

FINAL REPORT

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To: H. W. Lochner

Salt Lake City

From: Fehr & Peers

Subject: 900 South Reconstruction Project: Corridor and District Parking Report

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Introduction

This technical memorandum summarizes our approach and results of a parking analysis conducted in association with the 900 South Reconstruction project in Salt Lake City, Utah. This memorandum documents the on-street parking inventory and occupancy data for observed conditions during the 2020 COVID pandemic. The pandemic affected parking demand in both commercial and residential areas, and counts taken for the purpose of this analysis may not reflect parking demand conditions seen during non-pandemic times. Nevertheless, the parking analysis was needed to support design activities for the 900 South Reconstruction project, and this document describes analytical techniques used to estimate what on- and off-street parking demand would be without the pandemic compared to current on- and off-street supply. In addition, it acknowledges potential changes to future parking supply and demand associated with anticipated land use and transportation changes, with recommendations to address existing parking demands and conflicts while laying the groundwork for more walkable and sustainable neighborhoods in the future.

Executive Summary

The project team observed parking utilization along the 900 South corridor from 900 West to 1300 East in September 2020 (during the COVID pandemic) with a focus on the Central Ninth and 9th & 9th business districts. The team conducted additional surveys and analyses to understand changes in parking demand resulting from community and economic restrictions due to COVID-19. In general, parking supply along the 900 South corridor is adequate to meet demand, accounting for supply changes associated with the 900 South Reconstruction project. However, in the Central Ninth District, recent development patterns resulted in high demand for on-street parking from neighborhood residents and the area's public parking supply is quickly nearing capacity. We recommend that the City undertake the following actions to address parking needs in the Central Ninth District and the 9th & 9th District:

- Consider changing off-street parking minimums in the FB-UN1 and FB-UN2 zoning districts, if such changes do not undercut the citywide and local goals of transit-rich, walkable, and sustainable neighborhoods;
- Provide more flexibility for parking options in multifamily developments, such as offering "unbundled" parking where residents could pay extra to rent an off-street parking space (which could be located on- or off-site);



- Increase enforcement and management of time-based restrictions for 900 South parking in both business districts to encourage turnover, potentially shifting to a paid parking model if this method proves inadequate and sufficient resources, political will, and organizational infrastructure allow for the implementation of paid parking in this area;
- Explore creating a parking permit program in the Central Ninth District and increasing enforcement of the parking permit program in the 9th & 9th District;
- Establish off-street shared parking agreements with business and private property owners
 where land uses have complementary operating hours and could share resources, and
 consider a valet program to make off-site parking resources more convenient to customers;
 and
- Create a Transportation Demand Management program for the Central Ninth District to encourage people to walk, bike, and take transit rather than drive.

Due to the complex intersectionality of departmental jurisdiction over parking (and related infrastructure, management, and policies), implementing these recommendations will require coordination between multiple Salt Lake City departments. They may also require new structures and staffing to successfully execute. Some recommendations may be less popular than the status quo, and may require additional outreach, political support, and funding.

Background

The 900 South Reconstruction Project

The 900 South Reconstruction project encompasses streetscape, roadway, and subsurface utility improvements along the 900 South corridor from 900 West to Lincoln Street (945 East) in Salt Lake City. A major portion of the project is the construction of the 9 Line Trail, which will eventually extend from the Surplus Canal and I-215 east to the Bonneville Shoreline Trail. The trail was already built in the section of the corridor from Lincoln Street to 1100 East (2019) and west of I-15 (2011).

Along the 900 South corridor between 900 West and 900 East, there are several project components that will impact parking supply:

- Construction of the 9-Line trail on the south side of the corridor
- Extension of the southern curb line north into the current roadway to reduce the roadway width



- Curb extensions and crosswalk improvements at many intersections throughout the corridor
- Bus stops
- Lane alignment adjustments, especially near the ends of the project and near the Central Ninth and 9th & 9th business districts

This document quantifies the impacts of the proposed 900 South redesign on the corridor's parking supply and recommends policy and management strategies to address parking issues in the two study areas.

Study Areas

The project team analyzed parking supply and demand along 900 South, in the eastbound and westbound directions, between 900 West and 1300 East. It also included analysis of parking needs in two neighborhood business districts:

- The Central Ninth District: 300 West to West Temple, and 800 South to approximately 1000 South (at the I-15 overpass ramps)
- The 9th & 9th District: 800 East to 1100 East, and 800 South to Belmont Avenue (approximately 970 South)

This memorandum provides information separately for the 900 South corridor, Central Ninth, and 9th & 9th Districts. The sections of 900 South within the Central Ninth and 9th & 9th study areas are addressed in the district analyses as well as in the overall corridor analysis.

Data Collection

The project team collected several kinds of data to assess parking demand and supply on the corridor and in the districts. This included on-street and off-street parking inventory and occupancy surveys. The project team also conducted community outreach in late 2020 and early 2021 to residents and businesses in the Central Ninth and 9th & 9th Districts about parking needs and possible parking management strategies in their areas.

On-street Parking Inventory

Salt Lake City Transportation Division staff prepared an inventory of existing on-street parking spaces along the 900 South corridor and in the districts. The inventory was presented in a GIS



format and identified the number of parking spaces on each block face, in each direction, and whether the parking spaces were parallel or angled. The data also noted when parking spaces appeared to be sub-standard but were in use anyway: for instance, cars were parked in sections of curb shorter than the standard 20' length for a parking space. For this analysis, parking spaces that were identified as sub-standard were still considered part of the on-street parking supply, since the public often still used these spaces.

Off-street Parking Inventory

The project team counted off-street parking spaces near the Central Ninth and 9th & 9th districts to identify off-street parking resources that could be shared in the future. While there are some surface lots that present opportunities for shared parking, the owners of these parking lots may seek to develop them in a different manner in the future. Exhibit 1, provided in the Appendix, includes a summary of off-street parking supply and potential shared parking resources in the Central Ninth and 9th & 9th districts. The summary shown in Exhibit 1 is preliminary in nature and did not involve detailed counts of parking demand in these lots throughout the course of a day or different days of the week. No members of the project team nor the City spoke with the owners of these parking lots to discuss their interest in sharing parking resources. Any shared parking agreements would likely be between two or more property owners, with established parameters for times of use, locations of shared resources, liability responsibilities, maintenance costs, and other issues.

