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#### Memorandum

To: South Salt Lake City Council

From: Michael Florence, Community and Economic Development Director

Date: February 5, 2016 RE: Development Parking

Council members:

At the 27, January 2016 City Council Meeting the request was made to provide examples of developments that are parked similar to the proposed S-Line Townhomes that the council members could visit. Attached are developments that have been constructed in South Salt Lake and also Salt Lake City with accompanying parking numbers and ratios. Also included, for your reference, are developments that the city council and planning commission have recently approved near transit but have not yet been constructed.

Regarding requirements for parking found in the municipal code that the council should apply when reviewing this development, there are two appropriate codes:

- 1. East Streetcar Neighborhood Form Based Code. Prior to this code being adopted the Community and Economic Development Department paid to have a parking study completed and recommendations provided for parking standards near transit. Hales Engineering conducted the study of transit oriented and non-transit oriented developments around Salt Lake County. Hales Engineering's recommendation was that 1.5 stalls per unit would be sufficient and if amenities were added to developments such as bike lockers, transit passes, and other amenities as provided in the code, that parking could be reduced to 1.2 stalls per unit. Hales Engineering also provided a table of parking ratios of different municipalities from across the country for development constructed near transit. The parking study is also attached to this document. The City Council adopted the 1.5 stalls per unit standard for the East Streetcar District.
- 2. Title 15 Planned Unit Development Code. Because the proposal before for the City Council is to approve this development as a Planned Unit Development (PUD), the subdivision code Title 15.12.850 should also be applied. The PUD ordinance requires the following:
  - a. (A)(3) All planned unit developments must provide appropriate off-street parking for each lot and/or unit in the development. Except for those projects containing multiple-unit buildings and other exceptions, spaces for two vehicles side by side per unit shall be the normal condition.
  - b. (A)(5) In primarily multiple-unit PUD subdivisions (meaning those with primarily buildings containing multiple units), two parking spaces per unit shall be provided with one space being covered by an approved carport. Additional parking stalls (guest or RV parking) may be required by the city based on review of the site amenities, access conditions and other factors appropriate to the project.

Following both the East Streetcar Neighborhood Form Based Code and Title 15 of the PUD code it appears that the development meets the minimum standard for parking requirement. However, Title 15 does allow the City Council discretion in requiring additional guest stalls as part of the Title 15 PUD review based on site amenities, access conditions and other factors appropriate to the project.

For the Councils reference, I have included the requirements for parking in the East Streetcar District in this document and the full document can be found at the following link: http://www.sslc.com/uploads/documents/East Streetcar FBC 2014.pdf.

#### **Applicant Information**

The developer has provided additional rendering of the development and also provided the following email regarding their development on 1700 S. 900 E. and another of their developments to visit as you consider their proposal.

"...The development on 1700 S. 900 E. has no visitor parking on site, and on street parking is limited in that area; however the tenants are extremely happy with their units and there is even a wait list.

As one more example, although it is not apples to apples, we built a stacked apartment project at 520 East 500 South, downtown Salt Lake City. The site is one block west of Whole Foods, and 1 1/2 block south of a 400 South trax line. That project has a 1:1 parking ratio and about 80% of our parking stalls are used. The tenants love the access to the Trax line and grocery stores, and subsequently not every tenant needing a car to get their basic transportation needs and fulfill regular store, work, and social visits. We feel the subject site in South Salt Lake City, with its proximity to the S-Line and Grocery Stores to the East and soon to the West, will provide a similar situation for tenants. We also believe that there is potential for an over-parking situation there (with some tenants not even using the two spaces in their garage). Of course there will always be peak moments of high parking volume where visitor parking is at a premium, like during the super bowl, or birthday parties; however, in these cases it is industry norm to not provide parking for these rare occasions because then projects tend to have unattractive large parking lots rather than nicely designed landscape areas and density. And they tend to attract tenants with a lot of cars, ironically."

## 8.0 Parking

#### 8.1 General Requirements.

#### 1. Intent.

Parking requirements are established to accomplish the following:

- Ensure an appropriate level of vehicle parking, loading, and storage to support a transit-oriented development neighborhood.
- (2) Provide appropriate site design standards to mitigate the impacts of parking lots on adjacent land uses and zoning districts.
- Provide specifications for vehicular site access.

