



**SOUTH SALT LAKE CITY**  
**ON THE MOVE**

#### **CITY COUNCIL**

BEN PENDER  
COREY THOMAS  
SHARLA BYNUM  
PORTIA MILA  
SHANE SIWIK  
MARK KINDRED  
RAY DEWOLFE

220 E MORRIS AVE  
SUITE 200  
SOUTH SALT LAKE CITY  
UTAH  
84115  
P 801.483.6027  
F 801.464.6770  
TTY: 711  
SSLC.COM

#### **CHERIE WOOD MAYOR**

220 E MORRIS AVE  
SUITE 200  
SOUTH SALT LAKE CITY  
UTAH  
84115  
P 801.464.6757  
801.464.6770  
TTY: 711

## **South Salt Lake City Council REGULAR MEETING AGENDA**

Public notice is hereby given that the South Salt Lake City Council will hold a Regular Meeting on **Wednesday, March 27, 2019** in the City Council Chambers, 220 East Morris Avenue, Suite 200, commencing at **7:00 p.m.**, or as soon thereafter as possible.

Conducting: Portia Mila, District 4  
Council Chair: Ben Pender  
Sergeant at Arms:

#### **Opening Ceremonies**

- |  |             |
|--|-------------|
| 1. Welcome/Introductions                             | Portia Mila |
| 2. Serious Moment of Reflection/Pledge of Allegiance | Ben Pender  |

#### **Approval of Minutes**

February 13, 2019 Regular Meeting  
February 27, 2019 Regular Meeting

#### **NO ACTION COMMENTS**

- |   |               |
|---|---------------|
| 1. Scheduling   | City Recorder |
| 2. Citizen Comments/Questions   |               |
| a. Response to Comments/Questions<br>(at the discretion of the conducting Council Member) |               |
| 3. Mayor Comments   |               |
| 4. City Attorney Comments   |               |
| 5. City Council Comments  |               |
| 6. Council Attorney Comments  |               |
| 7. Information – State Street Gregson Ave. Cross Walk                                     | Corey Thomas  |

#### **ACTION ITEMS**

##### **UNFINISHED BUSINESS**

- |  |            |
|--|------------|
| 1. An Ordinance Amending the Future Land Use Map of the General Plan from 2 Designations (New Historical and Schools/Open Space) to New Mixed use; Amending Sections 17.11.020 and 17.11.030, adding new Sections 17.13.250 and 17.13.250, Amending Sections 17.15.030 and 17.15.040 and Amending and Renumbering Sections 17.21.030 and 17.27(21).150 of the South Salt Lake Municipal Code to establish appropriate land use regulations for development within a new Master Planned Mixed Use District, consisting of two interrelated Subdistricts; and amending the current zoning map to rezone approximately 6 acres of surplus Granite High School property from R-1 to Granite Townhome (GT) and to rezone approximately 5 acres of surplus Granite High School property from R-1 to Granite Library (GL) | Mayor Wood |
|--|------------|

**NEW BUSINESS**

1. An Ordinance repealing and replacing Title 10 of the City of South Salt Lake Municipal Code, to implement a Recreational Vehicle Parking Permit and make other necessary revisions, and amending Chapter 3.11 of the City of South Salt Lake Municipal Code to adopt relevant fees Mayor Wood
2. An Ordinance repealing and replacing South Salt Lake Municipal Code Chapter 13.76 (Storm Water Management Program), Chapter 13.78 (Pollutant Discharges from Construction Sites), and Chapter 13.80 (Illicit Discharges and Connections) and Enacting a new chapter regulating post construction Stormwater Management Measures Mayor Wood

**Motion for Closed Meeting****Adjourn**

Posted March 22, 2019

Those needing auxiliary communicative aids or other services for this meeting should contact Craig Burton at 801-483-6027, giving at least 24 hours' notice.

In accordance with State Statute and Council Policy, one or more Council Members may be connected via speakerphone.

**Citizen Comments/Question Policy**

Time is made available for anyone in the audience to address the Council and/or Mayor concerning matters pertaining to City business. When a member of the audience addresses the Council and/or Mayor, he or she will come to the podium and state his or her name and address. Citizens will be asked to limit their remarks/questions to five (5) minutes each. In meetings during which numerous individuals wish to comment, the time for all citizen comments may be limited to three (3) minutes each, at the discretion of the conducting Council Member. The conducting Council Member shall have discretion as to who will respond to a comment/question. In all cases the criteria for response will be that comments/questions must be pertinent to City business, that there are no argumentative questions and no personal attacks. Some comments/questions may have to wait for a response until the next regular council meeting. The conducting Council Member will inform a citizen when he or she has used the allotted time. Grievances by City employees must be processed in accordance with adopted personnel rules.

COUNCIL MEETING  
Wednesday, March 27, 2019  
7:08 p.m.

CITY OFFICES  
220 East Morris Avenue  
South Salt Lake, Utah 84115

PRESIDING  
Council Chair Ben Pender

CONDUCTING:  
Portia Mila

SERIOUS MOMENT OF REFLECTION/  
PLEDGE OF ALLEGIANCE  
Ben Pender

SERGEANT AT ARMS  
Cody Coggle

COUNCIL MEMBERS PRESENT:  
Sharla Bynum, Ray deWolfe, Mark Kindred, Portia Mila, Ben Pender  
Shane Siwik and Corey Thomas

STAFF PRESENT:  
Mayor Wood  
Hannah Vickery, Deputy City Attorney  
Jack Carruth, Police Chief  
Dennis Pay, City Engineer  
Mont Roosendaal, Public Assets Director  
Aaron Wiet, Parks & Recreation Director  
Lisa Forrester, Court Administrator  
Alex White, Planning Division Manager  
Craig Burton, City Recorder  
Ariel Andrus, Deputy City Recorder

OTHERS PRESENT:  
See attached list.

## APPROVAL OF MINUTES

**February 13, 2019 Regular Meeting.** Council Member Bynum made a motion to approve these minutes.

**MOTION:** Sharla Bynum  
**SECOND:** Ray deWolfe  
**Voice Vote:**

Bynum: Yes  
deWolfe: Yes  
Kindred: Yes  
Mila: Yes  
Pender: Yes  
Siwik: Yes  
Thomas: Yes

**February 27, 2019 Regular Meeting.** Council Chair Pender made a motion to approve these minutes.

MOTION: Ben Pender  
SECOND: Corey Thomas

Voice Vote:

Bynum: Yes  
deWolfe: Yes  
Kindred: Yes  
Mila: Yes  
Pender: Yes  
Siwik: Yes  
Thomas: Yes

**NO ACTION COMMENTS**

1. **SCHEDULING.** The City Recorder informed those at the meeting of upcoming events, meetings, activities, etc.
2. **CITIZEN COMMENTS/QUESTIONS. Tami Diaz, 292 Welby Ave.** She thanked Council Member Thomas on her work on the crosswalk issues in the City. She was involved in an auto pedestrian accident twenty-four years ago and crosswalk safety is very important to her.

**John Thomas, 2295 South 300 East.** He said when the Zellerbach Apartment project was proposed he was very opposed to it. The biggest concern he had during the discussion of this project was the parking. He was assured by the developer that there would be plenty of visitor parking and parking would not be an issue in his neighborhood. Now there are a lot of parking problems. He suggested the City put up resident only parking signs in the areas surrounding the new apartments in the City.

**Susan Bowlden, 419 East Burton Ave.** She wanted to know what the City's vision is and where she can find this information. She would like more about the development goals of South Salt Lake.

Mayor Wood said could have someone email Ms. Bowlden the information



she is looking for and it is on the City's website as well.

**Jeremy Carter, 66 West Crystal Ave.** He is on the Planning Commission and the process with Wasatch Developers has been a difficult process. The applicant has made last minutes changes multiple times throughout the process and that has been frustrating and concerning for him.

**3. MAYOR COMMENTS.** None

**4. CITY ATTORNEY COMMENTS.** None

**5. CITY COUNCIL COMMENTS.** Council Member Thomas thanked everyone that came out to the honk and wave on 3300 south.

Council Chair Pender responded to Mr. Thomas' comments on the parking issues. He would like to know what would need to be done to have resident parking only signs near some of the problem areas in the City. The Thomas residence has a crosswalk in front of it and there are laws about parking near a cross walk so that is something for Mr. Thomas to consider. There are some areas of the City where the red paint is flaking off in the no parking zones and that is something that should be looked as well.

Council Member Siwik commended Council Member Thomas on her efforts with crosswalks and with the honk and wave activity.

Council Member deWolfe said it has taken a long time to get to the point where the City is right now with the Granite Property Development and he appreciates the efforts of City staff and the developers. He believes everyone can come to an agreement of this development tonight.

Council Member Bynum also thanked Council Member Thomas with her efforts on crosswalks. She reminds everyone to use crosswalks that are in place.

Council Member Mila also thanked Council Member Thomas. The honk and wave was a good event and great to see residents come out to that.

**6. COUNCIL ATTORNEY COMMENTS.** None

**7. INFORMATION – STATE STREET GREGSON AVENUE CROSSWALK.** Council Member Thomas introduced representatives from UDOT to present on the crosswalk on Gregson Ave.

Marcus and Aaron from UDOT presented information and findings for the crosswalk on Gregson Avenue and State Street. A copy is attached and incorporated by this reference.

## **ACTION ITEMS**

### **UNFINISHED BUSINESS**

- 1. An Ordinance Amending the Future Land use map of the General Plan from 2 designations (New Historical and Schools/open space) to New Mixed use; Amending Sections 17.11.020 and 17.11.030, adding new Sections 17.13.250 and 17.13.250, amending Sections 17.15.030 and 17.15.040 and amending and renumbering Sections 17.21.030 and 17.27(21).150 of the South Salt Lake Municipal Code to establish appropriate land use regulations for development within a new Master Planned Mixed Use District, consisting of two interrelated subdistricts; and amending the current zoning map to rezone approximately 6 acres of surplus Granite High School property from R-1 to Granite Townhome (GT) and to rezone approximately 5 acres of surplus Granite High School property from R-1 to Granite Library (GL). The Council continued the discussion from the Work meeting earlier in the evening. Adam Langford with Wasatch Development went over the applicant's requested changes to the ordinance. A copy of the ordinance is attached and incorporated by this reference.**

Council Member deWolfe asked why the version of the ordinance that City Council is seeing differs from the version the Planning Commission saw.

Mr. Langford and others representing the applicant explained their requests, including a change in the front door location of sixteen units.

Wade Budge, Attorney for Wasatch Development, discussed the changes they would like to make to the ordinance with respect to the countertops within each unit. Mr. Budge indicated the applicant was requesting a variation that granite countertops only be required in the kitchen as opposed to throughout the entire unit.

Planning Division Manager, Alex White, indicated there was some concern about the applicant's proposed language that the interior upgraded materials would be in each unit upon "initial construction" and she sought clarification on what that means. She would like to make sure that the cabinets and countertops as listed in the amenity table of City Code are the standard throughout the development and will remain during the life of the project.

Deputy City Attorney, Hannah Vickery, doesn't feel the applicant's requested language revision is necessary in this section of this ordinance, as the current draft commits the developer to build the project consistent with their representations. The Developer has made certain promises to the community and the ordinance language was drafted as such.

Mr. Budge said the language could be changed to "at C of O" instead of

“initial construction”.

Ms. Vickery said a compromise may be for the ordinance to say “one year of C of O”. This language would help give the City some assurance that the project will be built to the standards represented by the developer.

Mr. Langford said in reference to the identifiable transitions they would like the black and white renderings added to the ordinance document in order to add more clarity to what their transitions would look like.

Ms. White added that the façade that is being proposed already meets the part of the City code that addresses identifiable transitions and she doesn’t feel a need to this to be added to the ordinance.

Council Member Siwik asked if the renderings were part of the ordinance could the applicant vary from those renderings.

Ms. Vickery said they could vary from the renderings so long as they otherwise complied with the code, as they are conceptual. Ms. White will do a technical review to ensure compliance with the code.

City Council Attorney, Doug Ahlstrom, doesn’t see any issues with the black and white renderings being added to the code.

Ms. White referred the Council to the Riverfront single family development of an example of a project in the City where the actual houses built did not look like the renderings proposed during the zoning process.

Council Member Siwik said with the language that the developer is proposing he feels it ties them to produce a product that exactly like the renderings.

Ms. Vickery is not concerned about the language but more the renderings themselves.

Council Member Siwik said that it is really disappointing that there is so much mistrust between the development community and the City.

Ms. Vickery indicated that distrust is a mischaracterization of the relationship between the development community and the City. This discussion is happening tonight because of the lateness of these requested ordinance changes. In an effort to meet committed and expect timelines staff has been working around the clock to get this ordinance ready for Council action and the last minute requests complicate that process. Furthermore, City staff is unable to anticipate what policy calls the Council will make absent Council direction but has used the Council’s legislative intent from enacted ordinances and used that as the baseline for policy calls the Council

would make in the draft. The Council can vary from the typical code standards if they desire but that staff needs that direction before knowing what language to put into ordinance.

Council Member Kindred said he is fine with making any revisions to the code requested by the developer no matter what the change may be.

Council Member Mila feels that it is important for the Council to hear all the requested revisions and consider each one separately.

The Council engaged in a discussion regarding each of the applicant's requested revisions to the ordinance.

Mr. Langford indicated they are seeking a modification to the City's standard that minimizes the amount of stucco to 20% of a project. Mr. Langford indicated that he would like their proposed project to be allowed to use up to 45% stucco, as he doesn't feel that stucco will cheapen the design of this project.

Ms. White said they would like to add language to the ordinance that again would vary the amount of windows required on the project, as opposed to other similar projects in the City.

Mr. Langford indicated the applicant is seeking to be exempt from the City's standard design standards for garage doors on units where the garage doors face adjacent garage doors.

Ms. White said City code currently requires a developer to pick a small number of items from a list of ten items, which she indicates is flexible and easy to comply with.

Mr. Langford said he doesn't feel like any of the ten items tie with the architecture of these townhomes.

Mr. Langford addressed the placement of the balconies on some of the units and the applicant's request to have dumpsters within the setbacks.

Ms. White added that the project as currently proposed complies with the City's standards on dumpsters in setbacks with the exception that they have requested the applicant relocate the dumpsters along the property of the single family homes outside of the setbacks. Ms. White suggested a revision to City standards should not be accommodated with respect to locating dumpsters within setbacks.

Mr. Langford said the City code allows for one sign and they would like to have two signs so there can be one at each entrance.

Ms. Vickery recommended that the Council look at the sign code for the City and make any necessary changes there so that every project citywide have the same standards.

Council Member Mila doesn't have a problem with the changes be proposed.

Council Member deWolfe thinks the units need to have the upgraded countertops. He trusts City staff to make most of these. He did indicate that he would like to make sure the project doesn't end up being designed as flat project. He feels the City needs to stick to the stucco standard. A sign at each entrance makes sense.

Council Member Bynum agreed with Council Member deWolfe on the upgraded countertops and cabinets throughout. She would like to see two of the ten design standards on the garages and thinks a lighting element is important. A sign at each entrance is fine with her but she would like to see the City update the sign code. She would like to see the balconies extended as suggested by City staff.

Council Member Siwik is fine with all the changes. He doesn't think it makes sense for the staff and Council to be picking this ordinance apart.

Council Chair Pender is fine with all the changes as well.

Council Member Thomas agreed with Council Member Bynum on the lighting by the garages.

Mr. Langford said there will be canned lighting over the garage doors just not a wall fixture.

Council Member Kindred said that he would do whatever it takes to get this ordinance passed tonight and on this particular project he doesn't trust City staff.

Council Member Mila feels this will be a great project and she is very excited for the City to get a library.

Council directed the attorneys to make revisions based on their discussion tonight. The attorneys left to make revisions.

Jim Cooper and Rob Beishline with County Library Services presented the design of the library. A copy is attached and incorporated by this reference.

Council Chair Pender asked how the Granite High memorabilia would be displayed.

Mr. Cooper said there isn't a plan set yet but he believes it will be a case in

the library for displaying memorabilia. The Granite seal will be placed outdoors somewhere and the Granite rock in the common area indoors.

Ms. White said it is still being decided who will maintain the display case.

Mayor Wood suggested that the Granite seal be inside and the rock outside.

There was some discussion on when a ground breaking would be for the library but that is not yet decided.

Ms. White said this is step two of nine for this project so there is still processes ahead before a ground breaking can occur.

The Council moved to new business item two while waiting for the ordinance changes.

Mr. Budge said the ordinance now states Wasatch can build doors as depicted, there will be stone or quartz counters throughout all the units. With respect to balconies they will be required on all corner units facing 3300 south and the library. Two images were add for more clarification. The ordinance now indicates how the percentage of stucco will work for the front, side, and rear elevation. Wasatch will comply with the features added to the garage doors, so no modification was made there. There will be one monument sign allowed at each public entrance.

The ordinance that was passed was version thirteen of the ordinance.

Council Member Siwik made a motion to approve this ordinance.

MOTION: Shane Siwik

SECOND: Ben Pender

Roll Call Vote:

Bynum: Yes

deWolfe: Yes

Kindred: Yes

Mila: Yes

Pender: Yes

Siwik: Yes

Thomas: Yes

Council Member Bynum took a point of privilege and thanked City Staff for all of their hard work on this project. The City staff has the best interest of the City in mind and they are trying to carry out the vision of the City with the ordinances that have been set by the City Council.

Mayor Wood thanked all City staff. There were a lot of projects put on hold to get this ordinance completed. When this process was started with

the Planning Commission the list was far larger than eight items. She cannot and will not direct City staff to look the other way on ordinances that have been passed by the City Council and the public process was the route that had to be taken to this point.

## NEW BUSINESS

1. **An Ordinance repealing and replacing Title 10 of the City of South Salt Lake Municipal Code, to implement a Recreational Vehicle Parking Permit and make other necessary revisions, and amending Chapter 3.11 of the City of South Salt Lake Municipal Code to adopt relevant fees.** Council Member Bynum said this ordinance is to address problems with RV parking in and around neighborhoods in the City. A copy is attached and incorporated by this reference.

The permit fee will be \$25 and the fine for not having a permit is \$100. The timeframe for the permit was ten consecutive days.

There was some confusion in the definition section of the ordinance about parking on 400 east and Haven Ave. Council Member Bynum will work with Ms. Vickery to clarify any concerns.

Council Member deWolfe made a motion to move this item to unfinished business for April 3<sup>rd</sup> Regular Meeting.

MOTION: Ray deWolfe

SECOND: Sharla Bynum

### Voice Vote:

Bynum: Yes

deWolfe: Yes

Kindred: Yes

Mila: Yes

Pender: Yes

Siwik: Yes

Thomas: Yes

2. **An Ordinance repealing and replacing South Salt Lake Municipal Code Chapter 13.76 (Storm Water Management program), Chapter 13.78 (Pollutant Discharges from Construction Sites), and Chapter 13.80 (Illicit Discharges and Connections) and enacting a new chapter regulating post construction Stormwater Management Measures.** City Engineer, Dennis Pay, presented this ordinance to the Council. A copy is attached and incorporated by this reference. This ordinance helps the City come into compliance with the State audit that was done. In addition to the state suggested revisions to City Code, this ordinance also makes other technical changes in an effort to make the code easier to read and understand. This ordinance may need to be updated every few years to keep up with

current EPA standards and state regulations.

Council Member Siwik made a motion to move this item to unfinished business for the April 3<sup>rd</sup> Regular Meeting.

MOTION: Shane Siwik

SECOND: Ben Pender

Voice Vote:

Bynum: Yes

deWolfe: Yes

Kindred: Yes

Mila: Yes

Pender: Yes

Siwik: Yes

Thomas: Yes

The Council moved to New Business item number one.

Council Member Siwik made a motion to adjourn.

MOTION: Shane Siwik

SECOND: Ben Pender

Voice Vote:

Bynum: Yes

deWolfe: Yes

Kindred: Yes

Mila: Yes

Pender: Yes

Siwik: Yes

Thomas: Yes

The meeting adjourned at 9:22 p.m.

  
Ben Pender, Council Chair

  
Craig D. Burton, City Recorder



March 27, 2019

REGULAR CITY COUNCIL MEETING  
LIST OF ATTENDEES

<u>NAME</u>	<u>ADDRESS</u>	<u>REPRESENTING</u>
Kim Thomas	2295 S 300 E	Self
JOHN THOMAS	2295 S 300 EAST	SELF
Maryanna Jorling	3166 J. Park Ct	Self
John Gust	129 W 1000 <sup>th</sup> Sandy	Arbor
Renee Wilson	3693 S. 545E	Self
Wade Tardine	6229 Stearnswood Dr	Grainite <sup>High</sup> class of 69
Bill HARDESTY	1 Ardenville	CITY JOURNAL
Jim Cooper	SLC Library	County Library
Rob Beishline	360 W Aspen Ave, SLC	County Library
Holly Yocom	2001 S. State St	SLC
JEREMY CARTER	66 W Crystal Ave	SELF
Stephanie Christopherson	352 E. Beryl Ave.	Self
Trevor Christopherson	352 E. Beryl Ave.	self
MEGAN WELSH	978 W Teal Run Way	SELF
LORI DEWILFE	" "	" "
Susan Boulden	419 E Burton Ave	Self
Danmi Diney	292 Welby Ave	Self



US-89 (State St) & Gregson  
Ave Pedestrian Crossing

South Salt Lake  
City Council Meeting

March 27, 2019

**PIN No.:** 17118

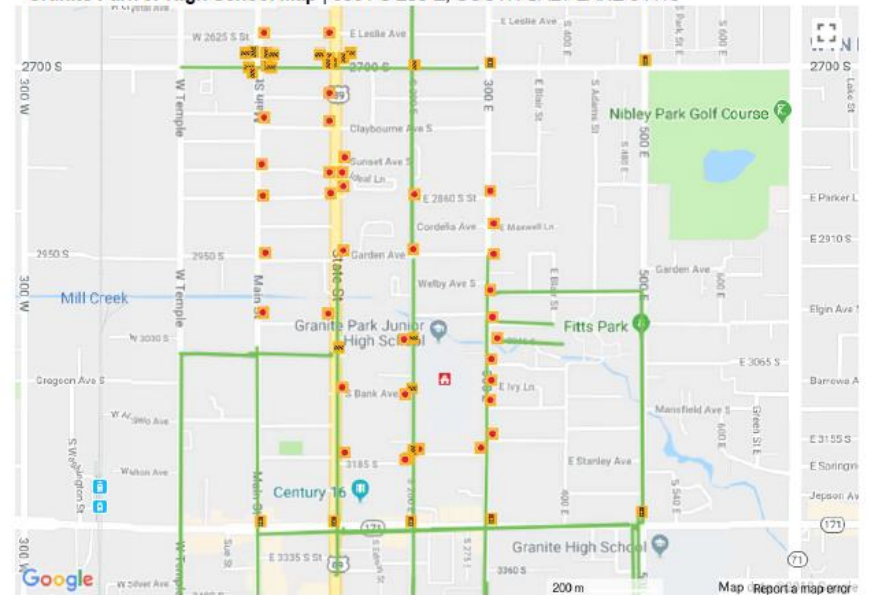
**Project No.:** S-0089(493)375



# **SNAP** Student Neighborhood Access Program

- |                      |                    |                         |
|----------------------|--------------------|-------------------------|
| School               | School Bus Loading | Student Drop-Off/Pickup |
| Hazard/Footnote      | Crossing Guard     | Traffic Signal          |
| Yield Sign           | Stop Sign          | Crosswalk Vertical      |
| Crosswalk Horizontal | Boundary           | Safe Route              |

## **Granite Park Jr High School Map | 3031 S 200 E, SOUTH SALT LAKE 84115**



Contact: Aaron Wilson  
[awilson@graniteschools.org](mailto:awilson@graniteschools.org)  
 385-646-5174



2013



2015



# Existing Treatments



High Visibility  
Markings



Small Radii  
Corners,  
Directional Ped  
Ramps



Parking  
Restrictions\*



Yield Signing and  
Markings\*



Advanced  
Signage\*



Partial Refuge\*

\* = Adjustments Proposed\Expected

**Table 3. Crash Data Summary US-89 & Gregson Avenue<sup>1</sup>**

	<b>Total Crashes</b>	<b>Severe Crashes</b>	<b>Pedestrian</b>	<b>Pedestrian &amp; Severe</b>
<b>2010</b>	2	0	0	0
<b>2011</b>	3	2	0	0
<b>2012</b>	2	0	0	0
<b>2013</b>	2	1	1	1
<b>2014</b>	7	0	1	0
<b>2015</b>	8	0	0	0
<b>2016</b>	3	0	0	0
<b>2017</b>	3	1	1	1
<b>2018</b>	3	0	0	0
<b>Total</b>	<b>33</b>	<b>4</b>	<b>3</b>	<b>2</b>

# Background – Compliance Rates

*Preliminary From UDOT Research “Driver Compliance At Enhanced Pedestrian Crosswalks” by RSG and BYU*



Base  
(No Signalization)  
34.96%  
Compliance



Overhead  
Flashing Beacon  
(OFB)  
85.50%  
Compliance



Overhead Rapid  
Flashing Beacon  
(ORFB)  
90.28% Compliance



Rapid Flashing  
Beacon (RRFB)  
91.26%  
Compliance



HAWK  
93.64%  
Compliance



# Background – Compliance Rates

*Preliminary From UDOT Research “Driver Compliance At Enhanced Pedestrian Crosswalks” by RSG and BYU*



