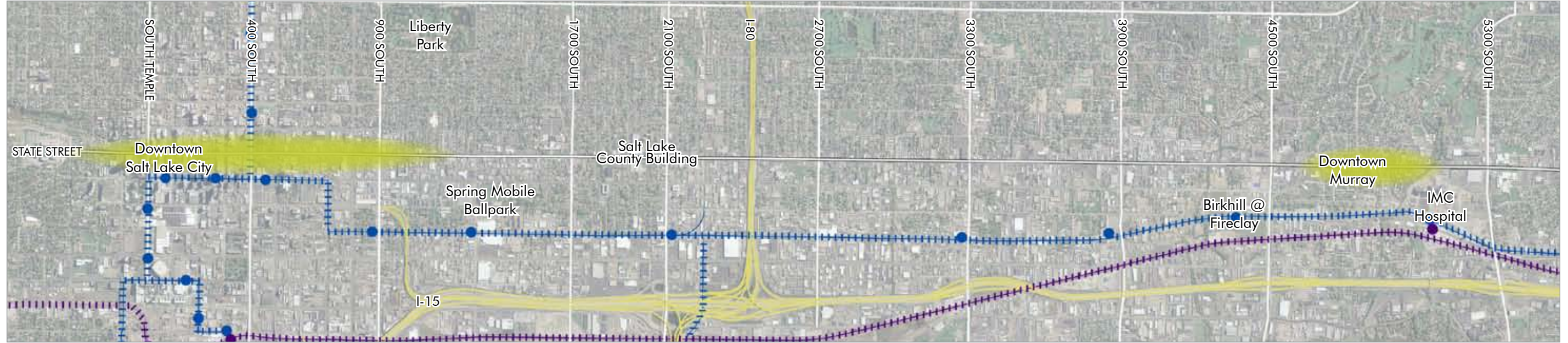
The more parking is shared - the more efficiently it is utilized - the less space is needed to accommodate overall parking.



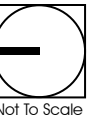
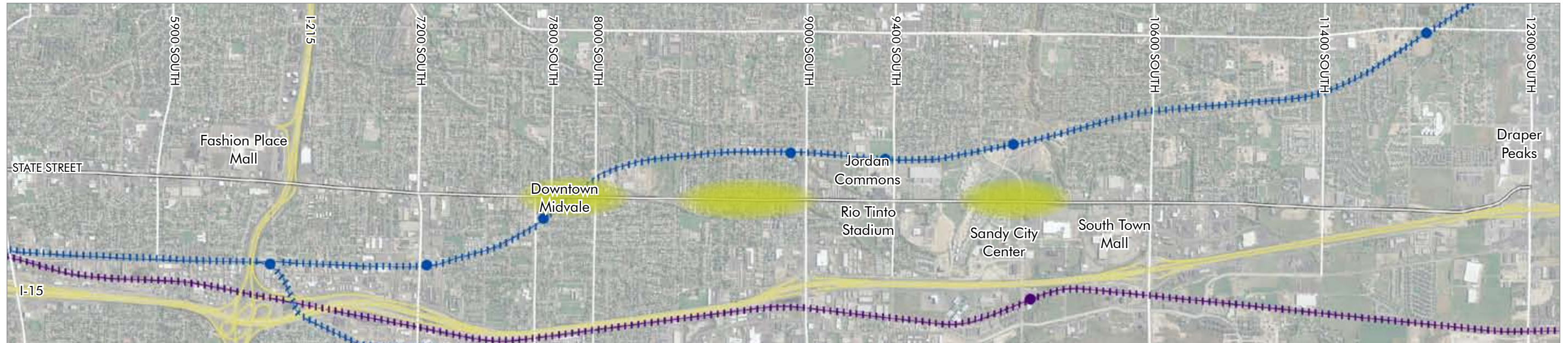
The more businesses share a parking supply, the more efficiently it will be utilized.

WALKABLE CORRIDOR SEGMENTS

CAPITOL TO 5300 SOUTH



5300 SOUTH TO 12300 SOUTH



II-B. TRANSITWAYS: SUPPORT TRANSIT

- Buildings, streets, parks, and plazas should **support the use of public transportation** in transitways.
- Landowners and cities should work for a minimum of 25 employees per acre or 20 housing units per acre in these areas.
- Walking routes and crossings should be **safe and convenient**.
- Buildings should generally orient to and **focus walking along sidewalks**; front doors may face parking instead of the sidewalk, but should be within



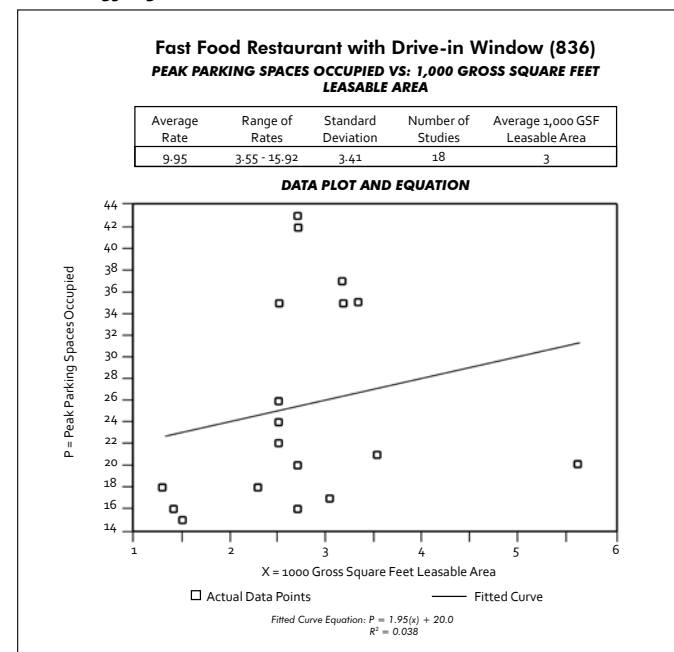
An example in Bountiful of a street scene that follows the transitway recipe



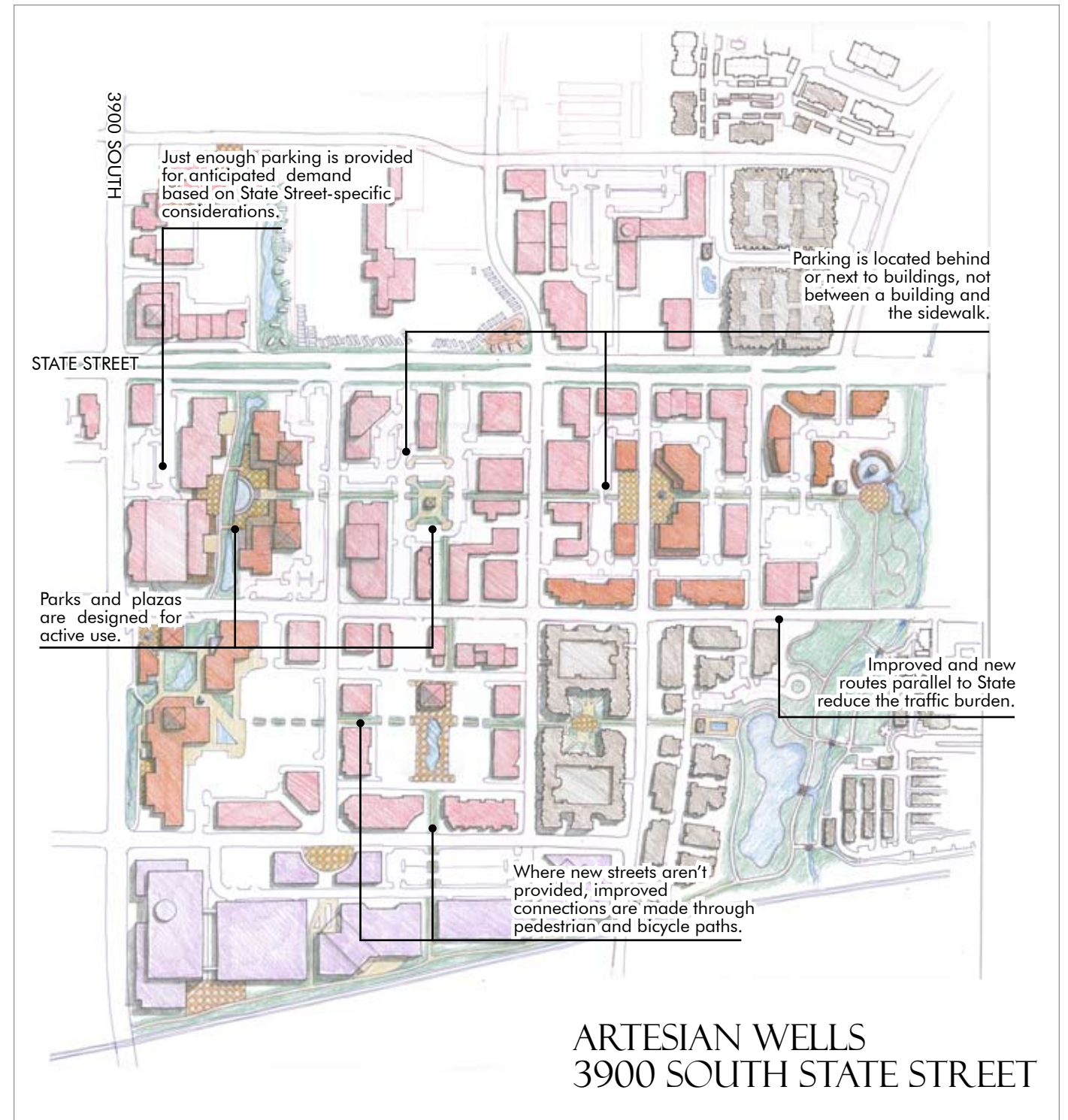
Where parking interrupts the buildings that line the street it should be shielded by a low, decorative wall with many openings.

a very short walk of the sidewalk.

- **Parking lots should never be between a building and the sidewalk.** Parking to the side of a building may border the sidewalk if it is behind a low, decorative wall or landscaped berm that helps the pedestrian feel less vulnerable or 'in-the-open'.
- Large, passive landscaped buffers that are only intended to be looked at should be avoided; landscaping should generally be designed for active use.
- **"Just enough"** parking should be provided for anticipated demand. Parking should be provided in naturally efficient forms such as 1) on-street parking, 2) publicly shared off-street parking, or 3) private shared off-street parking.
- **Traffic flow** should be maintained.



This table exemplifies the inappropriateness of establishing parking requirements based on national averages. The average demand observed at 18 fast food restaurants was 3 spaces per 1,000 square feet - substantially lower than most suburban parking requirements. More importantly, the parking utilization rates varied so dramatically, on a case by case basis, that any 'industry standard' parking requirement would likely be a poor fit for 90% of sites. State Street has high frequency buses and close proximity to TRAX. Lowering parking requirements will enable landowners to utilize more specific parking demand analyses to formulate their site plans, increasing the likelihood that new development occurs along State



ARTESIAN WELLS
3900 SOUTH STATE STREET

The Artesian Wells (3900 South to 4200 South) concept developed at the charrette showcases many of the ideas necessary for an attractive, functional transit way.