On-street Parking Demand

The project team gathered on-street parking utilization data on Wednesday, September 16th, and Saturday, September 19th, 2020. On both dates, the project team conducted hourly sweeps of vehicles parked along 900 South and in the two districts from 7 AM – 12 AM. From 7 AM until 6 PM, parking data was gathered via drone footage and digitized later; from 6PM until 12AM, on-site counts were conducted because light conditions were no longer conducive for aerial flights. It should be noted that these counts were conducted during the COVID-19 pandemic, at a time when many businesses were impacted and operating at limited capacity. Later sections of this document describe how the analysis was adjusted to account for differences in demand due to the pandemic.

Community Outreach

The project team hosted several meetings with residents and business or/and community representatives in the districts to hear their feedback on parking needs and issues on the 900 South corridor as well as in the districts included in this study. These meetings occurred on October 13th,



2020 and April 6th, 2021 for the Central Ninth district, and on November 5th, 2020 and April 6th, 2021 for the 9th & 9th district. On December 17th, 2020, the project team hosted an additional meeting to discuss parking issues with the neighborhood known as "Liberty 9th", approximately extending from State Street to 700 East.

Existing Parking Conditions

This section outlines existing parking supply and demand (utilization) data along the corridor and in the districts. It also summarizes input heard from neighborhood residents and business owners about parking issues in the districts as well as the City's current parking policies that affect the study area.

Current Parking Utilization

The project team tallied parking counts for each block face, in each direction, to estimate the peak parking utilization over the course of a weekday and weekend throughout the corridor. Several caveats apply to these estimates of parking utilization due to the COVID-19 pandemic. Some businesses along the corridor were not open or not operating at their full capacity due to COVID restrictions, including bars, restaurants, and some retail businesses. In fact, several businesses along the corridor had already closed because of the pandemic. Therefore, these parking utilization estimates are not representative of the actual parking demand that these districts will experience once the pandemic ends and the economy recovers. In addition, residential parking demand may be higher than normal with more people working from home and the local school district (Salt Lake City School District) holding online classes only during September 2020. The "Projected Conditions" section of this technical memorandum outlines the project team's approach for adjusting estimates to reflect post-COVID demand. Salt Lake City should consider gathering additional parking demand counts after the COVID pandemic ends, to identify conditions representing the "new normal", and in advance of implementing any significant recommendations.

900 South Corridor

Figure 1 below shows the peak hour of parking demand for the 900 South study area (a larger version of this graphic is provided in Exhibit 2).

Figure 1: Corridor-Wide Peak Hour Parking Demand, Weekday and Weekend





The observed peak parking time and day for the full corridor was from 7 - 8 PM on a weekday, when on-street parking demand totaled around 900 cars corridor-wide and in the districts, out of roughly 1,800 on-street spaces. During this period, demand along the corridor or in the two study areas was at its highest in the Central Ninth district, especially along Jefferson and Washington Streets. Jefferson and Washington Streets are both primarily residential, with both single-family homes and multi-family buildings, and with angled 45-degree parking lining both sides of the streets north of 900 South. The evening peak reflects when most residents were home for the night. Demand on these streets remained high for the remainder of the evening hours observed, until midnight. It is also worth noting that observed demand for on-street parking was high between State Street and 500 East. This section of 900 South contains a mix of businesses and residential properties, many of which rely on the on-street parking to meet their needs.

The figure notes where parking demand is greater than 100%. The ">100%" symbol is used where more vehicles are parked along the curb (parallel or angled) than is technically allowed in the Transportation Division's on-street parking design policies. The policies use a standard stall size and orientation, and indicate offset distances from driveways, fire hydrants, crosswalks, and other features. For instance, some sections of curb may be considered "substandard" by the City because they aren't long enough to meet design standards for a parallel parking space, but drivers are still able to fit cars into those spaces.

Central Ninth District

Figure 2 shows the peak hour parking demand for the Central Ninth district (a larger version of this graphic is shown in Exhibit 3).



Figure 2: Central Ninth Peak Hour



When looking only at the Central Ninth district, the observed peak parking time and day was 1 - 2 PM on a weekday, with some overlap of local business parking demand and residential parking on the side streets (Jefferson and Washington, primarily). Across the district, the project team observed demand for 316 on-street parking spaces during the time period, out of roughly 450 total on-street parking spaces in the district study area. This study assumes that the on-street parking demand observed in residential areas may reflect an increase in work-from-home activities associated with the COVID-19 global pandemic.

9th and 9th District

Figure 3 below shows the peak hour parking demand for the 9th & 9th district (a larger version of this graphic is shown in Exhibit 3).



Figure 3: 9th & 9th Peak Hour Parking Demand



When looking only at the 9th & 9th district, the peak hour was the same whether weekday or weekend: about 342 on-street occupied spaces in this area from 6-7PM, out of roughly 570 on-street spaces in the district study area. This reflects dinnertime demand at several restaurants in the district, ranging from fast casual to sit-down restaurants and fine dining. While some restaurants closed during the pandemic (such as Mazza, just east of 900 East on 900 South), others are surviving with patio seating, curbside pickup, and limited indoor seating. Demand drops considerably after 8 PM, reflecting the slowed pace of dinner service in the later hours of the evening. Likewise, use of on-street parking on 900 South is extremely low after 10PM.

Community Feedback

The project team hosted small group stakeholder meetings to get additional feedback about parking issues experienced by residents and businesses in the districts. Stakeholder invitees were suggested by Community Council leaders for each study area, and represented a range of residents, business owners, property owners, and community organizations. The project team also specifically invited people who have previously identified parking as a serious issue to be addressed in the study areas. The project team hosted two meetings each for the Central Ninth district and the 9th & 9th district. The first meeting provided an opportunity for participants to share their critical parking needs, change in business due to the pandemic, truck and delivery needs, and key parking problems they felt needed to be solved. The feedback received was valuable but may not



necessarily be fully representative due to limited participation by invited stakeholders. The project team hosted one meeting with Liberty 9th district representatives – this area was originally out of the study area scope, but the project team reached out to representatives for comment after observing parking conditions in the section of 900 South from State Street to 700 East.