#### 2. Applicability.

This section shall apply to all new developments and changes in use or intensity of use for existing development, in any subdistrict.

- (1) Damage or Destruction. When a use that has been damaged or destroyed by fire, collapse, explosion, or other cause is reestablished, any associated off-street parking spaces or loading facilities must be re-established based on the requirements of this section.
- (2) Site Plan Approval Required. Parking quantities, design, and layout shall be approved through the development application process and meet the standards of the current parking chapter with the following exceptions:
  - (a) The standard requirement for residential parking is 1.5 stalls per unit. Parking requirements for all other uses can be found in chapter 17.27 of the South Salt Lake City Municipal Code. The Land Use Authority may consider increases or reductions to standards outlined in Table 8.1 (1), up to 20% of the standard requirement.
- (3) Unless otherwise stated in this chapter, all requirements of the South Salt Lake City Municipal Code pertaining to parking and access requirements shall apply.

#### Table 8.1 (1). Eligible Parking Rate Reductions Recommended Reduction Amenity (stalls/unit) Car Share (limit 1 car/100 units) 0.05 0.1 Unbundled Parking (100%) Bike Share Bike Lockers/Storage 0.05 Development Supplied Transit Passes 0.15 0.2 Senior Housing Student Housing (< .25 miles from 0.1 Project Controlled On-Street Parking 0.1 Source: Hales Engineering, 2014

#### 3. Dedicated Visitor Parking.

Developers shall clearly indicate the location of dedicated visitor parking through directional signage, marked stalls, or other means to be determined in site plan review.

#### 4. Parking Spillover Management Plan.

For developments requiring a conditional use permit, the Land Use Authority shall require a parking spillover management plan for peak demand periods.

#### 5. Vehicular On-Street Parking.

On-street parking, as permitted on designated street types, shall meet the following requirements. Refer to Figure 8.1 (1)

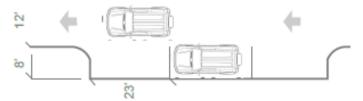


Figure 8.1 (1) On-Street Parking Dimensions.

- Parallel parking is permitted on designated street types and shall not be striped.
- (2) Vehicular Parking Space Dimensions. The appropriate dimensions for on-street parking spaces are 23' by 9' when gutter is required and 23' by 8' when no gutter is required.
- (3) On-street parking located directly adjacent to the site's property lines may be counted toward meeting the development's parking requirement, especially for visitor or on-site business related parking demand.

#### Stormwater Management in Parking Lots.

Incorporation of stormwater management best practices is required, such as incorporating drainage swales and slotted curbs in medians and islands in the Landscape Zone in parking lots. Final design shall

50 SEPTEMBER 2014





## **Similar Development Comparisons**

## Waverly Station – 3705 S. West Temple

**Number of Units: 159** 

Number of Parking Stalls: 473 stalls (including visitor stalls)

**Visitor Parking:** 89 visitor stalls

Ratio: 2.9 stalls per unit

## Plymouth Townhomes – 3750 S. West Temple

**Number of Units: 46** 

Number of Parking Stalls: 104 (including visitor stalls)

**Ratio: 2.2** 

**Visitor Parking: 12** 



## Markea Court - 250 S. 700 E.

Number of Units: 13

**Number of Parking Stalls:** 26 (two car garage)

Visitor Parking: 0

**Ratio:** 2.0



## Blue Koi – 1700 S. 900 E. (same developer as S-line townhomes)

**Number of Units: 20** 

**Number of Parking Stalls:** 26 (two car garage)

Visitor Parking: 0

**Ratio: 2.0** 



## 2204 S. 800 E.

**Number of Units: 4** 

Number of Parking Stalls: 8 (two car garage)

Visitor Parking: 2

**Ratio: 2.5** 



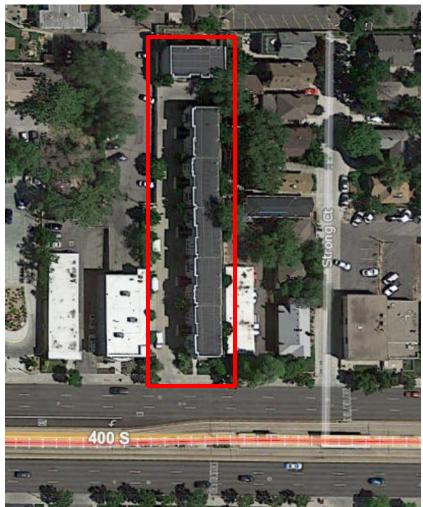
## Stanford Court - 829 E. 400 S.