CAPITOL TO 5300 SOUTH



5300 SOUTH TO 12300 SOUTH

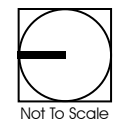


TRAX
 FrontRunner

TRAX Station
 FrontRunner Station

Freeway
 Major Roads

Transitway Segments

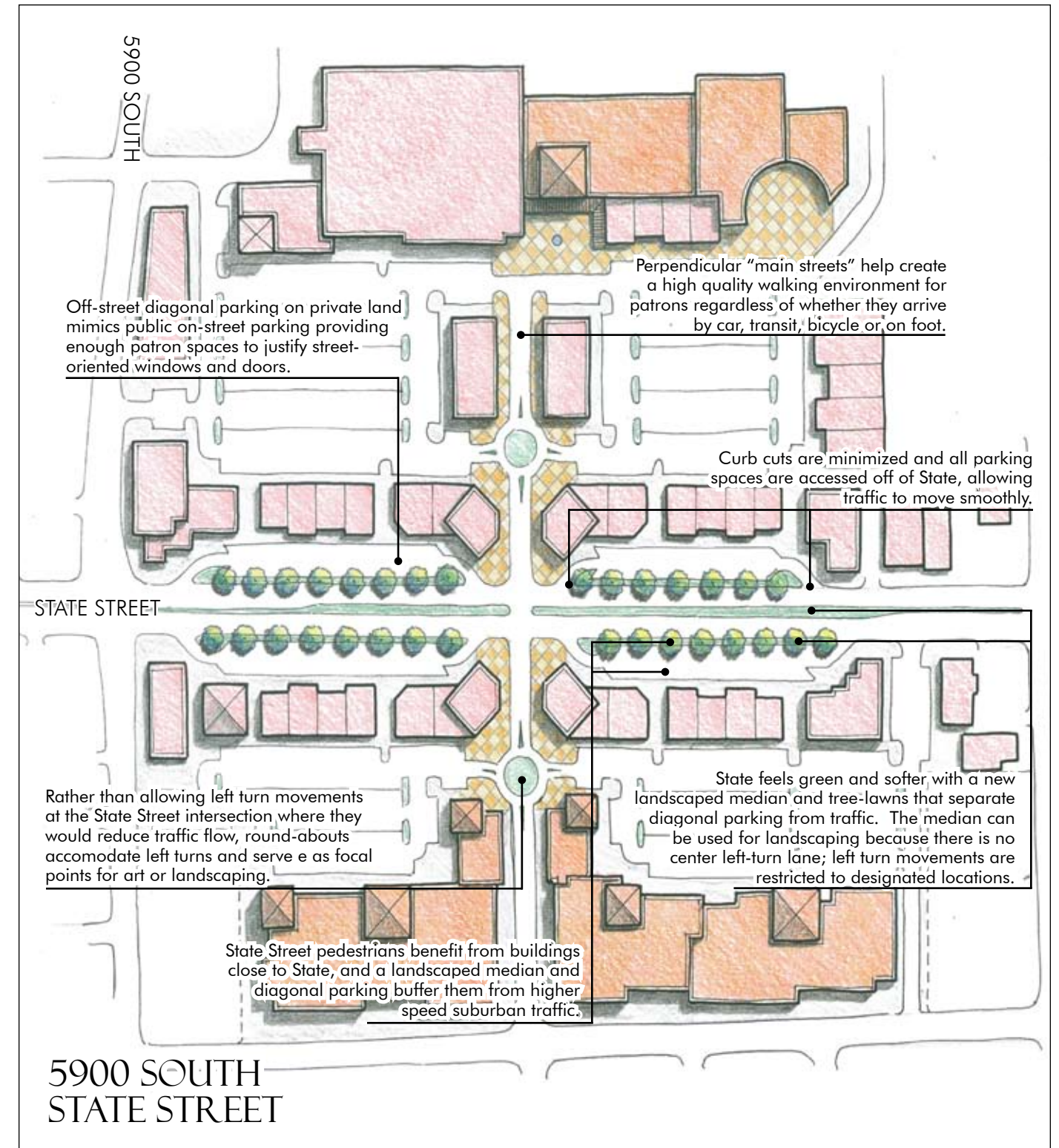
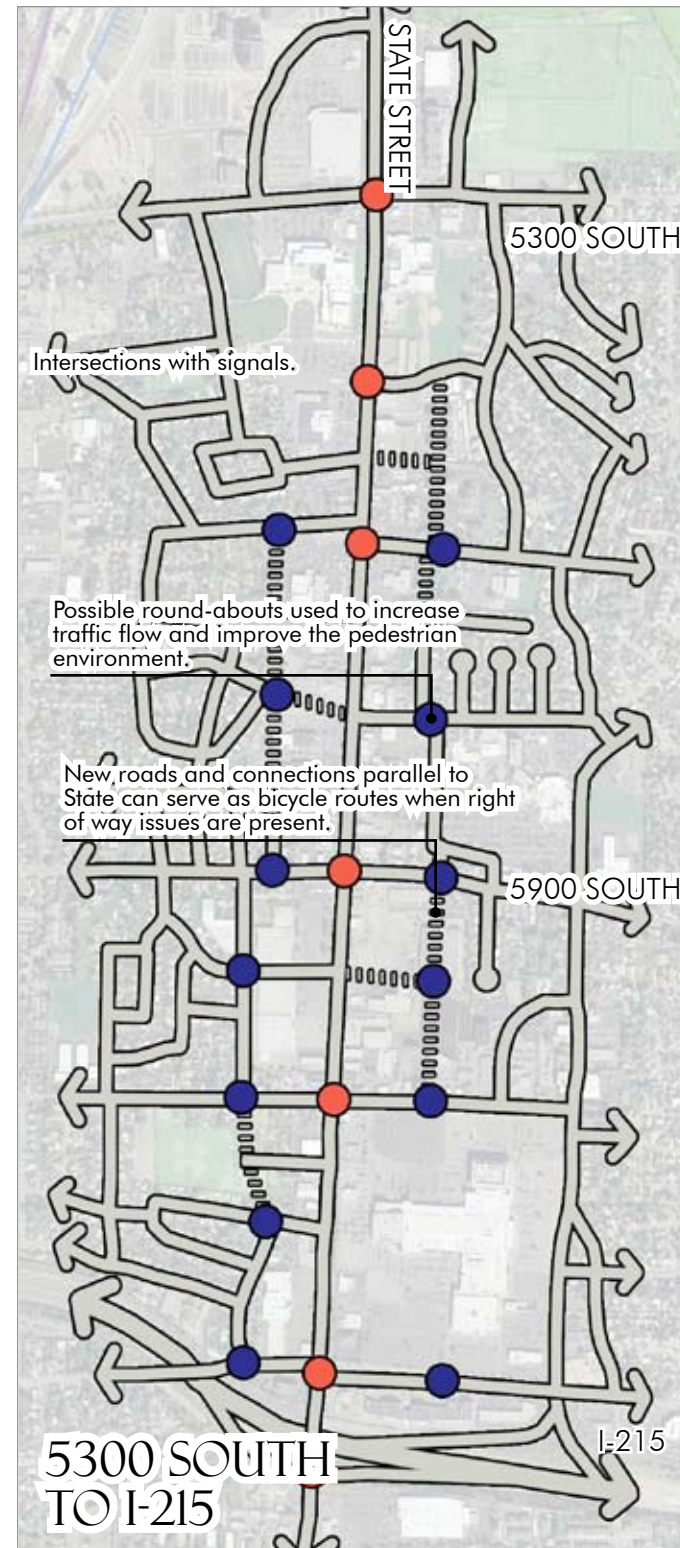


II-C. AUTO-FIRST SEGMENTS: CAR CONVENIENCE

- The remainder of State Street serves auto-oriented shopping and non-residential activity first, but may be used more by pedestrians and bicyclists over time.
- Improvements to traffic flow should be explored while providing for *safe* pedestrian and bicycle movement.
- Along auto-first segments, cities should explore improvements to how new buildings are placed relative to the street, sidewalks, and parking (how they are sited). Buildings should be sited to improve the safety and quality of walking and bicycling while maintaining the attractiveness and convenience for patrons that arrive by car.
- A designated, safe, and attractive pedestrian route should lead from the sidewalk to the front door, although buildings do not necessarily need to be adjacent to or facing the sidewalk.
- When parking comes to the sidewalk, it should be located behind a large landscaped berm.
- Parking and auto access should be convenient.

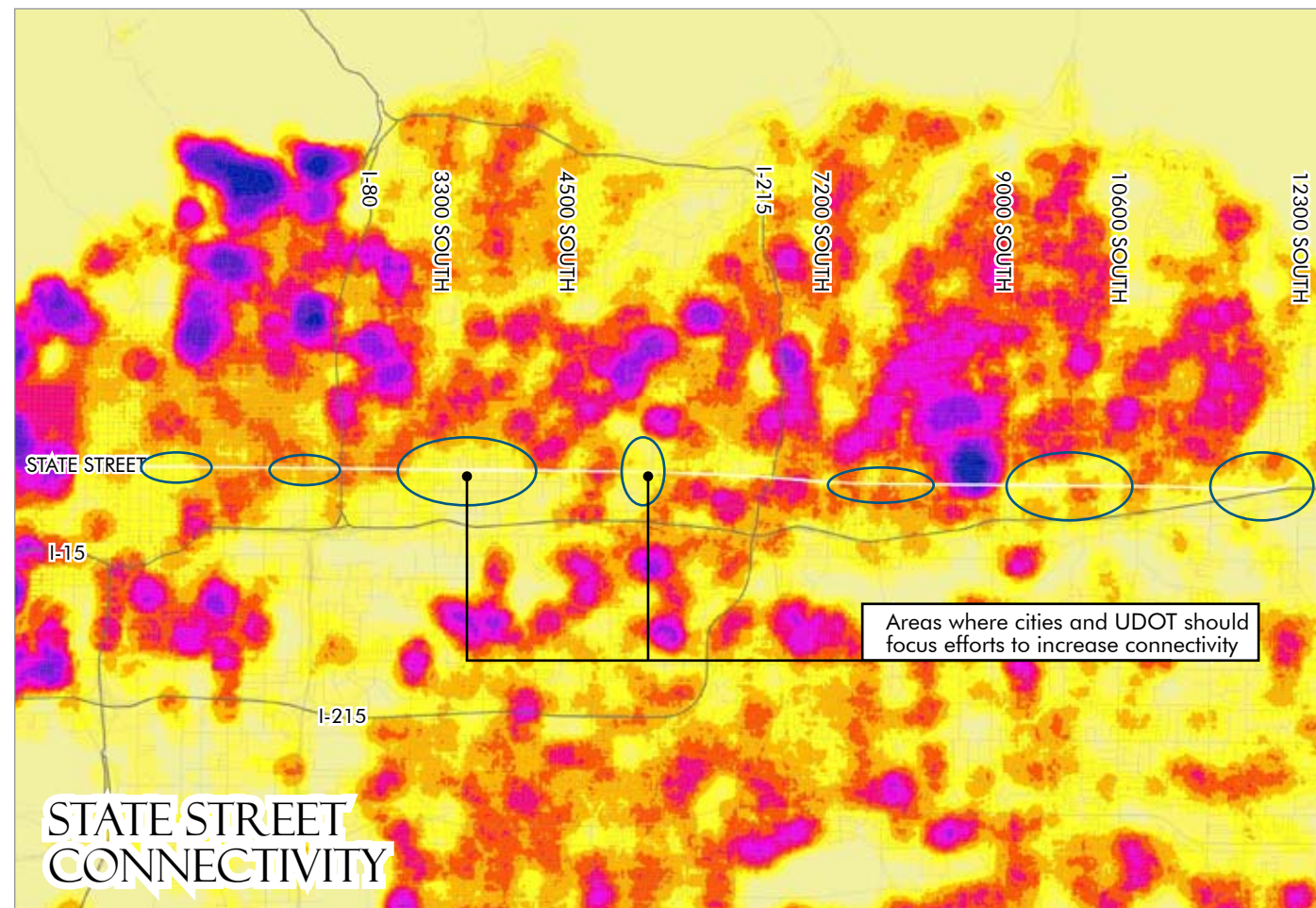


Although parking is in front of the building, pedestrians and transit riders benefit from a visible, safe, and landscaped pedestrian route to the front door.



II-D. IMPROVE CONNECTIONS WITH STATE

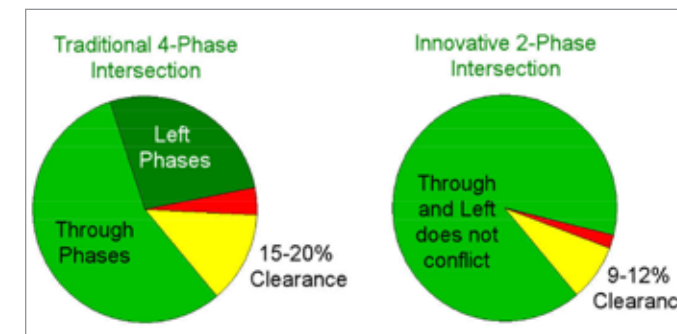
- Improved connections between State and adjacent blocks will increase pedestrian activity by reducing walking distances. This will help connect State with on-foot consumers and transit riders. Connections can take the form of street connections or pedestrian-only connections.



Areas with poor street connectivity are shown in yellows and oranges. Well-connected areas are shown in purples and blues. Connectivity helps to reduce traffic volumes on State and enables people to travel more 'as-the-crow-flies' - which is especially important for pedestrians and bicyclists.