No Signal  
34.96%  
Compliance



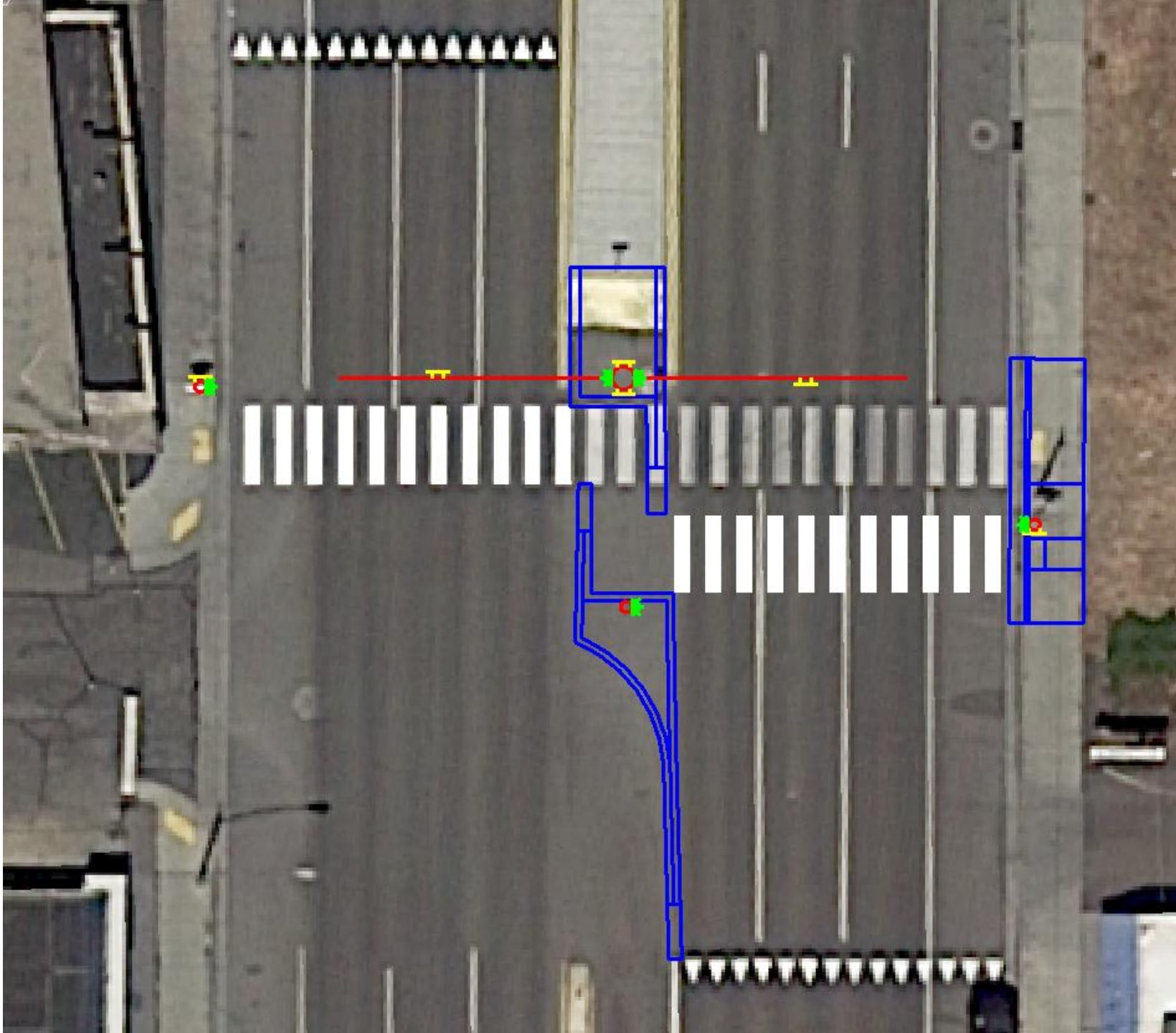
Overhead Rapid  
Flashing Beacon  
(ORFB)  
90.28% Compliance



Rapid Flashing  
Beacon (RRFB)  
91.26%  
Compliance











# Left Turn Restrictions



3D





# Public Involvement

- City Council Working Meeting
- Business Owner Coordination
- Public Hearing (Open House)

ORDINANCE NO. 2019- 03

**AN ORDINANCE OF THE CITY OF SOUTH SALT LAKE CITY COUNCIL AMENDING THE FUTURE LAND USE MAP OF THE GENERAL PLAN FROM 2 DESIGNATIONS (NEW HISTORICAL AND SCHOOLS/OPEN SPACE) TO NEW MIXED USE; AMENDING SECTIONS 17.11.020 AND 17.11.030, ADDING A NEW SECTIONS 17.13.250 AND 17.13.250, AMENDING SECTIONS 17.15.030 and 17.15.040 AND AMENDING AND RENUMBERING SECTIONS 17.21.030 and 17.27(21).150 OF THE SOUTH SALT LAKE MUNICIPAL CODE TO ESTABLISH APPROPRIATE LAND USE REGULATIONS FOR DEVELOPMENT WITHIN A NEW MASTER PLANNED MIXED USE DISTRICT, CONSISTING OF TWO INTERRELATED SUBDISTRICTS; AND AMENDING THE CURRENT ZONING MAP TO REZONE APPROXIMATELY 6 ACRES OF SURPLUS GRANITE HIGH SCHOOL PROPERTY FROM R-1 TO GRANITE TOWNHOME (GT) AND TO REZONE APPROXIMATELY 5 ACRES OF SURPLUS GRANITE HIGH SCHOOL PROPERTY FROM R-1 TO GRANITE LIBRARY (GL)**

WHEREAS, the City Council is required by law to adopt a general plan, including a map of desired future land uses and is authorized to amend its General Plan and Future Land Use Map from time to time for the protection of the health, safety and welfare of the community;

WHEREAS, the City Council is authorized by law to enact ordinances establishing zoning maps and land use regulations to foster a broad array of public purposes;

WHEREAS, on April 6, 2018, on behalf of the Granite School District, Wasatch Development LLC submitted an application to amend the Future Land Use Map in the General Plan and to rezone approximately 11 acres of District-owned property on which the Granite High School and various school facilities had been located ("Granite High School");

WHEREAS the application proposes to amend land use regulations governing the remaining (north) 11+ acres of the Granite High School property by designating the entire 11+ acres as a Master Planned Mixed Use area (more particularly described in Exhibit A) and designating the eastern 6+ acres of the property (more particularly described in Exhibit B) as the Granite Townhome District to allow for the construction of 113 townhomes, 20% open space and amenities and detailing specific allowed land uses and by designating the western five (5) acres (more particularly described in Exhibit C) as the Granite Library District to facilitate the County's construction, operation and use of the property as a public library in tribute to the historic structures and uses of the entire property;

WHEREAS, the Granite High School had been a cherished part of the Salt Lake Valley's history for over 100 years. Granite High was established in 1906 and first held classes in the Historic Scott School Building immediately north of the Granite High School property that is the subject of this ordinance;

WHEREAS, in 1910 the Granite School District built the Granite High School building, which together with an elementary school, junior high school and athletic facilities served as a community touchstone that met many of the educational, cultural, athletic civic and recreational needs of the students and community for over 100 years;

WHEREAS, the main classroom buildings were treasured by the community for their historically significant neoclassical architectural design;

WHEREAS, the Auditorium/Gymnasium building was constructed through a matching grant from the Works Progress Administration and completed in 1941;

WHEREAS, in 2006, the Granite School Board of Education officially closed Granite High School for traditional high school purposes, but kept the building open as an alternative high school and for special education programs;

WHEREAS, in December 2009, the South Salt Lake City Council updated its General Plan and Future Land Use Map to designate the future use of the Granite High School property for New Historical and School/Open Space to maintain the historic uses on the property;

WHEREAS, on February 2, 2010 the Granite School District Board of Education declared the Granite High School property as surplus to the District's needs;

WHEREAS, in August 2011 the University of Utah Marriott Library's Preservation Librarian archived a collection of Granite High School Memorabilia that the Granite High School Alumni Association entrusted to the City of South Salt Lake including display-worthy trophies, plaques, scrapbooks, manuscripts, yearbooks, photographs, multimedia, textiles, and other memorabilia, including the School Seal, that are meaningful cultural touchstones to the greater community;

WHEREAS, in 2017 the City rezoned the south 16 acres of the Granite High School property to R-1 and approved a 76-lot, single family home subdivision on the rezoned land;

WHEREAS, on February 21, 2019 the Planning Commission held a legally notified public hearing to consider the proposed General Plan Future Land Use Map amendment, a zoning map amendment, and amendments to four chapters of the City's land use regulations to rezone the remaining 11+ acres of the Granite High School Property to facilitate development of the property into a public library and multifamily townhomes, as more specifically provided below;

WHEREAS, the City has asked the applicant to incorporate the City-owned Granite High School Memorabilia into prominent display within a new public library district;

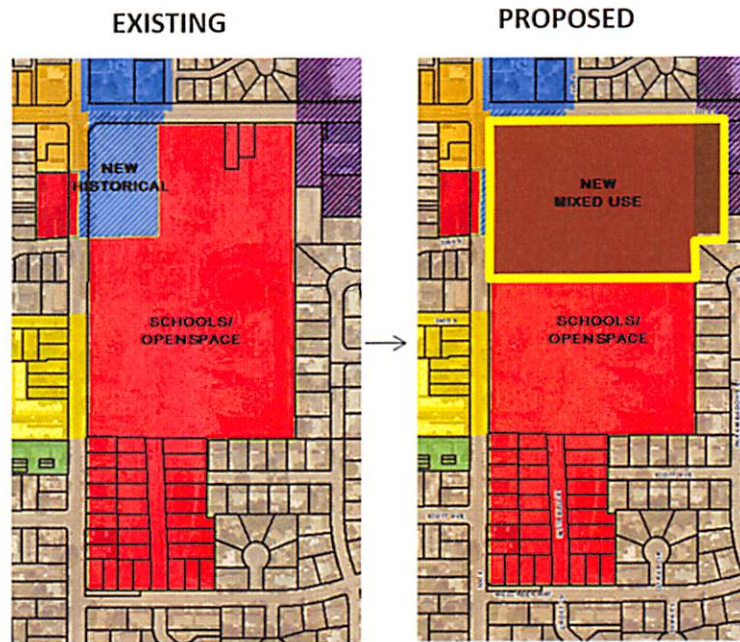
WHEREAS, the Planning Commission thereafter positively recommended that the Council adopt the proposed amendments to the Future Land Use Map, the zoning map and the land use code, all as described below;

WHEREAS, the City Council finds that the proposed amendments implement the City's General Plan goals for regulating land uses based on compatibility with surrounding uses, residential areas, and economic feasibility; and

NOW THEREFORE, BE IT ORDAINED, by the City Council of the City of South Salt Lake City as follows:

**SECTION I: Revise the General Plan Future Land Use Map:**

The General Plan Future Land Use Map is hereby revised as follows:



## SECTION II: Revise the City Zoning Map:

The City Zoning Map is hereby revised as follows:





**SECTION III: Amend sections 17.11.020 and 17.11.030 of the South Salt Lake City Municipal Code to establish the GT and GL zoning districts as follows:**

**17.11.020 - Establishment of districts.**

- A. District Titles. In order to designate districts; to regulate location of dwellings, businesses, trades, industries and buildings erected or altered for specified uses; to carry out the intent and purposes of this Title, the City of South Salt Lake is divided into land use districts to be known as:

Zone District Name	Abbreviated Designation
Single Family Residential District - 5,000	R1 - 5,000
Single Family Residential District - 6,000	R1 - 6,000
Planned Unit Development Overlay District	PUD
Residential Multiple District	RM
Agricultural Residential District	A1
Commercial Corridor District	CC
Commercial General District	CG
Commercial Neighborhood District	CN
Professional Office District	PO
Business Park District	BP
Light Industrial District	LI
Gateway West Overlay District	GW
Transit Oriented Development Overlay District	TOD
Transit Oriented Development Overlay - Core District	TOD - C
Mixed Use District	MU
Master Planned Mixed Use District	MPMU
Entertainment Overlay District	EO
East Streetcar Neighborhood District	ESN
Downtown District	DT
Community Facilities District	CF
Open Space District	OS
Historic and Landmark District	HL
Riverfront R1	R-R1
Riverfront RM1	R-RM1
Riverfront School	R-S
Riverfront Flex/Office	R-FO
Granite Lofts Multifamily Townhome	GLT
<b>Granite Townhome District</b>	<b>GT</b>
<b>Granite Library District</b>	<b>GL</b>

**Residential R1-5,000 (R1-5) District.** This district is established to allow for single family detached homes in primarily low-density neighborhoods. Residential parcels within this district shall have a minimum lot size of five thousand (5,000) square feet. The improvement of the overall quality of the existing housing stock should be encouraged. New residential structures should be designed so that the height and architectural design should be compatible with the neighborhood and enhance the housing stock of the city.

**Residential R1-6,000 (R1-6) District.** This district is established to allow for single family detached homes in primarily low-density neighborhoods. Residential parcels within this district shall have a minimum lot size of six thousand (6,000) square feet. The improvement of the overall quality of the existing housing stock should be encouraged. New residential structures should be designed so that the height and architectural design should be compatible with the neighborhood and enhance the housing stock of the city.

**Planned Unit Development Overlay (PUD) District.** This district is established to allow for and encourage housing that is compatible with surrounding neighborhoods while allowing for flexibility in single family residential lot sizes and varying multifamily densities. All developments are intended to complement and strengthen existing neighborhoods as a compatible component of the city's housing stock.

**Residential Multiple (RM) District.** This district is established to allow for residential developments of varying densities. The district offers housing that will appeal to a wide variety of tenants and home owners. Densities and building heights will be compatible with surrounding uses. The district encourages more compact building design and higher residential densities than the surrounding residential uses without sacrificing parking or open space. Efforts shall be made by the city and developers to protect surrounding residential areas and to mitigate impacts of higher densities, heights and vehicle traffic on adjacent neighborhoods.

**Agricultural Residential (A1) District.** This district is established to allow for low density, single family homes on larger parcels of land. Residential parcels within this district shall have a minimum lot size of one-half acre. This district is characterized by the preservation of larger parcels for limited agricultural uses and for the raising for large animals and livestock.

**Commercial Corridor (CC) District.** This district is established to allow for retail businesses and related uses to be grouped together along the city's principle arterial transportation corridors. The city promotes development that will enhance the corridor through architecture and site design standards.

**Commercial General (CG) District.** This district is established to allow for diverse but compatible, office, warehouse, and commercial and manufacturing business activities. This district is characterized by its large day time population and is a major employment district in the city.

**Commercial Neighborhood (CN) District.** This district is established to allow for the creation of commercial nodes to serve the retail and service needs of neighborhood areas in South Salt Lake. The commercial neighborhood district designation is intended for commercial developments that will not generate significantly greater vehicle traffic. It is intended that businesses in this district will enhance and be compatible with the surrounding residential neighborhoods through architecture, development, and site design as well as provide retail space within walking distance of nearby residences.

**Professional Office (PO) District.** This district is established to provide an area for professional and business offices. In many instances this district acts as a buffer between residential neighborhoods and transit corridors or commercial uses. Developments adjacent to residential uses should be architecturally compatible while mitigating impacts regarding height, hours of operation, lighting and traffic on surrounding residential neighborhoods

**Business Park (BP) District.** This district is established to provide areas for commerce, service, research and employment activities. This district is characterized by its campus-like site and building design. Buildings in this district are similar in architectural design and function.

**Light Industrial (LI) District.** This district is established to provide for an area of diverse but integrated industrial, manufacturing, warehouse and commercial uses. Emphasis is placed on achieving an aesthetically attractive, functional district with a wide range of industrial and commercial activities. This district is characterized its large day time population and is a major employment district in the city.



**Gateway West Overlay (GW) District.** This district is established to create an area that can be recognizable as a gateway into the city on its west boundary at 3300 South and the Jordan River. The district will allow for and promote a combination of residential, commercial and office land uses which might normally be regarded as incompatible. Building and site design standards are increased in this overlay district to create an identity as a gateway for the city of South Salt Lake.

**Transit Oriented Development Overlay (TOD) District.** This district is established to allow for uses to maximize the resource of mass transit, including the creation of new medium-density residential neighborhoods along the corridor. The district will allow for and promote a combination of residential, commercial and office land uses which might normally be regarded as incompatible. New housing is intended to be neighborhood scale. The overlay districts are established around or near light rail corridors to allow for more efficient use of land and provide multiple transportation choices including biking and pedestrian oriented facilities. Incentives for design, open space and parking may be granted by the city in order to promote more efficient use of land and mass transit ridership. Building and site designs in these areas shall create an identity for the overlay district and encourage sustainable site and building practices. The overlay district will encourage more compact building design, medium residential densities as defined in the South Salt Lake City General Plan and mix of uses. Efforts shall be made by the city and developers to protect surrounding residential, commercial and industrial areas and to mitigate impacts of higher densities, heights and traffic on the adjacent uses. Development guidelines should follow as closely as possible the Light Rail Corridor Master Plan as adopted by the South Salt Lake City Council.

**Transit Oriented Development Overlay - Core (TOD - C) District.** This district is established to allow for uses to maximize the resource of mass transit, including the creation of new high-density mixed-use neighborhoods adjacent to transit stations. The district will allow for and promote a combination of residential, commercial and office land uses which might normally be regarded as incompatible. The overlay districts are established generally within one-half-mile of light rail stations to allow for more efficient use of land and provide multiple transportation choices including biking and pedestrian oriented facilities. Incentives for design, open space and parking may be granted by the city in order to promote more efficient use of land and mass transit ridership. Building and site designs in these areas shall create an identity for the overlay district and encourage sustainable site and building practices. The overlay district will encourage more compact building design, higher residential densities, and mix of uses. Efforts shall be made by the city and developers to protect surrounding residential, commercial and industrial areas and to mitigate impacts of higher densities, heights and traffic on the adjacent uses. Development guidelines should follow as closely as possible the Light Rail Corridor Master Plan as adopted by the South Salt Lake City Council.

**Mixed Use (MU) District.** This district is established to integrate and encourage a combination of residential, commercial and office land uses which might normally be regarded as incompatible. Mixed use districts are established around or near light rail, street car and arterial transportation corridors to allow for more efficient use of land and provide multiple transportation choices including biking and pedestrian oriented facilities. Design standards are increased in these areas to create an identity for the district and to encourage more sustainable site and building practices. The mixed-use district will encourage more compact building design, higher residential densities than the surrounding residential uses, mix of uses and preservation of open space. Efforts shall be made by the city and developers to protect surrounding residential areas and to mitigate impacts of higher densities, heights and traffic on the adjacent neighborhood.

**Master Planned Mixed Use (MPMU) District.** This district is intended to provide complete mixed-use neighborhoods in critical redevelopment areas. Development in this district will include connections between residences, employment, institutional and community uses, open space amenities, existing roads, and regional open space and transit facilities. The master planned mixed use district will provide quality commercial and residential design to attract a diversity of residents and employers.

**East Streetcar Neighborhood (ESN) District.** The East Streetcar neighborhood district is established to facilitate the redevelopment of the East Streetcar neighborhood in a manner compatible with the South Salt Lake City General Plan and the East Streetcar Master Plan. Redevelopment in this corridor will be transit-oriented and will preserve the land values and integrity of surrounding single-family neighborhoods. Land uses and regulations for buildings and site development in the East Streetcar corridor district are established in the East Streetcar Form Based Code.

Downtown (DT) District. This is established to facilitate the redevelopment of Downtown South Salt Lake as a regional mixed-use center in a manner compatible with the Wasatch Choice for 2040 Regional Growth Principles, the South Salt Lake City General Plan and the Downtown South Salt Lake Master Plan. Redevelopment in this district is intended to transform it into a walkable, urban place to serve as a city center. Redevelopment in this district is intended to transform it into a walkable, urban place to serve as a city center. Land uses and regulations for buildings and site development in the Downtown South Salt Lake district are established in the Downtown South Salt Lake Zoning Ordinance and Design Standards.

Entertainment Overlay (EO) District. This district is established to provide areas for entertainment type uses such as movie theaters, live entertainment centers, indoor recreation centers, and restaurants and dance clubs. This district will create a twenty-four-hour presence and will be required to be compatible with surrounding and adjacent uses. Uses within the district may have an impact on surrounding neighborhoods so appropriate reviews will be required to mitigate the impacts of noise, parking, hours of operation and buffering.

Community Facilities (CF) District. This district is established to provide a district for public and quasi-public uses. This district will include uses that are directed toward residents of the community. Uses within this district provide services, entertainment, and recreation, cultural and educational opportunities. Facilities also include uses to provide basic utilities to the residents of South Salt Lake.

Open Space (OP) District. This district is established to protect the city's natural and developed open spaces from encroachment of adjacent uses. The district will allow for a combination of passive and active recreational opportunities to encourage a healthy community. Parcels within this district are primarily owned by city, county and state governments and does not include privately owned open space as part of a residential or commercial development.

Historic and Landmark (HL) District. This district is established to protect the character of the district where historic buildings, structures and landmarks of historical significance are located. Approval of projects and additions or expansions within this district shall be held to a higher review standard in order to protect the areas of historical significance.

Riverfront R1 (R-R1) District. This district is established as portion of the Riverfront Master Planned Development to allow for single family detached homes. Residential parcels within this district shall have a minimum lot size of forty-five hundred (4,500) square feet.

Riverfront School (R-S) District. This district is established as portion of the Riverfront Master Planned Development to provide a location for a new elementary school to be constructed by Granite School District.

Riverfront RM1 (R-RM1) District. This district is established as portion of the Riverfront Master Planned Development to allow for residential development consistent with the Riverfront Master Plan Design Guidelines. Section 17.21.100 (B) notwithstanding, no building shall be more than 65' in height measured from the finished grade to the peak of the roof, or flat roofed structures, the top of the parapet.

Riverfront Flex/Industrial (R-F/I) District. This district is established as portion of the Riverfront Master Planned Development to provide for an area of diverse but integrated office, manufacturing, warehouse and commercial uses consistent with the Riverfront Master Plan Design Guidelines. Emphasis is placed on achieving an aesthetically attractive, functional district that is compatible with adjacent uses. Accessory structures are allowed only in the rear yard. Structures shall not exceed 36' in height.

Granite Lofts Multifamily Townhome (GLT) District. This district is established to allow for owner-occupied residential development in the townhome form. The district allows common wall building design and higher residential densities up to 17 units per acre, limited to three story structures, aligned in a configuration specifically approved by the Planning Commission. Units adjoining existing residential development shall not include rooftop use or occupancy.

Granite Townhome (GT) District. This district is established as a component of the approved Granite Library Master Planned Mixed Use Development, in conjunction with the Granite Library District to allow



for townhome condominiums and townhome amenity development of a portion of property formerly occupied by the historic Granite High School. All development within the Granite Townhome District shall be configured to allow for, and shall provide, cross-access and utilities easements to support the Granite Library District and at least 20% common open space. Townhome amenities must include a tot lot, common area pool and spa, BBQ area, clubhouse and exercise facility.

Granite Library (GL) District. This district is established as a component of the approved Granite Library Master Planned Mixed Use Development, in conjunction with the Granite Townhome District for the exclusive development of a public library, with design features that address the historic character of the site and incorporate familiar design features of the Granite High School architecture. All development within the Granite Library District shall be configured to allow for, and shall provide, cross-access and utilities easements as may be necessary to support development within the Granite Townhome District.

**SECTION IV: Add a new Section 17.13.250 to the South Salt Lake City Municipal Code:**

17.13.250 – Granite Townhome District

A. Purpose. The purpose of the Granite Townhome District is to receive residential density from the entire historic Granite High School site within the Granite High School Master Planned Mixed Use Development and then concentrate and supplement the existing residential density to form a well-planned, condominiumized townhome community and facilitate the construction and operation of a 29,500 square foot Library within the companion Granite Library District.

Granite MPMU:



B. Uses. In the Granite Townhome District, the buildings, structures and land shall not be occupied, used, or developed except in accordance with the land uses allowed in the Granite Townhome District found in Chapter 15 of this Title.