Central Ninth District

Parking was a source of concern among representatives of the Central Ninth district. Several common themes emerged from business owners and residents during this meeting:

- Both neighborhood residents and business owners expressed concern about the demand for parking associated with new multi-family homes (in particular, micro-unit developments: recent projects that feature small studio apartments, few amenities, no offstreet parking, and lower rental prices per unit) that are either planned or under construction in the Central Ninth district. This leads to tension in the neighborhood between new and established residents, and between residents and businesses, as microunit tenants with personal automobiles utilize the free and non-time-restricted onstreet parking.
- On-street parking is readily available outside the immediate boundaries of the Central Ninth district, but this parking is seen as less accessible or desirable because:
 - Boundary streets such as 300 West or West Temple (or the freeway ramp to the south) are large, busy streets with fast-moving traffic that are difficult to cross and feel like barriers to people walking or bicycling.
 - Encampments of people experiencing homeless have become more prevalent in the areas west of 300 West, and some business visitors may not feel comfortable parking in these areas to walk to the Central Ninth district (especially at night).
- Business is down significantly because of the COVID-19 pandemic around 60-70% depending on the business. Parking counts gathered during this time likely reflect that drop in business.
- Business owners and residents generally supported using policy strategies to manage parking supply and demand. Time restrictions, enforcement, and residential parking permits were all mentioned by residents as potential solutions.



9th & 9th District

Business owners at the 9th & 9th district were concerned about preserving business access to alleys and loading areas, and particularly about the impacts to business from construction. Some common themes heard at this meeting included:

- While some customers do walk, bike, or take transit to the area, 9th & 9th district is considered by some business owners as a regional destination. According to meeting attendees, people are currently driving here, so parking is important.
- Business activity during COVID-19 times is down about 50-75% from pre-pandemic times.
- Meeting attendees did not feel strongly that parking was a problem in the area and noted that customers to the business district can easily find plenty of free, on-street parking if they are willing to walk a block. It should be noted that this viewpoint differs from feedback that Salt Lake City's administration has received from the 9th & 9th neighborhood in the past, where residents and businesses have reported that parking is a problem.

Liberty 9th District

The Liberty 9th district extends along 900 South from State Street to 700 East. This area was not the subject of a detailed parking analysis such as those completed for the 9th & 9th or Central Ninth districts, but the project team reached out to a group of representatives after hearing feedback from the public outreach team and observing parking conditions in this segment. Business owners in the Liberty 9th district expressed a desire for more parking along the corridor. The following locations were identified by meeting participants as needing additional on-street parking:

- The area around the northeast corner of 500 East/900 South. Parking demand tends to be high around midday on weekends, and business representatives indicated they would like to see additional parking spaces added curbside in this area. The proposed design for 900 South does not include these requested spaces.
- Property and business owners near the 300 East/900 South intersection indicated that the angled parking spaces located in front of the businesses currently are very helpful, and that the landscaped park-strip can be difficult to maintain so parking would be preferred. The project team conducted a careful consideration of existing infrastructure, proposed design, crosswalks, bus stops, and driveways, and determined that it is not possible to add angled parking to 900 South in this area.
- Business owners also noted that the lack of parking striping or T-marks leads to inefficient
 use of the available parking spaces throughout the corridor, and that it would be helpful



to the businesses if the City were willing to stripe spaces. However, Salt Lake City staff have observed that at times, and in some locations, parking spaces are more efficiently utilized when unstriped than they would be if those locations were striped.

Relevant Policies

Several policies and practices affect the parking conditions on the corridor. These include specific zoning code requirements, procedures such as parking permit programs and striping and parking design standards, current time and use restrictions along and near the 900 South corridor, as well as the goals and visions of adopted citywide and neighborhood plans.

Zoning Regulations

Zoning districts throughout the corridor represent a wide range of land use types and forms, with accompanying parking regulations that dictate the minimum amount of off-street parking supply to be provided with each new development. These regulations represent the minimal amount of parking that must be built with new development; developers and private property owners are allowed to build more parking beyond the minimum if they choose. While most of the corridor has off-street parking requirements for new development, several zoning districts have specific district-wide parking requirements that are tailored to the urban form of each district and are generally lower than parking requirements in other parts of the City. These are outlined below.

- The Downtown Support zone (D-2) requires a half parking space per dwelling unit for residential uses and no minimum parking requirement for non-residential developments up to 25,000 square feet (1 space per 1,000 usable square feet thereafter). The D-2 district stretches along 900 South between West Temple and State Street.
- Form-Based Urban Neighborhood 1 and 2 (FB-UN1, FB-UN2) zones do not require any offstreet parking spaces regardless of use. Most of the Central Ninth district is zoned as FB-UN1 or FB-UN2.
- The Neighborhood Commercial (CN) zone requires 1 parking space per dwelling unit, a reduction from the standard 2 parking spaces per dwelling unit that applies generally across zoning districts. Several nodes between State Street and Liberty Park along 900 South include CN zoning. Non-residential parking space requirements are similar to those across many zoning districts, as provided in Table 21A.44.030 of the Salt Lake City Code.
- The Community Business (CB) zone around the 9th & 9th district requires 1 parking space per dwelling unit, a reduction from the standard 2 parking spaces per dwelling unit. Non-



residential parking space requirements are provided in Table 21.A.44.030 of the Salt Lake City Code.

As reflected in earlier sections, residents and business owners in the Central Ninth district expressed concern about the lack of off-street parking in their neighborhoods, which are mostly contained in the FB-UN1 and FB-UN2 zones. The boom in multi-family residential development such as microunits in the Central Ninth district, while adding density and more housing options to the area, exacerbates the imbalance between parking demand and on-street supply.