II-E. EFFICIENT NODES ENABLE CALMER ROADS

- It is possible to have a more walkable road while moving more cars. Typically street congestion occurs due to the limited ability of intersections to get cars through. If intersections are made more effective, traffic can move more freely even if the street between the intersections is not widened or is dramatically improved for pedestrian traffic. In fact, sometimes the street between intersections can be calmed to create a more walkable or enjoyable public experience on the street while maintaining traffic flows. More detailed analyses will be needed to ensure the improvements will work for traffic, but UDOT, the county, and cities should carefully explore these possibilities.
- Eliminating left turns is one of the most effective ways to increase traffic flows through intersections, which in turn decreases overall congestion. Innovative two-phase intersections can allow up to 50% more traffic through each green light than traditional four-phase intersections. Removing left turn movements removes the possibility for left turn collisions and, because less right-of-way is needed, can lead to shorter pedestrian crossings.



By eliminating left turn movements, innovative two-phase intersections can allow up to 50% more traffic through each green light.

- Innovative intersection approaches include bow-ties, one-way couplets, and quadrants. Each of these options removes left turns. (See the Toolbox section of this document for a more detailed explanation of these intersection approaches.)



II-F. STATE STREET IN DOWNTOWN SALT LAKE

Downtown Salt Lake City is the cosmopolitan center of Utah and the Intermountain West. At its core is State Street, which bustles with automobiles, buses, bikes and pedestrians. People and goods must be able to move through this vital urban street safely, conveniently and with a sense of style befitting of Utah's capital city. High intensity use, unique destinations, a sense of history and urban flair set the tone for this distinctive section of State Street.

State Street in downtown Salt Lake City must move a high volume of traffic in part because of the limited ability of Main Street to move cars. State also functions as a primary bus corridor, where almost everyone gets to the bus on foot or by bike. This dual purpose distinguishes State Street within the city core and calls for unique treatment.

Every street in downtown Salt Lake needs to work well for pedestrians. Downtown will grow and thrive through its ability to provide something difficult to find in any city; a sidewalk experience that is vibrant and walkable coupled with a high concentration of unique nearby destinations. Downtown's competitive advantage is in being pedestrian friendly. Given State Street's centralized location, it sets the tone for just how walkable our downtown is.

This partnership thus urges Salt Lake City and all of the transportation planners with jurisdiction over State in downtown to consider the following changes:

- **Soften the median/turning lane** to become a pedestrian refuge; explore street trees in the median to soften the State Street experience and help slow traffic.
- **Park it on-street:** Explore modifications to increase on-street parking. Alternative configurations could be allowed during off-peak hours. On-street parking is naturally the most efficiently utilized parking a city can provide. Pricing for these spaces should not be below market rates and should be appropriate to ensure these high-profile spaces are used by patrons or consumers.
- **Slow it down:** Modify the street to naturally slow traffic speeds to about 25 miles per hour. Slow traffic can still move a large traffic volume and would improve the walkability of State. Changes to explore could include trees in the median, narrower lanes, or new on-street parking configurations.
- **Create a sense of enclosure** by encouraging or requiring new buildings to be more than 12 stories high. State's large width can be viewed as grand rather than intimidating if the scale of buildings matches the width of the street. Explore efforts to intensify buildings that are below this scale, while taking into consideration historic buildings.



Before...



...and after example of appropriate downtown intensification on State Street. The smaller-scale buildings in the foreground could be reused historic buildings or new buildings.



The current barrier-like median on State downtown could become a welcoming pedestrian refuge. By helping the street feel more narrow, the trees in this median example would also help influence drivers to go slower.

III. CREATE A THRIVING STATE STREET STREETCAR

The overall State Street corridor has the potential for a greater variety of viable transportation options than any place in Utah. Pedestrian friendly sidewalks, bicycling lanes, trails, Light Rail, Commuter Rail, State Street auto lanes, I-15, and a streetcar could all thrive within just over 1 mile of each other. This broad range of choices should be celebrated, thus increasing the attractiveness of living, working, and shopping on the State Street Corridor.

Landowners and Cities should work for a minimum of 25 employees per acre or 20 housing units per acre in future station areas.

With appropriate development near future transit stations, either streetcar or bus rapid transit (BRT) are realistic options for improved transit on State Street. These transit forms can move people along the street faster than traditional buses and bring a sense of permanence to transit stops, helping to attract more riders and investment. Together, the service improvements and quality physical enhancements associated with streetcar or BRT can help ignite interest in State Street as a livable corridor. Transit improvements on State should provide more local access than the parallel TRAX system, while providing faster service than the existing State Street buses.

III-A. SUPPORT TRANSIT WITH APPROPRIATE INTENSITY

- To help make a streetcar or BRT viable and to help it thrive once built, planning needs to begin today. Development should be encouraged near the transit stops included on the Vision Map (see Vision Map section) and pedestrian and bicycling connections should be enhanced to help people access today's bus stops and tomorrow's busway stations.
- Landowners and Cities should work for a minimum of 25 employees per acre or 20 housing units per acre in future station areas.



Streetcar or bus rapid transit could create a sense of permanence to transit on State. The cachet and permanence of streetcar often translates into increased interest in living and working near stations.



To justify the investment in new transit, new nodes of development must be intense enough to provide new riders for expanded transit (Photo: Trimet).

IV. BALANCE RETAIL WITH CONSUMER DEMAND

Along most of State Street retail opportunities have been maximized, given the buying power of nearby residents. Some retail industries that State relies upon are in long-term decline: the auto industry is consolidating some of their new-car show-rooms and internet retail continues to grow at the expense of physical retail. Meanwhile, a large portion of the retail along State is reaching the end of its typical life

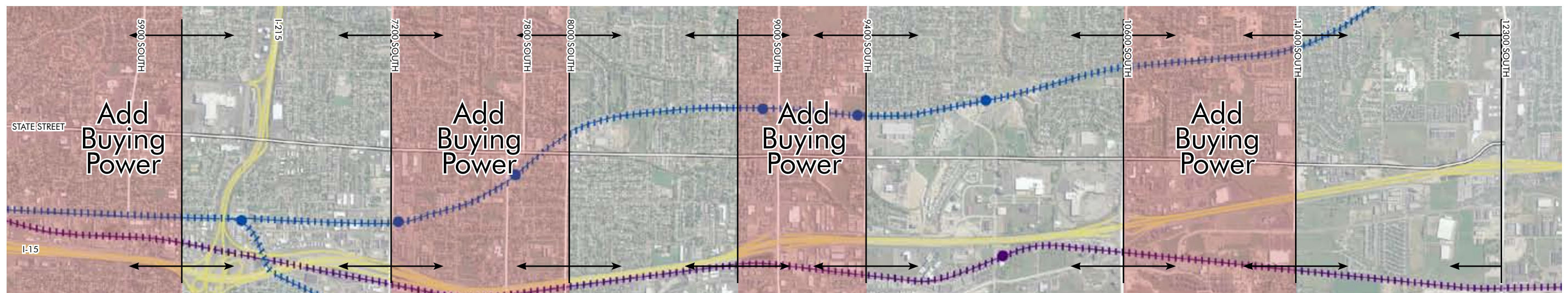
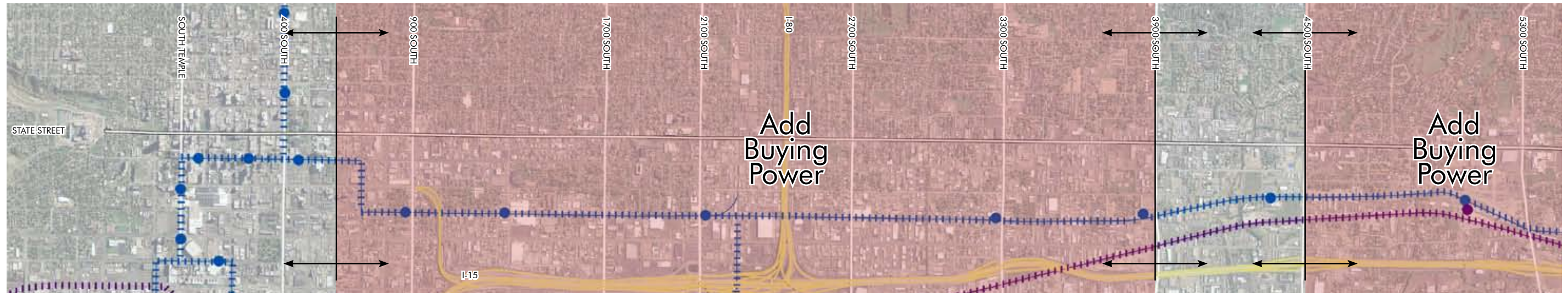
cycle; businesses are leaving to find more up-to-date facilities.

Overall, cities need to be proactive to ensure that State Street's retail stays viable.

Existing businesses should be cherished and supported. But as new development happens over time, cities should encourage housing and office development and discourage new retail except near freeway on-ramp cross streets. The new homes and offices will increase the market demand for retail on State and help improve

the long-term balance between land uses.

(See the Economic Analysis section of the appendix for a complete market analysis of the State Street corridor.)



Much of State Street is over retailled, according to a 2009 analysis comparing retail demand to available retail square footage along the corridor (Source: The Planning Center, 2009).

V. DEVELOP STATE STREET COMPLETE COMMUNITIES

The development of complete communities should be explored in places where there are a number of existing or planned community assets in close proximity to each other. Assets include parks, libraries, TRAX, streetcar/BRT stations, commuter rail stations, creeks or natural features, and regional destinations.

In these locations we should strive to provide the missing ingredients of a well-rounded, walkable community. These ingredients include:



Parks and Plazas should be explored along the State Street corridor. Small plazas can be integrated into urban destinations such as this one.



The creeks and waterways that cross State can provide a base for parks and trail systems.

V-A. NEIGHBORHOOD PARKS, PLAZAS, AND NATURAL AREAS

Many residents living on or near State Street do not have access to parks within walking distance. Small neighborhood parks or plazas can be developed in empty lots and provide readily accessible open space and recreation for residents. The Vision Map suggests locations to explore future parks and plazas.



Small neighborhood parks or plazas can be developed in empty lots and provide readily accessible open space and recreation for residents.



Waterways can become regionally significant green ribbons, connecting the Jordan River Parkway.

V-B. GREEN RIBBONS: CREEKS AND WATERWAYS BECOME UNIFYING COMMUNITY FEATURES

The creeks and waterways, including Big Cottonwood Creek, City Creek, Emigration Creek, Little Cottonwood Creek, Millcreek, and Parleys Creek, should be explored as future multi-use paths and linear parks. This would provide open space and recreation for residents and create regionally significant green ribbons. This may be a long-term vision: for starters, map these locations in city open space master plans and modify zoning to ensure appropriate building setbacks away from creeks as new development occurs.



The creeks and waterways crossing State should be explored as future multi-use paths and linear parks. In the short-term, ensure that these creeks and waterways are mapped in city open space plans and ensure new buildings are set-back from these future assets.

V-C. PEOPLE-ORIENTED BUILDINGS AND STREET IMPROVEMENTS

People-oriented buildings and street improvements on State Street will provide a sense of liveliness, quality, and neighborliness. Establish design standards that create walkable development within areas where a complete community concept is supported.

V-D. MORE NEIGHBORHOOD SHOPPING

Small shops and retailers can provide residents with many of their daily needs within a short walking distance, which would reduce the number of auto trips to surrounding areas.