Number of Units: 13

Number of Parking Stalls: 26 (two car garage)

**Visitor Parking:** 6

Ratio: 2.4



## **South Salt Lake Transit Oriented Development Parking Comparisons**

## Zellerbach Development – 2255 S. 300 E. (not yet constructed but approved)

**Number of Units**: 292

**Number of Parking Stalls:** 468 Stalls – 386 in the parking structure, 62 on-site surface stalls, 20 stalls combined stalls on 300 E. and 400 E.

**Visitor Parking:** Under the East Streetcar Form Based Code the adopted parking standard does not break out tenant/owner and visitor stalls. The parking requirement is based on stalls per unit

Ratio: 1.6 per unit

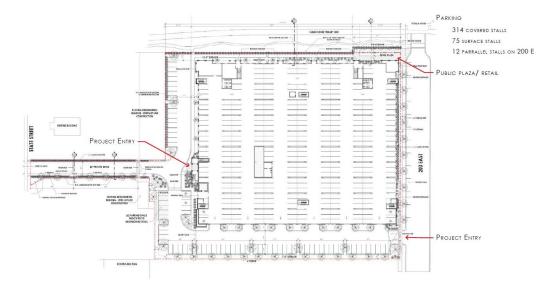


### Ritz Classic Development -2265 S. State (not yet constructed but approved)

**Number of Units**: 287

Number of Parking Stalls: 401 stalls - 314 stalls on the ground level under the building, 75 on site stalls outside the building and 12 stalls along 200 E.

**Visitor Parking**: of the 401 stalls the applicant for this development is designating 31 stalls for visitors **Ratio**: 1.4 stalls per unit



## Lofts at Meadowbrook – 3808 S. West Temple

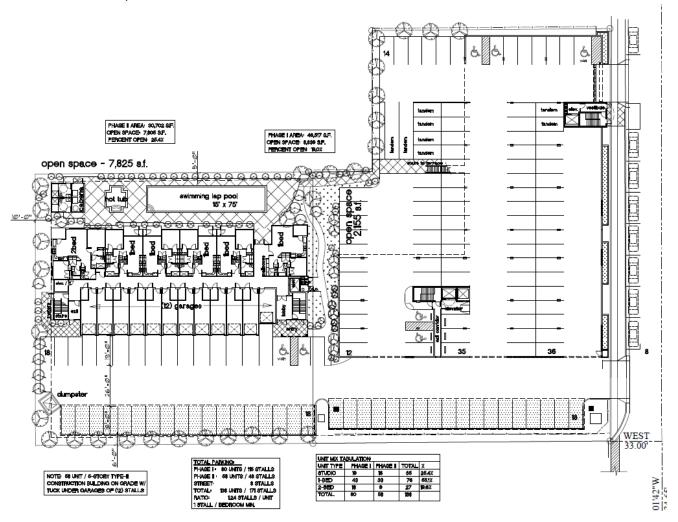
**Number of Units: 80** 

Number of Parking Stalls: 119 stalls

Visitor Parking: Parking is calculated as an overall ratio for the development. There is not requirement