City Procedures and Policies

Salt Lake City has several procedures and policies that affect parking on the corridor. While these are not always codified or formalized, they influence parking supply management. They include the following:

- Salt Lake City does not stripe parallel or angled parking spaces outside the CBD area, to reduce maintenance costs and because marked/striped parking spaces typically indicate paid parking.
- Salt Lake City does not generally support converting green space in the park-strips to
 parking spaces. While property owners have been able to negotiate such conversions in
 the past, the City is drafting a new policy that seeks to preserve amply-sized park-strips in
 the public right-of-way, for the purpose of reducing impermeable surfaces, improving
 public tree health, reducing runoff load on public utilities, preventing the perception of
 privatizing public right-of-way space, improving air quality, and reducing demand for
 driving.
- Salt Lake City has a parking permit program, outlined in Section 12.64.101 of the Salt Lake City Code, whereby residents and businesses can receive preferential parking treatment in their neighborhoods. While several residents and business owners along the 900 South corridor felt that parking permit programs could be helpful, the City's permit program cannot address the area's problems as it is currently written. The current parking permit program is designed to prevent people from outside a neighborhood featuring large employment and traffic generators, such as hospitals, universities, sports facilities, and other large facilities, from encroaching on local neighborhood on-street parking. More information on potential parking permit program changes and solutions is provided later in this report.



Parking Signage and Restrictions

On-street parking is mostly unmarked and unrestricted throughout the corridor. Parallel parking is common, with some areas featuring parallel and angled cut-back parking. Several segments have time restrictions from 8 AM to 6 PM, especially near commercial nodes. These are typically restrictions requested by the business or property owners (past or present) and include:

- 15-minute loading zone, westbound, in front of Maud's Café (422 West)
- 2-hour time limit, eastbound 900 South, between Orchid Dynasty (365 West) and Water Witch (163 West)
- 2-hour time limit, westbound 900 South, in front of the Big O Donut Shop (248 West)
- 30-minute time limit, eastbound, in front of the (formerly) Jade Market (161 West)
- 2-hour time limit, westbound, between State Street and Edison Street
- 2-hour time limit, westbound, signed sporadically between 300 East and 500 East
- 2-hour time limit, westbound, in front of Beltex Meats and Tradition at the northwest corner of 500 East
- 2-hour time limit, eastbound, from Windsor Street to the Coffee Garden (878 East)
- 1-hour time limit, eastbound, in front of the Coffee Garden
- 1-hour time limit, westbound, between Windsor Street and 900 East
- 1-hour time limit, eastbound, not consistently marked, between 900 East and Lincoln Street
- 1-hour time limit, westbound, near Vessel Kitchen (905 East)
- 2-hour limit, eastbound, from Lincoln to 1000 East
- 2-hour limit, westbound, from 1000 East to Vessel Kitchen
- 2-hour limit, westbound, from 1000 East to 1100 East
- 2-hour limit, eastbound, on weekdays between September 1 and June 1, between 1200 East and 1300 East, except for cars with an Area 6 residential parking permit

In addition, parking is prohibited on westbound 900 South near East High School from 7 AM to 3 PM on school days to accommodate school bus parking. Parking is always prohibited on eastbound 900 South adjacent to Liberty Park.

Projected Conditions

This section describes the methodology for projecting near-term utilization of parking in the Central Ninth and 9^{th} & 9^{th} districts, acknowledging that the data gathered during the COVID-19 pandemic



will not accurately reflect parking demand once the community and the economy recover from the pandemic.

Shared Parking Methodology & Analysis

Parking data collected during the COVID-19 pandemic assumes reduced non-residential parking demand due to state recommendations to work from home, avoid public gatherings, restrict indoor dining, and maintain social distance. The project team collaborated with the Salt Lake City Transportation Division to perform a shared parking analysis of the Central Ninth and 9th & 9th districts using resources from the Urban Land Institute (ULI) Shared Parking Manual to estimate what anticipated demand might have been before and what it might be once both districts recover economically from the pandemic.

The methodology outlined in the ULI Shared Parking Manual is the national state-of-the-practice for determining parking demand within mixed-use developments. The methodology acknowledges that different land uses have different temporal demand for parking, and these demands peak at different times of day and different months of the year, allowing a broad range of land uses to share the same supply of parking spaces. The Manual helps planners estimate the peak shared demand for parking among a development's mix of uses throughout the day and year. Additional adjustments for modal shift (the percent of walking, bicycling, and transit trips) and non-captive ratios (the percent of trips where a person parks in one stall for multiple uses in the area) are accounted for in this methodology, since mixed-use development often has a higher percent of people walking, bicycling, or taking transit than single-use development.

The ULI manual includes baseline parking rates informed by parking surveys on numerous operational uses across the United States. While these are generally acceptable in many land use contexts, the baseline ULI parking rates are built on nationwide suburban area parking demands and do not perfectly mimic the unique travel patterns and different development patterns and intensities found in the two study areas. Therefore, this analysis used parking requirements outlined in Salt Lake City zoning codes for the parking generation rates. These parking requirements already account for modal shift and non-captive ratios unique to the study areas, so no further parking demand reductions were assumed. Parking demand estimates developed to understand peaks on both weekdays and weekends acknowledge that people visit various land uses differently depending on what day it is. For example, office parks are generally not busy in weekends, and restaurants are often busier at mealtimes and on weekends.



As stated in *The Dimensions of Parking, 5th Edition* (Urban Land Institute, 2010), "The level of occupancy at which optimum efficiency is achieved varies; generally, however, a parking facility operates most efficiently when occupancy is somewhere between 85 and 95 percent." In other words, while a nearly full parking lot may still have some stalls available for use, getting to those few remaining parking stalls becomes enough of an obstacle that users will feel that the parking lot is already at capacity and avoid it. To account for this effect, this analysis assumed that once 85% of the stalls in each parking lot were occupied, the lot would be considered full.

Results Summary

The parking analysis results are shown below in **Table 1**: Shared Parking Analysis Summary

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Table 1: Shared Parking Analysis Summary

	Central Ninth	9 th & 9 th
Total Parking Supply	865	1268
Shared Parking Demand -	617	744
Weekday Shared Parking	553	590
Demand - Weekend		
Estimated Peak Utilization	72%	59%

Source: Fehr & Peers.

As shown in the table, once the economy recovers fully, the 9th & 9th district parking demand still has significant room for growth before reaching the design supply. At the same time, the Central Ninth district parking demand, estimated to be 72% full following pandemic recover, is approaching the perception of existing and planned parking in the area being "full", based on the 85% threshold discussed earlier. Salt Lake City should begin strategizing ways to manage on-street parking in the Central Ninth district to mitigate negative impacts on businesses and residents. Suggested strategies are provided in the "Recommendations" section at the end of this technical memorandum.