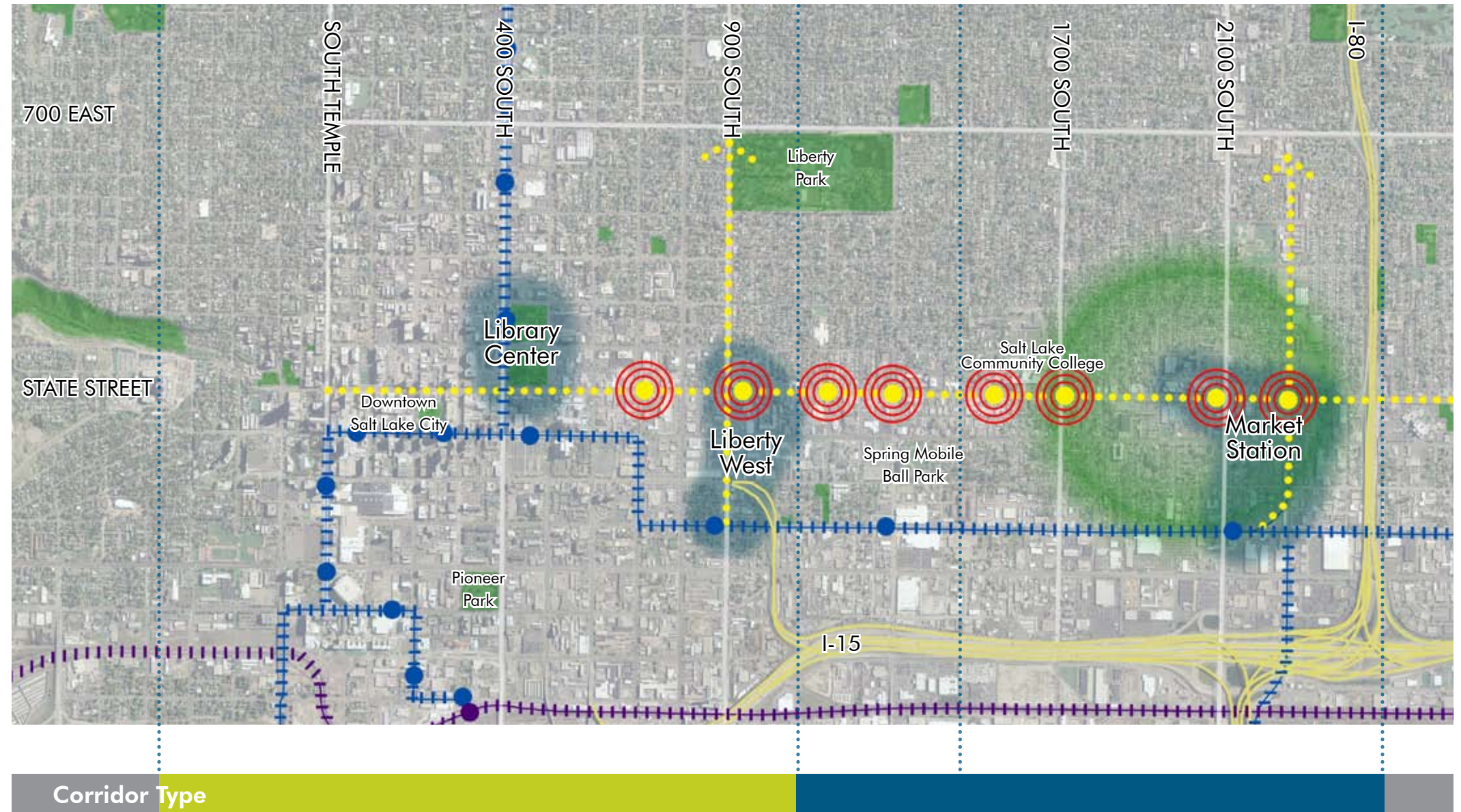


OUR STREET
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VISION MAP

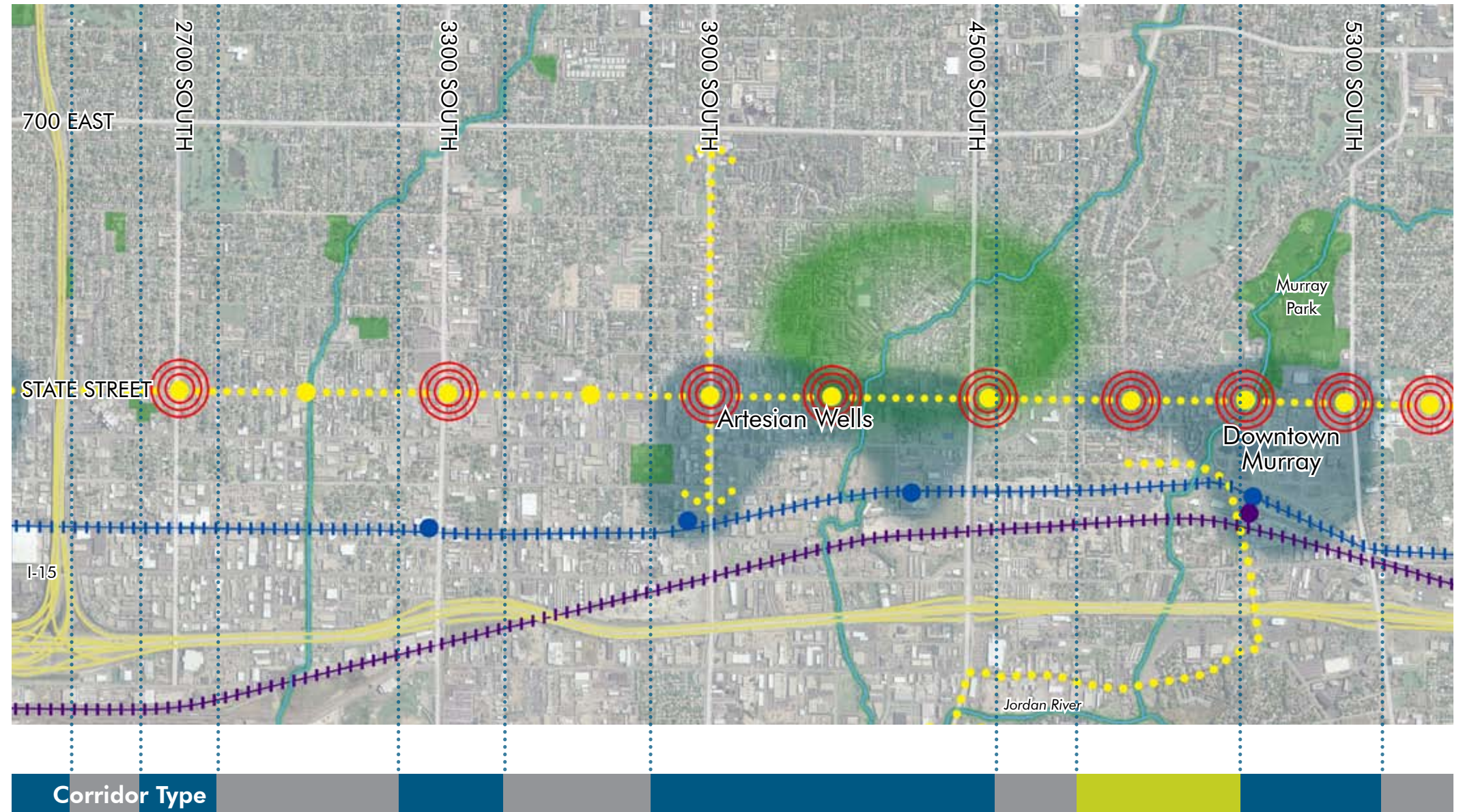
VISION MAP: CAPITOL TO I-80

-  TRAX
-  TRAX Station
-  FrontRunner
-  FrontRunner Station
-  Freeway
-  Major Roads
-  Existing Parks
-  Streetcar or BRT
The service improvements and physical permanence of streetcar and BRT help to improve ridership and can drive investment in station areas.
-  State Street Transit Stations
State Street transit should provide faster service than a local bus and more frequent stations than light rail.
-  Station Villages
Landowners and cities should work for a minimum of 25 employees per acre or 20 housing units per acre in future station areas.
-  Complete Communities
Complete Communities take care of all of a residents needs. Parks, entertainment, and shopping are all easily accessible.
-  Future Parks, Plazas, or Open Space
Residents in these areas do not live close to a park or other open space. Cities should explore parks in these areas.
-  Walkable Corridor
A walkable corridor is a pleasant experience for anyone who visits the area, not just pedestrians. Landscaping, wide sidewalks, and large windows on buildings are key elements.
-  Transit Way
Offices, retail, and residential uses are easily accessible by a short walk from a transit station. The walking experience is safe and comfortable.