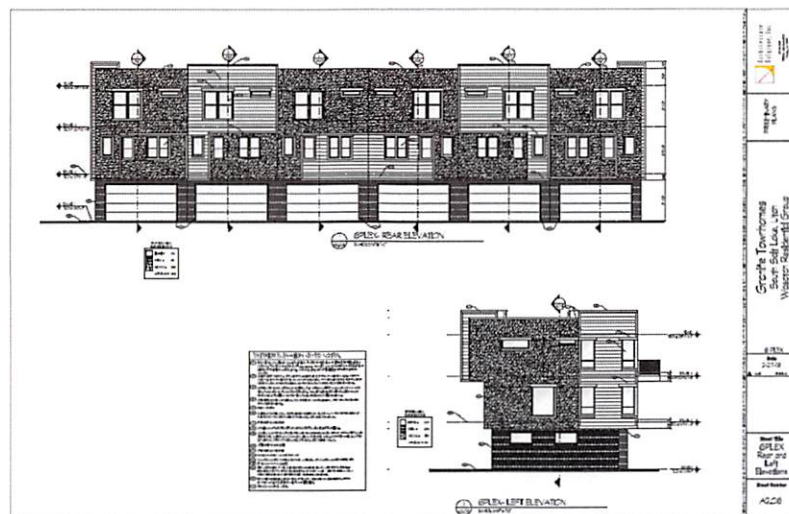
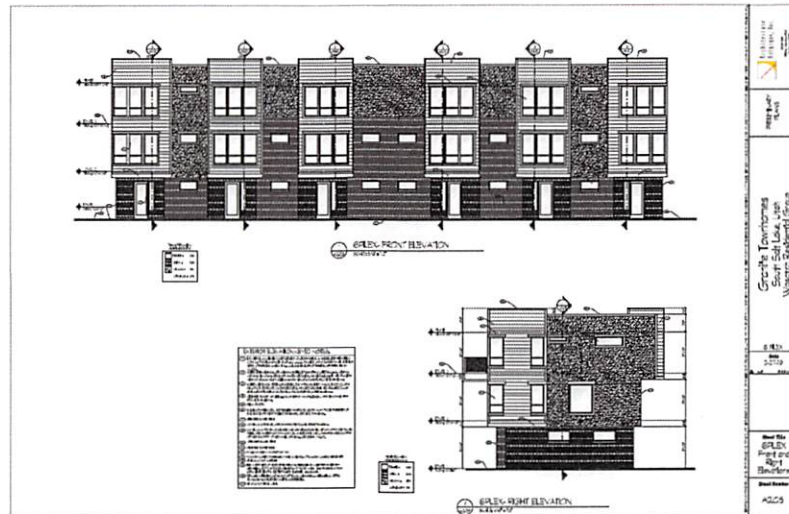


C. Building and site development. In addition to the design standards and review requirements established for this District in Chapter 21 of this Title, all development within the Granite Townhome District must meet the following minimum standards:

1. Minimum development area: six (6) contiguous acres;
2. Minimum lot width at street frontage: 400 feet;
3. No townhome unit or occupied structure shall be less than 20 feet in width;
4. Maximum structure height: 42 feet;
5. Maximum Density: up to 113 townhome condominium units, plus common area amenities;
6. The proposed development must include an eight (8) foot park strip and a ten (10) foot sidewalk along the 3300 South right of way;

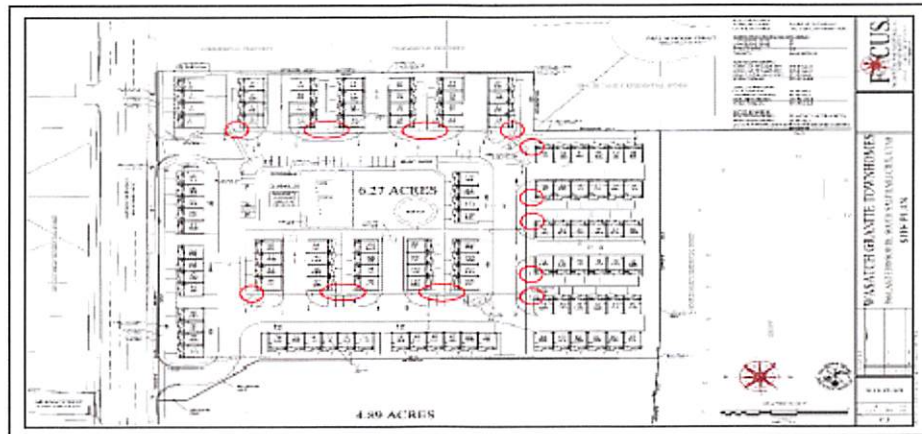


7. The project site plan and development must connect each separate building with internal concrete walkways to provide safe and convenient pedestrian access to common areas and amenities. The width of internal walkways that are adjacent to parking stalls shall be no less than five (5) feet. The width of internal walkways that are not adjacent to parking stalls shall be no less than four (4) feet.
8. Minimum Required Open Space: 20%. Open space includes hardscape such as sidewalk, plazas, courtyards, landscaped detention pond, pools, spa, pool deck, and interior spaces available to residents as common area such as a clubhouse;
9. Each unit must include enhanced sound attenuation and sound mitigation construction;
10. Nine (9) foot ceilings are required throughout the interiors of each unit;
11. Upgraded cabinets, stone or quartz countertops, and upgraded cabinet, window, and door hardware are required throughout each unit. At a minimum, such upgrades shall persist within each unit, through the first year of occupancy of each unit;
12. A tot lot, common area pool and spa, BBQ area, clubhouse and exercise facility are required common project amenities;
13. Elevations: The Townhomes will be constructed in general conformity with the concept designs, front door entrances, and identifiable transitions, depicted below:

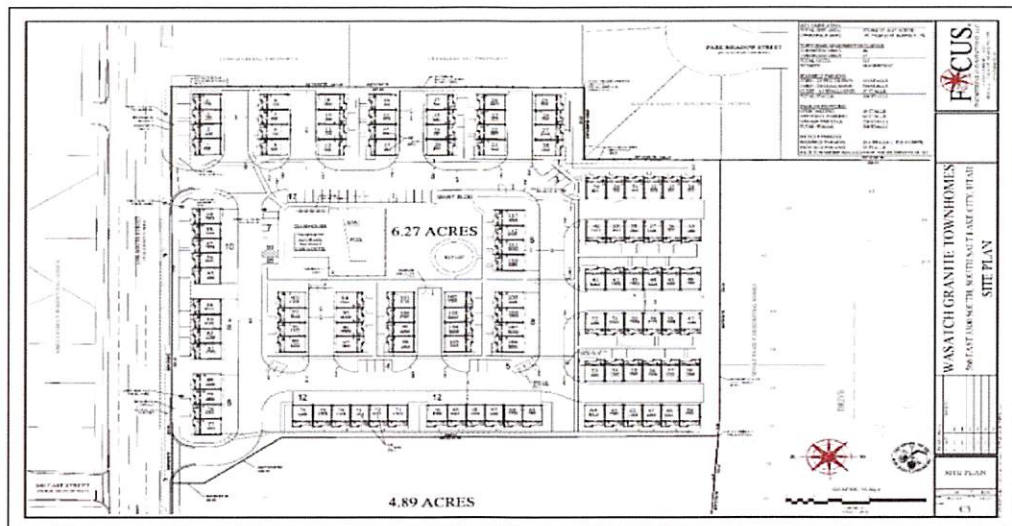




- a. Each corner unit on buildings facing 3300 South and the Library must have at least 4' x 12' of deck space;
- b. Each designated end unit must have at least 4' x 15' of patio space that wraps around the corner of the unit and includes a pony wall for privacy;
- c. Designated end units are depicted in red below:



- 14. To implement the Granite High School Master Planned Mixed Use Development, development within both land use districts must include cross-access easements. As planned, the Granite Townhome District shall provide two points of ingress/egress from 3300 South. The westernmost point of ingress/egress shall include of a minimum paved public safety vehicle "pull out" from 3300 South that is at least 26 feet wide and at least 60 feet long. If two points of ingress/egress from 3300 South are provided for the Granite Townhome District, the Townhome District shall provide paved emergency egress, at least 26 feet in width, from the Library District through the Townhome District. The emergency access may be gated in coordination with South Salt Lake City. If the Townhome District is unable to gain UDOT approval for two points of ingress/egress into the development from 3300 South, it shall develop a second point of ingress/egress through the Granite Library district to 500 East. The second point of ingress/egress may not be gated;
- 15. Each building within the Granite Townhome District shall share the same architectural theme, including, but not limited to colors, materials, rooflines, and entries;
- 16. At a minimum, the first floor of each townhome shall be brick or stone. No vinyl or aluminum siding is allowed on any exterior portion of any townhome;
- 17. Stucco may be allowed on structures so long as the stucco meets the following maximum percentages: Front elevation (20%); Side elevation (45%); Rear elevation (36%); and
- 18. Townhome buildings and required amenities may be configured substantially as depicted below;

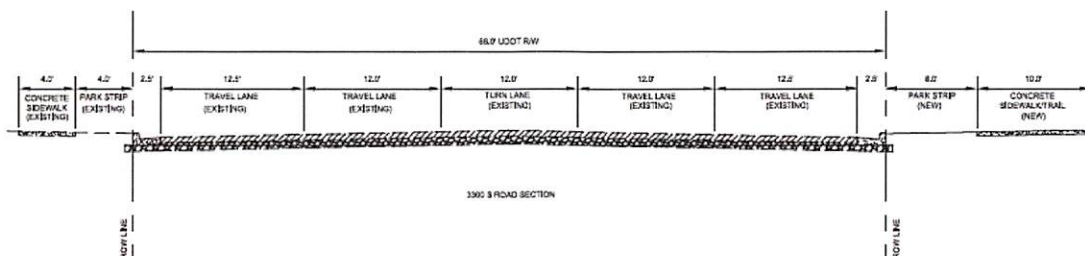


19. All townhomes shall be subdivided into individual condominium units prior to issue of a certificate of occupancy.

20. Front yard landscaping is required for a minimum depth of 10 feet.

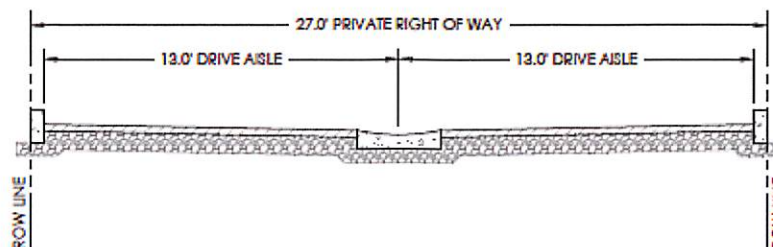
#### D. Road and Public Access Easements Cross Sections:

1. The required cross section of 3300 South UDOT Right of Way\* and SSLC public access easement and improvements is depicted below:



\*UDOT has sole authority to regulate the specifications for travel lanes within the UDOT right of way.

2. Private Roads: The required cross section of private roads within the District is depicted below:





E. Storm water management. Site development must include comprehensive storm water management, including the public dedication and improvement of public storm water facilities within the District.

F. Parking. The Granite Townhome District shall meet the following parking requirements:

- i. For each three (3) bedroom unit – two and one half (2.5) stalls
- ii. For each two (2) bedroom unit – two (2.0) stalls
- iii. Guest parking for each unit – one half (0.5) stalls
- iv. Driveways and garages shall count towards total parking requirements.

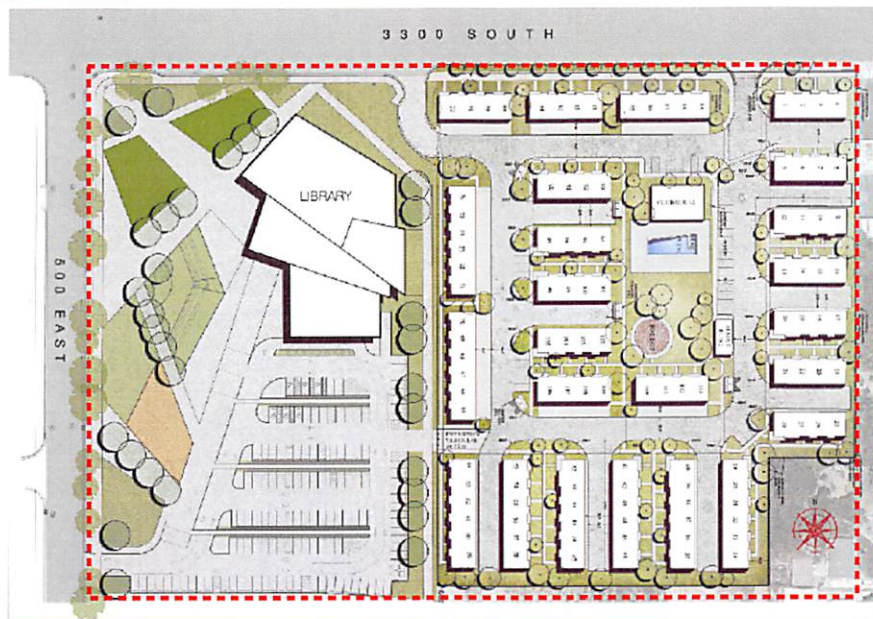
G. Signage. A monument sign of up to five (5) feet in height and ten (10) feet in width shall be permitted at each public entrance into the project.

**SECTION V: Add a new section 17.13.260 to the South Salt Lake City Municipal Code:**

**17.13.260 – Granite Library District**

A. Purpose. The sole purpose of the Granite Library District is to effect the redevelopment of a portion of the historic Granite High School Master Planned Mixed Use Development into a Public Library at the corner of 3300 South and 500 East.

Figure 1: Granite MPMU



B. Uses. In the Granite Library District, the buildings, structures or land shall not be occupied, used, or developed except in accordance with the adopted land uses permitted for the Granite Library District found in Chapter 15 of this Title. The Library shall be the primary use. All other allowed uses within the District are accessory to the primary use.

C. Buildings and Site Development regulations. In addition to the design standards and review requirements established for this District in Chapter 21 of this Title, all development within the Granite Library District must meet the following minimum standards:

- 1. Minimum contiguous development area: 4.0 acres;
- 2. Minimum open space required: 30%. Open space includes hardscape such as sidewalk, plazas, and courtyards;



3. A gateway emphasis is required at the corner of 3300 South and 500 East and must include a combination of landscaping, public art, pedestrian lighting, plaza space, and signage;

4. Minimum floor area: 29,500 square feet;

5. Minimum lot width at street frontage: 300 feet;

6. Maximum structure height: 42 feet;

7. Minimum structure height: 20 feet;

8. Architectural design must address the historic character of the site and incorporate familiar design features of the Granite High School architecture and shall display Granite High School Memorabilia that the Granite High School Alumni Association entrusted to the City of South Salt Lake;

9. The building corner facing 3300 South 500 East shall include an architecturally prominent feature;

10. Exterior Materials: primary materials shall be brick, integral color CMU, stone or marble, EIFS, metal, or composites. Stucco may be used on the facades as a secondary material but may not exceed 20% of any façade;

11. Windows and Doorways:

a. At least 40 percent of each facade along 3300 South and 500 East shall be occupied by windows and glass doorways; and

b. All street-level windows shall have a minimum transparency of 70 percent, measured between two (2) feet and eight (8) feet above grade. Upper story windows shall be at least 25 percent transparent.

(1) All windows along 3300 South and 500 East shall incorporate mullions and/or transoms and at least two of the following standards:

(a) Trim or molding at least four (4) inches in width;

(b) Canopies or overhangs, proportional to the size of the window;

(c) Recessed inset from the front façade by at least two (2) inches;

12. Primary Facades. Primary facades shall incorporate the following design elements:

a. Variations in roof form and parapet heights;

b. Wall recesses or projections of a minimum depth of two (2) feet at least every 40 feet;

c. Distinct changes in texture and color of wall surfaces;

d. Vertical accents or focal points;

e. All primary facades shall incorporate a significant building arcade or vestibule. In addition, primary facades must incorporate visually prominent building entrances through the use of the following features:

(1) Outdoor pedestrian features such as seat walls and landscaping, or permanent landscaped planters with integrated benches;

(2) Architectural details such as tile, stone, and moldings shall be integrated into the building structure with wall plane variation to enhance the building façade and to clearly identify each entry location;

13. Drive-through drop-off facilities are prohibited along any side with public street frontage;

14. Pedestrian Amenities:



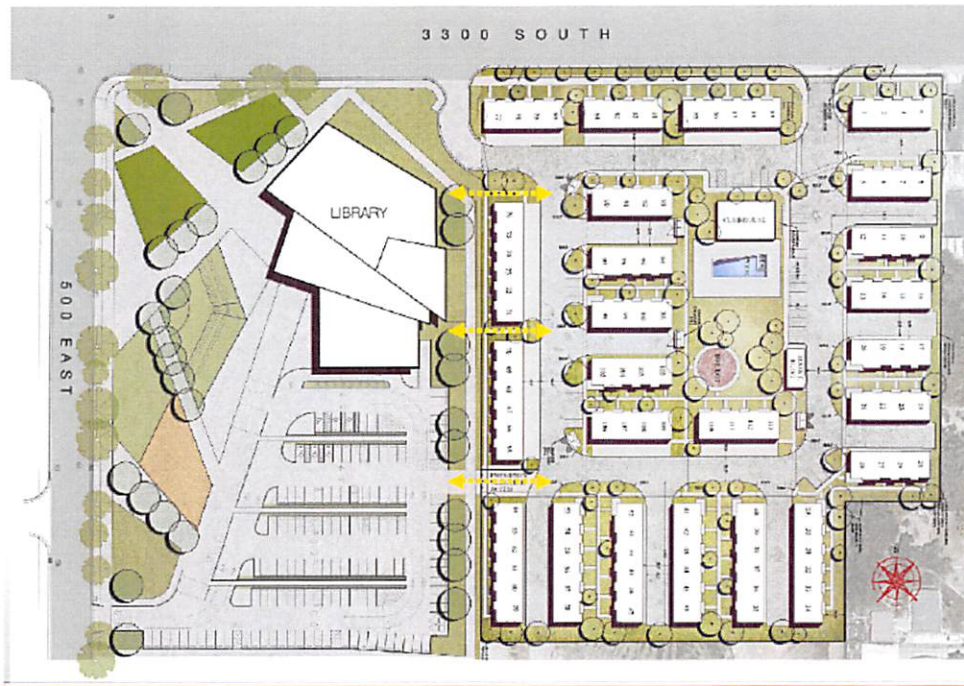


- a. At a minimum, the development must include an 8-foot park strip along 3300 South and along 500 East;
- b. The development must include 10-foot sidewalks along 3300 South and 500 East;
- c. The Library must connect to parking areas with concrete walkways of no less than five (5) feet in width;
- d. To the maximum extent possible, all development activity shall protect existing mature trees on 3300 South and 500 East. If, during construction, the City determines that any trees must be removed, the applicant shall remove and replace any missing street trees with trees of a minimum 4" caliper. Tree spacing and species shall meet the requirements of the South Salt Lake Landscape Handbook;
- e. Parking and loading are prohibited between the building and 3300 South and between the building and 500 East;
- f. Development shall include an improved, 10-foot wide concrete or asphalt fitness trail around the perimeter of the property;

#### Fitness Trail



- g. All development shall include improved pedestrian access paths and cross-access easements between the Granite Townhome and Granite Library Districts;



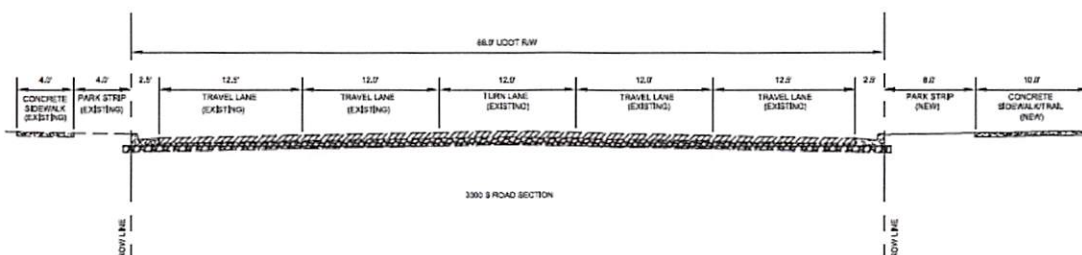
- h. Pedestrian and overhead lighting that meets the character district standards of the South Salt Lake Lighting Master Plan shall be installed along 500 East and 3300 South; and
- i. The South property line shall include a tree-lined, landscaped buffer of at least five (5) feet in width and a paved sidewalk width of at least ten (10) feet.

15. The design must achieve a nationally adopted standard for sustainable building construction.

16. Access from 500 East shall be located no less than 300 feet from the 3300 South right of way.

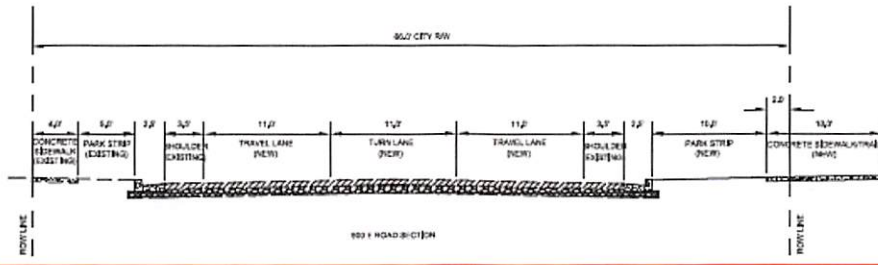
#### D. Road and Public Access Easement Cross Sections:

1. 3300 South UDOT Right of Way\* and required cross section of SSLC public access easement and improvements:



2. 500 East Right of Way and required SSLC public access easement and improvement





\*UDOT has sole authority to regulate the specifications for travel lanes within the UDOT right of way.

E. Storm water management. Site development must include comprehensive storm water management including the public dedication and improvement of public storm water facilities within the District.

F. Parking. The the following parking requirements apply:

- a. The base parking requirement shall be 1 stall for every 150 gross square feet of building.
- b. A reduction of the parking footprint up to 40% is allowed if measures are provided to encourage carpooling, bike, and pedestrian use. These include providing secure bike racks, pedestrian connections from adjacent properties through the site, and preferred parking for carpools for 5% of the total parking spaces after reductions are made from the base ratios.

**SECTION VI: Amend the South Salt Lake City Municipal Code Section 17.15.030 as follows:**

**17.15.030. Commercial Land Use Matrix Table of Uses.** Add the following columns and use designations to the Commercial Land Use Matrix Table of Uses as follows:

Land Use Categories	Granite Library	Granite Townhome
Bowling Alley		
Car Wash		
Church, Religious or Ecclesiastical Building		
Commercial Repair Services		
Convenience Store		
Convenience Store with Fuel Pumps		
Convenience Store and Car Wash		
Craftsman Industrial		
Crematory, Embalming Facility		
Cultural Buildings/Uses		
Dance Studio		
Day Care, Adult Commercial, non-residential		
Day Care, Child Commercial		
Day Spa		
Drive-Up Window (non-food), Banks, ATM's, Dry Cleaners, Pharmacy, etc.		
Day Treatment Center		
Distribution Facilities		
Dry Cleaning and Laundromat		
Education, After School Programs, Adult and Children		
Education, Higher, Public and Private		
Education, Public, Private, Charter or Quasi Public School		
Education, Trade, Vocational, Training		
Employment Agency, Temporary		
Equestrian Facilities		
Equipment Sales, Service, Rental, Heavy Equipment and Farm		
Escort / Outcall agencies		
Farmers Market		
Financial Institution		
Fitness, exercise Center		

Food Carts and Trucks, on Private Property		
Food Processing Establishments, Large Scale		
Food Processing Establishments, Small Scale		
Funeral / Mortuary Home, Stand Alone Building		
Garage/Yard Sales (residential)		
Golf Course		
Grooming Services		
Haunted House		
Home Occupation, Category I		P
Home Occupation, Category II		
Horticulture / Produce Sales		
Hospital		
Hospital, Specialty		
Hotel		
Hotel, Residential Lease, Extended Stay		
Impound and Tow Lot		
Industry, Light		
Jail		
Juvenile Detention Facility		
Laboratory, Industrial		
Laundry, Industrial		
Library (Public)	P	
Maintenance Facilities, Vehicle and Transit		
Manufacturing, Fabrication, Assembly, Processing, Packaging,		
Manufactured Homes		
Martial Arts Studio and training		
Massage Therapy		
Medical, Dental and Health Care Offices, On-site		
Medical, dental Research Facilities/Laboratory		
Model Home		
Mobile Commissary Kitchen		
Mobile Food Vending Trailers and Trucks	P	P
Mobile Food Truck Park		
Mobile Home Park		
Movie Studio and Sound Stage		
Non-Depository Institutions, check cashing, title loan, deferred deposit loans		
Nursery or Greenhouse, Commercial		
Office, General / Professional		
Outdoor Sales and Display		
Park and Ride Facilities		
Parking, Private, Ground Level, Commercial		
Parking, Structure/Terrace,		
Parks, Public and Private		
Pawn Shop		
Pedestrian Pathways, Trails and Greenways		
Permanent Make-Up not including a Tattoo Shop/Parlor		
Pharmacy		
Planned Unit Development, Commercial Condominium		
Portable Shipping Container, Temporary Storage		
Poultry, Urban		
Precious Metal Purchase/Recycling		
Printing, Copy Stores		
Printing, General		
Protective Housing Facility		
Public/Government Service and Accessory Buildings		
Public Utility Station		
Recreation Center		
Recycling Materials		
Collection/Drop-Off Facility, Indoor		
Rehabilitation and Treatment Facilities		
Research & Development Facility		
Restaurant, Sit Down		
Restaurant, Drive-Up Window		
Retail Merchandise, Stores, Accessory		
Retail or Wholesale Merchandise Stores, General		
Retail or Wholesale Merchandise Stores, Neighborhood		
Secondhand merchandise dealer		
Sexually Oriented Business		
Slaughterhouses, Animal Rendering, Tanneries, Animal By Products Plant		
Smoking Parlor/ Lounge, Head Shop or smoking paraphernalia specialty store		



Solar Utilities		
Storage, Vehicles, Outdoors including automobile impound lots		
Storage Facilities, Indoor Climate Controlled Units		
Storage Facilities, Warehouse, indoor		
Storage and Equipment Yards, Outside		
Tailoring Shop, Commercial		
Tattoo Shop / Parlor		
Temporary Uses, Firework Stands, Christmas Tree Lots, Refreshment Stands,		
Tire Service		
Tobacco, smoke, cigarette, Specialty Store		
Transitional Care and Rehabilitation		
Theater, Movie		
Theater, Live Performance		
Upholstery Shop		
Zero Lot Line Development		

**SECTION VII: Amend the South Salt Lake City Municipal Code Section 17.15.040 as follows:**

**17.15.040. Residential Land Use Matrix Table of Uses.** Add the following columns and use designations to the Residential Land Use Matrix Table of Uses as follows:

Land Use Categories	Granite Library	Granite Townhome
Assisted Living Facility – Limited Capacity (up to 30 units) (must comply with development standards for that zone – i.e., setback, height, bulk, min/max square footage)		
Assisted Living Facility – Large (31 units or more) (must comply with development standards for that zone – i.e., setback, height, bulk, min/max square footage)		
Condominiums, Residential		P
Senior Living Facility		
Group Homes		
Homeless Shelter		
Residential Facility for Elderly Persons and Persons with a Disability (must comply with development standards for that zone- i.e., setback, height, bulk, min/max square footage)		
Live/Work Units		
Manufactured Homes		
Multi-Family Complexes Greater than 50 Units		
Nursing Homes and Convalescent Facilities		
Permanent Supportive Housing		
Single Family Residence		
Townhomes/Row Homes		P
Transitional Housing Facility (must comply with development standards for that zone-i.e., setback, height, bulk, min/max square footage)		

**SECTION VII: Amend the South Salt Lake City Municipal Code Section 17.21.030.** Add the following columns and designations to the Building Form table in Section 17.21.030A:

**17.21.025 Building Form by Land Use District.**

- A. Building Forms.** Only the following building forms, designated by the letter A are allowed in each District. All other building forms are prohibited.