900 South Reconstruction Parking Changes

The 900 South Reconstruction project impacts on-street parking. In some sections of 900 South, the roadway space re-allocation to the trail and greening uses will result in a loss of parking spaces. In other sections, additional parking in the median will make up for parking losses along the curb. Changes are outlined in more detail in Exhibit 4 to this memorandum.

Parking Management Strategies and Recommendations

Parking management strategy recommendations along 900 South focus on the business districts of Central Ninth and 9th & 9th. These recommendations are provided below. Due to the complex intersectionality of departmental jurisdiction over parking (and related infrastructure, management, and policies), implementing these recommendations will require coordination between multiple Salt Lake City departments. They may also require new structures and staffing to successfully execute. Some recommendations may be less popular than the status quo, and may require additional outreach, political support, and funding.

Central Ninth District

As discussed in the "Projected Conditions" section, the Central Ninth district will likely approach full utilization of its on-street public parking spaces once businesses are able to fully reopen and restabilize after the COVID-19 pandemic. According to this analysis (which assumes businesses will reopen and operate at full capacity), parking demand in the Central Ninth for all land uses will take up approximately 71% of the current on- and off-street supply. Furthermore, residential projects that are currently in planning or construction phases (and are not providing off-street parking) are not accounted for in the 71% estimate, so utilization of available parking may be higher in the near future.

While Salt Lake City is becoming a more pedestrian-friendly and transit-accessible destination to live, work, and play, this process takes time as land uses turn over, redevelop, densify, and intensify. During this transition, there will still be residents and businesses that are dependent on the use of private vehicles, especially outside the downtown core, where it may be harder to meet one's daily needs within a 15-minute walking, bicycling, or transit radius. Even if residents choose to commute on foot, on bike, or by transit, many will likely still park private vehicles at their place of residence.



Car ownership rates may also take some time to decline. In the meantime, Salt Lake City could consider the actions outlined below.

Amend the FB-UN1 and FB-UN2 zones to adjust parking requirements

Salt Lake City may wish to consider either of the following pieces of feedback received about FB-UN1 and FB-UN2 zoning in the Central Ninth area.

- 1. Applying this zoning to more, or all, applicable places in Salt Lake City, rather than concentrating the City's only "no-minimum" parking zoning (which encourages the less-expensive development of homes, a net positive for the City) in one small area bounded on all sides by large streets and structures. Feedback from stakeholders and community council meeting attendees indicated that there was less resistance to the zoning itself than its application only in Central Ninth. Residents and businesses expressed frustration with bearing the burden of being a testing ground.
- 2. The "no-minimum" parking requirements for these zones. While this district does have good access to transit, land uses in the area are not yet diverse or intense enough. Residents may not yet be able to meet daily living needs within a 15-minute walking, bicycling or transit radius. The City's policy of "no-minimum" parking requirements around the Central Ninth district allows developers to build residential units without any off-street parking (though it does not mandate a maximum of zero off-street parking), and thus all Salt Lake City residents are bearing the cost of supplying its on-street parking, a public resource, to residents of a private development free of charge. During outreach meetings, stakeholders expressed that any parking requirement above zero would be an improvement over the current situation.

Fehr & Peers conducted research on published development codes for a range of cities with high-capacity transit, to identify how peer cities handle the question of minimum parking requirements for multifamily housing at or near transit stations. These cities included Portland, Oregon; Denver, Colorado; and Alexandria, Virginia. The parking requirements for areas near transit stations are shown in Table 2 on the following page.



Table 2: Sample Parking Requirements for Multifamily Housing near Transit

Location	Code Requirements	Notes
Portland, OR ¹	 0 spaces for buildings up to 30 units .20 spaces per unit for 31-40 units .25 for 41-50 units .33 for 51+ units No parking required for non-residential uses Max of 1.35 spaces per unit for developments in mixed use areas with good transit access 	These codes apply to multi-family developments within walking distance of transit. The City of Portland does not require on-site parking for households in single-dwelling zones far from transit stations. Minimum number of parking spaces can be further reduced for affordable housing and other exceptions.
Denver, CO ²	0.75/bedroom	Denver has recently adopted form-based codes, with Downtown and Urban Center districts that resemble the Central Ninth
Alexandria, VA ³	0.8/bedroom	These requirements apply to development within walking distance of a Metro commuter rail station. Developers can get additional parking reductions for high bus access, high walkability index scores, or for inclusion of studio apartments within the product mix.

Notes:

- 1. Portland City Code, Chapter 33.266, Parking, Loading and Transportation and Parking Demand Management, accessed online 12/10/21:
 - https://www.portland.gov/sites/default/files/code/266-parking_0.pdf
- Denver Zoning Code, accessed online 3/5/21: https://www.denvergov.org/Government/Departments/Community-Planning-and-Development/Denver-Zoning-Code
- Alexandria Zoning Code, accessed online 3/5/21: https://library.municode.com/va/alexandria/codes/zoning?nodeld=ARTVIIIOREPALO_S8-200GEPARE



Readers should note that some cities around the country are opting to remove minimum parking requirements altogether, regardless of proximity to transit service.

Provide more flexibility for parking options in multifamily developments

Salt Lake City could encourage additional steps for developers to take in providing parking options to residents of new multifamily housing developments. For example, building managers could offer "unbundled" parking options to building residents, allowing them the option to pay additional monthly fees to lease an off-street parking space (either in the same building, or potentially in other buildings or lots through shared parking agreements). Additionally, building managers could provide car-share options to accommodate residents who prefer to be car-free most of the time but occasionally need access to a vehicle. This could help reduce the need for on- or off-street parking if shared vehicles were an option for residents and could be included as part of the entitlements process through Salt Lake City.

Enforce, modify, and/or expand time-based restrictions for on-street parking

For the business owners along 900 South in the Central Ninth district, on-street parking is a vital resource. As noted previously, on-street parking supply will increase by 36 spaces (net) with the new design of 900 South. Upon completion of the 900 South Reconstruction project, all on-street parking on 900 South between 300 West and West Temple will be signed as two-hour parking from 8 AM to 10 PM. Encouraging turnover of these spaces will help keep parking supply available for adjacent commercial uses. Signage will establish two-hour parking from 8 AM to 10 PM, and Salt Lake City parking enforcement officers will patrol the area to ensure that the desired turnover occurs. This will discourage commuters from using on-street parking as park-and-ride spaces for the 900 South TRAX station and will discourage residents from parking on 900 South during business hours when commercial demand exists. If increased enforcement of time restrictions is not effective in appropriately moderating parking users, the City could explore the next step of implementing a paid parking program, but this comes with a significant increase in technology investment, maintenance, City structural and financial modifications, political will, and enforcement.