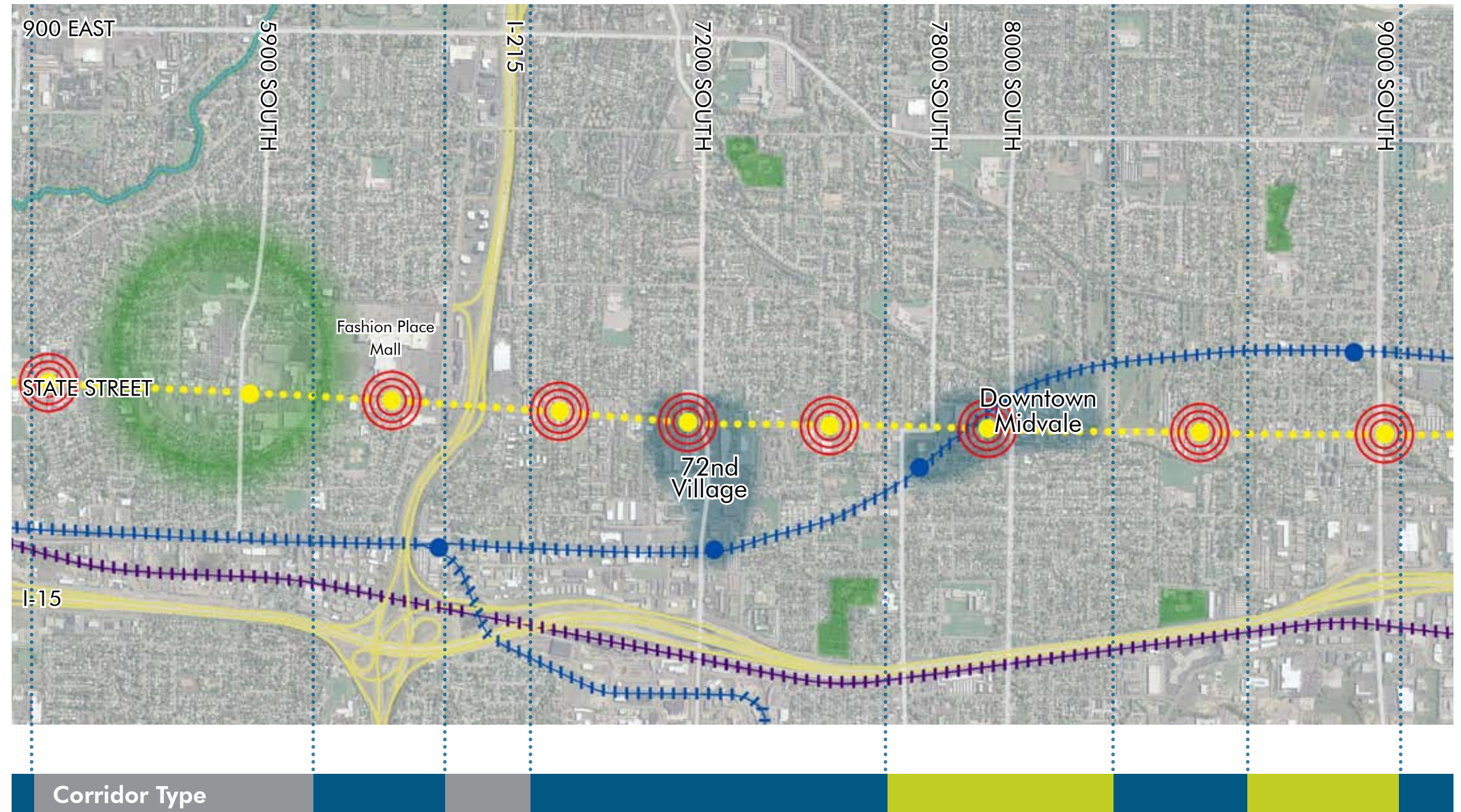
VISION MAP: I-80 TO 5300 SOUTH

-  TRAX
-  TRAX Station
-  FrontRunner
-  FrontRunner Station
-  Freeway
-  Major Roads
-  Existing Parks
-  Streetcar or BRT
The service improvements and physical permanence of streetcar and BRT help to improve ridership and can drive investment in station areas.
-  State Street Transit Stations
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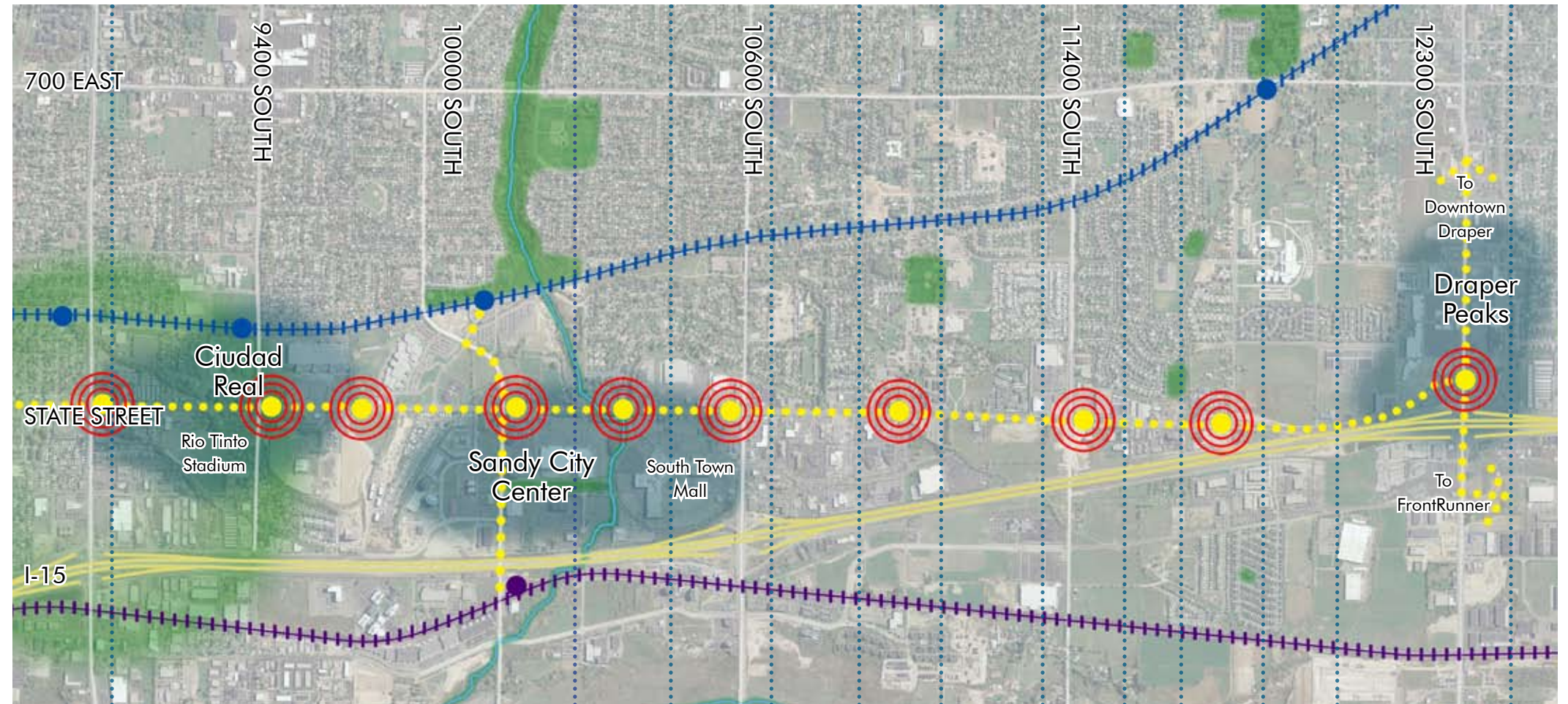
VISION MAP: 5300 SOUTH TO 9000 SOUTH

-  TRAX
-  TRAX Station
-  FrontRunner
-  FrontRunner Station
-  Freeway
-  Major Roads
-  Existing Parks
-  Streetcar or BRT
The service improvements and physical permanence of streetcar and BRT help to improve ridership and can drive investment in station areas.
-  State Street Transit Stations
State Street transit should provide faster service than a local bus and more frequent stations than light rail.
-  Station Villages
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-  Walkable Corridor
A walkable corridor is a pleasant experience for anyone who visits the area, not just pedestrians. Landscaping, wide sidewalks, and large windows on buildings are key elements.
-  Transit Way
Offices, retail, and residential uses are easily accessible by a short walk from a transit station. The walking experience is safe and comfortable.



VISION MAP: 9000 TO 12300 SOUTH

- TRAX
- TRAX Station
- FrontRunner
- FrontRunner Station
- Freeway
- Major Roads
- Existing Parks
- Streetcar or BRT
The service improvements and physical permanence of streetcar and BRT help to improve ridership and can drive investment in station areas.
- State Street Transit Stations
State Street transit should provide faster service than a local bus and more frequent stations than light rail.
- Station Villages
Landowners and cities should work for a minimum of 25 employees per acre or 20 housing units per acre in future station areas.
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ACTION PLAN

ACTION PLAN

5.1 Action Plan

The following tasks and responsibilities are suggested in order to translate the Life On State Vision into tangible changes. The following matrices suggest short-term (1 to 5 years) and mid-term (5 to 10 years) steps and identify specific responsibilities for each task, including the lead role.

Perhaps most importantly, the partnership should reconvene periodically to track implementation and make necessary modifications to the vision and the action plan; this action plan suggests meeting at least annually.

Short Term (1 to 5 Years)	WFRC	UDOT	UTA	Cities	County
1. Establish support for Life on State principles as a goal or objective in the Regional Growth Principles for Transportation Planning.	X				
2. Adopt the Life on State vision as an addendum to the general plan.				X	X
3. Create urban corridor context sensitive street-design standards and requirements in the Regional Transportation Plan.	X				
4. Explore Streetcar on State Street in the next Regional Transportation Plan.	X				
5. Explore and identify as formal projects urban corridor roadway modifications to existing streets in the next Regional Transportation Plan	X				
6. Examine AASHTO interpretations within urban corridors to provide the opportunity to create a more pedestrian friendly environment.		X			
7. Develop agreements between UDOT, UTA and local governments regarding future streetscape improvements on State Street.	LEAD	X	X	X	X
8. In Walkable Corridors and Transitway segments review current ordinances for appropriate design guidelines and development standards. Guideline ordinances are available to assist in the Life On State final products.				X	X
9. Change road design policies to support livable corridors.				X	X
10. Provide regulatory certainty and incentives to encourage redevelopment in desired locations along State Street.				X	X
11. Explore establishment of new redevelopment areas and use strategic infrastructure and beautification investments to encourage private development.				X	X
12. Rezone corridor segments away from major intersections to encourage or require majority non-retail uses in new buildings. Ensure residential, office, lodging, and institutional uses are allowed along State.				X	X
13. Identify park and plaza opportunities along State (refer to the Vision Map) in municipal and county Parks and Open Space Master Plans.				X	X
14. Consider use of CDBG and other locally available funds for physical improvements to State Street.				X	X
15. Identify additional local, regional and state funding resources.					
16. Once a year, the partners of this effort should gather to discuss implementation of the vision and necessary modifications that should be made.	X	X	X	X	LEAD



Mid Term (5 to 10 Years)	WFRC	UDOT	UTA	Cities	County
1. Explore the viability of Streetcar or fixed-guideway BRT on State Street. Conduct necessary studies to determine preliminary spacing and approximate location of future stations.			X		
2. In Transitway segments and near future public transportation stations (see Vision map), consider rezoning to establish minimum densities or intensity standards (such as a floor-to-area ratio), and increase maximums as necessary to support transit ridership. The Vision recommends minimum targets of 20 du/acre, 25 emp/acre and a floor-to-area ratio targets of 0.65 and greater.				X	X
3. As appropriate, designate urban corridor roadway modifications to existing streets in the WFRC TIP.	X				
4. Explore new streets or pedestrian connections on poorly connected stretches of State (see pg. 21 of the vision document).	X			X	X
5. Consider the Life on State vision as future general plan update processes are conducted				X	X



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APPENDIX

ECONOMIC ANALYSIS

During the auto-based suburbanization boom that began after World War II, corridors connecting suburbs and urban centers provided a concentrated supply of traveling eyes, which lured retail businesses to locate in stores with visibility to the traffic and with easy access and parking for customers. Many communities zoned entire corridors for commercial uses as a buffer between the traffic and noise of the roadway and the quiet residential neighborhoods that consumed most of the land between corridors.

In the 1970s and 80s, retail business began migrating to malls and larger strip centers where anchors such as supermarkets provided a steady stream of potential customers. Since then, malls have morphed into open-air lifestyle centers and big-box power centers, and strip centers have grown into larger and larger centers with a diversity of retail businesses.

Individual, stand-alone retail stores and strip centers, once the most lucrative locations for merchants, have lost their appeal. Aging populations, continued suburbanization, and the migration of families (who spend more money relative to younger and older households) to larger and larger houses in newer developments have reduced the total spending that corridor businesses can draw from their adjacent neighborhoods.

Communities seeking to revitalize and improve their corridors must understand the current market dynamics. All too often, corridors simply have more commercial building space than spending by neighborhood residents can support. And much of that space is functionally obsolete for the way Americans live and shop today.

This economic analysis first discusses the types of retail and how these types apply to corridors. It next describes the basic approaches to corridor revitalization. Finally, it provides a preliminary assessment of market conditions along State Street and interprets the implications for revitalization and redevelopment strategies.

Retail Types – Convenience, Comparison, and Experience

An easy way to understand retail markets is to categorize retail into two groups based on the type of good or service, the need for which instigates the shopping trip. These groups include convenience goods and services, and comparison goods. Table 3 describes the types of shopping centers that typically serve these two groups.

Generally, the goods and services that most people need on a regular basis (convenience goods and services) are close to where people live. For these regular purchases, most consumers have built up knowledge of where to go to get what they want, whether their discriminator is price and convenience or quality. Groceries, medicines, fast food restaurants, and hair care are typical convenience goods and services. Because convenience goods and services usually have low cost margins and high sales volumes, convenience retailers are located throughout an area, close to concentrations of households. These businesses typically locate in convenience centers and neighborhood shopping centers.

Consumers tend to compare goods across brands and across retailers for items they purchase infrequently or rarely. This habit of comparing induces retailers to locate near each other. It also promotes larger-scale retailers who can stock many different brands of similar products. Clothing, electronics, and furniture are quintessential comparison goods. Full-service restaurants, which consumers patronize infrequently, also fall into this group. Because comparison goods have higher cost margins and lower sales volumes and because consumers purchase these goods infrequently, comparison goods retailers tend to locate close to major transportation corridors that give access to a greater number of consumers. These businesses typically locate in community, regional, and super-regional shopping centers.

With both of these types of retail, quick easy access, a knowledge of individual retailers and their locations (formed through advertising, signage, and visibility during regular travels), and previous experience can influence where consumers shop. In communities where the automobile is the dominant mode of transportation, retailers respond by locating near and seeking visibility to auto traffic.

A third, hybrid type of retail is experiential shopping. In this type of shopping, the experience of the trip is of equal if not greater importance than the material need for a good or service. The experiential value may accrue from socialization with friends, from entertainment, or from the quality of the place. Downtowns, new town centers, lifestyle centers, and even shopping malls all attempt to enhance the shopping experience and provide a mix of businesses and amenities to create an enjoyable shopping experience. Because most consumers infrequently invest their time in experiential shopping, most are willing to travel further and forego quick and easy access for the value of the experience. Experiential shopping is a destination trip, and draws from a community, regional, or even super-regional size trade area, even if it does not offer the commiserate amount of retail square footage.

Generally for corridors, most of the commercial uses will provide convenience goods and services for the adjacent and nearby neighborhoods. When planning corridors, communities should focus on serving these local needs and capturing that local spending.

Nodes at the intersection of major transportation routes are more likely to attract businesses providing comparison goods. Such nodes make good locations because they provide a heavy traffic volume and proximity to a larger trade area. Comparison goods retailers, especially large national and regional chains that are destination trips (consumers seek out such businesses wherever they are and going to that business is often the primary purpose of the consumer's trip), will draw consumers and traffic to their locations, and if their locations are not at the major nodes, they will increase traffic and congestion on the corridor. When planning corridors, communities should try to restrict comparison goods businesses to these major nodes and assure that public transit connects the larger community and region to these nodes.

Finally, experiential shopping on corridors often occurs in the traditional downtown or Main Street setting. When planning such areas, communities should place a high emphasis on the consumer experience. For those who seek a larger community or regional base, experiential shopping includes not only time spent in stores and in the district, but the trip to the district and how they get around once there.

Experiential shopping also has applicability to all levels of retail for a livable corridor. Even minor nodes, where the emphasis is convenience goods and services for the local neighborhoods, should provide a positive consumer experience. And even though past convenience retail has been very auto-focused (equating easy-in/easy-out

Shopping Center Type	Building Size Range (sq./ft.)	Trade Area	
		Size (radius in miles)	Population Range
Convenience	< 30,000	1/2	<5,000
Neighborhood	30,000-100,000	1 1/2	3,000-4,000
Community	100,000-450,000	3-5	40,000-150,000
Regional	300,000-900,000	8	150,000 or more
Super-regional	500,000-2Million	12	300,000 or more

Source: Beyard, Michael D. et al., *Shopping Center Development Handbook*, 35d ed., Washington D.C.: Urban Land Institute, 1999.

sites and plentiful parking with a positive consumer experience), livable corridors should consider how nonvehicular access to the corridor can contribute to an equal if not superior experience for local residents while still providing convenience.