for separate visitor parking stalls just that they are marked

Ratio: 1.2 stalls per unit



## Central Pointe Condos – 2150 S. Main

Number of Units: 76
Available Parking: 107

Visitor Parking: combined with overall parking

Ratio: 1.4

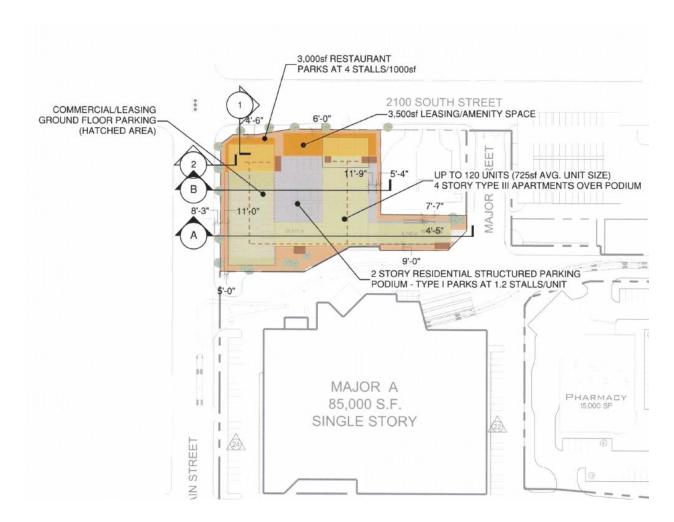


## The Crossing - 2100 S. Main (not yet constructed but approved)

**Number of Units:** 120 Units, 5,000 sq ft of commercial **Number of Parking Stalls:** 144 residential, 20 commercial

Visitor Parking: combined with overall parking

**Ratio:** 1.2



## The Crossing – 50 E. Central Pointe Place (not yet constructed but approved)

**Number of Units: 157** 

**Number of Parking Stalls: 188** 

Visitor Parking: Combined with overall parking

**Ratio:** 1.2





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#### **MEMORANDUM**

Date: August 5, 2014

To: South Salt Lake

From: Ryan Hales, PE, PTOE, AICP

Subject: Street Car Adjacent Apartments Parking Study

UT14-624

#### Multi-family Parking Demand Rates (Salt Lake Valley)

In an effort to identify an existing / acceptable parking demand rate for multi-family projects, Hales Engineering studied sixteen projects within the Salt Lake Valley to better understand the parking supply and demand at these locations and to draw conclusions about parking rates near the Streetcar line in South Salt Lake. Twelve of these sites are typical apartment complexes, while four were identified as "Transit Friendly" sites. Data was collected at study locations in South Salt Lake on Wednesday August 6, 2014 and Thursday, February 20, 2014, Herriman on June 19, 2014, and around the Salt Lake Valley on early Thursday, November 1, 2012. The data collection times were all between 12:00 am and 4:00 am, as this is the time when the majority of tenets are home for the night and parking demand is at its greatest according to the Institute of Transportation Engineers (ITE), *Parking Generation*, 4<sup>th</sup> Edition, 2010.



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#### **Data Collection / Study Locations**

#### **Timbergate Apartments**

The Timbergate apartments are located at 5605 West 11830 South in Herriman, Utah and consist of 176 two-bedroom units, and 112 three-bedroom units for a total of 288 units (see Figure 1). During our data collection, it was observed that 402 parking stalls were occupied, 177 were empty, 6 cars were parked on the street, and there were no garages within this project, for a parking supply of 579 spaces.

- 1. Supply (striped parking stalls or carports on-site) = 2.01 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.46 stalls / occupied unit
- 3. 289 stalls were covered of the 579 stalls on site = 50% covered stalls



Figure 1: Timbergate Apartments - Herriman, Utah



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#### **Farmgate Apartments**

The Farmgate apartments are located at 5675 West 11840 South in Herriman, Utah and consist of 96 one-bedroom units, 272 two-bedroom units, and 128 three-bedroom units for a total of 496 units (see Figure 2). During our data collection, it was observed that 665 parking stalls were occupied, 206 were empty, there were 25 cars parked on the street, and there were 121 garages within this project, for a parking supply of 992 spaces.

- 1. Supply (striped parking stalls or carports on-site) = 2.00 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.72 stalls / occupied unit
- 3. 476 stalls were covered of the 992 stalls on site = 48% covered stalls



Figure 2: Farmgate Apartments - Herriman, Utah



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#### **Mission Meadowbrook Apartments**

The Mission Meadowbrook apartments are located at 820 West Timbercreek Way in South Salt Lake, Utah and consist of 365 one-bedroom units and 47 two-bedroom units for a total of 412 units (see Figure 3). During our data collection, it was observed that 427 parking stalls were occupied, 361 were empty, there were no cars parked on the street, and there were eight (8) functioning garages that were closed.

- 1. Supply (striped parking stalls or carports on-site) = 1.93 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.10 stalls / occupied unit
- 3. 421 stalls were covered of the 788 stalls on site = 53% covered stalls



Figure 3: Mission Meadowbrook Apartments - South Salt Lake, Utah



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#### **Mountain Shadows Apartments**

The Mountain Shadows apartments are located at 3825 South 700 West in South Salt Lake, Utah and consist of 80 one-bedroom units, 132 two-bedroom units, and 50 three-bedroom units for a total of 262 units (see Figure 4). During our data collection, it was observed that 313 parking stalls were occupied, 229 were empty, and there were six (6) cars parked on the street.