Explore creating a parking permit program

Salt Lake City could consider creating a parking permit program for the Central Ninth district designed to meet its unique needs. The current Salt Lake City parking permit program is geared towards neighborhoods surrounding major employment generators with a large daily influx of commuters that impact available on-street parking on residential streets. The Central Ninth district



would not be able to meet eligibility requirements for the parking permit program as currently designed because it would not meet the threshold for non-residents parking in the neighborhood. In addition, the existing program would not solve the conflict, which is currently between residents of the same neighborhood.

If the City chooses to pursue this option, the new parking permit program should be carefully designed and tailored to the conditions of the neighborhood surrounding it. This could entail the following:

- Designating 900 South parking for business use and side streets/cross streets for residential permits at all hours;
- Controlling the number of available residential permits to avoid oversubscription to the available supply of spaces;
- Ensuring fair access to parking spaces for residents of single-family homes and multi-family homes;
- Assigning license plate numbers to specific permits to ensure that residents do not use spaces intended for businesses, and issuing parking tickets for residents that park in spaces intended for businesses; and
- Investment in parking technology to efficiently manage the program, such as using smart
 parking meters to dissuade residents from parking in commercial parking during typical
 business hours but allowing them to use those spaces overnight.

Further study may be needed to fully explore this option and its feasibility.

Establish off-site shared parking agreements

As noted previously in this report, several properties around the Central Ninth feature off-street parking lots that are unused or underutilized during the district's busier times of day. Salt Lake City and community representatives could work with private property owners and businesses to establish shared parking agreements that would allow visitors and residents in the Central Ninth access to those spaces when they are not otherwise in use. Similarly, community representatives could help business owners establish valet parking programs, where parking spaces that are typically empty in the evening and weekend hours could be utilized by the district's restaurants and bars in exchange for a portion of the valet fees. The currently-underdeveloped areas surrounding the Central Ninth often have plenty of parking available, but the walk to and from these parking



areas can be uncomfortable for business patrons, so a valet program could be particularly effective in relieving parking pressure in the heart of the Central Ninth.

Create a Transportation Demand Management program for the Central Ninth

Several of the strategies listed above can be thought of as Transportation Demand Management (TDM) strategies, which encourage different individual and group travel behaviors with the goal of reducing demand on the transportation (or parking) network. In the past, TDM strategies provided by a developer have been allowed by Salt Lake City in exchange for increased density or reduced parking. These will not be included as incentives in the proposed (2021) off-street parking ordinance. While the car-share, valet programs, and bundled/unbundled parking concepts can all be considered TDM, community representatives at the Central Ninth may wish to develop a more comprehensive approach to handling parking and transportation demand in the area, rather than at a building-by-building level. A TDM program could also include recommendations for handling special event traffic (such as community events at Spy Hop or holiday dinners at the restaurants within the Central Ninth) to mitigate impacts on the neighborhood during peak times. Additional TDM strategies could include creating carpool priority parking, curbside pick-up/drop-off zones for ride sharing companies like Uber and Lyft, bike racks, discounts for patrons that walk, bike, or take transit, or providing free transit passes (perhaps paid for by paid parking programs in the district) for employees of Central Ninth businesses to discourage them from driving to work.

9th & 9th District

Parking supply at the 9th & 9th district is currently sufficient to meet demand at this time, and this area will not lose any substantial amount of parking as part of the 900 South Reconstruction project. Given that this area is relatively stable and unlikely to experience significant amounts of redevelopment soon, the current balance of supply and demand should serve the neighborhood adequately for some time. However, Salt Lake City and the community could explore some of the following options to help resolve issues as they arise.

Enforce time-based restrictions for on-street parking, or implement paid parking

Should development patterns change substantially in this area, or should conflicts increase between residents and commercial properties, Salt Lake City could consider increased enforcement of the existing time-restricted parking spaces to make more efficient use of the supply available. Neighborhood stakeholders that participated in this study noted that there are not enough enforcement staff to monitor current issues, so additional funding may be needed from the City for



more enforcement staff. One possibility would be to implement paid on-street parking stalls and use the revenues from the stalls to fund neighborhood enhancements and additional enforcement staff. Stakeholders also noted previous neighborhood requests to simplify the time restrictions on the corridor. Spaces allowing free 15-minute parking (even if paid parking is implemented) may also be appropriate in front of businesses that have shorter visit times, such as coffee shops or takeaway restaurants.

Explore off-site shared parking

Salt Lake City and community representatives could work with private property owners and businesses to establish shared parking agreements that would allow visitors and residents in the 9th & 9th area access to those spaces when they are not otherwise in use. Similarly, community representatives could help business owners establish valet parking programs, where parking spaces that are typically empty in the evening and weekend hours could be utilized by the district's restaurants in exchange for a portion of the valet fees.

Consider expanding parking permit areas

Some streets in the 9th & 9th area already participate in a parking permit program, near Rowland Hall and East High School, to mitigate conflicts between student parking demand and neighborhood residents. Neighborhood stakeholders indicated that the current parking permit program involves several different time-specific permits (one-hour permits, two-hour permits, etc.) and that simplifying the program and modifying its qualification criteria would be helpful. Expanding the residential parking program to cover the streets most impacted by business traffic (for example, Windsor Street and Lincoln Street) may also be helpful in mitigating parking conflicts between residential and commercial uses, if future parking surveys indicate a higher-than-desired percentage of non-local traffic parking on these streets. Neighborhood representatives noted that some homes in the area have access to driveways and garages (via streets or alleys) while others were built without these amenities. The expansion of parking permit programs would need to carefully consider neighborhood needs to avoid pushing business traffic onto streets where residents rely most heavily on on-street parking. If changes are made to parking permit programs in this area, Salt Lake City may wish to take a comprehensive approach to the neighborhood to address the issues listed here and provide a more systematic way of managing needs in the neighborhood. As areas like 9th & 9th are expected to proliferate throughout the city in the future, identifying appropriate permit strategies here first may help the City stave off issues in other locations as they develop.