Basic Approaches to Corridor Revitalization

Typical corridor revitalization requires an understanding of the nature and extent of the underlying commercial challenges. Three general revitalization approaches illustrate common economic challenges and the spectrum of revitalization solutions available to communities.

APPROACH 1: REDUCE RETAIL LEAKAGE

Some corridors, or segments of a corridor, have a trade area with sufficient consumer spending to support vibrant economic activity but lack certain amenities and features to facilitate an enticing consumer experience. The challenge facing these corridor segments is not the lack of sufficient and readily available consumers. Rather, these commercial areas do not compete well in capturing the spending they should. That spending leaks to other retail districts farther away from the corridor segment's trade area.

Solutions for these corridor segments might include streetscape improvement, façade improvements, expansion of parking, pedestrian improvements, expanded public transit service, and changes to intersections and roadways to improve auto circulation and lessen traffic congestion. Some local governments provide these improvements directly. They also use assessment districts and business improvement districts so that the businesses and property owners benefiting from the investment help pay the costs. The purpose of these solutions is to create an attractive retail experience that can reclaim the consumer spending currently leaking away from the trade area. These improved areas can benefit from coordinated marketing and public relations to reintroduce the corridor business district and regain support of trade area residents.

APPROACH 2: REPOSITION AND RE-TENANT

Some corridor segments may effectively capture the spending of trade area residents, but the total amount of that spending is not sufficient to support all the commercial building space. For some of these segments, those that have a node or district with relatively easy access to the regional transportation network, this approach seeks to reposition the district as a community or regional destination (as opposed to a neighborhood commercial district). Attracting consumers from a larger, regional trade area can bring additional dollars into the district and provide broader support for existing businesses.

Communities often pursue the development of a signature or catalyst project as the primary solution to repositioning the district. Such projects seek to transform both the character and image of the district, creating a "wow" factor to attract visitors and spending from a larger area. In addition, solutions from approach 1 can also be used to improve the appeal of the district around the catalyst project. Finally, implementing a marketing strategy and public relations campaign can help change the public perception of what the corridor segment is and has to offer.

Successful catalyst projects bring new foot traffic and new spending into the district. This new spending motivates nearby property owners to reinvest in their properties and helps attract new businesses. This approach can benefit even more from an active program to attract additional businesses that draw consumers from larger trade areas. Although catalyst projects induce additional private sector investment and attract new businesses, they usually influence only the immediate area. These projects, therefore, are best suited to particular nodes or districts of a corridor segment and are not, in and of themselves, a corridor-wide solution.

Because catalyst projects are by their nature transformational and create opportunities where they do not currently exist, private sector developers rarely pursue these projects independently. Instead, local governments tend to collaborate with a developer in a

public-private partnership. Public-sector participation helps ameliorate risks and provides some level of subsidy to make the redevelopment financially feasible. Tax increment financing is a very appropriate tool for these projects because it uses revenues from the increased development and business activity that the initial public sector investment induces.

APPROACH 3: REDEVELOP EXCESS COMMERCIAL

Finally, some corridor segments simply have too much commercial building space. For these segments, getting existing trade area residents to patronize them more often or attracting new consumers from the larger region still would not support all of the existing commercial development.

The primary solution communities employ to address this challenge is converting or redeveloping the excess retail building space. In some areas, there is sufficient market demand to support the conversion of retail buildings into offices. More often, though, redevelopment provides new housing to replace commercial buildings. New housing provides the additional benefit of adding new population and new spending to the trade area, thus reducing the amount of commercial building space that needs to be phased out.

While local governments can use tax increment financing to provide incentives to encourage redevelopment, the extent of needed redevelopment and its costs limit the use of tax increment financing to revitalize a substantial portion of a corridor segment.

Communities can, however, use their regulatory tools to create financial incentives for redevelopment. Local regulations play a fundamental, and often underappreciated, role in establishing the value of land. Zoning and other regulations govern the amount of development (total building square footage) on each parcel of land, and hence the amount of revenue and return on investment each parcel can generate. Although zoning cannot create value beyond that for which there is market demand, allowing more

development can add value to the underlying land when market demand will support more intensity.

When developers build new multifamily housing (or any other use), they have to pay the cost of the underlying land, whether that land is a vacant infill site, a greenfield site on the periphery of the metropolitan area, or a redevelopment site with an existing building. In addition, they have to pay the construction and other costs. For redevelopment, though, they also have to pay for the existing building and its demolition. These costs, sometimes referred to as "throw-away costs," add no value to the final product. Thus, redevelopment is inherently more expensive than comparable projects on vacant infill and greenfield sites.

Communities wanting to encourage redevelopment along corridors can allow for increased development intensity (higher floor-area ratios or more dwelling units per acre) on redevelopment sites. Developers thus pay the same land costs relative to vacant infill and greenfield sites, but the additional revenues generated by the increased density offset the throw-away costs that come with redevelopment. By allowing development intensity above the theoretical break-even point for redevelopment opportunity sites along corridors, local governments create a market incentive to encourage corridor development, with no direct costs to the taxpayers.

Communities can also relax other regulatory requirements, such as parking and open space standards, to provide for more development intensity and create market incentive. Finally, local governments can subsidize desired corridor redevelopment by providing public parking, public parks, and increased public transit to compensate for the regulatory incentives.

State Street Retail Market Demand

Understanding the market demand for retail building space and the extent of excess commercial capacity help determine appropriate approaches to revitalization for each corridor segment. This section presents a preliminary analysis of retail market demand for each segment of the State Street corridor.

Retail market demand is the difference between the total amount of retail building space that spending by a trade area's households can support and the amount

of retail building space already in the trade area. When the market demand is positive, the trade area can support more retail development without generating long-term vacancies. When the market demand is negative, the trade area must either attract spending from the larger region, attract nonretail businesses to fill retail buildings, or suffer systemic vacancies that can potentially lead to urban blight.

Table 1 and Table 2 calculate the market demand for retail building space in each segment of the corridor. We caution that this analysis is rudimentary and

intended to guide future planning efforts. The data are more helpful for understanding the relative level of demand between corridor segments. The models do not necessarily represent a precise measurement of existing demand. Indeed, for this level of analysis, we typically consider anything within about 10 or 15 percent to be relatively well balanced. Beyond 15 percent, though, the corridor segment probably needs further assessment to determine to what degree structural retail vacancies could pose a long-term urban development challenge.

To determine the retail market demand for State Street, we estimate the number of households residing in the corridor's immediate trade area, that is, the area within a half mile of State Street, and project the number residing there in 2014. We then multiply the number of households by the total amount of retail building space they can support in the corridor. We add the amount of building space that spending by segment-area employees will support. We calculate the total amount of existing building space in the corridor used for retail sales, retail services, and restaurants. The difference is the current and projected retail market demand.

Table 1: Market Demand for Retail Building Space (sq./ft.) State Street Corridor by Segment, 2009

Corridor Segment	Supportable Retail Building Space	Existing Retail Supply	Retail Gap or Excess	
			Square Footage	Portion of Total
1	739,138	674,411	64,727	2.8%
2	155,064	430,679	-275,616	-27.2%
3	188,208	290,914	-102,706	-21.4%
4	209,478	496,769	-287,291	-23.1%
5	111,795	279,798	-168,003	-24.0%
6	120,917	142,037	-21,120	-8.0%
7	91,960	211,596	-119,636	-24.5%
8	119,579	185,014	-65,435	-12.1%
9	154,731	351,429	-196,698	-11.3%
10	136,214	218,917	-82,702	-17.7%
11	79,541	86,368	-6,827	-7.1%
12	59,665	127,086	-67,421	-19.3%
13	85,853	101,695	-15,842	-2.1%
14	71,657	114,161	-42,504	-17.0%
15	101,447	158,811	-57,365	-6.2%

Source: The Planning Center, 2009
Shading indicates segments with a supportable level of retail

Table 2: Projected Market Demand for Retail Building Space (sq./ft.) State Street Corridor by Segment, 2009

Corridor Segment	Supportable Retail Building Space	Existing Retail Supply	Retail Gap or Excess	
			Square Footage	Portion of Total
1	751,929	674,411	77,518	3.4%
2	160,190	430,679	-270,489	-26.7%
3	194,215	290,914	-96,699	-20.2%
4	209,685	496,769	-287,084	-23.1%
5	113,970	279,798	-165,828	-23.7%
6	126,717	142,037	-15,320	-5.8%
7	92,582	211,596	-119,015	-24.4%
8	122,945	185,014	-62,069	-11.5%
9	159,444	351,429	-191,986	-11.0%
10	146,157	218,917	-72,759	-15.6%
11	81,198	86,368	-5,170	-5.4%
12	61,219	127,086	-65,867	-18.9%
13	90,618	101,695	-11,078	-1.5%
14	81,133	114,161	-33,028	-13.2%
15	117,241	158,811	-41,570	-4.5%

Source: The Planning Center, 2009
Shading indicates segments with a supportable level of retail

NOTES TO TABLE 1 AND TABLE 2:

- Supportable building area is based on consumer spending data and the number of households obtained from Claritas, Inc., and median sales efficiency (dollars per square foot) using data reported in the Urban Land Institute's Dollars and Cents of Shopping Centers/The SCORE 2008. We assume that corridor business would likely capture 90 percent of corridor households' spending on convenience goods and services, 11.5 percent of their spending on comparison goods, and 35 percent of their spending on eating out. We add the amount of building space that employees in the corridor segment will support, assuming spending of \$25 per week per job and restaurant-level efficiencies of \$350 per square foot. The supportable building area also includes an additional 5 percent to account for a healthy retail vacancy rate.
- The existing building supply is estimated based on data from the Salt Lake County Assessor. The square footage represents buildings with the following uses: community mall, convenience store, department store, discount store, drug store, market, neighborhood ctr., regional mall, retail mixed, retail store, strip center, fast food restaurant, lounge, restaurant, day care center, laundromat, and retail service.
- We assume that buildings that are larger than 10,000 sq. ft. draw from a trade area beyond the corridor and so we count only 16 percent of the building size to represent the portion supported by corridor residents. We assume that buildings that are larger than 50,000 sq. ft. draw from a regional trade area and so we count only 6.25 percent of the building size to represent the portion supported by corridor residents.

Market Demand Implications for State Street

Using the 15 percent rule of thumb, the analysis suggests that segments 1, 6, 9, 11, 13, and 15 have a relative balance between retail businesses and the number of households. Household growth over the next five years should increase market support and create a reasonable balance for segment 8. Even though these segments have a relative balance, each appears to have some excess retail building space. The communities that have these corridor segments could further investigate

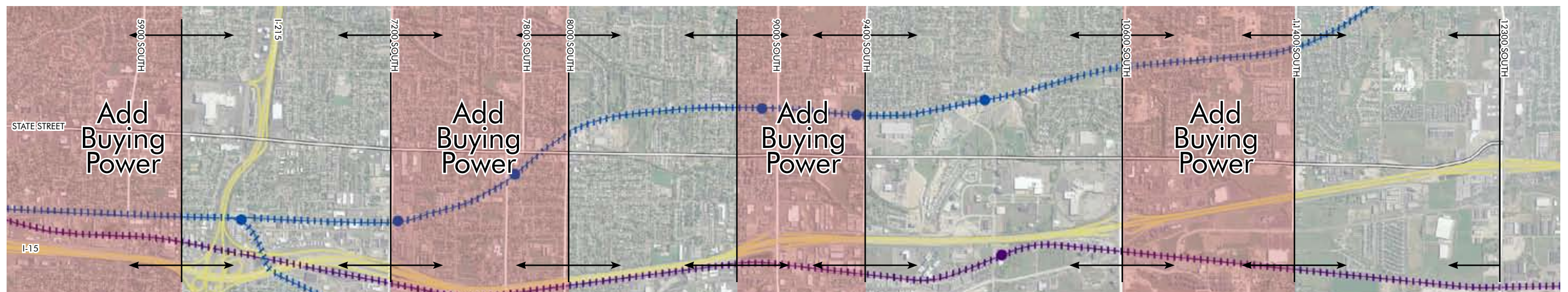
whether solutions described under revitalization approach 1 might enhance retail performance.

The analysis indicates that remaining segments all have more retail building space than the residents in the adjacent and nearby neighborhoods can support. These communities should first consider whether these segments have nodes or districts that could transition into more of a community or regional destination to attract more spending support for commercial businesses.