Building Form	Granite Townhome	Granite Library
Detached House		
Mansion-style Multifamily		
Townhouse-Style Multifamily	A	
Garden-style Multifamily		
Urban-style Multifamily		
Storefront		
Civic		A
Office		
Commercial Retail		
Commercial bay		
Large Format Retail		
Flex/Industrial		

**SECTION VIII: Amend the South Salt Lake City Municipal Code Sections 17.21.030.** Amend text and add the following columns and standards to the tables as follows:

**17.21.030 Development Standards.** In addition to requirements of Title 15 of this Code, the following development standards apply:

- A. **Yard Areas.** All development shall comply with the setbacks designated for each **zone District**. All yard areas shall be free of any structure and shall not be used for parking, unless otherwise provided herein:

Setbacks	GT	GL
Front Yard	18	20
Corner Side Frontage Yard	10	25
Side Yard	5	10
Side Yard Combined	10	20
Rear yard	20	25

**1. Yard Requirements and Qualifications.**

- No yard area visible from the public street shall be used for storage.
- All front and corner side yard areas shall be landscaped according to the landscape standards established in this Title.
- Yard areas shall not be used for parking, except for driveways or garages as required by this Title.
- Fences, courtyards, and patios may be allowed provided they meet requirements established elsewhere in this Title.

2. **Build-to Zones.** A "Build-to Zone" is the area of a lot in which the main building façade must be located. A building required to comply with a build-to **zone-District** may encroach into the front yard.

Setbacks	Granite Library
Min – In Feet	10
Max – In Feet	30

**SECTION IX: Amend the South Salt Lake City Municipal Code Section 17.21.150 (mis-numbered as Section 17.27.150) as follows and correct the numeration error throughout:**

**17.21.150 Civic Building.** The Civic Building form is reserved for **Public Library and** City facilities.

**SECTION X. Severability.** If any section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

**SECTION XI. Conflict with Existing Ordinances, Resolutions, or Policies.** To the extent that any ordinances, resolutions, or policies of the City of South Salt Lake conflict with the provisions of this ordinance, this ordinance shall prevail.

**SECTION XII. Effective Date.** This ordinance shall become effective upon transmission to the office of the Mayor, and upon either the Mayor's signature and publication, or after fifteen days of transmission to the office of the Mayor if neither approved nor disapproved by the Mayor, and thereafter, publication.

DATED this 27<sup>th</sup> day of MARCH 2019.

BY THE CITY COUNCIL:

  
Ben Pender, Council Chair

ATTEST:

  
Craig D. Burton, City Recorder

City Council Vote as Recorded:

Beverly	<u>YES</u>
deWolfe	<u>YES</u>
Kindred	<u>YES</u>
Mila	<u>YES</u>
Pender	<u>YES</u>
Siwik	<u>YES</u>
Thomas	<u>YES</u>

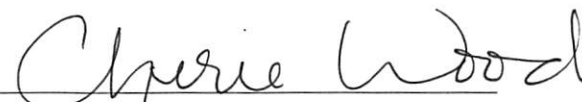
Transmitted to the Mayor's office on this 28<sup>th</sup> day of MARCH 2019.

  
Craig D. Burton, City Recorder

MAYOR'S ACTION: Approve

Dated this 28<sup>th</sup> day of March, 2019.



  
Cherie Wood, Mayor

ATTEST:

  
Craig D. Burton, City Recorder



# SOUTH SALT LAKE CITY COUNCIL STAFF REPORT

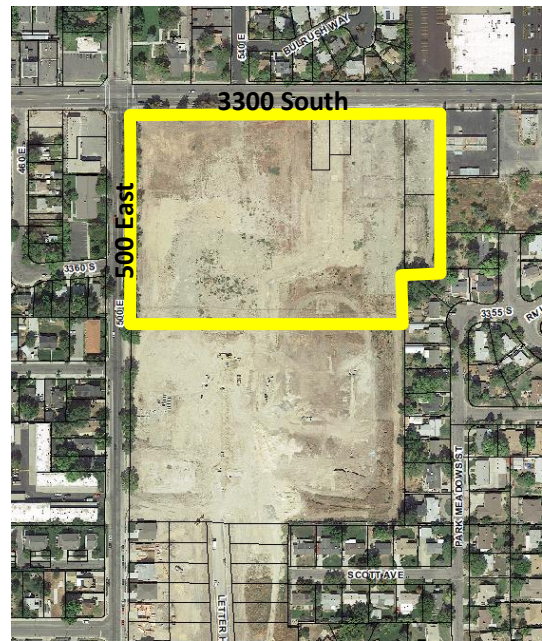
**MEETING DATE:** March 27, 2019

**REQUEST:** **GP-19-001, Z-19-001, T-19-001** – A recommendation to the South Salt Lake City Council to amend the South Salt Lake General Plan, Zoning Code and Zoning map for the north 11.16 acres of the former Granite High School property located at approximately 3305 S. 500 E. Application is made by Wasatch Residential Group to amend the South Salt Lake General Plan Future Land Use Map from New Historical and School/Open Space to Master Planned Mixed Use, to create a new MPMU zone for the area and to amend the South Salt Lake Zoning Map from Residential R1 to Master Planned Mixed Use.

**APPLICANT:** Wasatch Residential Group

## **SYNOPSIS:**

The applicant, Wasatch Residential Group, on behalf of the Granite School District, is seeking to redevelop the north 11.16 acres of the former Granite High School property located at approximately 3305 South 500 East. The subject property is currently located within the R1-6000 Residential land use district and sits as vacant land owned by Granite School District. The applicant's request involves a multi-step process. The first step of the process is a petition for an amendment to the South Salt Lake General Plan, the Zoning Code and the Zoning Map. At that point, Wasatch Residential will purchase the 11.16 acre parcel. The second step of the process will be to subdivide the property into two development lots. The two lot subdivision will allow the County to purchase the corner lot for development of a County Library. The third step of the process will be unique to each lot and will entail technical review of building and site plans for each project. With approved building plans, for Wasatch Residential there will be a fourth step: a condominium plat to individually subdivide the townhome units to enable individual unit sales and the potential for home ownership.



In total, applicant's proposed development includes up to 113 townhomes, private common amenities, a public library and improved library grounds. The townhomes will be built on approximately 6.19 acres, while the library will be built on approximately 4.85 acres.

Previously, the Planning Commission and the City Council reviewed a number of applications on this property. In February 2016, Wasatch Residential and Garbett Homes petitioned for a General Plan Amendment to change the City's Future Land Use Map for the entire former Granite High School Property (approximately 26 acres) from Historical/Open Space to Master Planned Mixed Use. The Master Plan included a mix of uses with 114 owner-occupied homes and 90,000 square feet of commercial retail along 3300 South. By a vote of 4 to 3, the City Council approved an ordinance amending the General Plan. The ordinance was vetoed by the Mayor.

In early 2017, Garbett Homes petitioned the Planning Commission for Final Plat approval for a 76-lot residential subdivision on the southern 15 approximate acres of the former Granite High School property. This proposal met the current R1-6000 zoning and was approved. Currently, single family homes are in various stages of construction or completion on 76 newly subdivided lots.

Later in 2017, Wasatch Residential petitioned for a General Plan Amendment to change the City's Future Land Use Map from Historical/Open Space to General Commercial and the Zoning Map from R1-6000 to Commercial Corridor. The requested General Plan and Zone Map amendments to allow for a commercial development that included a big box store on the remaining 11+ approximate acres. By a vote of 6 to 1, the Planning Commission recommended denial of the petition. The applicant withdrew its rezone request and the application was not considered by the City Council.

**On March 7, 2019, the Planning Commission gave a unanimous recommendation for the above proposed request.**

EXISTING USE	SIZE OF PROPOSED PROPERTY	SURROUNDING LAND USES	GENERAL PLAN AMENDMENT	ZONING MAP AMENDMENT
Vacant Land (former Granite High School)	11.16 Acres	Single Family, Office/Commercial	New Historical & Schools/Open Space to New Mixed Use	R1-6000 Single Family Residential to Granite Library (GL) and Granite Townhome (GT)

#### **GENERAL INFORMATION:**

**LOCATION:** 3305 South 500 East

**PROPERTY SIZE:** 11.16 Acres

#### **SURROUNDING CURRENT LAND USES**

**North:**

Historic Scott School and Single-Family Homes

**South:**

Single Family Homes

**East:**

Car Wash, Assisted Living Facility (Under Construction)  
and Single-Family Homes

**West:**

Commercial and Single-Family Homes



**FIGURE 1: Applicants Concept Site Plan**



**\*\* Note – Conceptual Plan and building elevations are subject to technical reviews for all requirements of the South Salt Lake Municipal Code.**



**FIGURE 2: Applicants Conceptual Elevations of Townhomes**



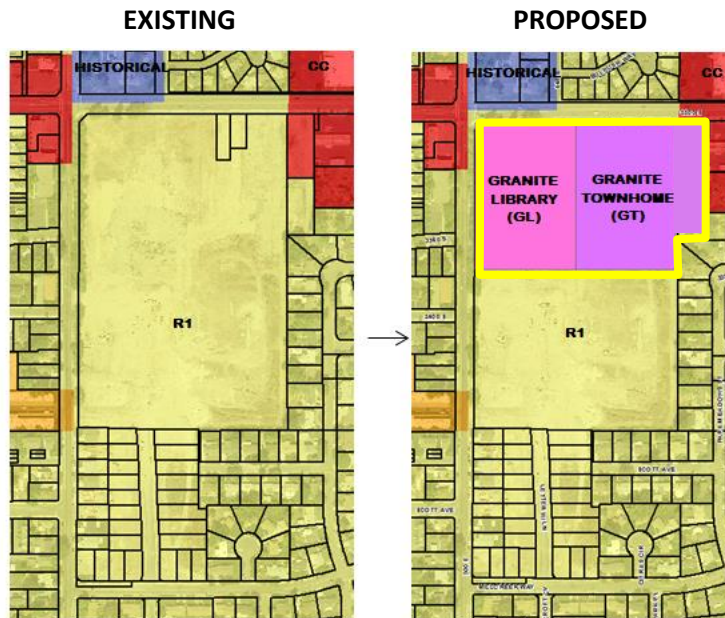
**\*\* Note – Conceptual Plan and building elevations are subject to technical reviews for all requirements of the South Salt Lake Municipal Code.**

**APPLICANT PETITIONS:**

**General Plan Amendment**



## Zoning Map Amendment



### **General Plan Future Land Use Map Amendment: New Historical & Schools/Open Space to New Mixed Use**

The Applicant is seeking to redevelop the north 11.16 acres of the former Granite High School property located at approximately 3305 South 500 East. Currently the property is vacant land. The Applicant's proposed development is a Mixed Use Master Planned Development that includes 113-unit Townhomes and a 29,500 square foot Public Library. The proposed project falls within the New Mixed Use category of the General Plan Future Land Use Map.

### **Title 17 & Zoning Map Amendment: R1 Residential to Granite Library (GL) and Granite Townhome (GT)**

The Applicant is also seeking a Rezone and a Zoning Map amendment in order to achieve their proposed project. The proposed project involves two new zones. The new zones will be called the Granite Library (GL) Zone and the Granite Townhome (GT) Zone and the proposed amendments will govern this particular project.

Below is the proposed text amendment to multiple provisions of Title 17 to allow for the GLT district:

Amendments to SSLC Code Section 17.11.020:

**Granite Townhome (GT) District.** This district is established as a component of the approved Granite Library Master Planned Mixed Use Development, in conjunction with the Granite Library District to allow for townhome condominiums and townhome amenity development of a portion of property formerly occupied by the historic Granite High School. All development within the GT District shall be configured to allow for cross-access easements to support the Granite Library District and at least 30% common open space. Townhome amenities must include a tot lot, common area pool and spa, BBQ area, clubhouse and exercise facility.

**Granite Library (GL) District.** This district is established as a component of the approved Granite Library Master Planned Mixed Use Development, in conjunction with the GT District for the exclusive development of a public library, with design features that address the historic character of the site and incorporate familiar features of the Granite High School architecture.

Add new SSLC Code Section 17.13.250 as follows:



**17.13.250 – Granite Townhome District.**

- A. Purpose.
- B. Uses.
- C. Building and Site Development.
- D. Road and Public Easements Cross Sections.
- E. Storm Water Management.

**17.13.260 – Granite Library District.**

- A. Purpose.
- B. Uses.
- C. Building and Site Development.
- D. Road and Public Easement Cross Sections.
- E. Storm Water Management.

**\*\* See Attachments for details \*\***

Amendments to SSLC Code Section 17.15.030 & 17.15.040:

Add allowed uses to the commercial and residential land use matrices for the above proposed zones.

**\*\* See Attachments for details \*\***

Amendments to SSLC Code Sections 17.11.020, 17.11.030, 17.21.025, 17.21.030, & 17.21.150:

Add standards to allow townhomes and a library on the above subject properties.

**\*\* See Attachments for details \*\***

**DUTIES OF CITY COUNCIL:**

**17.07.020 – Establishment and duties of Planning Commission**

The planning commission makes recommendations to the city council for:

- a. The general plan and amendments to the general plan;
- b. The zoning map, and amendments to the zoning map;
- c. Amendments to land use ordinances;
- d. Approval of subdivisions of greater than ten lots; and
- e. Proposed application processes and the delegation of power under the land use ordinance

**17.07.040 – Land use authority designations**

The City Council is the land use authority on:

- a. amendments to the general plan;
- b. amendments to the zoning map; and
- c. amendments to the land use code

**GENERAL PLAN CONSIDERATIONS:**

**Goal LU-1.** Regulate land uses based on compatibility with surrounding uses, residential areas and economic feasibility. Maintain residential, business and industrial areas that are vibrant and where the health and safety of all are protected.

**Goal LU-7.** Protect low density residential areas adjacent to business districts.

**Goal LU-8.** Accommodate higher density housing in appropriate areas.

**Goal HE-1.** Seek to supply a broad range of housing types & styles with community sustainability in mind.

**Goal HE-3.** Infill housing should be encouraged.

**Goal HE-4.** Improve the overall home ownership ratio.

## **STAFF ANALYSIS:**

### **New Application for Redevelopment of Property**

In this new application, Wasatch Residential has revised the proposed site plan, subdivision and list of proposed uses. The new petition is for a Mixed Use Master Planned development that includes 113-units of townhomes, private common amenities, a Public Library and improved library grounds. The Master Plan will include two subdistricts: Granite Townhomes (GT) and Granite Library (GL). Currently, the land encompassing the entire project is under one common ownership, Granite School District. The Applicant has requested the zoning change which will essentially relocate the density of the entire parcel, concentrate and further increase the density within the Granite Townhome District to allow for the townhome development, while leaving the remaining parcel limited to the exclusive development of a Public library.

### **Traffic Impact Study**

A traffic impact study was completed by Hales Engineering.

The traffic study found the following:

- 500 East/3300 South – The northbound queue length without a right turn lane is anticipated to be approximately 275 feet. The northbound queue length with a right turn lane is anticipated to be approximately 200 feet. **The library access is required to be located no less than 300 feet from the 3300 South right of way.**
- 700 East/3300 South – The intersection is operating at an acceptable level of service with the proposed development.

### **Summary**

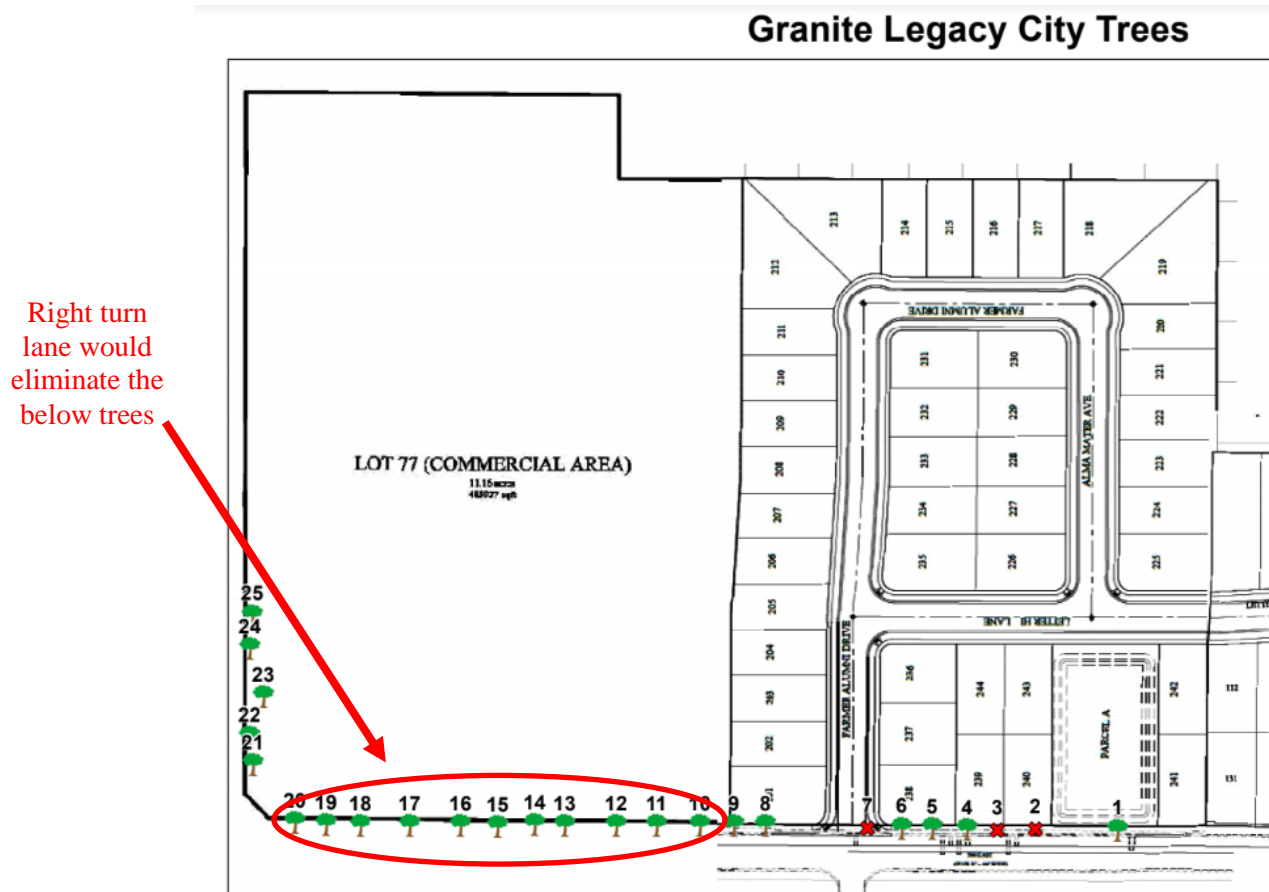
This application is a legislative request to change the subject property from R1-6000 single family residential to up to 113 three-story townhomes and a public library. This request as it may have an impact on the current neighborhood as well as future development in the area.

## **Critical items for consideration by the City Council, in the event of recommending approval of the project:**

### **1. Consideration of Traffic Impacts, including decisions regarding whether a right hand turn lane is appropriate at 3300S. 500 E.**

- a. The SSL City Engineer has reviewed the updated TIS report submitted on 3/4/19. The TIS report discusses whether a right turn lane is warranted at the intersection of 500 East and 3300 South. A right hand turn lane would necessitate a right of way expansion that would remove approximately 11 mature trees along 500 East. If the trees are removed as a result of the right turn lane, Salt Lake County has agreed that it would be appropriate to replace the trees with 4" caliper trees.

- b. The ordinance contemplates that a right turn lane is not warranted if the Library access from 500 East is at least 300 feet from the 3300 South right of way. The Library's proposed access is approximately 500 feet from the 3300 South right of way.
- c. Council may rightfully require the right turn lane dedication as a condition of the rezone. If Council so desires, the ordinance must be modified accordingly.
- d. UDOT has contemplated a Bus Rapid Transit lane and a deceleration/acceleration lane along the southern right of way of 3300 South. If UDOT requires additional right of way dedication along 3300 S., the applicant must update will need to update the site plans, civil engineering and proposed subdivision plat and public improvements for the project. In the next phase, the Planning Commission will review a subdivision application for the project, which would address any requirements by UDOT.



## 2. Consideration of design standards for both the library and the townhomes

- a. The current draft ordinance codifies the applicant's proposed development. The ordinance relies on existing design standards for both the townhomes and the library with the following noted enhancements/exceptions:
  - i. Townhomes
    1. Minimum required 20% open space
    2. Enhanced soundproofing for each individual unit
    3. 9 foot ceilings
    4. Upgraded counter tops and cabinetry in every unit
    5. Recreational amenities (tot lot, pool, spa, BBQ, clubhouse, exercise facility)
    6. Decks and patios that wrap end units
    7. Upgraded materials, brick and stone (no vinyl or aluminum siding)

8. Maximum height has been increased from 38ft to 42ft

ii. Library

1. Minimum required 30% open space
2. Significant gateway emphasis at the corner of 3300 S. and 500 E.
3. Minimum floor area of 29,500 sq. ft
4. Minimum lot street frontage 300 ft
5. Maximum structure height 42ft to match the maximum allowed height of the townhomes
6. Minimum structure height of 20ft
7. Architectural design should address the historic character of the site and incorporate familiar design features of the GHS architecture
8. Exterior materials shall be brick, CMU, stone, marble, EIFS, metal, or composites
9. Stucco may not exceed 20% of any façade
10. Minimum 40% windows on each façade
11. Minimum 70% transparency on all street level windows
12. Primary façade design elements
13. Book drop off location
14. 500 East access location

**3. Consideration of site design and layout**

- a. South Salt Lake staff has met with Wasatch Residential and Salt Lake County to revise the draft ordinance requirements for the proposed project. They agreed revisions are incorporated into the draft ordinance proposed for Council action and can be summarized as follows:

i. Trail/Sidewalk/Fitness trail

1. A 10 ft sidewalk and 8 ft park strip along 3300 S. to elongate the existing Millcreek Trail
2. A 10 ft sidewalk and 8 ft park strip along 500 E. to provide a Millcreek Trail connection along the library site and facilitate a looped fitness trail
3. A fitness trail with a 10 ft sidewalk along the south and west perimeter of the library site to preserve the historical recreational use of the former GHS
4. The roadside sidewalks and park strips, will need to fall outside any existing UDOT ROW or will need to receive UDOT approval prior to approval of the subdivision plat.

ii. 2<sup>nd</sup> access off 3300 S.

1. The applicant has proposed two accesses off of 3300 S. in the Granite Townhome District to satisfy to facilitate proper traffic circulation to and from the townhomes. Both accesses will be private and commonly owned by each townhome unit, but will include a public access easement for public safety vehicles access and a private right of egress for emergency use by the County Library.
2. The City has not received confirmation of UDOT approval for either access to the Townhome District. Salt Lake County has agreed that if UDOT declines to approve both accesses from 3300 South, the Library will provide ingress and egress for the Granite Townhome District through the Library site to 500 East.
3. The Townhome District will provide the Library District cross-access easements and improvements for gated emergency access and egress from the Library site.

iii. Storm water management

1. The applicant has not provided grading and drainage plans for the project. The ordinance requires a comprehensive plan for the management of storm water, including the appropriate dedication of public infrastructure and access to components

of the private storm water system. The Planning Commission will review the application for the subdivision plat as phase 2 of the application.

**4. Requirement for the town homes to be condos capable of individual sale**

- a. Wasatch Residential has agreed to condominiumize the townhomes prior to issuance of a certificate of occupancy.

**5. Whether the library should be a permitted use or a conditional use**

- a. Staff originally proposed zoning the library as a conditional use to allow staff the opportunity to help mitigate concerns of the potential for offsite impacts from the new public use on public safety personnel and the adjacent single family residential neighborhood. Part of the conditional use process is to review outdoor maintenance and management plans for an intended use in an effort to help mitigate adverse impacts. In a presentation to the City Council last October, the applicant proposed a number of CEPTED principles, including enhanced site management and maintenance that helped eliminate staff's concerns and obviated the need for designating the library as a conditional use. However, during the Planning Commission review process, Salt Lake County took exception to the inclusion of the CEPTED maintenance and management plan process that it had proposed. Staff has updated the proposed ordinance in response to the County's request.

**6. Incorporation of GHS Alumni memorabilia collection held by SSL and the School District**

- a. As consideration for the significant up-zone requested, the City has asked that the County house and manage Granite High School memorabilia in the new Granite Library facility.
- b. Salt Lake County has requested that the details of such arrangement be worked out in a separate agreement. Salt Lake County will incorporate the GHS Seal and Rock into their proposed design.

**7. Paying homage to design characteristics of the Granite High School.**

- a. The City has requested that the architectural design of the Library address the historical character of the site and incorporate familiar design features of the former Granite High School architecture. This requirement is not an exemption from the City's design standards and does not dictate a specific theme in which the library must appear.
- b. Salt Lake County intends to engage in a public process to solicit input regarding the library design and to submit to the South Salt Lake design review. Staff is comfortable that this additional public engagement and the minimum design standards will address the planning commission's concerns about the library and render a quality project.
- c. Salt Lake County proposed a design concept for the Library that is very similar to the design of the St. Anne's Catholic Church. The Planning Commission was not in favor of the initial design direction. The County has agreed to work with the public and with City staff to achieve a favorable library design that is consistent with the parameters detailed in the proposed ordinance.

**8. Parking Considerations.**

- a. The ordinance includes specific parking criteria that is rephrased to meet the needs of the applicant, but is consistent with the parking regulations found in Title 17.27.

**9. Other.**

- a. Wasatch Residential is the applicant on behalf of the property owner, Granite School District, for the entire project including the library and 113 townhomes.
- b. Wasatch Residential has contracted with Salt Lake County to sell approximately 4 acres of land for the purpose of constructing a library.