- 1. Supply (striped parking stalls or carports on-site) = 2.09 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.28 stalls / occupied unit
- 3. 217 stalls were covered of the 542 stalls on site = 40% covered stalls



Figure 4: Mountain Shadows Apartments - South Salt Lake, Utah



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#### **Egate Apartments**

The Egate apartments are located at 2292 W. Ruddy Way in West Valley City, Utah within the Salt Lake Valley, and consist of 128 two-bedroom units and 176 three-bedroom units for a total of 304 units (see Figure 5). During our data collection, it was observed that 468 parking stalls were occupied, 83 were empty and there were 13 vehicles parking adjacent to the curb within the complex. An additional off-site overflow parking area was located close to the project and 22 vehicles were parked within this lot when counted.

- 1. Supply (striped parking stalls on-site) = 1.81 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.73 stalls / occupied unit
- 3. 127 stalls were covered of the 551 stalls on site = 23% covered stalls



Figure 5: Egate Apartments - West Valley City, Utah



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#### San Marino Apartments

The San Marino apartments are located at 776 West Grande Rose Way, South Jordan, Utah within the Salt Lake Valley, and consist of 112 one-bedroom units, 187 two-bedroom units and 21 three-bedroom units for a total of 320 units (see Figure 6). During our data collection, it was observed that 335 parking stalls were occupied, 145 were empty and there were 87 garages with 23 vehicles parked in the driveways and 9 vehicles parking adjacent to the curb within the complex.

- 1. Supply (striped parking stalls on-site) = 2.04 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.48 stalls / occupied unit
- 3. 308 stalls were covered of the 567 stalls on site = 54% covered stalls



Figure 6: San Marino Apartments - South Jordan, Utah



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#### **San Moritz Apartments**

The San Moritz apartments are located at 7625 S. Ropekey Drive, Midvale, Utah within the Salt Lake Valley, and consist of 168 one-bedroom units, 195 two-bedroom units and 21 three-bedroom units for a total of 390 units (see Figure 7). During our data collection, it was observed that 334 parking stalls were occupied, 140 were empty and there were 154 garages with 51 vehicles parked in the driveways and 80 vehicles parking adjacent to the curb within the complex.

- 1. Supply (striped parking stalls on-site) = 2.01 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.74 stalls / occupied unit
- 3. 364 stalls were covered of the 628 stalls on site = 58% covered stalls



Figure 7: San Moritz Apartments – Midvale, Utah



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#### San Tropez Apartments

The San Tropez apartments are located at 11747 South Siracus Drive, South Jordan, Utah within the Salt Lake Valley, and consist of 88 one-bedroom units, 141 two-bedroom units and 21 three-bedroom units for a total of 250 units (see Figure 8). During our data collection, it was observed that 234 parking stalls were occupied, 93 were empty and there were 93 garages with 39 vehicles parked in the driveways and 21 vehicles parking adjacent to the curb within the complex.

- 1. Supply (striped parking stalls on-site) = 2.05 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.68 stalls / occupied unit
- 3. 275 stalls were covered of the 420 stalls on site = 65% covered stalls



Figure 8: San Tropez Apartments - South Jordan, Utah



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#### **Coppergate Apartments**

The Coppergate apartments are located at 8870 South State Street, Sandy, Utah, and consist of 148 two-bedroom units and 44 three-bedroom units for a total of 192 units (see Figure 9). During our data collection, it was observed that 208 parking stalls were occupied, 200 were empty and there were 19 garages with 32 vehicles parking adjacent to the curb within the complex.

- 1. Supply (striped parking stalls on-site) = 2.22 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.42 stalls / occupied unit



Figure 9: Coppergate Apartments - Sandy, Utah



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#### **Liberty Bend**

The Liberty Bend apartments are located at 1048 East Liberty Bend Lane, Sandy, Utah within the Salt Lake Valley, and consist of 93 units, 36 apartments and 57 townhome units (see Figure 10). During our data collection, it was observed that 66 parking stalls were occupied, 27 were empty, and there were 82 garages with 2 vehicles parked in the driveways, and 25 vehicles parking adjacent to the curb near the complex.