Exhibits

Exhibit 1: Preliminary Inventory of Off-Street Parking near Central Ninth and 9th & 9th Districts

Address	Site	Estimated	Business Hours	Potential for Shared Parking
		Spaces		
		Cen	tral Ninth District	
936 South	T.F. Brewing	8	Generally 12 PM	Low. Available off-street parking is
300 West			to 11 PM	limited and business hours cover
			weekdays, 12 PM	multiple time periods throughout the
			to 12 AM	day.
			weekends	
NW corner of	Fleet Block,	20+	NA	High. Parcel is part of the Fleet Block,
300 West/900	Salt Lake City			planned for redevelopment. Potential
South	Corporation			shared parking needs could be
				planned into the redevelopment.
909 South	Tacos Garay	10	9 AM – 6 PM	Medium. Hours could be conducive
300 West			daily	to sharing with overnight parking or
				evening visitors to Central Ninth, but
				supply is limited and ill-defined with
				neighboring lots.
921 South	Trails	50	12 PM – 2 AM	Low. Business hours cover multiple
300 West	Gentleman's		daily	time periods throughout the day.
	Club			
271 West 900	Utah Village	10	24 hours/day	Low. Business hours are all day.
South	Motel			
248 West 900	The Big O	~5	Generally 7 AM –	Medium. Hours could be conducive
South	Doughnuts		3 PM, closed M/T	to sharing with overnight parking or
				evening visitors to Central Ninth, but
				supply is limited.
260 West 900	Js Automotive	~12	NA	Low. Spaces are used for overnight
South	Repair			storage of vehicles under repair.
234 West 900	Vertical Diner	~6	9 AM – 10 PM	Low. Business hours cover multiple
South			daily	time periods throughout the day.



208 West 900	Spy Hop	~8	9 AM – 5 PM	Medium. Hours could be conducive
South	эру пор			
South			weekdays	to sharing with overnight parking or
				evening visitors to Central Ninth, but
				supply is limited.
231 West 800	Ward	~80	8 AM – 5 PM	High. Hours could be conducive to
South	Engineering		weekdays	sharing with overnight parking or
				evening visitors to Central Ninth. Part
				of the lot is already self-serve pay-by-
				the-hour spaces.
906 South	Former dry	~20?	NA	Medium. Redevelopment of site is
200 West	cleaner	Difficult to		anticipated; shared parking
	(burned	tell		arrangements could potentially be
	down)			negotiated as part of redevelopment
				plans.
926 South	Wasatch	~40	NA	Low. Lot likely used for storage of
Jefferson	Meats			delivery trucks during non-business
Street				hours.
NW corner of	Property	~15	NA	Medium. Depends on the land use,
900 South	owner is			which is unclear. Parkstrip is currently
and Richards	University of			being used for camping.
Street	Utah, unclear			
	what the land			
	use is			
55 West 900	AllenComm	~75	8AM – 5PM	Medium. Hours could be conducive
South			weekdays	to sharing with overnight parking or
				evening visitors to Central Ninth but
				it is a considerable walking distance
				from current Central Ninth
				boundaries and the lot is gated and
				locked at night.
30 West 900	Premier	~45	9AM – 5PM	High. Hours could be conducive to
South	Diagnostics		weekdays	sharing with overnight parking or
	(former Pier			evening visitors to Central Ninth but
	One store)			it is a considerable walking distance
	one store)			from current Central Ninth area,
				through an environment that is not



				friendly to people walking, bicycling,
				or taking transit.
SW corner of	Multiple	~60	NA	Medium. Not clear which parking
900 South	owners; large			spaces belong to which land uses.
and Main	parking areas			More discussions with property
Street	behind			owners and business owners would
J	several			be needed.
	buildings			be needed.
	Dananigs	9	th & 9 th District	
705 East 900	Graham	~15	8:30AM – 5PM	Medium. Hours could be conducive
South	Orthodontics	~ 15	0.30AIVI — SFIVI	to shared parking for evening visitors
South	Orthodontics			
801 East 900	Life in Christ	20	C ' 10.20	to 9 th & 9 th , but supply is limited.
		~30	Services at 10:30	High. Site is close to business areas
South	Reformed		AM Sundays	and hours are conducive to shared
	Church			parking arrangements.
847 South 800	Unknown	~20	NA	Medium. Land use is uncertain but
East				SLC Open Data indicates a permit
				pulled in late 2020 for a commercial
				building. May be possible to
				negotiate shared parking agreements
				with owner.
876 East 800	Parking lot at	~10	NA	High. Lot is owned by Smith's, signed
South (parcel	approximately			as shared parking for "9 th & 9 th
address)	849 East 900			Center", so already used as shared
	South			parking for the business district.
859 East 900	Barbacoa	~18	10:30AM - 9PM	High. Lot is signed as parking for "9 th
South			weekdays, 11AM	& 9 th Center" and is already used as
			– 8PM weekends	shared parking for the business
				district.
867 East 800	Smith's	~330	6AM – 11PM	High. Smith's ownership has already
South	grocery store			discussed possibilities for shared
				parking agreements with SLC,
				specifically for spaces along west side
				of lot which are less frequently used.
916 South 900	Tower	~15	6AM – 7PM for	Medium. Supply is limited but the
East	Theater,		Coffee Garden,	area is already signed as shared
	Coffee		evenings daily for	



	Garden,		Tower Theater,	parking (although for specific
	Cahoots		10AM – 9PM daily	businesses).
			for Cahoots	
909 South 900	Dolcetti	~24	6AM – 10 PM	Medium. Supply is limited but the
East	Gelato, Great		among various	area is already signed as shared
	Clips,		uses	parking (although for specific
	Centered City			businesses).
	Yoga, Warby			,
	Parker			
848 – 856	Rowland Hall-	~48	8AM – 4:30 PM	Medium. Signed as private parking
South Lincoln	St. Mark's		weekdays	for Rowland Hall, but may be
Street				generally unused during non-school
				hours, days, and seasons.
952 East 900	University	~26	7AM – 7PM	Medium. Overlap of hours with peak
South	Veterinary		weekdays, 8AM –	times for the business district.
	Hospital		2PM Saturdays	
965 East 900	Title Nine	~9	11 AM – 5 PM	High. Site is close to business areas
South			Monday –	and hours are conducive to shared
			Saturday	parking arrangements for evening
				use.
843 South	Rowland Hall-	~45	8AM - 4:30 PM	Medium. Signed as private parking
Lincoln Street	St. Mark's		weekdays	for Rowland Hall, but may be
				generally unused during non-school
				hours, days, and seasons.
989 East 900	Contender	~18	9AM – 7PM	Medium. Overlap of hours with peak
South	Bicycles		Monday through	times for the business district.
			Saturday	
1085 East 900	The Bridal	~15	11AM – 6PM	Medium. Overlap of hours with peak
South	Studio		Tuesday through	times for the business district.
			Saturday	



Exhibit 2: Corridor Parking Supply and Demand

The 900 South Reconstruction project will change the design of the street and some parking spaces.