- c. South Salt Lake is not a party to the aforementioned contract and therefore would be unable to enforce the terms of that contract or ensure that a library will in fact be constructed. However, the applicant's Purchase and Sale contract is evidence of the County's intention to acquire the property for purposes of constructing a Library. At this time, a development agreement to help ensure that a library is built is not contemplated. However, no other primary use is allowed for the property should the County refrain from constructing a library.

#### **CITY COUNCIL OPTIONS:**

##### **Option 1: Approval**

Approval to amend the General Plan Future Land Use Map to change the land use designation of a parcel located at 3305 South 500 East, from New Historical and Schools/Open Space to New Mixed Use, to amend Title 17 of the South Salt Lake Municipal Code to include the Granite Townhome (GT) and Granite Library (GL) Districts, to amend the South Salt Lake Zoning Map to change the land use designation of a parcel located at 3305 South 500 East, from R1-6000 Residential to Granite Townhome (GT) and Granite Library (GL), for the following reasons:

1. The Future Land Use Map amendment and zoning map amendment are consistent with General Plan Goal HE-1: to seek to supply a broad range of housing types and styles with community sustainability in mind.
2. The future land use map amendment and the zoning map amendment are consistent with General Plan Goal HE-3: to encourage infill housing.

##### **Option 2: Denial**

Denial to amend the General Plan Future Land Use Map to change the land use designation of a parcel located at 3305 South 500 East, from New Historical and Schools/Open Space to New Mixed Use, to amend Title 17 of the South Salt Lake Municipal Code to include the Granite Townhome (GT) and Granite Library (GL) Districts, to amend the South Salt Lake Zoning Map to change the land use designation of a parcel located at 3305 South 500 East, from R1 Residential to Granite Townhome (GT) and Granite Library (GL), for the following reasons:

1. The Future Land Use Map amendment is inconsistent with the intent of the general plan to regulate land uses based on compatibility with surrounding uses and maintenance of residential, business, and industrial areas that are vibrant and where the health and safety of all are protected.
2. The Future Land Use Map amendment is inconsistent with the intent of the general plan to accommodate higher density residential only in appropriate areas.

##### **Option 3: Continuance**

Continuance, to provide for additional time to consider the proposed development.

##### **Exhibits**

1. Draft Ordinance
2. Traffic Impact Study

**ORDINANCE NO. 2019-\_\_\_\_\_**

**AN ORDINANCE OF THE CITY OF SOUTH SALT LAKE CITY COUNCIL AMENDING THE FUTURE LAND USE MAP OF THE GENERAL PLAN FROM 2 DESIGNATIONS (NEW HISTORICAL AND SCHOOLS/OPEN SPACE) TO NEW MIXED USE; AMENDING SECTIONS 17.11.020 AND 17.11.030, ADDING A NEW SECTIONS 17.13.250 AND 17.13.250, AMENDING SECTIONS 17.15.030 and 17.15.040 AND AMENDING AND RENUMBERING SECTIONS 17.21.030 and 17.27(21).150 OF THE SOUTH SALT LAKE MUNICIPAL CODE TO ESTABLISH APPROPRIATE LAND USE REGULATIONS FOR DEVELOPMENT WITHIN A NEW MASTER PLANNED MIXED USE DISTRICT, CONSISTING OF TWO INTERRELATED SUBDISTRICTS; AND AMENDING THE CURRENT ZONING MAP TO REZONE APPROXIMATELY 6 ACRES OF SURPLUS GRANITE HIGH SCHOOL PROPERTY FROM R-1 TO GRANITE TOWNHOME (GT) AND TO REZONE APPROXIMATELY 5 ACRES OF SURPLUS GRANITE HIGH SCHOOL PROPERTY FROM R-1 TO GRANITE LIBRARY (GL)**

WHEREAS, the City Council is required by law to adopt a general plan, including a map of desired future land uses and is authorized to amend its General Plan and Future Land Use Map from time to time for the protection of the health, safety and welfare of the community;

WHEREAS, the City Council is authorized by law to enact ordinances establishing zoning maps and land use regulations to foster a broad array of public purposes;

WHEREAS, on April 6, 2018, on behalf of the Granite School District, Wasatch Development LLC submitted an application to amend the Future Land Use Map in the General Plan and to rezone approximately 11 acres of District-owned property on which the Granite High School and various school facilities had been located ("Granite High School");

WHEREAS the application proposes to amend land use regulations governing the remaining (north) 11+ acres of the Granite High School property by designating the entire 11+ acres as a Master Planned Mixed Use area (more particularly described in Exhibit A) and designating the eastern 6+ acres of the property (more particularly described in Exhibit B) as the Granite Townhome District to allow for the construction of 113 townhomes, 30% open space and amenities and detailing specific allowed land uses and by designating the western five (5) acres (more particularly described in Exhibit C) as the Granite Library District to facilitate the County's construction, operation and use of the property as a public library in tribute to the historic structures and uses of the entire property;

WHEREAS, the Granite High School had been a cherished part of the Salt Lake Valley's history for over 100 years. Granite High was established in 1906 and first held classes in the Historic Scott School Building immediately north of the Granite High School property that is the subject of this ordinance;

WHEREAS, in 1910 the Granite School District built the Granite High School building, which together with an elementary school, junior high school and athletic facilities served as a community touchstone that met many of the educational, cultural, athletic civic and recreational needs of the students and community for over 100 years;

WHEREAS, the main classroom buildings were treasured by the community for their historically significant neoclassical architectural design;

WHEREAS, the Auditorium/Gymnasium building was constructed through a matching grant from the Works Progress Administration and completed in 1941;

WHEREAS, in 2006, the Granite School Board of Education officially closed Granite High School for traditional high school purposes, but kept the building open as an alternative high school and for special education programs;

WHEREAS, in December 2009, the South Salt Lake City Council updated its General Plan and Future Land Use Map to designate the future use of the Granite High School property for New Historical and School/Open Space to maintain the historic uses on the property;

WHEREAS, on February 2, 2010 the Granite School District Board of Education declared the Granite High School property as surplus to the District's needs;

WHEREAS, in August 2011 the University of Utah Marriott Library's Preservation Librarian archived a collection of Granite High School Memorabilia that the Granite High School Alumni Association entrusted to the City of South Salt Lake including display-worthy trophies, plaques, scrapbooks, manuscripts, yearbooks, photographs, multimedia, textiles, and other memorabilia, including the School Seal, that are meaningful cultural touchstones to the greater community;

WHEREAS, in 2017 the City rezoned the south 16 acres of the Granite High School property to R-1 and approved a 76-lot, single family home subdivision on the rezoned land;

WHEREAS, on February 21, 2019 the Planning Commission held a legally notified public hearing to consider the proposed General Plan Future Land Use Map amendment, a zoning map amendment, and amendments to four chapters of the City's land use regulations to rezone the remaining 11+ acres of the Granite High School Property to facilitate development of the property into a public library and multifamily townhomes, as more specifically provided below;

WHEREAS, the City has asked the applicant to incorporate the City-owned Granite High School Memorabilia into prominent display within a new public library district;

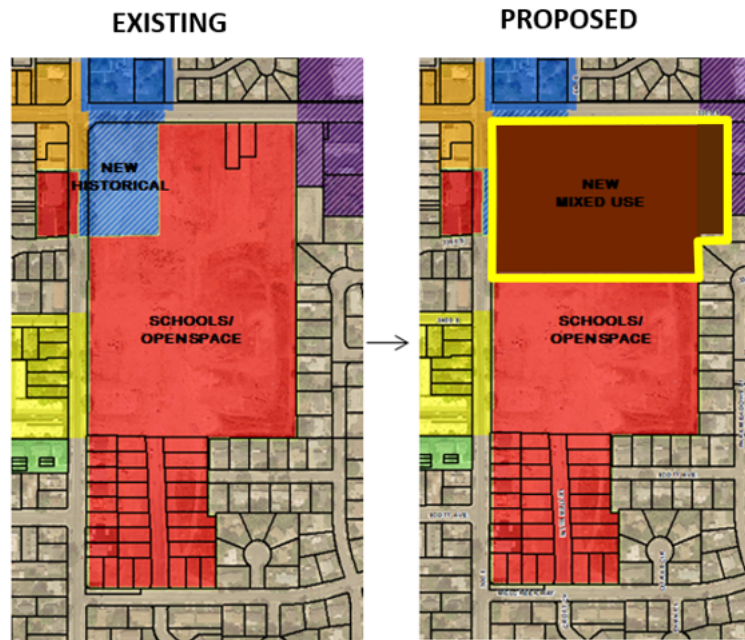
WHEREAS, the Planning Commission thereafter positively recommended that the Council adopt the proposed amendments to the Future Land Use Map, the zoning map and the land use code, all as described below;

WHEREAS, the City Council finds that the proposed amendments implement the City's General Plan goals for regulating land uses based on compatibility with surrounding uses, residential areas, and economic feasibility; and

NOW THEREFORE, BE IT ORDAINED, by the City Council of the City of South Salt Lake City as follows:

**SECTION I: Revise the General Plan Future Land Use Map:**

The General Plan Future Land Use Map is hereby revised as follows:



## SECTION II: Revise the City Zoning Map:

The City Zoning Map is hereby revised as follows:





**SECTION III: Amend sections 17.11.020 and 17.11.030 of the South Salt Lake City Municipal Code to establish the GT and GL zoning districts as follows:**

**17.11.020 - Establishment of districts.**

- A. District Titles. In order to designate districts; to regulate location of dwellings, businesses, trades, industries and buildings erected or altered for specified uses; to carry out the intent and purposes of this Title, the City of South Salt Lake is divided into land use districts to be known as:

Zone District Name	Abbreviated Designation
Single Family Residential District - 5,000	R1 - 5,000
Single Family Residential District - 6,000	R1 - 6,000
Planned Unit Development Overlay District	PUD
Residential Multiple District	RM
Agricultural Residential District	A1
Commercial Corridor District	CC
Commercial General District	CG
Commercial Neighborhood District	CN
Professional Office District	PO
Business Park District	BP
Light Industrial District	LI
Gateway West Overlay District	GW
Transit Oriented Development Overlay District	TOD
Transit Oriented Development Overlay - Core District	TOD - C
Mixed Use District	MU
Master Planned Mixed Use District	MPMU
Entertainment Overlay District	EO
East Streetcar Neighborhood District	ESN
Downtown District	DT
Community Facilities District	CF
Open Space District	OS
Historic and Landmark District	HL
Riverfront R1	R-R1
Riverfront RM1	R-RM1
Riverfront School	R-S
Riverfront Flex/Office	R-FO
Granite Lofts Multifamily Townhome	GLT
Granite Townhome District	GT
Granite Library District	GL

**Residential R1-5,000 (R1-5) District.** This district is established to allow for single family detached homes in primarily low-density neighborhoods. Residential parcels within this district shall have a minimum lot size of five thousand (5,000) square feet. The improvement of the overall quality of the existing housing stock should be encouraged. New residential structures should be designed so that the height and architectural design should be compatible with the neighborhood and enhance the housing stock of the city.

**Residential R1-6,000 (R1-6) District.** This district is established to allow for single family detached homes in primarily low-density neighborhoods. Residential parcels within this district shall have a minimum lot size of six thousand (6,000) square feet. The improvement of the overall quality of the existing housing stock should be encouraged. New residential structures should be designed so that the height and architectural design should be compatible with the neighborhood and enhance the housing stock of the city.

**Planned Unit Development Overlay (PUD) District.** This district is established to allow for and encourage housing that is compatible with surrounding neighborhoods while allowing for flexibility in single family residential lot sizes and varying multifamily densities. All developments are intended to complement and strengthen existing neighborhoods as a compatible component of the city's housing stock.

**Residential Multiple (RM) District.** This district is established to allow for residential developments of varying densities. The district offers housing that will appeal to a wide variety of tenants and home owners. Densities and building heights will be compatible with surrounding uses. The district encourages more compact building design and higher residential densities than the surrounding residential uses without sacrificing parking or open space. Efforts shall be made by the city and developers to protect surrounding residential areas and to mitigate impacts of higher densities, heights and vehicle traffic on adjacent neighborhoods.

**Agricultural Residential (A1) District.** This district is established to allow for low density, single family homes on larger parcels of land. Residential parcels within this district shall have a minimum lot size of one-half acre. This district is characterized by the preservation of larger parcels for limited agricultural uses and for the raising for large animals and livestock.

**Commercial Corridor (CC) District.** This district is established to allow for retail businesses and related uses to be grouped together along the city's principle arterial transportation corridors. The city promotes development that will enhance the corridor through architecture and site design standards.

**Commercial General (CG) District.** This district is established to allow for diverse but compatible, office, warehouse, and commercial and manufacturing business activities. This district is characterized by its large day time population and is a major employment district in the city.

**Commercial Neighborhood (CN) District.** This district is established to allow for the creation of commercial nodes to serve the retail and service needs of neighborhood areas in South Salt Lake. The commercial neighborhood district designation is intended for commercial developments that will not generate significantly greater vehicle traffic. It is intended that businesses in this district will enhance and be compatible with the surrounding residential neighborhoods through architecture, development, and site design as well as provide retail space within walking distance of nearby residences.

**Professional Office (PO) District.** This district is established to provide an area for professional and business offices. In many instances this district acts as a buffer between residential neighborhoods and transit corridors or commercial uses. Developments adjacent to residential uses should be architecturally compatible while mitigating impacts regarding height, hours of operation, lighting and traffic on surrounding residential neighborhoods

**Business Park (BP) District.** This district is established to provide areas for commerce, service, research and employment activities. This district is characterized by its campus-like site and building design. Buildings in this district are similar in architectural design and function.

**Light Industrial (LI) District.** This district is established to provide for an area of diverse but integrated industrial, manufacturing, warehouse and commercial uses. Emphasis is placed on achieving an aesthetically attractive, functional district with a wide range of industrial and commercial activities. This district is characterized its large day time population and is a major employment district in the city.

Gateway West Overlay (GW) District. This district is established to create an area that can be recognizable as a gateway into the city on its west boundary at 3300 South and the Jordan River. The district will allow for and promote a combination of residential, commercial and office land uses which might normally be regarding as incompatible. Building and site design standards are increased in this overlay district to create an identity as a gateway for the city of South Salt Lake.

Transit Oriented Development Overlay (TOD) District. This district is established to allow for uses to maximize the resource of mass transit, including the creation of new medium-density residential neighborhoods along the corridor. The district will allow for and promote a combination of residential, commercial and office land uses which might normally be regarding as incompatible. New housing is intended to be neighborhood scale. The overlay districts are established around or near light rail corridors to allow for more efficient use of land and provide multiple transportation choices including biking and pedestrian oriented facilities. Incentives for design, open space and parking may be granted by the city in order to promote more efficient use of land and mass transit ridership. Building and site designs in these areas shall create an identity for the overlay district and encourage sustainable site and building practices. The overlay district will encourage more compact building design, medium residential densities as defined in the South Salt Lake City General Plan and mix of uses. Efforts shall be made by the city and developers to protect surrounding residential, commercial and industrial areas and to mitigate impacts of higher densities, heights and traffic on the adjacent uses. Development guidelines should follow as closely as possible the Light Rail Corridor Master Plan as adopted by the South Salt Lake City Council.

Transit Oriented Development Overlay - Core (TOD - C) District. This district is established to allow for uses to maximize the resource of mass transit, including the creation of new high-density mixed-use neighborhoods adjacent to transit stations. The district will allow for and promote a combination of residential, commercial and office land uses which might normally be regarding as incompatible. The overlay districts are established generally within one-half-mile of light rail stations to allow for more efficient use of land and provide multiple transportation choices including biking and pedestrian oriented facilities. Incentives for design, open space and parking may be granted by the city in order to promote more efficient use of land and mass transit ridership. Building and site designs in these areas shall create an identity for the overlay district and encourage sustainable site and building practices. The overlay district will encourage more compact building design, higher residential densities, and mix of uses. Efforts shall be made by the city and developers to protect surrounding residential, commercial and industrial areas and to mitigate impacts of higher densities, heights and traffic on the adjacent uses. Development guidelines should follow as closely as possible the Light Rail Corridor Master Plan as adopted by the South Salt Lake City Council.

Mixed Use (MU) District. This district is established to integrate and encourage a combination of residential, commercial and office land uses which might normally be regarded as incompatible. Mixed use districts are established around or near light rail, street car and arterial transportation corridors to allow for more efficient use of land and provide multiple transportation choices including biking and pedestrian oriented facilities. Design standards are increased in these areas to create an identity for the district and to encourage more sustainable site and building practices. The mixed-use district will encourage more compact building design, higher residential densities than the surrounding residential uses, mix of uses and preservation of open space. Efforts shall be made by the city and developers to protect surrounding residential areas and to mitigate impacts of higher densities, heights and traffic on the adjacent neighborhood.

Master Planned Mixed Use (MPMU) District. This district is intended to provide complete mixed-use neighborhoods in critical redevelopment areas. Development in this district will include connections between residences, employment, institutional and community uses, open space amenities, existing roads, and regional open space and transit facilities. The master planned mixed use district will provide quality commercial and residential design to attract a diversity of residents and employers.

East Streetcar Neighborhood (ESN) District. The East Streetcar neighborhood district is established to facilitate the redevelopment of the East Streetcar neighborhood in a manner compatible with the South Salt Lake City General Plan and the East Streetcar Master Plan. Redevelopment in this corridor will be transit-oriented and will preserve the land values and integrity of surrounding single-family neighborhoods. Land uses and regulations for buildings and site development in the East Streetcar corridor district are established in the East Streetcar Form Based Code.

**Downtown (DT) District.** This is established to facilitate the redevelopment of Downtown South Salt Lake as a regional mixed-use center in a manner compatible with the Wasatch Choice for 2040 Regional Growth Principles, the South Salt Lake City General Plan and the Downtown South Salt Lake Master Plan. Redevelopment in this district is intended to transform it into a walkable, urban place to serve as a city center. Redevelopment in this district is intended to transform it into a walkable, urban place to serve as a city center. Land uses and regulations for buildings and site development in the Downtown South Salt Lake district are established in the Downtown South Salt Lake Zoning Ordinance and Design Standards.

**Entertainment Overlay (EO) District.** This district is established to provide areas for entertainment type uses such as movie theaters, live entertainment centers, indoor recreation centers, and restaurants and dance clubs. This district will create a twenty-four-hour presence and will be required to be compatible with surrounding and adjacent uses. Uses within the district may have an impact on surrounding neighborhoods so appropriate reviews will be required to mitigate the impacts of noise, parking, hours of operation and buffering.

**Community Facilities (CF) District.** This district is established to provide a district for public and quasi-public uses. This district will include uses that are directed toward residents of the community. Uses within this district provide services, entertainment, and recreation, cultural and educational opportunities. Facilities also include uses to provide basic utilities to the residents of South Salt Lake.

**Open Space (OP) District.** This district is established to protect the city's natural and developed open spaces from encroachment of adjacent uses. The district will allow for a combination of passive and active recreational opportunities to encourage a healthy community. Parcels within this district are primarily owned by city, county and state governments and does not include privately owned open space as part of a residential or commercial development.

**Historic and Landmark (HL) District.** This district is established to protect the character of the district where historic buildings, structures and landmarks of historical significance are located. Approval of projects and additions or expansions within this district shall be held to a higher review standard in order to protect the areas of historical significance.

**Riverfront R1 (R-R1) District.** This district is established as portion of the Riverfront Master Planned Development to allow for single family detached homes. Residential parcels within this district shall have a minimum lot size of forty-five hundred (4,500) square feet.

**Riverfront School (R-S) District.** This district is established as portion of the Riverfront Master Planned Development to provide a location for a new elementary school to be constructed by Granite School District.

**Riverfront RM1 (R-RM1) District.** This district is established as portion of the Riverfront Master Planned Development to allow for residential development consistent with the Riverfront Master Plan Design Guidelines. Section 17.21.100 (B) notwithstanding, no building shall be more than 65' in height measured from the finished grade to the peak of the roof, or flat roofed structures, the top of the parapet.

**Riverfront Flex/Industrial (R-F/I) District.** This district is established as portion of the Riverfront Master Planned Development to provide for an area of diverse but integrated office, manufacturing, warehouse and commercial uses consistent with the Riverfront Master Plan Design Guidelines. Emphasis is placed on achieving an aesthetically attractive, functional district that is compatible with adjacent uses. Accessory structures are allowed only in the rear yard. Structures shall not exceed 36' in height.

**Granite Lofts Multifamily Townhome (GLT) District.** This district is established to allow for owner-occupied residential development in the townhome form. The district allows common wall building design and higher residential densities up to 17 units per acre, limited to three story structures, aligned in a configuration specifically approved by the Planning Commission. Units adjoining existing residential development shall not include rooftop use or occupancy.

**Granite Townhome (GT) District.** This district is established as a component of the approved Granite Library Master Planned Mixed Use Development, in conjunction with the Granite Library District to allow



for townhome condominiums and townhome amenity development of a portion of property formerly occupied by the historic Granite High School. All development within the GT District shall be configured to allow for cross-access easements to support the Granite Library District and at least 20% common open space. Townhome amenities must include a tot lot, common area pool and spa, BBQ area, clubhouse and exercise facility.

Granite Library (GL) District. This district is established as a component of the approved Granite Library Master Planned Mixed Use Development, in conjunction with the GT District for the exclusive development of a public library, with design features that address the historic character of the site and incorporate familiar design features of the Granite High School architecture.

**SECTION IV: Add a new Section 17.13.250 to the South Salt Lake City Municipal Code:**

17.13.250 – Granite Townhome District

A. Purpose. The purpose of the Granite Townhome District is to receive residential density from the entire historic Granite High School site within the Granite High School Master Planned Mixed Use Development and then concentrate and supplement the existing residential density to form a well-planned, condominiumized townhome community and facilitate the construction and operation of a 30,000 square foot Library within the companion Granite Library District.

Granite MPMU:



B. Uses. In the Granite Townhome District, the buildings, structures and land shall not be occupied, used, or developed except in accordance with the land uses allowed in the Granite Townhome District found in Chapter 15 of this Title.

C. Building and site development. In addition to the design standards and review requirements established for this District in Chapter 21 of this Title, all development within the Granite Townhome District must meet the following minimum standards:

1. Minimum development area: six (6) contiguous acres;

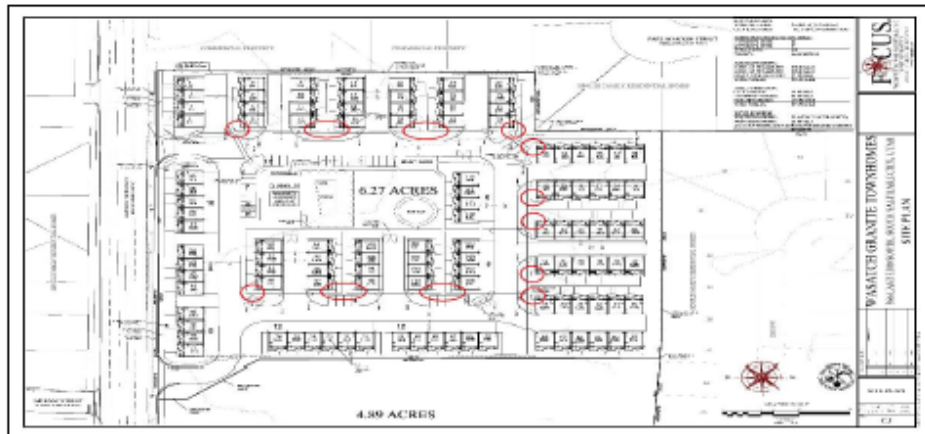
- 2. Minimum lot width at street frontage: 400 feet;
- 3. No townhome unit or occupied structure shall be less than 20 feet in width;
- 4. Maximum structure height: 42 feet;
- 5. Maximum Density: up to 113 townhome condominium units, plus common area amenities;
- 6. The proposed development must include an eight (8) foot park strip and a ten (10) foot sidewalk along the 3300 South right of way;



- 7. The project site plan and development must connect each separate building with internal concrete walkways to provide safe and convenient pedestrian access to common areas and amenities. The width of internal walkways that are adjacent to parking stalls shall be no less than five (5) feet. The width of internal walkways that are not adjacent to parking stalls shall be no less than four (4) feet.
- 8. Minimum Required Open Space: 20%. Open space includes hardscape such as sidewalk, plazas, courtyards, landscaped detention pond, pools, spa, pool deck, and interior spaces available to residents as common area such as a clubhouse;
- 9. Each unit must include enhanced soundproofing;
- 10. Nine (9) foot ceilings are required throughout the interiors of each unit;
- 11. Upgraded cabinets, stone countertops, and upgraded cabinet, window, and door hardware are required throughout each unit;
- 12. A tot lot, pool, common area pool and spa, BBQ area, clubhouse and exercise facility are required common project amenities;
- 13. Elevations: The Townhomes will be constructed in general conformity with the concept design depicted below;



- a. Each designated end unit must have ample (at least 4' x 12') deck space;
- b. Each designated end unit must have enhanced (at least 4' x 15') patio space that wraps around the corner of the unit and includes a pony wall for privacy;
- c. Designated end units are depicted in red below:



14. To implement the Granite High School Master Planned Mixed Use Development, development within both land use districts must include cross-access easements. As planned, the Granite Townhome District shall provide two points of ingress/egress from 3300 South. The westernmost point of ingress/egress shall include of a minimum paved public safety vehicle "pull out" from 3300 South that is at least 26 feet wide and at least 60 feet long. If two points of ingress/egress from 3300 South are provided for the Granite Townhome District, the Townhome District shall provide paved emergency egress, at least 26 feet in width, from the Library District through the Townhome District. The emergency access may be gated in coordination with South Salt Lake City. If the Townhome District is unable to gain UDOT approval for two points of ingress/egress into the development from 3300 South, it shall develop a second point of ingress/egress through the Granite Library district to 500 East. The second point of ingress/egress may not be gated;

15. Each building within the District shall share the same architectural theme, including, but not limited to colors, materials, rooflines, and entries;

17. Townhome buildings and required amenities may be configured substantially as depicted below:

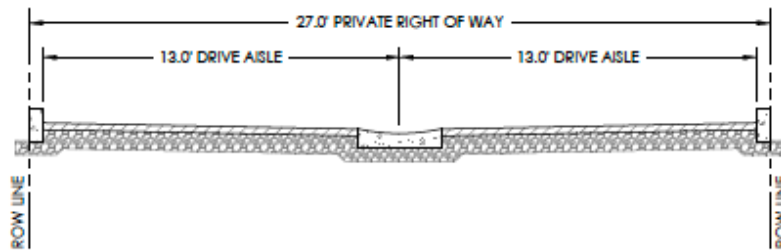


D. Road and Public Access Easements Cross Sections:

- 
- 66.0' UDOT RW
- 4.0' CONCRETE SIDEWALK (EXISTING)
- 4.0' PARK STRIP (EXISTING)
- 2.0'
- 12.5' TRAVEL LANE (EXISTING)
- 12.5' TRAVEL LANE (EXISTING)
- 12.0' TURN LANE (EXISTING)
- 12.0' TRAVEL LANE (EXISTING)
- 12.0' TRAVEL LANE (EXISTING)
- 2.0'
- 8.0' PARK STRIP (NEW)
- 10.0' CONCRETE SIDEWALK (NEW)
- 3300 S ROAD SECTION
- ROW LINE
- ROW LINE

2. Private Roads: The required cross section of private roads within the District is depicted below:





E. Storm water management. Site development must include comprehensive storm water management, including the public dedication and improvement of public storm water facilities within the District.