- 1. Supply (parking stalls on-site) = 2.23 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.94 stalls / occupied unit



Figure 10: Liberty Bend Apartments / Townhomes - Sandy, Utah



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#### **Liberty Commons Apartments**

The Liberty Commons apartments are located at 2785 S. Winstead Way, West Valley City, Utah within the Salt Lake Valley, and consist of 209 units (see Figure 8). During our data collection, it was observed that 131 parking stalls were occupied, 81 were empty and there were 185 garages with 0 vehicles parked in the driveways and 70 vehicles parking adjacent to the curb within the complex.

- 1. Supply (striped parking stalls on-site) = 2.20 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.40 stalls / occupied unit



Figure 11: Liberty Commons Apartments – West Valley City, Utah



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#### **Lionsgate Apartments**

The Lionsgate apartments are located at 136 W Fireclay Avenue, Murray, Utah within the Salt Lake Valley, and consist of 400 units (see Figure 12). During our data collection, it was observed that 522 parking stalls were occupied, 114 were empty and there were no garages and 242 vehicles parking adjacent to the curb within or near the complex.

- 1. Supply (striped parking stalls on-site) =
- 1.59 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 2.03 stalls / occupied unit



Figure 12: Lionsgate Apartments - Murray, Utah



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#### **Data Collection Summary**

Within the Farmgate, Mission Meadowbrook, Coppergate, San Marino, San Moritz, San Tropez, Liberty Bend and Liberty Commons projects, each had closed garages that could not be counted. In order to provide a conservative estimate it was assumed that every garage space was being used for a vehicle. The following demand at the various apartment complexes was calculated:

1.46
1.72
1.10
1.28
1.73
1.48
1.74
1.68
1.42
1.94
1.94
2.03

1.63 Average parking demand / occupied unit (12)

#### **Transit Friendly Parking Rates**

The sites detailed above are typical apartment complexes across the Salt Lake Valley. The following sites were identified as being "Transit Friendly" by being located near transit stations and encouraging alternative modes of transportation. These sites include the Birkhill Apartments, 21 and View, Brickstone Apartments, and 2550 South Main.



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#### **Birkhill Apartments**

The Birkhill apartments are located at 16 Gilbride Avenue, Murray, Utah within the Salt Lake Valley, and consist of 202 units (see Figure 13). During our data collection, it was observed that 250 parking stalls were occupied, 117 were empty and there were 26 garages with 2 vehicles in the driveways and 64 vehicles parking adjacent to the curb within or near the complex. The project appears to be over-parked as 65 additional units are under construction and will be rented by Aug. 2014. The Murray North (4400 South) TRAX Station is located nearby along with the 200, 205, 45, 47 and 228 bus lines.

The following conclusions can be made:

- Supply (striped parking stalls on-site) =
- 2.87 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 2.48 stalls / occupied unit



Figure 13: Birkhill Apartments - Murray, Utah

Due to the current construction of 64 additional units (and no additional parking stalls) at the Birkhill apartments, this location was not used in the average rate calculation of "Transit Friendly" sites. Parking conditions will change as the units become available, so the parking rates here would not reflect the actual conditions.



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#### 21 and View Apartments

The 21 and View apartments are located at 2070 South View Street, Salt Lake City, Utah within the Salt Lake Valley, and consist of 29 units (see Figure 14). During our data collection, it was observed that 38 parking stalls were occupied, 10 were empty and there were no garages and 0 vehicles parking adjacent to the curb within or near the complex. Although curb parking was occupied, it appeared to be used by the adjacent restaurant. The 220, 21, and 213 bus lines run near the site and the end of the street car line is a few blocks away.

- 1. Supply (striped parking stalls on-site) = 1.66 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.36 stalls / occupied unit



Figure 14: 21 and View Apartments - South Salt Lake, Utah



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#### **Brickstone Apartments**

The Brickstone apartments are located at 220 East 3300 South, South Salt Lake, Utah within the Salt Lake Valley, and consist of 100 units (see Figure 15). During our data collection, it was observed that 76 parking stalls were occupied, 84 were empty and there were 60 garages and 0 vehicles parking adjacent to the curb within or near the complex. The manager estimated that approximately 50% of the garages were used for parking and the other 50% were used for storage. The Millcreek (3300 South) TRAX station is about 0.65 miles to the west and the 200, 205, and 33 bus lines run near the development.