Segments that are not well positioned to draw visitors and spending from a larger trade will require more detailed planning. These communities need to identify infill and redevelopment opportunities. They will have to further assess the financial feasibility of redevelopment, and consider how regulatory changes can create market incentives for redevelopment where they lack the financial resources to provide direct subsidies.

Finally, the retail market demand model suggests that the entire corridor has 1.4 million square feet too much

retail building space, or 12.5 percent of the total retail building space. Using the 15 percent cutoff, though, suggests that the amount of excess retail building space is generally not an overall problem for the corridor. Nevertheless, the Life on State project should consider a multitude of redevelopment and revitalization strategies. Successful strategies to address excess retail in the segments with the most excess retail building space could help bring the overall corridor into a relatively healthy balance between commercial and residential uses.



STREET CONFIGURATION AND NETWORK CONCEPTS

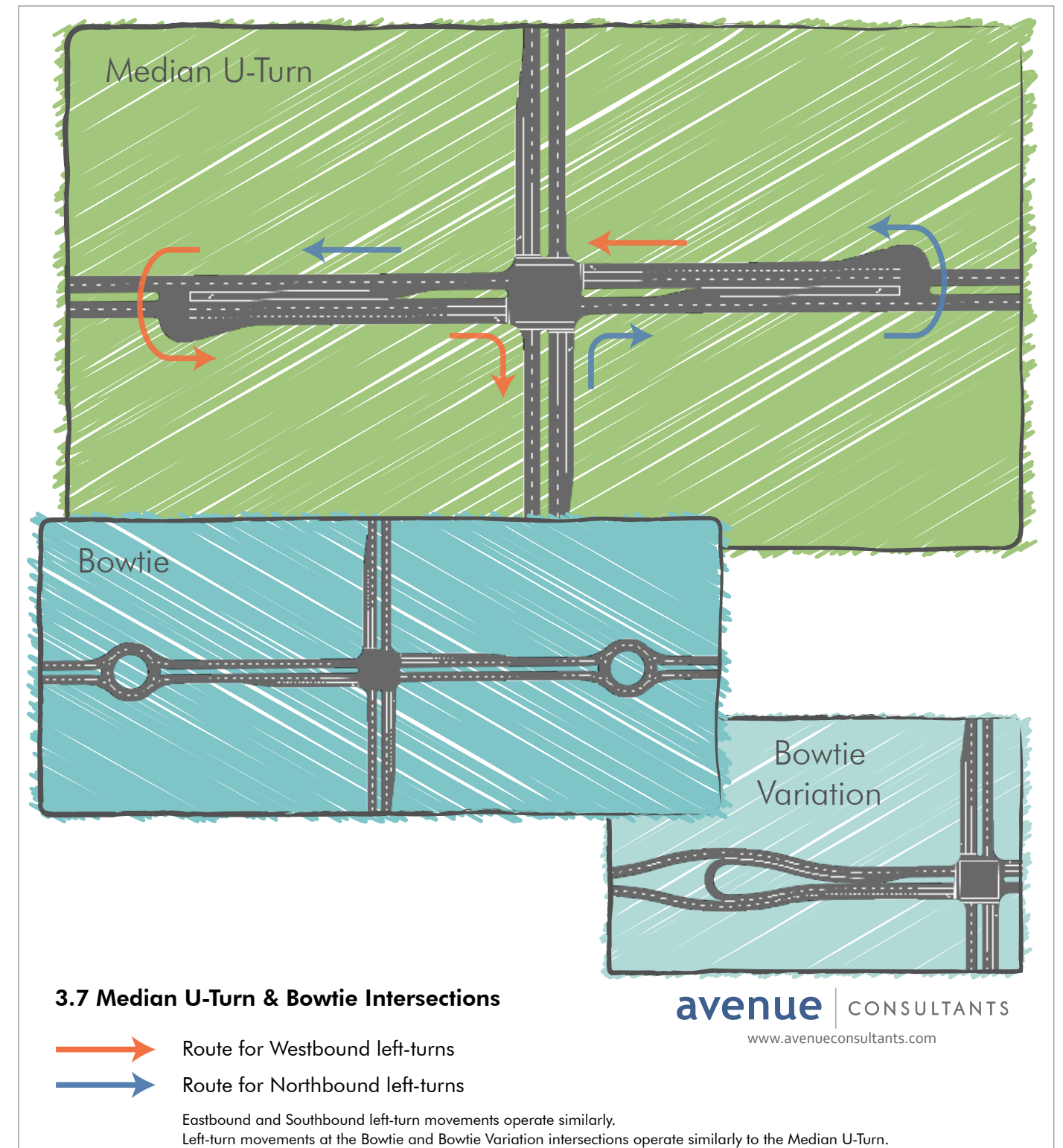
Median U-Turn & Bowtie Intersections

The Median U-Turn Intersection (commonly referred to as the Michigan U-Turn) eliminates the left-turn movements at the main intersection by redirecting left turns through a combination of through, right, and u-turn movements. For example, westbound traffic planning to make a left-turn to travel southbound would not make a direct left turn at the intersection but would instead travel through the intersection, perform a u-turn at a designated location on the other side of the intersection, and then perform a subsequent right turn back at the main intersection (the orange arrows shown in the adjacent figure highlight this route). Northbound traffic planning to make a left-turn to travel westbound would make a similar combination of movements illustrated by the blue arrows in the adjacent figure.

Eliminating left-turn movements at an intersection increases the intersection capacity and efficiency by eliminating left turn signal phases, which in turn provides more green time to through traffic. Without left-turn movements, a simple two-phase (northbound/southbound & eastbound/westbound) signal can be utilized, which may increase corridor capacity by as much as 50% (similar to an additional through lane). Eliminating the left-turn movements also improves intersection safety by decreasing the number of vehicular and pedestrian conflict points, consequently reducing the opportunity for collisions. Pedestrian safety and convenience is improved at the Median U-Turn Intersection by eliminating left-turn movements that create conflict points with pedestrians in the crosswalk. Additionally, the elimination of left turn storage at the intersection either reduces pedestrian crossing distances and/or provides opportunities for pedestrian refuge, either of which reduces the amount of time that pedestrians spend in potential conflict with vehicles. The turning movements at Bowtie Intersections are similar to Median U-Turn Intersections. The difference is that Bowtie Intersections use roundabouts instead of u-turns to accommodate the redirected left turn movements. The benefits of the Median U-Turn similarly apply to the Bowtie since both strategies eliminate left turn signal phases, left-turn storage, and

right-of-way requirements at the main intersection. The Bowtie, however, has additional potential benefits with its use of a roundabout for the u-turn movement. Since a roundabout does not require signalization, it can increase the efficiency of a low volume u-turn movement without requiring the expense of a signal (which may be required for higher volume Median U-Turn movements). The roundabout in the Bowtie variation also provides unique opportunities for side-street tie-ins, improved aesthetics, and traffic calming; all of which are qualities that are especially attractive for livable corridors.

The Median U-Turn and Bowtie intersections are ideal applications for high capacity corridors where significant pedestrian interaction and multi-modal transit opportunities exist. The improved efficiency of two-phase signal operation allows these intersections to easily accommodate high traffic volumes within the corridor, even to the extent of providing additional capacity equivalent to adding another through lane. Two-phase signals also allow for improved corridor progression. At the same time, these intersections are incredibly context sensitive and pedestrian friendly; reducing the intersection footprint and pedestrian crossing times, allowing opportunities for improved aesthetics, pedestrian refuge, and unique opportunities for transit stops and interaction in median islands.



ADVANTAGES

- Increased intersection capacity
- Enhanced traffic progression
- Reduced delay, travel time and queuing
- Narrower road section possible
- Enhanced aesthetics
- Short pedestrian crossings improve safety
- Left turns can use minor volume streets
- Low implementation cost
- Reduced conflict points (pedestrian & vehicular)

- Strategic roundabout use can put more drivers near retail
- Opportunities for transit integration
- Context sensitive
- Pedestrian friendly

DISADVANTAGES

- Out of direction travel for left turns
- Right of way required for bulb out at u-turn or roundabout
- No u-turns at main intersection
- Potential for driver confusion about left turns



Single Quadrant Intersection

At a Quadrant Intersection, left-turns are redirected onto an adjacent roadway that connects two legs of the intersection at locations that could allow traffic to bypass the main intersection (figure shows upper-left quadrant). Left-turn movements are routed through the quadrant roadway using three rights to make a left or by using a combination of left turns and/or right turns at quadrant roadway intersections before or after the main intersection.

Eliminating left-turn movements at the main intersection increases the intersection capacity and efficiency by eliminating left turn signal phases, which in turn provides more green time to through traffic. Without left-turn movements, a simple two-phase (northbound/southbound & eastbound/westbound) signal can be utilized, which may increase corridor capacity by as much as 50% (similar to the addition of a through travel lane). Eliminating the left-turn movements also improves intersection safety by decreasing the number of vehicular and pedestrian conflict points, thus reducing the opportunity for collisions.

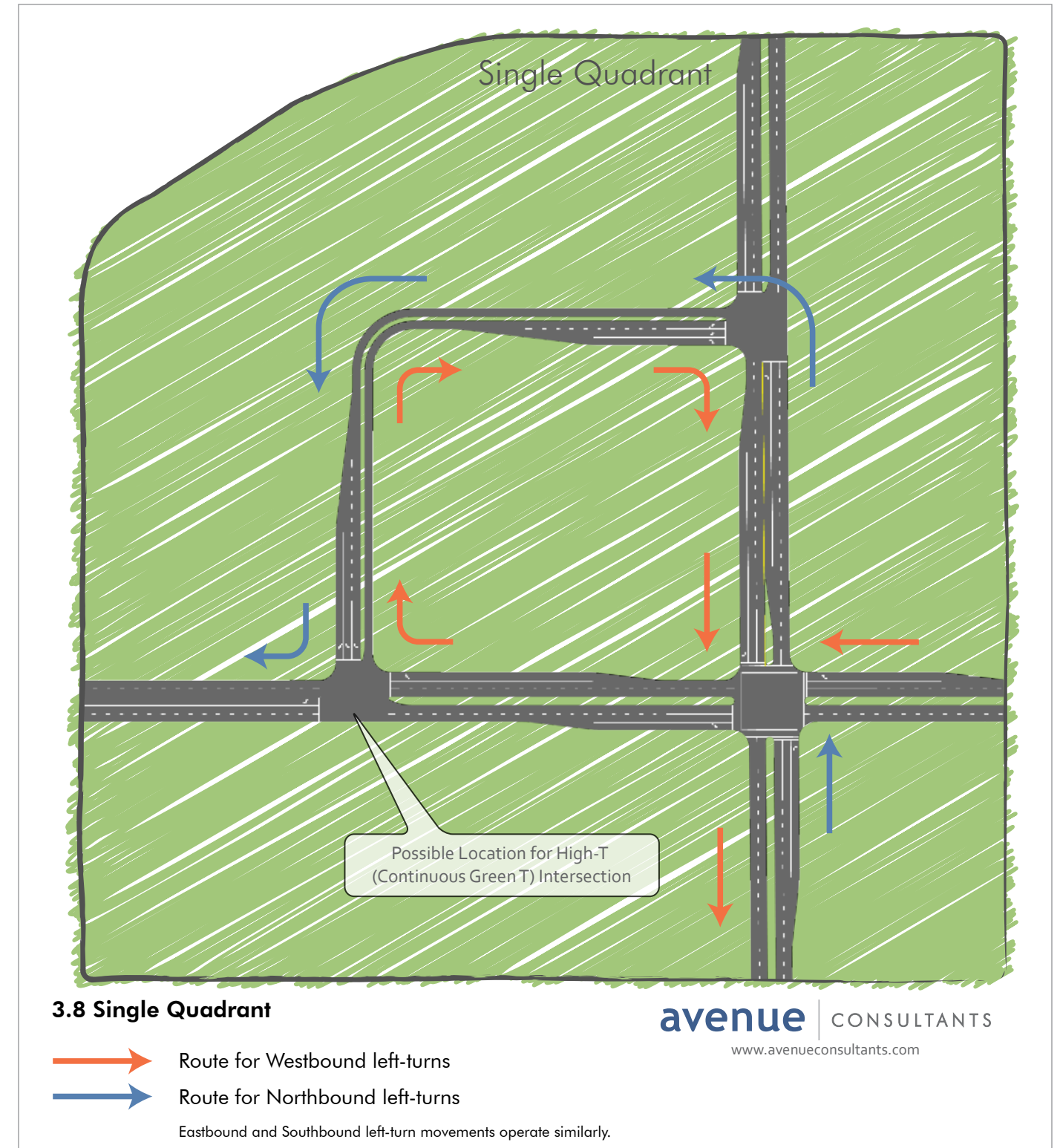
The T-intersections for the Quadrant only require three signal phases while the main intersection is reduced to two signal phases (compared to four signal phases at a typical intersection). If additional capacity is necessary at the T-intersections, a High-T Intersection (also referred to as a Continuous Green T Intersection) may also be utilized (which provides a through lane(s) at the T-intersection that is continuously green and is not obstructed by the intersection control). Existing roadways can be used to implement a Quadrant at a relatively low cost. However, if a roadway does not exist, purchasing the right-of-way to create a Quadrant can be a costly endeavor.