The maps below show the percent of on-street parking that was used during the corridor's busiest hour of a typical weekday and a typical weekend day.

Salt Lake City gathered parking counts in September 2020 to observe how much parking was being used, and adjusted that observation to account for pre-COVID conditions. Special attention was paid to parking demand in the Central Ninth District and the 9th & 9th District, given the higher concentration of commercial activity in those districts when compared to the rest of the corridor.



Peak Hour (Weekend: 6PM - 7 PM)



Parking needs in the Central Ninth District peaked at a different time of day than the 900 South corridor as a whole.



In the Central Ninth, weekday parking demand was highest during the lunch hour and immediately afterward, reflecting visitors to restaurants and other businesses in the area.



Parking demand was also high late at night, particularly on residential side streets such as Washington Street and Jefferson Street, when people are home for the night.



New multi-family homes in the On weekends, Central Ninth Central Ninth have been built without off-street parking, and this contributes to the high demand for on-street parking throughout the district.



parking demand was strongest during the morning and late evening hours, likely reflecting local residents parking on streets near their homes, as well as evening patrons to local bars along 900 South.

Parking needs in the 9th & 9th District peaked consistently between 6PM - 7PM, whether weekday or weekend.



The district is a popular location for entertainment and community gathering, with many restaurants within a block or two of the 9th & 9th intersection.



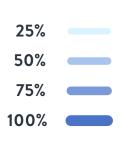
Demand for on-street parking generally remains strong through the evening hours, but drops significantly after 9PM on weekdays and 10PM on weekends.



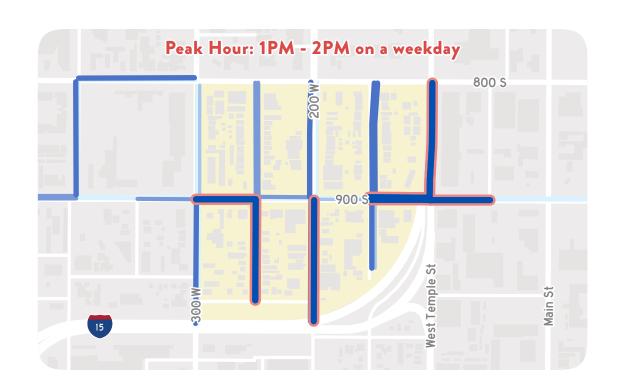
This district has fewer bars and nightlife activities than Central Ninth, and so its demand for public on-street parking ends relatively early.

Exhibit 3: District Parking Supply and Demand

Central Ninth District



>100%





100%

>100%





Exhibit 4: Reconstruction Design Impacts to On-Street Parking

Segment	Reason for Change	Degree of Change
900 West to 800 West	Parking repurposed westbound to match corridor alignment west of 900 West. Eastbound, underutilized parking repurposed to narrow roadway width.	Roughly 34 parking spaces will be repurposed in this block.
800 West to 700 West	Westbound and eastbound on- street parking will be repurposed to accommodate a mid-block crossing.	Roughly six parking spaces will be repurposed in this block.
700 West to 600 West	Parallel parking stalls added eastbound	Roughly five parking spaces will be added eastbound in this block.
600 West to 500 West	One space will be repurposed eastbound to accommodate an improved pedestrian crossing.	One parking space will be repurposed eastbound in this block.
500 West to 400 West	Parking will be repurposed to accommodate narrower street and parking will also be added near intersections.	One parking space will be repurposed eastbound in this block.
400 West to 300 West	Westbound parking will be repurposed to accommodate a transition to angled parking. Eastbound, parking is repurposed to accommodate	Three parking spaces will be repurposed in this block.



	transition into Central Ninth district, and parking is added near two driveways.	
300 West to 200 West	Curbside parking replaced with median parking.	Roughly 25 parking spaces will be added in this block.
200 West to West Temple	Curbside parking replaced with median parking.	Roughly 12 parking spaces will be added in this block.
West Temple to Main Street	Parking repurposed to accommodate transition into the Central Ninth district, and to create space for the trail.	Roughly 10 parking spaces will be repurposed in this block.
Main Street to State Street	Eastbound parking repurposed to accommodate right turn lane at State Street.	Roughly seven parking spaces will be repurposed in this block.
State Street to 200 East	Eastbound, some parking is added near the 200 East intersection, and in other locations parking is repurposed as green space where existing parking is too close to intersections.	Roughly five parking spaces will be added in this block.
200 East to 300 East	Eastbound parking is added near 200 East.	Three parking spaces will be added in this block.
300 East to 400 East	Parking repurposed in both directions to accommodate bus	Two parking spaces will be added in this block.



	stops and added in some locations where a lane reduction allows for on-street parking.	
400 East to 500 East	Parking added in both directions due to lane reduction.	Roughly five parking spaces will be added in this block.
500 East to 600 East	No change in parking.	
600 East to 700 East	No change in parking.	
700 East to 800 East	One parking space added eastbound due to lane reduction.	One parking space will be added in this block.
800 East to 900 East	Parking stalls repurposed in both directions to accommodate bus stops, and additionally in the eastbound direction to ensure safe transition into the 9th & 9th district, as well as to preserve trees while accommodating the trail.	Roughly seven parking spaces will be repurposed in this block.
900 East to Lincoln Street	Eastbound parking repurposed to accommodate bus stop.	Two parking spaces will be repurposed in this block.