- 1. Supply (striped parking stalls on-site) = 2.20 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.40 stalls / occupied unit



Figure 15: Brickstone Apartments - South Salt Lake, Utah



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#### 2550 South Main

The apartments at 2550 South Main, South Salt Lake, Utah are located within the Salt Lake Valley, and consist of 112 units (see Figure 15). During our data collection, it was observed that 78 parking stalls were occupied, 24 were empty and there were 68 garages with 34 vehicles parked in the driveway outside of the garage. There were 10 vehicles observed parking on-street adjacent to the complex. The 200 bus line runs near the development. The Central Pointe (2100 South) TRAX station is located less than a mile away.

- 1. Supply (striped parking stalls on-site) =
- 2.13 stalls / unit
- 2. Demand (total parked vehicles on-site and off-site) = 1.71 stalls / occupied unit



Figure 15: 2550 South Main – South Salt Lake, Utah



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#### "Transit Friendly" Data Collection Summary

The following demand at the various "Transit Friendly" apartment complexes was calculated:

21 and View parking demand = 1.36 Brickstone parking demand = 1.40 2550 South Main parking demand = 1.71

1.49 Average parking demand / occupied unit (3)

#### **National Parking Rate Summary**

Hales Engineering conducted a review of parking studies and city codes specific to Transit-Oriented Developments (TODs) across the country. Studies included locations in California, Oregon, Wisconsin, Minnesota, and Virginia. Parking rates at these sites ranged from 0 stalls / unit to 1.59 spaces / unit. Other cities offer a percent reduction for a TOD, ranging from 10 – 22.8 percent. Provo city code allows a parking rate of 0.70 stalls / student tenant south of BYU campus. Additionally, Provo city code states that in a TOD zone, only 50 percent of the parking that is typically required within the municipal code is needed at a TOD site. Parking for residential uses on a fifth and sixth story may be reduced to 25 percent of the parking otherwise required. Provo also does not require parking for the first 2,500 square feet of retail or restaurant uses located in a building that consists of at least 50 residential units in a TOD zone.

There are several locations in Portland, Oregon where developments were allowed a 0 stalls / unit parking rate. These developments rely solely on transit or bicycle travel. Numerous sites studied in California showed a demand of only 1.07 stalls / unit. The parking studies are summarized in the appendix.

Additional amenities may also be defined as a way to reduce parking. For example, supplying a car share or a bike share on site may allow for a parking reduction. Another more aggressive parking reduction strategy would be to unbundle parking from the unit. Unbundled parking is when a tenant pays a fee or "buys" a parking stall separate from the unit. This incentivizes tenants to not use parking, or attracts tenants that do not rely on cars for transportation.

#### **Conclusions and Recommendations**

Hales Engineering recommends that a parking rate of 1.4 stalls / unit be used for sites near transit (such as the streetcar in South Salt Lake). Parking counts collected throughout the Salt Lake Valley show that the parking demand at apartment complexes near transit stations are lower than a typical apartment complex. Additionally, studies throughout the Country confirm that parking demand near transit stations is lower.

Additionally, parking reductions could be considered for additional amenities. Some examples of amenities that could result in a reduction in required parking are shown in Table 1. A



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reduction for proximity to transit is not included in the table because the "transit friendly" rate of 1.4 already accounts for a transit reduction.

As mentioned, unbundled parking is when a tenant pays a fee or "buys" a parking stall separate from the unit. It is recommended that this reduction only be given if 100 percent of the tenant parking is unbundled.

An additional amenity that was considered was compact car parking. However, it was determined that a compact car is still a vehicle and requires a parking stall, therefore, no reduction in parking is recommended.

Project controlled on-street parking is when a development is allowed to utilize and enforce on-street parking adjacent to the project. This may be permit parking only or something similar.