Pedestrians will see an increase in safety at Quadrant Intersection as well. Eliminating left-turning vehicles will create fewer conflict points for pedestrians while on the crosswalk. The improvement can also decrease the crossing distance for pedestrians by eliminating the left-turn lanes, which will result in a quicker crossing

time for pedestrians.

A Quadrant can also provide opportunity for additional store front opportunities. A higher number of vehicles on the connector roadway will provide a unique and potentially profitable location for businesses. Aesthetic improvements can also be made to the Quadrant to help improve its appeal to both business and consumer.

A Quadrant Intersection provides a unique solution for a corridor application. A quadrant removes left-turning vehicles from main intersection and increases the capacity and efficiency of the through movement. Two phase signal timing at the main intersection improves the capacity of the corridor while making it easier to coordinate with adjacent intersections, and while enhancing the walk-ability and opportunity for higher density development.

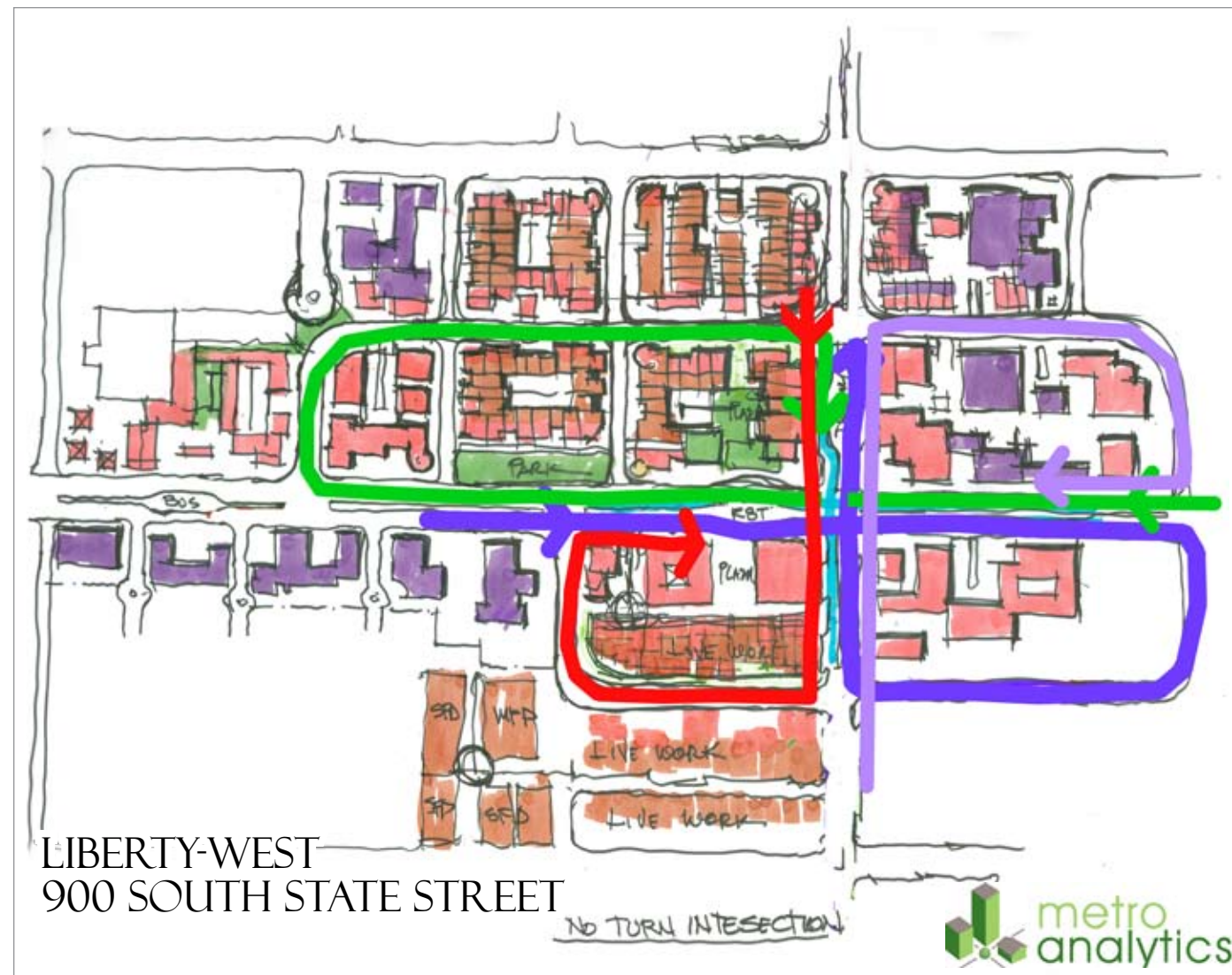


ADVANTAGES

- Improved intersection capacity
- Reduced delay & travel time
- Narrow R/W for both roadways
- Shorter pedestrian crossings
- Enhanced development opportunity
- Potentially low cost
- Possibility to use existing roadway infrastructure
- Removes left-turn collisions

DISADVANTAGES

- No u-turns at main intersection
- Inconvenience for left turners
- Greater potential for driver confusion
- Potential R/W for connector road
- Adds intersections to a corridor



Town Center Intersection

Town Center Intersections are created by intersecting pairs of one-way streets that are characteristically separated by one city block. This configuration allows opposing one-way travel on either side of a central city block, with the intersection of these one-way couplets (and their central city blocks) creating a central “town center” that is completely bounded by one way streets. The four intersections at the corners of this “town center” are collectively referred to as the Town Center Intersection.

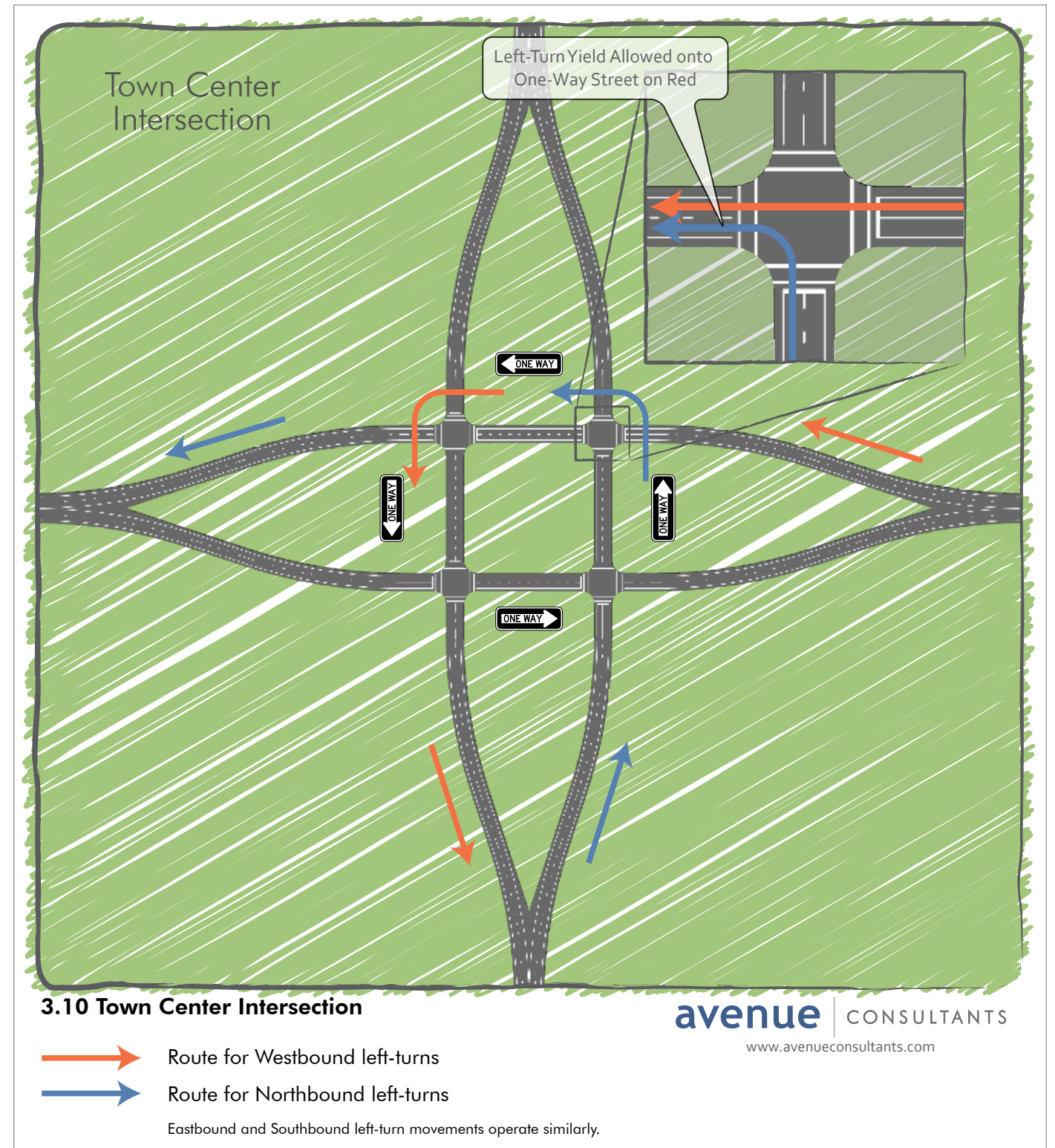
Signalized Town Center Intersections are two-phase signals by nature of the one-way interaction at each intersection. This one way interaction and natural two-phase signalization facilitates increased intersection capacities and better overall corridor progression than an equivalent two-way street corridor. Additionally, the intersection of one-way streets allows the opportunity for both left-turns and right turns on red, further increasing the efficiency of these intersections (see figure for clarification).

Pedestrian safety and convenience is improved at the Town Center Intersection by eliminating half of the roadway width of each intersection approach. The segregated travel movements and narrower roadway widths reduce the number of conflict points for both vehicles and pedestrians at each intersection, and reduces, the amount of time that pedestrians spend crossing the streets in potential conflict with vehicles. Pedestrian crossings at these intersections are also safer because people are only required to spot traffic coming from one or two different directions as opposed to four directions at a typical intersection.

Town Center Intersections have great application for higher-density and mixed-use developments such as existing or developing downtowns, or new density-focused developments. They certainly have great application in lower density areas as well. While some retailers may object to the access limitations imposed by one-way traffic, a number of mature applications of this concept show that short block lengths, reduced street sections, and a critical massing of compatible

uses do allow Town Center configurations to be highly attractive, even from the most critical retail perspective. These concepts can also serve as “place makers” for newer density-driven developments, promoting walk-ability and connectivity while serving the traffic demands of the area.

As a corridor application, the Town Center Intersection (and one-way couplets in general) is attractive for a variety of reasons. The two phase signal operation provides additional green time that can be allocated to the through movements along the corridor improving capacity, enhancing traffic progression, reducing corridor travel times, and decreasing overall delay. Additionally, the intersection of one-way couplets helps to identify the area between the couplets as an area of focus or “town center”. This can create a unique area of opportunity where narrower streets and simplified traffic movements are more conducive to higher-intensity land uses and to better ground level pedestrian activity.



ADVANTAGES

- One-way streets are narrow and require less right-of-way
- One-way couplets clearly delineate central area of focus
- One-way streets better support higher intensity land use
- Short pedestrian crossings improve safety
- Pedestrian friendly
- Narrower streets support enhanced aesthetics

- Reduced conflict points (pedestrian & vehicle)
- Increased intersection capacity
- Enhanced traffic progression
- Reduced delay, travel time, and queuing
- Simplified turning movements

DISADVANTAGES

- Retailers not enthusiastic about one-way streets
- Out of direction travel required to access certain destinations
- Difficult to implement as new construction