F. Parking. The Granite Townhome District shall meet the following parking requirements:

- i. For each three (3) bedroom unit – two and one half (2.5) stalls
- ii. For each two (2) bedroom unit – two (2.0) stalls
- iii. Guest parking for each unit – one half (0.5) stalls
- iv. Driveways and garages shall count towards total parking requirements.

**SECTION V: Add a new section 17.13.260 to the South Salt Lake City Municipal Code:**

17.13.260 – Granite Library District

A. Purpose. The sole purpose of the Granite Library District is to effect the redevelopment of a portion of the historic Granite High School Master Planned Mixed Use Development into a Public Library at the corner of 3300 South and 500 East.

Figure 1: Granite MPMU



B. Uses. In the Granite Library District, the buildings, structures or land shall not be occupied, used, or developed except in accordance with the adopted land uses permitted for the Granite Library District found in Chapter 15 of this Title. The Library shall be the primary use. All other allowed uses within the District are accessory to the primary use.

C. Buildings and Site Development regulations. In addition to the design standards and review requirements established for this District in Chapter 21 of this Title, all development within the Granite Library District must meet the following minimum standards:

1. Minimum contiguous development area: 4.0 acres;
2. Minimum open space required: 30%. Open space includes hardscape such as sidewalk, plazas, and courtyards;
3. A gateway emphasis is required at the corner of 3300 South and 500 East and must include a combination of landscaping, public art, pedestrian lighting, plaza space, and signage;
4. Minimum floor area: 29,500 square feet;
5. Minimum lot width at street frontage: 300 feet;
6. Maximum structure height: 42 feet;
7. Minimum structure height: 20 feet;
8. Architectural design must address the historic character of the site and incorporate familiar design features of the Granite High School architecture and shall display Granite High School Memorabilia that the Granite High School Alumni Association entrusted to the City of South Salt Lake;
9. The building corner facing 3300 South 500 East shall include an architecturally prominent feature;
10. Exterior Materials: primary materials shall be brick, integral color CMU, stone or marble, EIFS, metal, or composites. Stucco may be used on the facades as a secondary material but may not exceed 20% of any façade;
11. Windows and Doorways:
  - a. At least 40 percent of each facade along 3300 South and 500 East shall be occupied by windows and glass doorways; and
  - b. All street-level windows shall have a minimum transparency of 70 percent, measured between two (2) feet and eight (8) feet above grade. Upper story windows shall be at least 25 percent transparent.
    - (1) All windows along 3300 South and 500 East shall incorporate mullions and/or transoms and at least two of the following standards:
      - (a) Trim or molding at least four (4) inches in width;
      - (b) Canopies or overhangs, proportional to the size of the window;
      - (c) Recessed inset from the front façade by at least two (2) inches;
12. Primary Facades. Primary facades shall incorporate the following design elements:
  - a. Variations in roof form and parapet heights;
  - b. Wall recesses or projections of a minimum depth of two (2) feet at least every 40 feet;
  - c. Distinct changes in texture and color of wall surfaces;
  - d. Vertical accents or focal points;

e. All primary facades shall incorporate a significant building arcade or vestibule. In addition, primary facades must incorporate visually prominent building entrances through the use of the following features:

(1) Outdoor pedestrian features such as seat walls and landscaping, or permanent landscaped planters with integrated benches;

(2) Architectural details such as tile, stone, and moldings shall be integrated into the building structure with wall plane variation to enhance the building façade and to clearly identify each entry location;

13. Drive-through drop-off facilities are prohibited along any side with public street frontage;

14. Pedestrian Amenities:



- a. At a minimum, the development must include an 8-foot park strip along 3300 South and along 500 East;
- b. The development must include 10-foot sidewalks along 3300 South and 500 East;
- c. The Library must connect to parking areas with concrete walkways of no less than five (5) feet in width;
- d. To the maximum extent possible, all development activity shall protect existing mature trees on 3300 South and 500 East. If the City determines that any trees must be removed, the applicant shall remove and replace any missing street trees with trees of a minimum 4" caliper. Tree spacing and species shall meet the requirements of the South Salt Lake Landscape Handbook;
- e. Parking and loading are prohibited between the building and 3300 South and between the building and 500 East;
- f. Development shall include an improved, 10-foot wide concrete or asphalt fitness trail around the perimeter of the property;



- g. All development shall include improved pedestrian access paths and cross-access easements between the Granite Townhome and Granite Library Districts:



- h. Pedestrian and overhead lighting that meets the character district standards of the South Salt Lake Lighting Master Plan shall be installed along 500 East and 3300 South; and
- i. The South property line shall include a tree-lined, landscaped buffer of at least five (5) feet in width and a paved sidewalk width of at least ten (10) feet.

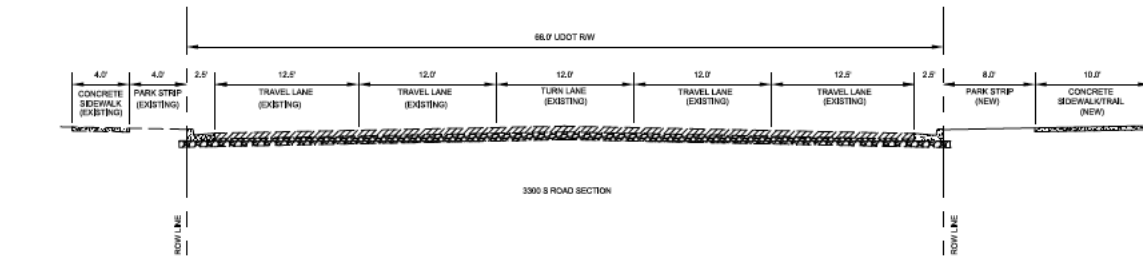
15. The design must achieve a nationally adopted standard for sustainable building construction.

16. Access from 500 East shall be located no less than 300 feet from the 3300 South right of way.

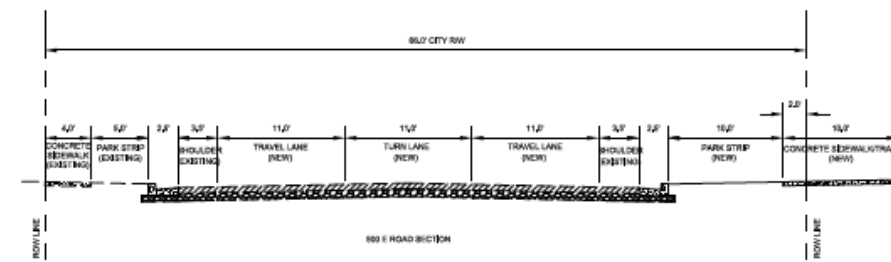
D. Road and Public Access Easement Cross Sections:



1. 3300 South UDOT Right of Way\* and required cross section of SSLC public access easement and improvements:



2. 500 East Right of Way and required SSLC public access easement and improvement



\*UDOT has sole authority to regulate the specifications for travel lanes within the UDOT right of way.

E. Storm water management. Site development must include comprehensive storm water management, including the public dedication and improvement of public storm water facilities within the District.

F. Parking. The the following parking requirements apply:

- a. The base parking requirement shall be 1 stall for every 150 gross square feet of building.
- b. A reduction of the parking footprint up to 40% is allowed if measures are provided to encourage carpooling, bike, and pedestrian use. These include providing secure bike racks, pedestrian connections from adjacent properties through the site, and preferred parking for carpools for 5% of the total parking spaces after reductions are made from the base ratios.

**SECTION VI: Amend the South Salt Lake City Municipal Code Section 17.15.030 as follows:**

**17.15.030. Commercial Land Use Matrix Table of Uses.** Add the following columns and use designations to the Commercial Land Use Matrix Table of Uses as follows:

Land Use Categories	Granite Library	Granite Townhome
Bowling Alley		
Car Wash		
Church, Religious or Ecclesiastical Building		
Commercial Repair Services		
Convenience Store		
Convenience Store with Fuel Pumps		
Convenience Store and Car Wash		

Craftsman Industrial		
Crematory, Embalming Facility		
Cultural Buildings/Uses		
Dance Studio		
Day Care, Adult Commercial, non-residential		
Day Care, Child Commercial		
Day Spa		
Drive-Up Window (non-food), Banks, ATM's, Dry Cleaners, Pharmacy, etc.		
Day Treatment Center		
Distribution Facilities		
Dry Cleaning and Laundromat		
Education, After School Programs, Adult and Children		
Education, Higher, Public and Private		
Education, Public, Private, Charter or Quasi Public School		
Education, Trade, Vocational, Training		
Employment Agency, Temporary		
Equestrian Facilities		
Equipment Sales, Service, Rental, Heavy Equipment and Farm		
Escort / Outcall agencies		
Farmers Market		
Financial Institution		
Fitness, exercise Center		
Food Carts and Trucks, on Private Property		
Food Processing Establishments, Large Scale		
Food Processing Establishments, Small Scale		
Funeral / Mortuary Home, Stand Alone Building		
Garage/Yard Sales (residential)		
Golf Course		
Grooming Services		
Haunted House		
Home Occupation, Category I		P
Home Occupation, Category II		
Horticulture / Produce Sales		
Hospital		
Hospital, Specialty		
Hotel		
Hotel, Residential Lease, Extended Stay		
Impound and Tow Lot		
Industry, Light		
Jail		
Juvenile Detention Facility		
Laboratory, Industrial		
Laundry, Industrial		
Library (Public)	P	
Maintenance Facilities, Vehicle and Transit		
Manufacturing, Fabrication, Assembly, Processing, Packaging,		
Manufactured Homes		
Martial Arts Studio and training		
Massage Therapy		
Medical, Dental and Health Care Offices, On-site		
Medical, dental Research Facilities/Laboratory		
Model Home		
Mobile Commissary Kitchen		
Mobile Food Vending Trailers and Trucks	P	P
Mobile Food Truck Park		
Mobile Home Park		
Movie Studio and Sound Stage		
Non-Depository Institutions, check cashing, title loan, deferred deposit loans		
Nursery or Greenhouse, Commercial		
Office, General / Professional		
Outdoor Sales and Display		
Park and Ride Facilities		
Parking, Private, Ground Level, Commercial		
Parking, Structure/Terrace,		
Parks, Public and Private		
Pawn Shop		
Pedestrian Pathways, Trails and Greenways		
Permanent Make-Up not including a Tattoo Shop/Parlor		
Pharmacy		
Planned Unit Development, Commercial Condominium		

Portable Shipping Container, Temporary Storage		
Poultry, Urban		
Precious Metal Purchase/Recycling		
Printing, Copy Stores		
Printing, General		
Protective Housing Facility		
Public/Government Service and Accessory Buildings		
Public Utility Station		
Recreation Center		
Recycling Materials		
Collection/Drop-Off Facility, Indoor		
Rehabilitation and Treatment Facilities		
Research & Development Facility		
Restaurant, Sit Down		
Restaurant, Drive-Up Window		
Retail Merchandise, Stores, Accessory		
Retail or Wholesale Merchandise Stores, General		
Retail or Wholesale Merchandise Stores, Neighborhood		
Secondhand merchandise dealer		
Sexually Oriented Business		
Slaughterhouses, Animal Rendering, Tanneries, Animal By Products Plant		
Smoking Parlor/ Lounge, Head Shop or smoking paraphernalia specialty store		
Solar Utilities		
Storage, Vehicles, Outdoors including automobile impound lots		
Storage Facilities, Indoor Climate Controlled Units		
Storage Facilities, Warehouse, indoor		
Storage and Equipment Yards, Outside		
Tailoring Shop, Commercial		
Tattoo Shop / Parlor		
Temporary Uses, Firework Stands, Christmas Tree Lots, Refreshment Stands,		
Tire Service		
Tobacco, smoke, cigarette, Specialty Store		
Transitional Care and Rehabilitation		
Theater, Movie		
Theater, Live Performance		
Upholstery Shop		
Zero Lot Line Development		

**SECTION VII: Amend the South Salt Lake City Municipal Code Section 17.15.040 as follows:**

**17.15.040. Residential Land Use Matrix Table of Uses.** Add the following columns and use designations to the Residential Land Use Matrix Table of Uses as follows:

Land Use Categories	Granite Library	Granite Townhome
Assisted Living Facility – Limited Capacity (up to 30 units) (must comply with development standards for that zone – i.e., setback, height, bulk, min/max square footage)		
Assisted Living Facility – Large (31 units or more) (must comply with development standards for that zone – i.e., setback, height, bulk, min/max square footage)		
Condominiums, Residential		
Senior Living Facility		
Group Homes		
Homeless Shelter		
Residential Facility for Elderly Persons and Persons with a Disability ( <i>must comply with development standards for that zone- i.e., setback, height, bulk, min/max square footage</i> )		
Live/Work Units		
Manufactured Homes		
Multi-Family Complexes Greater than 50 Units		
Nursing Homes and Convalescent Facilities		
Permanent Supportive Housing		
Single Family Residence		
Townhomes/Row Homes		P
Transitional Housing Facility ( <i>must comply with development standards for that zone-i.e., setback, height, bulk, min/max square footage</i> )		

**SECTION VII: Amend the South Salt Lake City Municipal Code Section 17.21.030.** Add the following columns and designations to the Building Form table in Section 17.21.030A:

### 17.21.025 Building Form by Land Use District.

- A. Building Forms.** Only the following building forms, designated by the letter A are allowed in each **District**. All other building forms are prohibited.

Building Form	Granite Townhome	Granite Library
Detached House		
Mansion-style Multifamily		
Townhouse-Style Multifamily	A	
Garden-style Multifamily		
Urban-style Multifamily		
Storefront		
Civic		A
Office		
Commercial Retail		
Commercial bay		
Large Format Retail		
Flex/Industrial		

**SECTION VIII: Amend the South Salt Lake City Municipal Code Sections 17.21.030.** Amend text and add the following columns and standards to the tables as follows:

**17.21.030 Development Standards.** In addition to requirements of Title 15 of this Code, the following development standards apply:

- A. Yard Areas.** All development shall comply with the setbacks designated for each **zone District**. All yard areas shall be free of any structure and shall not be used for parking, unless otherwise provided herein:

Setbacks	GT	GL
Front Yard	20	20
Corner Side Frontage Yard	10	25
Side Yard	5	10
Side Yard Combined	10	20
Rear yard	20	25

#### 1. Yard Requirements and Qualifications.

- No yard area visible from the public street shall be used for storage.
- All front and corner side yard areas shall be landscaped according to the landscape standards established in this Title.
- Yard areas shall not be used for parking, except for driveways or garages as required by this Title.
- Fences, courtyards, and patios may be allowed provided they meet requirements established elsewhere in this Title.

- 2. Build-to Zones.** A "Build-to Zone" is the area of a lot in which the main building façade must be located. A building required to comply with a build to **zone-District** may encroach into the front yard.

Setbacks	Granite Library
Min – In Feet	10
Max – In Feet	30



**SECTION IX: Amend the South Salt Lake City Municipal Code Section 17.21.150 (mis-numbered as Section 17.27.150) as follows and correct the numeration error throughout:**

**17.21.150 Civic Building.** The Civic Building form is reserved for Public Library and City facilities.

**SECTION X. Severability.** If any section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

**SECTION XI. Conflict with Existing Ordinances, Resolutions, or Policies.** To the extent that any ordinances, resolutions, or policies of the City of South Salt Lake conflict with the provisions of this ordinance, this ordinance shall prevail.

**SECTION XII. Effective Date.** This ordinance shall become effective upon transmission to the office of the Mayor, and upon either the Mayor's signature and publication, or after fifteen days of transmission to the office of the Mayor if neither approved nor disapproved by the Mayor, and thereafter, publication.

DATED this \_\_\_\_ day of \_\_\_\_ 2019.

BY THE CITY COUNCIL:

\_\_\_\_\_  
Ben Pender, Council Chair

ATTEST:

\_\_\_\_\_  
Craig D. Burton, City Recorder

City Council Vote as Recorded:

Beverly	_____
deWolfe	_____
Kindred	_____
Mila	_____
Pender	_____
Siwik	_____
Thomas	_____

Transmitted to the Mayor's office on this \_\_\_\_ day of \_\_\_\_ 2019.

\_\_\_\_\_  
Craig D. Burton, City Recorder

MAYOR'S ACTION: \_\_\_\_\_

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

ATTEST:

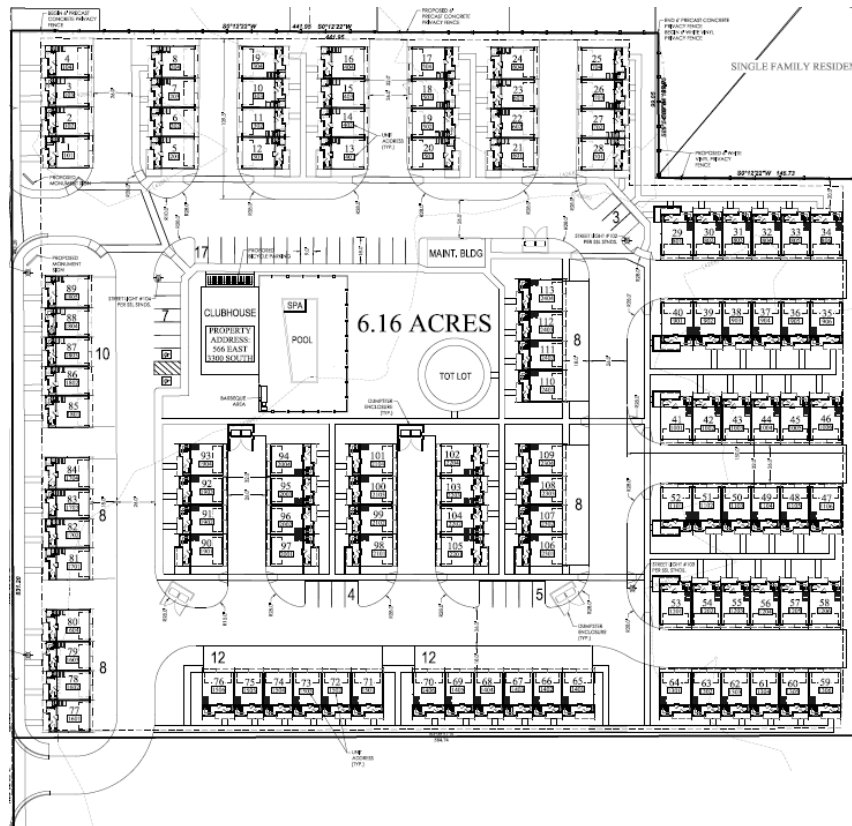
\_\_\_\_\_  
Cherie Wood, Mayor

\_\_\_\_\_  
Craig D. Burton, City  
Recorder

DRAFT

DRAFT

# Wasatch Granite Townhomes - Update Traffic Impact Study



**South Salt Lake City, Utah**

**February 2019**

**UT18-1209**



## EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Wasatch Granite Townhomes development located in South Salt Lake, Utah. The proposed project is located south of 3300 South on the east side of the old Granite High School.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways near the site. Future 2024 conditions were also analyzed.

The evening peak hour level of service (LOS) was computed for each study intersection. The results of this analysis are shown in Table ES-1. Recommended storage lengths are shown in Table ES-2.

<b>TABLE ES-1</b> <b>LOS Analysis - Evening Peak Hour</b> <b>South Salt Lake - Wasatch Granite Townhomes TIS</b>					
Intersection	Level of Service (Sec/Veh) <sup>1</sup>				
	Existing (2018) Background	Existing (2018) Plus Project	Future (2024) Background	Future (2024) Background - Mitigated	Future (2024) Plus Project
500 East / 3300 South	<b>B (19.3)</b>	<b>B (19.5)</b>	<b>C (23.5)</b>	<b>C (24.1)</b>	<b>C (24.0)</b>
540 East / 3300 South	<b>C (22.0) / SB</b>	<b>C (21.7) / SB</b>	<b>C (19.1) / SB</b>	<b>C (22.9) / SB</b>	<b>C (22.1) / SB</b>
700 East / 3300 South	<b>E (55.3)</b>	<b>E (55.7)</b>	<b>E (79.4)</b>	<b>D (50.5)</b>	<b>D (51.0)</b>
3360 South / 500 East	<b>A (4.3) / WB</b>	<b>A (3.7) / WB</b>	<b>A (7.5) / WB</b>	<b>A (7.6) / WB</b>	<b>A (7.6) / WB</b>
East Access / 3300 South <sup>2</sup>	-	<b>C (15.7) / NB</b>	-	-	<b>C (16.5) / NB</b>
West Access / 3300 South <sup>2</sup>	-	<b>B (12.3) / NB</b>	-	-	<b>C (18.5) / NB</b>
1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for roundabout, signalized, all-way stop controlled intersections and the worst approach for all other unsignalized intersections. 2. This intersection is a project access and was only analyzed in "plus project" scenarios. Source: Hales Engineering, June 2018					

**TABLE ES-2**  
**Recommended Storage Lengths**  
**South Salt Lake - Wasatch Granite Townhomes TIS**

Intersection	Storage Length (feet)							
	Northbound		Southbound		Eastbound		Westbound	
	LT	RT	LT	RT	LT	RT	LT	RT
700 East / 3300 South	-	-	-	-	-	<b>250</b>	-	<b>250</b>
East Access / 3300 South2	-	-	-	-	-	-	<b>100</b>	-
West Access / 3300 South2	-	-	-	-	-	-	<b>100</b>	-

Source: Hales Engineering, June 2018

## SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- All study intersections are currently operating at an acceptable LOS during the evening peak hour in existing (2018) background conditions except 700 East / 3300 South.
  - The average delay at the 700 East / 3300 South intersection is approximately 55.3 seconds of delay per vehicle. The D/E threshold is 55 seconds of delay per vehicle. The delay is very close to being acceptable. Potential mitigation measures could include implementation of a longer cycle length to allow more green time for all approaches or adding right-turn pockets in the east- and westbound directions.
- The development will consist of residential townhomes.
  - The East and West Accesses onto 3300 South do not meet access spacing requirements and will therefore require a variance from UDOT.
  - According to Administrative Rule R930-6, the East Access will require a left-turn deceleration lane in the westbound direction. There is already a center two-way left-turn lane on 3300 South that will function as the left-turn deceleration lane for this access.
- All study intersections are anticipated to operate at an acceptable LOS during the evening peak hour in the existing (2018) with project traffic added except 700 East / 3300 South.
  - The average delay is not anticipated to change much with the addition of project traffic, with approximately 55.7 seconds of delay per vehicle. The D/E threshold is 55 seconds of delay per vehicle. The delay is very close to being acceptable. Potential mitigation measures could include implementation of a longer cycle length to allow more green time for all approaches or adding right-turn pockets in the east- and westbound directions.
- All study intersections are anticipated to operate at an acceptable LOS during the evening peak hour in future (2024) background except 700 East / 3300 South.
  - It is recommended that right-turn pockets be constructed in the east- and westbound directions. This improvement is necessary due to background traffic growth.
    - With the addition of the right-turn pockets, all intersections are anticipated to perform at acceptable LOS.
  - Left-turn storage at 700 East / 3300 South is anticipated to be adequate for the north-, south-, and eastbound directions. The eastbound left-turn storage can overflow into the existing two-way left-turn lane.
- A BRT route is planned to be built along 3300 South as a phase two project. A phase two project can be built sometime between 2024 and 2034.

- All study intersections are anticipated to operate at acceptable LOS during the evening peak hour in future (2024) plus project conditions.
- An additional analysis was completed at the 500 East / 3300 South intersection evaluating the northbound approach with and without a right-turn pocket.
  - This analysis included the proposed Wasatch Granite Townhomes, Granite Legacy Subdivision, and a future library.
  - The LOS at 500 East / 3300 South was a LOS C for both analyses.
  - The northbound queue length without the right-turn pocket is anticipated to be approximately 275 feet.
  - The northbound queue length with the right-turn pocket is anticipated to be approximately 200 feet.
- It is recommended that a northbound right-turn pocket be constructed if the library access is located within 300 feet of the 500 East / 3300 South intersection.
  - This is to reduce the chances that the future library accesses are not blocked by queues.



## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>i</b>
<b>SUMMARY OF KEY FINDINGS/RECOMMENDATIONS .....</b>	<b>iii</b>
<b>TABLE OF CONTENTS .....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>vii</b>
<b>LIST OF FIGURES .....</b>	<b>vii</b>
<b>I. INTRODUCTION.....</b>	<b>1</b>
A. Purpose .....	1
B. Scope .....	2
C. Analysis Methodology .....	2
D. Level of Service Standards .....	2
<b>II. EXISTING (2018) BACKGROUND CONDITIONS.....</b>	<b>5</b>
A. Purpose .....	5
B. Roadway System .....	5
C. Traffic Volumes .....	5
D. Level of Service Analysis .....	8
E. Queuing Analysis .....	8
F. Mitigation Measures .....	9
<b>III. PROJECT CONDITIONS .....</b>	<b>10</b>
A. Purpose .....	10
B. Project Description .....	10
C. Trip Generation .....	10
D. Trip Distribution and Assignment .....	11
E. Access .....	13
F. Auxiliary Lane Requirements .....	13
<b>IV. EXISTING (2018) PLUS PROJECT CONDITIONS .....</b>	<b>15</b>
A. Purpose .....	15
B. Traffic Volumes .....	15
C. Level of Service Analysis .....	15
D. Queuing Analysis .....	15
E. Mitigation Measures .....	16
<b>V. FUTURE (2024) BACKGROUND CONDITIONS.....</b>	<b>18</b>
A. Purpose .....	18
B. Roadway Network .....	18
C. Traffic Volumes .....	18
D. Level of Service Analysis .....	20
E. Queuing Analysis .....	20
F. Mitigation Measures .....	21
<b>VI. FUTURE (2024) PLUS PROJECT CONDITIONS.....</b>	<b>23</b>

A.	Purpose .....	23
B.	Traffic Volumes .....	23
C.	Level of Service Analysis .....	23
D.	Queuing Analysis .....	25
E.	Mitigation Measures .....	26
F.	Recommended Storage Lengths .....	27
<b>VII.</b>	<b>500 East / 3300 South Intersection Analysis .....</b>	<b>28</b>
A.	Purpose .....	28
B.	Traffic Volumes .....	28
C.	Intersection Analysis .....	28

**Appendix A: Turning Movement Counts**

**Appendix B: LOS Results**

**Appendix C: Project Site Plan**

**Appendix D: Queuing Results**

**Appendix E: Right-turn Pocket Analysis (LOS & 95<sup>th</sup> Percentile Queuing Results)**

## LIST OF TABLES

Table 1 Level of Service Description .....	3
Table 2 Existing (2018) Background Evening Peak Hour Level of Service .....	8
Table 3 Trip Generation .....	11
Table 4 Existing (2018) Plus Project Evening Peak Hour Level of Service .....	16
Table 5 Future (2024) Background Evening Peak Hour Level of Service .....	20
Table 6 Future (2024) Background Evening Peak Hour Level of Service - Mitigated.....	22
Table 7 Future (2024) Plus Project Evening Peak Hour Level of Service .....	25
Table 8 Recommended Storage Lengths.....	27
Table 9 Future (2024) No Northbound Right-turn Pocket.....	29
Table 10 Future (2024) With Northbound Right-turn Pocket .....	29

## LIST OF FIGURES

Figure 1 Vicinity Map Showing the Project Location in South Salt Lake, Utah .....	1
Figure 2 LOS Letter Designation .....	4
Figure 3 Existing (2018) Background Evening Peak Hour Traffic Volumes .....	7
Figure 4 Trip Assignment for the Evening Peak Hour .....	12
Figure 5 Existing (2018) Plus Project Evening Peak Hour Traffic Volumes .....	17
Figure 6 Future (2024) Background Evening Peak Hour Volumes.....	19
Figure 7 Future (2024) Plus Project Evening Peak Hour Volumes.....	24

## I. INTRODUCTION

### A. Purpose

This study addresses the traffic impacts associated with the proposed Wasatch Granite Townhome development located in South Salt Lake, Utah. The proposed project is located South of 3300 South on the east side of the old Granite High School. Figure 1 shows a vicinity map of the proposed development.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways near the site. Future 2024 conditions were also analyzed.



**Figure 1 Vicinity Map Showing the Project Location in South Salt Lake, Utah**



## **B. Scope**

The study area was defined based on conversations with the development team. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersections:

- 500 East / 3300 South
- 540 East / 3300 South
- 700 East / 3300 South
- 500 East / 3360 South

## **C. Analysis Methodology**

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections. Figure 2 provides a visual representation of each LOS letter designation.

The Highway Capacity Manual (HCM), 6<sup>th</sup> Edition methodology was used in this study to remain consistent with “state-of-the-practice” professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized and all-way stop intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections LOS is reported based on the worst approach.

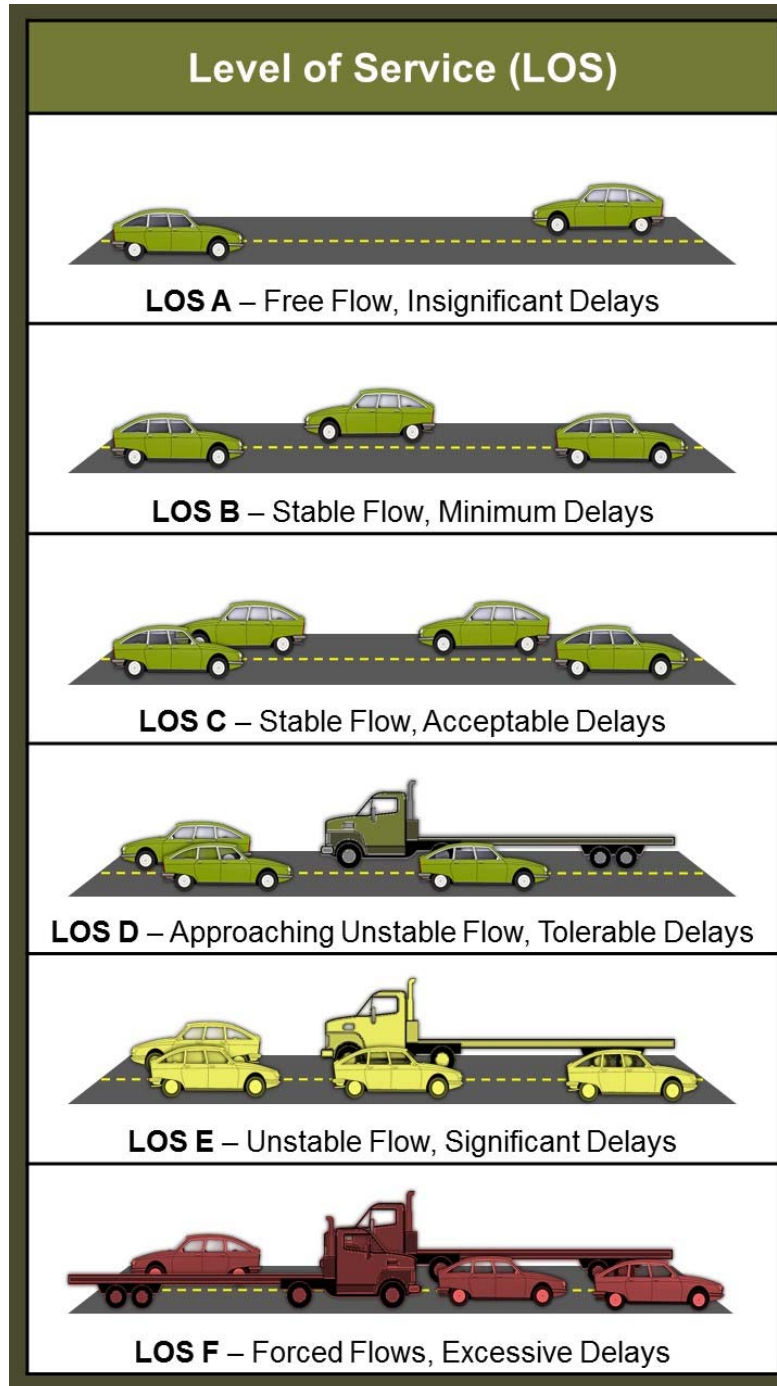
## **D. Level of Service Standards**

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. An LOS D threshold is consistent with “state-of-the-practice” traffic engineering principles for urbanized areas.

**Table 1 Level of Service Description**

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
<b>Signalized Intersections</b>		<b>Overall Intersection</b>
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	$0 \leq 10.0$
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	$> 10.0 \text{ and } \leq 20.0$
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	$> 20.0 \text{ and } \leq 35.0$
D	Marginal progression with relatively elevated levels of control delay. Operating conditions are noticeably more constrained.	$> 35.0 \text{ and } \leq 55.0$
E	Poor progression with unacceptably elevated levels of control delay. Operating conditions are at or near capacity.	$> 55.0 \text{ and } \leq 80.0$
F	Unacceptable progression with forced or breakdown operating conditions.	$> 80.0$
<b>Unsignalized Intersections</b>		<b>Worst Approach</b>
A	Free Flow / Insignificant Delay	$0 \leq 10.0$
B	Stable Operations / Minimum Delays	$> 10.0 \text{ and } \leq 15.0$
C	Stable Operations / Acceptable Delays	$> 15.0 \text{ and } \leq 25.0$
D	Approaching Unstable Flows / Tolerable Delays	$> 25.0 \text{ and } \leq 35.0$
E	Unstable Operations / Significant Delays Can Occur	$> 35.0 \text{ and } \leq 50.0$
F	Forced Flows / Unpredictable Flows / Excessive Delays Occur	$> 50.0$

Source: Hales Engineering Descriptions, based on *Highway Capacity Manual (HCM)*, 6<sup>th</sup> Edition Methodology (Transportation Research Board, 2016)



**Figure 2 LOS Letter Designation**

## **II. EXISTING (2018) BACKGROUND CONDITIONS**

### **A. Purpose**

The purpose of the background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified and potential mitigation measures recommended. This analysis will provide a baseline condition that may be compared to the build conditions to identify the impacts of the development.

### **B. Roadway System**

The primary roadways that will provide access to the project site are described below:

3300 South (SR-171) – is a state-maintained roadway (classified by UDOT access management standards as a “Regional Priority – Urban Importance” facility, or access category 5 roadway). 3300 South has two travel lanes in each direction separated by a two-way left-turn lane. As identified and controlled by UDOT, a “Regional Priority – Urban Importance” access classification identifies minimum signalized intersection spacing of one-half mile (2,640 feet), minimum unsignalized street spacing of 660 feet, and minimum driveway spacing of 350 feet. The posted speed limit on 3300 South is 35 mph.

700 East (SR-71) – is a state-maintained roadway (classified by UDOT access management standards as a “Regional Priority – Urban Importance” facility, or access category 5 roadway). 700 East has four travel lanes in each direction separated by a raised median north of 3300 South and a two-way left-turn lane south of 3300 South. As identified and controlled by UDOT, a “Regional Priority – Urban Importance” access classification identifies minimum signalized intersection spacing of one-half mile (2,640 feet), minimum unsignalized street spacing of 660 feet, and minimum driveway spacing of 350 feet. The posted speed limit on 700 East is 45 mph.

500 East – is a city-maintained roadway. 500 East has one travel lane in each direction with bike lanes and parking allowed on both sides. The posted speed limit is 30 mph in the study area.

### **C. Traffic Volumes**

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period traffic counts were performed at the following intersections:

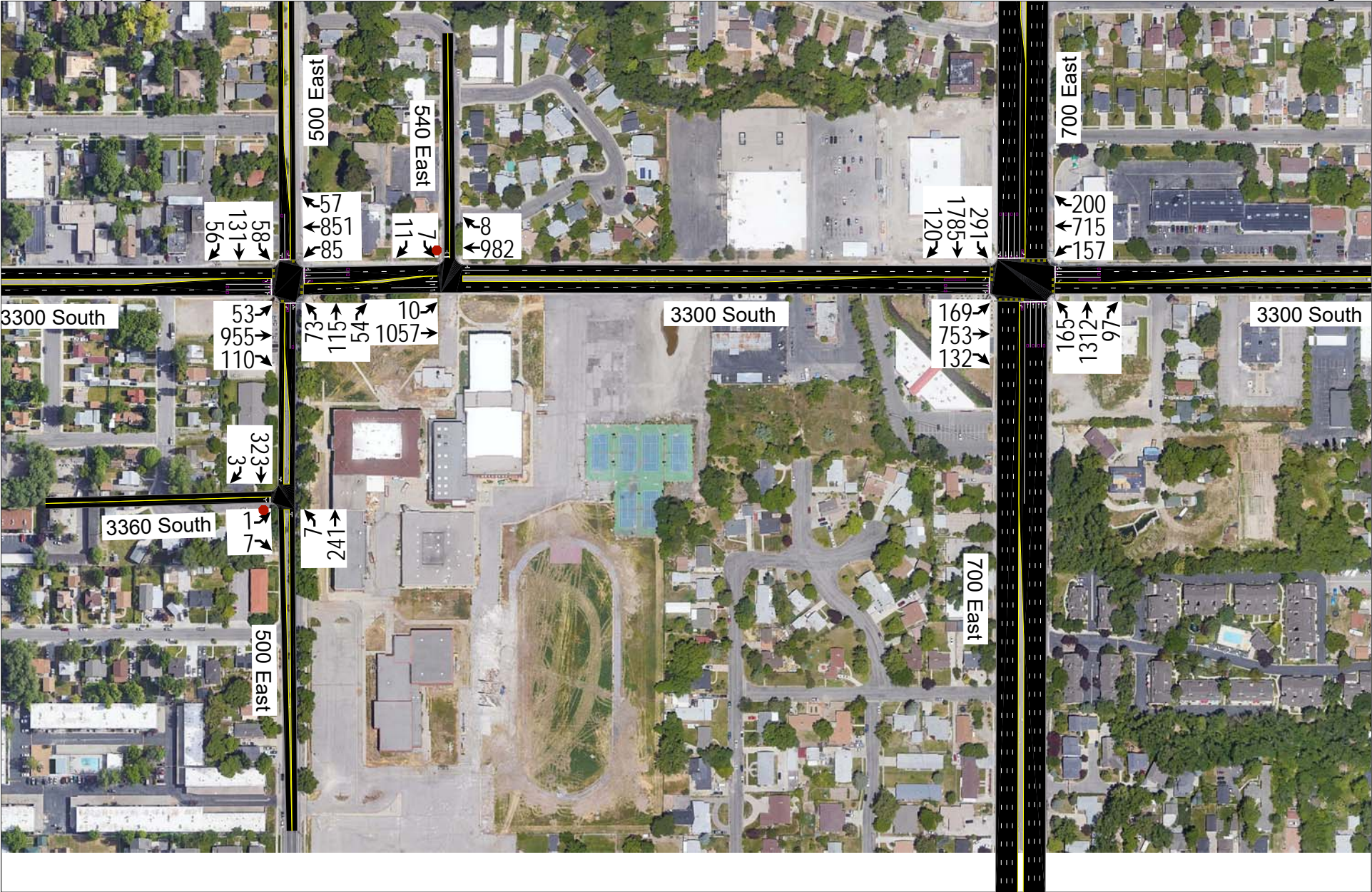
- 500 East / 3300 South
- 540 East / 3300 South
- 700 East / 3300 South



- 500 East / 3360 South

The counts were performed on Tuesday, March 20, 2018. The morning peak hour was determined to be between 8:00 and 9:00 a.m. and the evening peak hour was determined to be between 4:00 and 5:00 p.m. The evening peak hour volumes were approximately 45% higher than the morning peak hour volumes. Therefore, the evening peak hour volumes were used in the analysis to represent the worst-case conditions. Detailed count data are included in Appendix A.

Figure 3 shows the existing evening peak hour volumes as well as intersection geometry at the study intersections.





## D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the *Highway Capacity Manual (HCM)*, 6<sup>th</sup> Edition methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 2 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2018) conditions. As shown in Table 2, all study intersections are currently operating at an acceptable LOS during the evening peak hour except 700 East / 3300 South.

**Table 2 Existing (2018) Background Evening Peak Hour Level of Service**

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach <sup>1,3</sup>	Aver. Delay (Sec/Veh) <sup>1</sup>	LOS <sup>1</sup>	Aver. Delay (Sec/Veh) <sup>2</sup>	LOS <sup>2</sup>
500 East / 3300 South	Signal	-	-	-	19.3	B
540 East / 3300 South	SB Stop	SB	22.0	C	-	-
700 East / 3300 South	Signal	-	-	-	55.3	E
3360 South / 500 East	EB Stop	EB	4.3	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, April 2018

## E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. Some queueing was observed during the evening peak hour as follows:

### 500 East / 3300 South

Eastbound (250 feet)

Westbound (320 feet)

### 700 East / 3300 South

Northbound (460 feet)

Southbound (510 feet)

Eastbound (440 feet)

Westbound (700 feet)

## **F. Mitigation Measures**

The intersection of 700 East / 3300 South is currently performing at a poor LOS. This intersection is very busy on all approaches and all approaches are functioning at LOS D or E. Green time redistribution is unlikely to help mitigate this intersection. It is possible that a longer cycle length may help at this intersection, however, 700 East is a very long corridor and re-coordination of all the signals and their cross streets would be difficult.

A right-turn pocket could be beneficial on all the approaches. The westbound approach would likely benefit the most from a right-turn pocket since it does have the highest turning volume of all the approaches. This turn-pocket would reduce the queueing in the westbound direction as well.



### III. PROJECT CONDITIONS

#### A. Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

#### B. Project Description

This study addresses the traffic impacts associated with the proposed Wasatch Granite Townhome development located in South Salt Lake, Utah. The proposed project is located South of 3300 South on the east side of the old Granite High School. The development will consist of residential townhomes. A concept plan for the proposed developments has been included in Appendix C.

The proposed land use for the development has been identified as follows:

- Townhomes 113 Units

#### C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), Trip Generation, (10<sup>th</sup> Edition, 2017). Trip Generation for the proposed project is included in Table 3.

The total trip generation for the development is as follows:

- Daily Trips: 814
- Morning Peak Hour Trips: 54
- Evening Peak Hour Trips: 66

**Table 3**  
**South Salt Lake - Wasatch Granite Townhomes TIS**  
**Trip Generation**

<b>Weekday Daily</b> Land Use <sup>1</sup>	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total Daily Trips
Multifamily Housing (Low-Rise) (220)	113	Dwelling Units	814	50%	50%	407	407	814
Project Total Daily Trips						<b>407</b>	<b>407</b>	<b>814</b>
<b>A.M. Peak Hour</b> Land Use <sup>1</sup>	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total a.m. Trips
Multifamily Housing (Low-Rise) (220)	113	Dwelling Units	54	23%	77%	12	42	54
Project Total a.m. Peak Hour Trips						<b>12</b>	<b>42</b>	<b>54</b>
<b>P.M. Peak Hour</b> Land Use <sup>1</sup>	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total p.m. Trips
Multifamily Housing (Low-Rise) (220)	113	Dwelling Units	66	63%	37%	42	24	66
Project Total p.m. Peak Hour Trips						<b>42</b>	<b>24</b>	<b>66</b>

1. Land Use Code from the Institute of Transportation Engineers, *Trip Generation Manual* (10th Edition - 2017)

SOURCE: Hales Engineering, April 2018

## D. Trip Distribution and Assignment

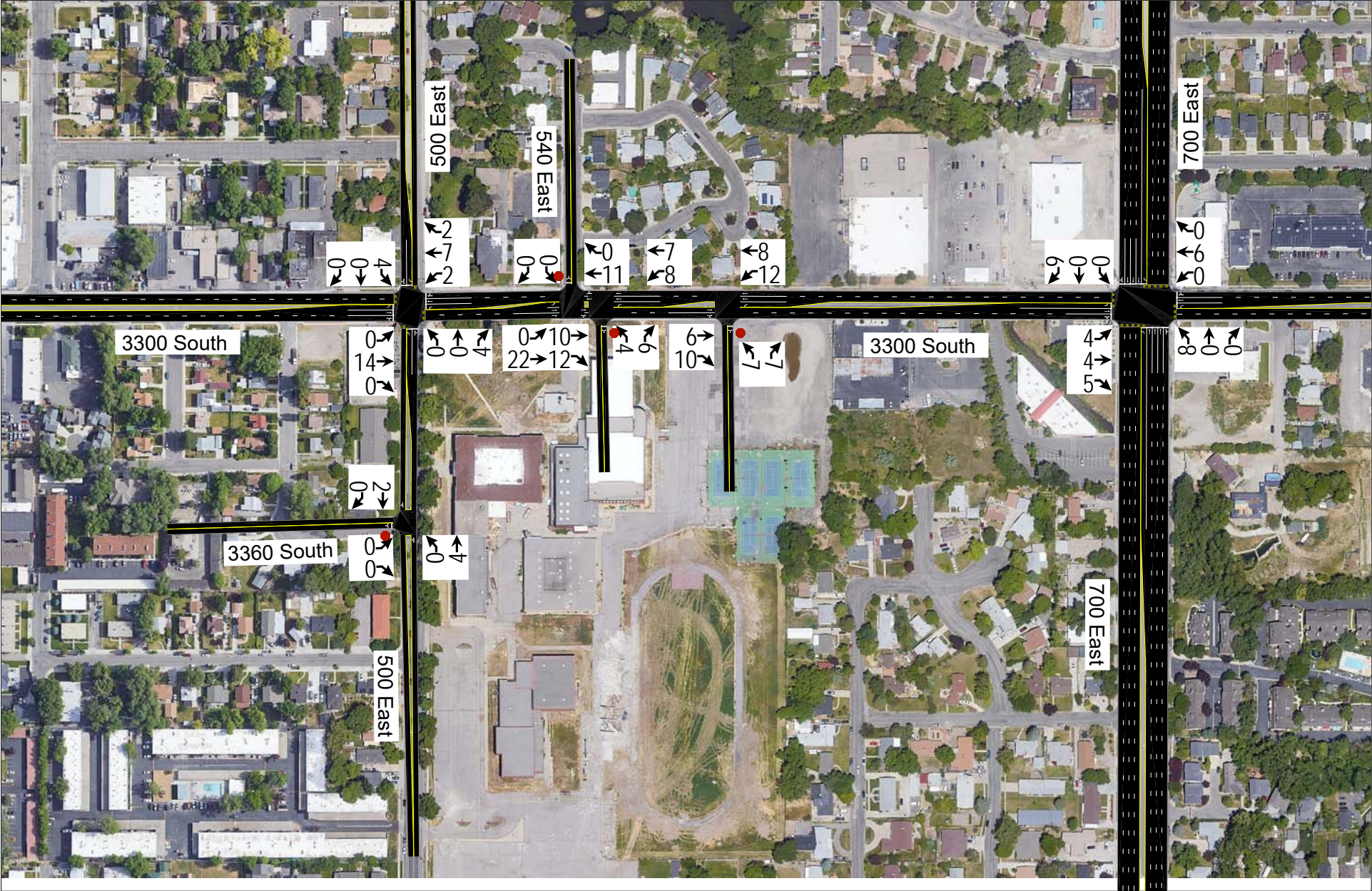
Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially in close proximity to the site. The resulting distribution of project generated trips during the evening peak hour is as follows:

### To/From Project:

- 15% North (via 700 East)
- 20% South (via 700 East)
- 10% North (via 500 East)
- 10% South (via 500 East)
- 15% East
- 30% West

These trip distribution assumptions were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 4.





## **E. Access**

The proposed access for the site will be gained at the following locations (see also concept plan in Appendix C):

### 3300 South:

- The East Access will be located approximately 350 feet east of the West Access. It is anticipated that the access will be full movement and stop-controlled. Based on Administrative Rule R930-6, this access will not meet the minimum spacing requirements for a driveway and will require a variance from UDOT.
- The West Access will be located approximately 330 feet east of 500 East. It is anticipated that the access will be full movement and stop-controlled. Based on Administrative Rule R930-6, this access will not meet the minimum spacing requirements for a driveway and will require a variance from UDOT.

## **F. Auxiliary Lane Requirements**

Based on Administrative Rule R930-6, the following auxiliary lanes may be required for the proposed accesses onto 3300 East (UDOT Access Category 5 roadway):

### Left-turn Deceleration Lane:

- Required when the projected peak hour left-turn ingress volume is greater than 10 vph. As shown in Figure 4, it is anticipated that this volume will be met during the evening peak hour at the East access off of 3300 South. Therefore, a left-turn lane is required at this location. A center TWLTL currently exists at this location and will serve as a left-turn deceleration lane for this access.

### Right-turn Deceleration Lane:

- Required when the projected peak hour right-turn ingress volume is greater than 25 vph. As shown in Figure 4, it is not anticipated that this peak hour volume will be met during the evening peak hour at the access onto 3300 South. Therefore, a right-turn deceleration lane is not required at this location.

### Right-turn Acceleration Lane:

- Required when the projected peak hour right-turn egress volume is greater than 50 vph when the posted speed limit on the highway is greater than 40 mph. As shown in Figure 4, it is not anticipated that this peak hour volume will be met during the evening peak hour at the access onto 3300 South. Therefore, a right-turn acceleration lane is not required at this location.



Left-turn Acceleration Lane:

- May be required if such a design will be a benefit to the safety and operation of the roadway. The existing center TWLTL on 3300 South can serve as a left-turn acceleration lane however, one is not required.

## **IV. EXISTING (2018) PLUS PROJECT CONDITIONS**

### **A. Purpose**

The purpose of the existing (2018) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for existing background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

### **B. Traffic Volumes**

Project trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. The existing (2018) plus project evening peak hour volumes were generated for the study intersections and are shown in Figure 5.

### **C. Level of Service Analysis**

Using Synchro/SimTraffic, which follow the *Highway Capacity Manual (HCM)*, 6<sup>th</sup> Edition methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 4 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 4, all intersections are anticipated to operate at an acceptable LOS during the evening peak hour with project traffic added except 700 East / 3300 South.

### **D. Queuing Analysis**

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. Some queuing is anticipated during the evening peak hour as follows.