Table 1: Amenities and parking rate reductions

Possible Parking Rate Reductions		
Amenity	Recommended Reduction (stalls / unit)	
Car Share (limit 1 car / 100 units)	0.1	
Unbundled Parking (100%)	0.15	
Bike Share	0.05	
Bike Lockers / Storage	0.05	
Development Supplied Transit Passes	0.25	
Senior Housing	0.2	
Student Housing (< 1/4 mile from campus)	0.1	
Project Controlled On-street Parking	0.1	
Hales Engineering, 2014		

Hales Engineering also recommends that adjacent on-street parking be provided at complexes where the lower parking rates are applied. This provides a factor of safety in case parking demands are higher than expected. It is also recommended that this table and the reductions applied become dynamic, so that as projects are constructed and after studies are completed, adjustments can be made to the reduction factors to reflect the actual field application. In addition, as areas in South Salt Lake continue to urbanize around the street car line, the younger generations who are less auto dependent, will likely cause a change in the future parking rates.

If you have any questions with this study please feel free to call us.



# Appendix

## National Parking Study Review

Location	Rate or Reduction	Source
California (26 sites)	Average supply of 1.41 spaces/unit	Willson, Richard. 2005. Parking Policy for Transit-Oriented Development: Lessons for Cities, Transit Agencies, and Developers. Journal of Public Transportation, Vol 8, No. 5.
East Bay Area, CA (16 sites)	Average supply of 1.59 spaces/unit. Average demand of 1.20 spaces/unit.	Cervero, R, Adkins, A, and Sullivan, C. 2009. Are TODs Over-Parked? UCTC Research Paper No. 882. University of California Transportation Center.
Portland, OR (15 sites)	Average supply of 1.52 spaces/unit. Average demand of 1.07 spaces/unit.	Cervero, R, Adkins, A, and Sullivan, C. 2009. Are TODs Over-Parked? UCTC Research Paper No. 882. University of California Transportation Center.
San Diego, CA	0.25 spaces/unit reduction for TOD	Tumlin, Jeffrey and Millard-Ball, Adam. 2006. Parking for Transit-Oriented Development. Institute of Transportation Engineers, Annual Meeting.
Milwaukee, WI	15% parking reduction for TOD	Tumlin, Jeffrey and Millard-Ball, Adam. 2006. Parking for Transit-Oriented Development. Institute of Transportation Engineers, Annual Meeting.
Minneapolis, MN	10% parking reduction for residential units in a TOD	Tumlin, Jeffrey and Millard-Ball, Adam. 2006. Parking for Transit-Oriented Development. Institute of Transportation Engineers, Annual Meeting.
Milpitas, CA	20% parking reduction for TOD	Tumlin, Jeffrey and Millard-Ball, Adam. 2006. Parking for Transit-Oriented Development. Institute of Transportation Engineers, Annual Meeting.
Arlington, VA	1.125 spaces/unit (at least 1.0 spaces/unit reserved and 0.125 spaces/unit shared) along BRT	Tumlin, Jeffrey and Millard-Ball, Adam. 2006. Parking for Transit-Oriented Development. Institute of Transportation Engineers, Annual Meeting.
Portland, OR	0.33 spaces/unit for TOD with more than 50 units	Portland City Code, Chapter 33.266
1\/ariniic /1 / citac)	Average supply of 1.21 spaces/unit (Philadelphia, Portland, San Francisco, and Washington DC). Also, 50% average reduction from ITE Trip Generation rates	Arrington, GB and Cervero, Robert. 2008. Effects of TOD on Housing, Parking, and Travel. TCRP Report 128.
Various (80 sites)	Average allowable parking reduction of 22.8% for TOD written into city zoning codes	Cervero, R, Adkins, A, and Sullivan, C. 2009. Are TODs Over-Parked? UCTC Research Paper No. 882. University of California Transportation Center.
San Francisco, CA	Average demand of 1.13 spaces/unit when parking is unbundled	FHWA. 2012. Contemporary Approaches to Parking Pricing: A Primer.
ISan Francisco ( A	Average demand of 0.76 spaces/unit when parking is unbundled and there is an on-site car sharing vehicle.	FHWA. 2012. Contemporary Approaches to Parking Pricing: A Primer.
Provo, UT	Parking requirements of 0.7 stalls per tenant near BYU. Only 50 percent of the parking that is typically required is needed at a TOD site. Parking for residential uses on a fifth and sixth story may be reduced to 25 percent of the parking otherwise required. Provo also does not require parking for the first 2,500 square feet of retail or restaurant uses located in a building that consists of at least 50 residential units in a TOD zone.	Provo City Code 14.23.12