#### 500 East / 3300 South

Eastbound (240 feet)

Westbound (330 feet)

#### 700 East / 3300 South

Northbound (440 feet)

Southbound (490 feet)

Eastbound (530 feet)

Westbound (700 feet)

**Table 4 Existing (2018) Plus Project Evening Peak Hour Level of Service**

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach <sup>1,3</sup>	Aver. Delay (Sec/Veh) <sup>1</sup>	LOS <sup>1</sup>	Aver. Delay (Sec/Veh) <sup>2</sup>	LOS <sup>2</sup>
500 East / 3300 South	Signal	-	-	-	19.5	B
540 East / 3300 South	SB Stop	SB	21.7	C	-	-
700 East / 3300 South	Signal	-	-	-	55.7	E
3360 South / 500 East	EB Stop	EB	3.7	A	-	-
East Access / 3300 South	NB Stop	NB	15.7	C	-	-
West Access / 3300 South	NB Stop	NB	12.3	B	-	-

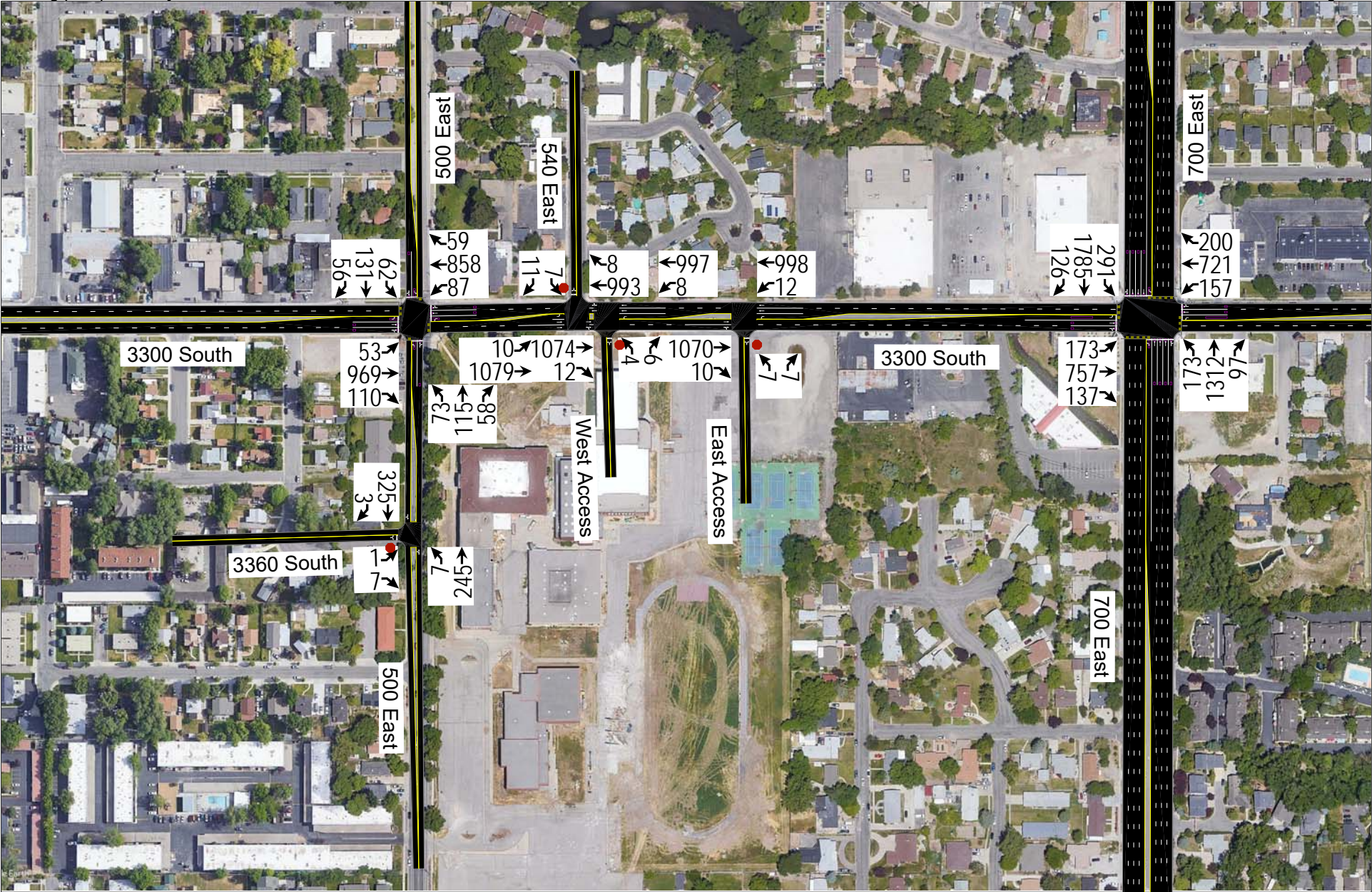
1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.  
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.  
3. SB = Southbound approach, etc.

Source: Hales Engineering, June 2018

## E. Mitigation Measures

The intersection of 700 East / 3300 South is anticipated to perform poorly. The average delay per vehicle is anticipated to be approximately 56.6 seconds per vehicle. The LOS D/E threshold is 55 seconds of delay per vehicle on average. This intersection is operating right at the threshold for a poorly performing intersection. As previously mentioned in the background scenario, a right-turn pocket on each of the four approaches could be beneficial. The westbound approach would likely benefit the most from a right-turn pocket since it does have the highest turning volume of all the approaches. This turn-pocket would reduce the queueing in the westbound direction.







## **V. FUTURE (2024) BACKGROUND CONDITIONS**

### **A. Purpose**

The purpose of the future (2024) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified, and potential mitigation measures recommended.

### **B. Roadway Network**

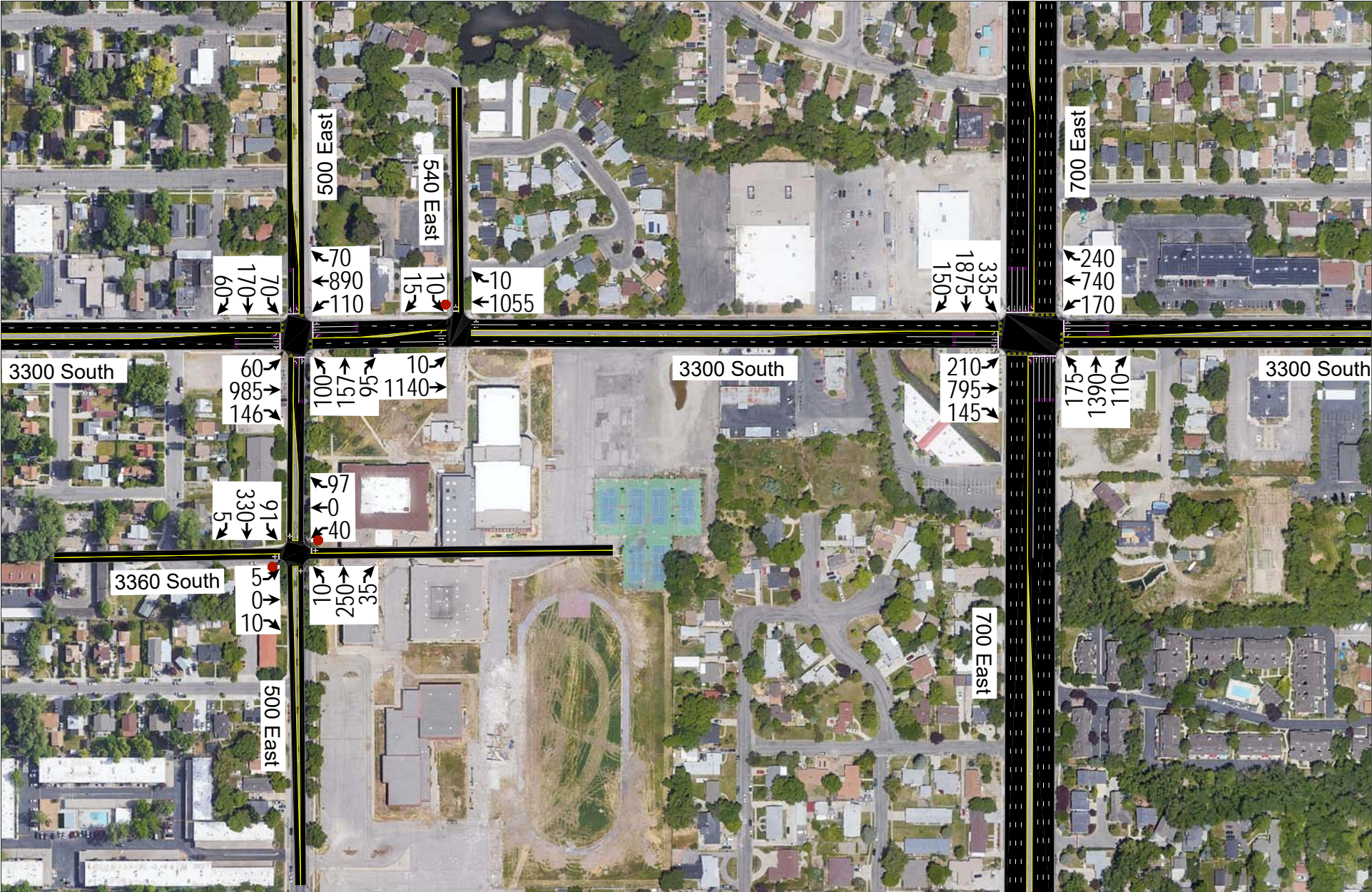
According to the Wasatch Front Regional Council Regional Transportation Plan, there are no projects planned before 2024 in the study area. Therefore, no changes were made to the roadway network for the Future (2024) analysis. According to the WFRC Regional Transportation Plan, there are plans to build a future BRT route through 3300 South. This project is planned as a phase two project which are planned to be built sometime between 2024 and 2034.

### **C. Traffic Volumes**

Hales Engineering obtained future (2024) forecasted volumes from the Wasatch Front Regional Council (WFRC) / Mountainland Association of Governments (MAG) travel demand model. Peak period turning movement counts were estimated using NCHRP 255 methodologies which utilize existing peak period turn volumes and future AWDT volumes to project the future turn volumes at the major intersections. Future (2024) evening peak hour turning movement volumes are shown in Figure 6.

It was assumed that the planned library between 500 East and the proposed development would be built before the year 2024. The library is still in the planning stages and the exact locations of accesses are unknown. It was assumed that the library would have a single access onto 500 East, to remain conservative. No access onto 3300 South is planned. It is currently planned to be approximately 30,000 square feet and was included in the 2024 background conditions analysis.







## D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the *Highway Capacity Manual (HCM)*, 6<sup>th</sup> Edition methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 5 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2024) conditions. As shown in Table 5, all intersections are anticipated to operate at an acceptable LOS during the evening peak hour except 700 East / 3300 South.

**Table 5 Future (2024) Background Evening Peak Hour Level of Service**

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach <sup>1,3</sup>	Aver. Delay (Sec/Veh) <sup>1</sup>	LOS <sup>1</sup>	Aver. Delay (Sec/Veh) <sup>2</sup>	LOS <sup>2</sup>
500 East / 3300 South	Signal	-	-	-	23.5	C
540 East / 3300 South	SB Stop	SB	19.1	C	-	-
700 East / 3300 South	Signal	-	-	-	79.4	E
3360 South / 500 East	EB/WB Stop	WB	7.5	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, April 2018

## E. Queuing Analysis

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. Some queuing is anticipated during the evening peak hour as follows:

### 500 East / 3300 South

Northbound (270 feet)  
Southbound (250 feet)  
Eastbound (270 feet)  
Westbound (330 feet)

### 700 East / 3300 South

Northbound (680 feet)  
Southbound (550 feet)  
Eastbound (500 feet)  
Westbound (1,140 feet)

The intersection of 700 East / 3300 South has a moderate number of left-turns on most of the directions. The north-, south-, and eastbound directions are anticipated to have adequate left-turn storage. The eastbound left-turn storage is currently 100 feet in length. Queue lengths are anticipated to be long than the provided length; however, the two-way left-turn lane could be used for further storage.

## **F. Mitigation Measures**

The intersection of 700 East / 3300 South is anticipated to perform at a poor LOS. It is recommended that right-turn pockets in the east and westbound directions be built. An additional analysis was completed using the recommended mitigation measure of the additional right-turn pockets in the east- and westbound directions. The LOS results are shown in Table 6. As shown in Table 6 all intersections are anticipated to perform at acceptable LOS. Some queueing is still anticipated as follows:

### 500 East / 3300 South

Northbound (270 feet)

Southbound (240 feet)

Eastbound (280 feet)

Westbound (340 feet)

### 700 East / 3300 South

Northbound (540 feet)

Southbound (500 feet)

Eastbound (350 feet)

Westbound (380 feet)



**Table 6 Future (2024) Background Evening Peak Hour Level of Service - Mitigated**

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach <sup>1,3</sup>	Aver. Delay (Sec/Veh) <sup>1</sup>	LOS <sup>1</sup>	Aver. Delay (Sec/Veh) <sup>2</sup>	LOS <sup>2</sup>
500 East / 3300 South	Signal	-	-	-	24.1	C
540 East / 3300 South	SB Stop	SB	22.9	C	-	-
700 East / 3300 South	Signal	-	-	-	50.5	D
3360 South / 500 East	EB/WB Stop	WB	7.6	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, April 2018

## **VI. FUTURE (2024) PLUS PROJECT CONDITIONS**

### **A. Purpose**

The purpose of the future (2024) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

### **B. Traffic Volumes**

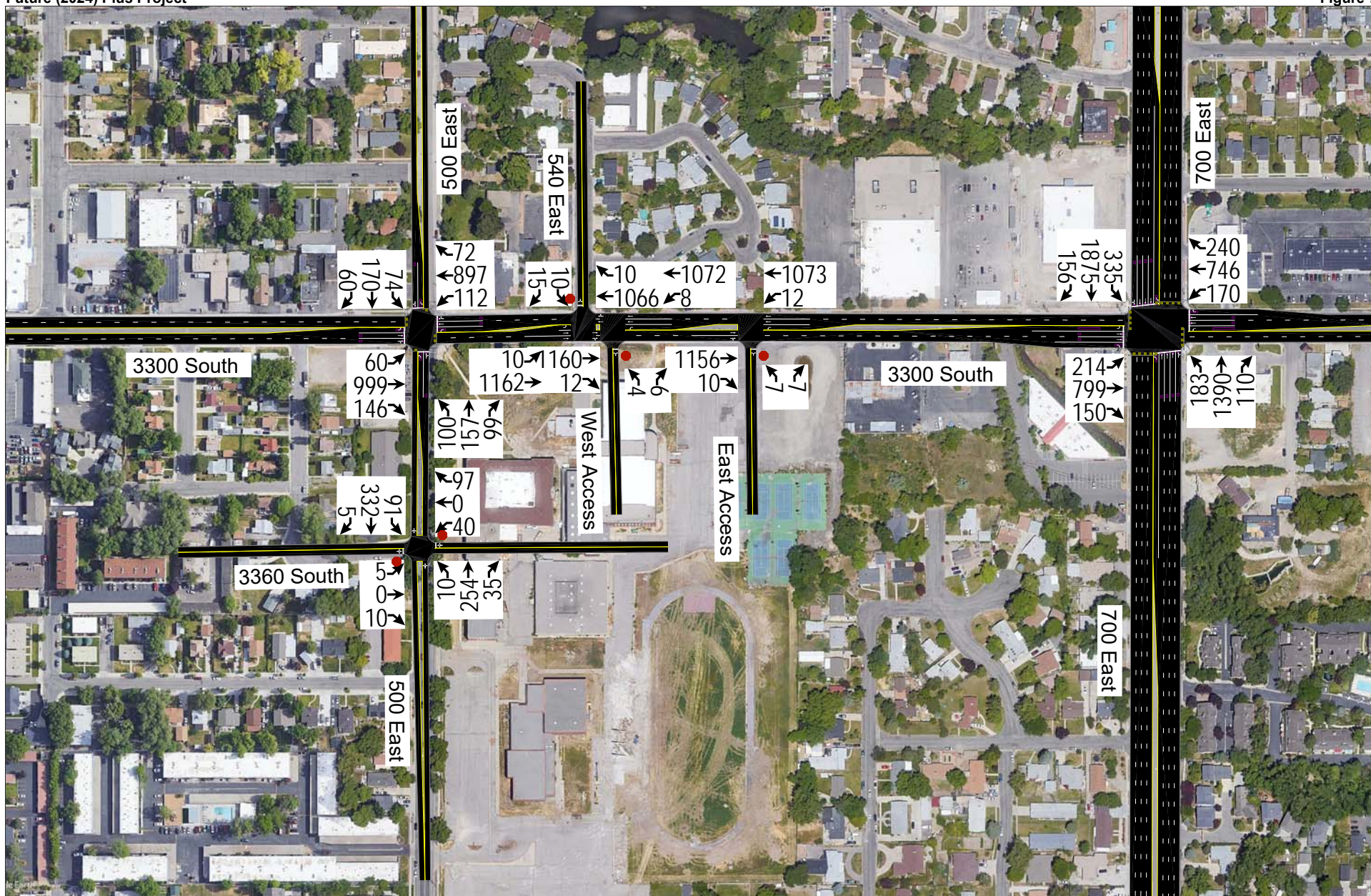
Hales Engineering used the future (2024) background traffic volumes and added the project trips to predict future (2024) plus project conditions. Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. Future (2024) plus project evening peak hour turning movement volumes are shown in Figure 7. This analysis also assumes that the right-turn pockets in the east- and westbound directions recommended in the background conditions analysis are constructed at the 700 East / 3300 South intersection.

### **C. Level of Service Analysis**

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM), 6<sup>th</sup> Edition methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 7 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 7, all intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

**Figure 7 Future (2024) Plus Project Evening Peak Hour Volumes**







## D. Queuing Analysis

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. Some queuing is anticipated during the evening peak hour as follows.

### 500 East / 3300 South

Northbound (280 feet)

Southbound (250 feet)

Eastbound (280 feet)

Westbound (340 feet)

### 700 East / 3300 South

Northbound (640 feet)

Southbound (530 feet)

Eastbound (340 feet)

Westbound (380 feet)

The intersection of 700 East / 3300 South has a moderate number of left-turns on most of the directions. The north-, south-, and eastbound directions are anticipated to have adequate left-turn storage. The eastbound left-turn storage is currently 100 feet in length. Queue lengths are anticipated to be long than the provided length; however, the two-way left-turn lane cause be used for further storage.

**Table 7 Future (2024) Plus Project Evening Peak Hour Level of Service**

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach <sup>1,3</sup>	Aver. Delay (Sec/Veh) <sup>1</sup>	LOS <sup>1</sup>	Aver. Delay (Sec/Veh) <sup>2</sup>	LOS <sup>2</sup>
500 East / 3300 South	Signal	-	-	-	24.0	C
540 East / 3300 South	SB Stop	SB	22.1	C	-	-
700 East / 3300 South	Signal	-	-	-	51.0	D
3360 South / 500 East	EB/WB Stop	WB	7.6	A	-	-
East Access / 3300 South	NB Stop	NB	16.5	C	-	-
West Access / 3300 South	NB Stop	NB	18.5	C	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, June 2018

## **E. Mitigation Measures**

No mitigation measures are recommended.

## F. Recommended Storage Lengths

Hales Engineering determined recommended storage lengths based on the 95<sup>th</sup> percentile queue lengths given in the future (2024) plus project scenario. These storage lengths do not include the taper length. Recommended storage lengths for the study intersections are shown in Table 8. Intersections shown in Table 8 include new intersections and existing intersections that have recommended storage length changes.

**Table 8 Recommended Storage Lengths**

Recommended Storage Lengths South Salt Lake - Wasatch Granite Townhomes TIS								
Intersection	Storage Length (feet)							
	Northbound		Southbound		Eastbound		Westbound	
	LT	RT	LT	RT	LT	RT	LT	RT
700 East / 3300 South	-	-	-	-	-	250	-	250
East Access / 3300 South2	-	-	-	-	-	-	100	-
West Access / 3300 South2	-	-	-	-	-	-	100	-
Source: Hales Engineering, June 2018								

## **VII. 500 East / 3300 South Intersection Analysis**

### **A. Purpose**

The purpose of this chapter is to evaluate the intersection of 500 East / 3300 South in South Salt Lake, Utah. This memorandum will specifically address the northbound movement and determine if a northbound right-turn pocket is necessary.

### **B. Traffic Volumes**

This analysis was completed using future 2024, evening peak hour traffic volumes from the traffic impact study completed by Hales Engineering for the Wasatch Granite Townhomes. The analysis also included traffic from the Wasatch Granite Townhomes development, a future library, and the Granite Legacy Subdivision. These projects are all planned to be built on the old Granite High School property.

### **C. Intersection Analysis**

An analysis was completed for the 500 East / 3300 South intersection specifically looking at the northbound approach. The first analysis does not include a northbound right-turn pocket at the 500 East / 3300 South intersection. The second analysis includes a northbound right-turn pocket.

#### **No Northbound Right-turn Pocket**

The analysis was completed in Synchro/SimTraffic and the results are shown in Table 9. As shown in Table 9, the 500 East / 3300 South intersection is anticipated to operate at a level of service (LOS) C (see Appendix E for detailed reports). The 95<sup>th</sup> percentile queue length in the northbound through/right-turn lane is anticipated to be approximately 275 feet.



**Table 9 Future (2024) No Northbound Right-turn Pocket**  
**Evening Peak Hour Level of Service**

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach <sup>1,3</sup>	Aver. Delay (Sec/Veh) <sup>1</sup>	LOS <sup>1</sup>	Aver. Delay (Sec/Veh) <sup>2</sup>	LOS <sup>2</sup>
500 East / 3300 South	Signal	-	-	-	25.0	C

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.  
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal-controlled intersections.  
3. SB = Southbound approach, etc.

Source: Hales Engineering, June 2018

### Northbound Right-turn Pocket

The analysis was completed in Synchro/SimTraffic and the results are shown in Table 10. As shown in Table 10, the 500 East / 3300 South intersection is anticipated to operate at a LOS C (see Appendix E for detailed reports). The 95<sup>th</sup> percentile queue length in the northbound through lane is approximately 200 feet and the right-turn pocket queue length is anticipated to be approximately 110 feet. With the addition of a right-turn pocket, the queue length in the northbound direction is anticipated to decrease by approximately 75 feet.

**Table 10 Future (2024) With Northbound Right-turn Pocket**  
**Evening Peak Hour Level of Service**

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach <sup>1,3</sup>	Aver. Delay (Sec/Veh) <sup>1</sup>	LOS <sup>1</sup>	Aver. Delay (Sec/Veh) <sup>2</sup>	LOS <sup>2</sup>
500 East / 3300 South	Signal	-	-	-	23.9	C

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.  
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal-controlled intersections.  
3. SB = Southbound approach, etc.

Source: Hales Engineering, June 2018

The LOS of the two analyses are LOS C with approximately the same average delay per vehicle. The 95<sup>th</sup> percentile queue lengths differ by approximately 75 feet. The library is planned to be built on the corner of 500 East / 3300 South and is currently planned to only have access out to 500 East. There are no plans available at this time to see where the library accesses are planned to be located. Seventy-five feet is not typically a significant distance; however, depending on the location of the library access, this distance could prove to be helpful for the overall intersection operations and queuing.

A northbound right-turn pocket is recommended if a library access will be located within 300 feet of the 500 East / 3300 South intersection. If the access points to the library are located further than 300 feet from the 500 East / 3300 South, then a right-turn pocket is likely not necessary.

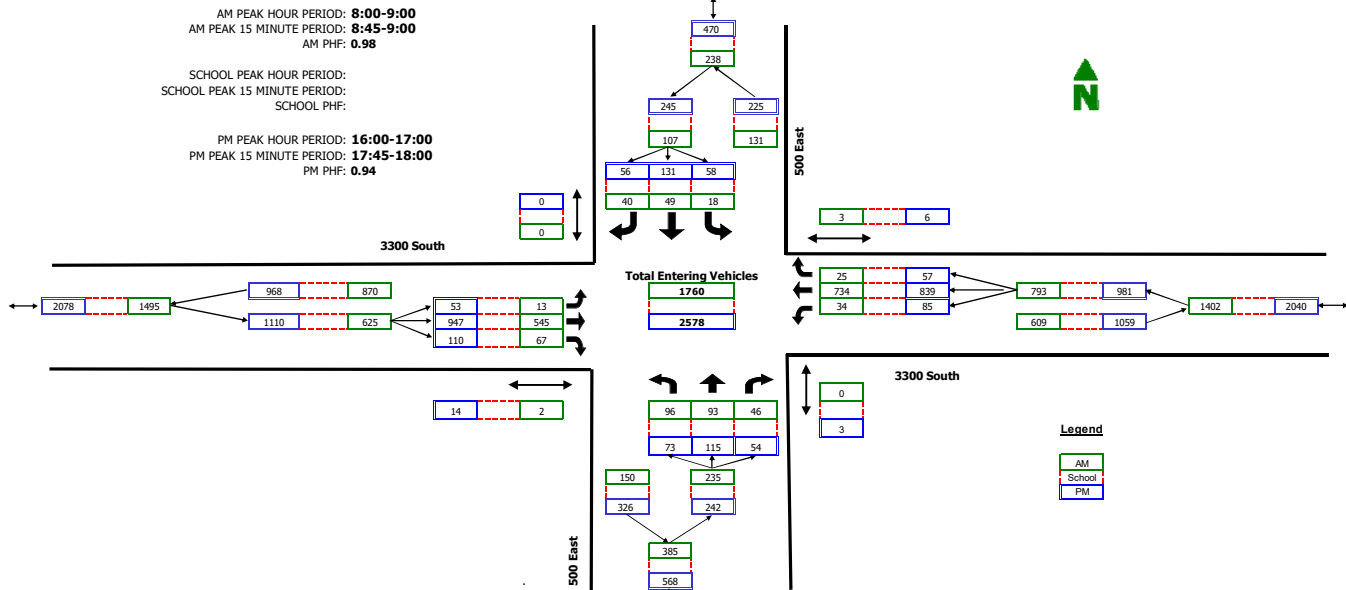
# APPENDIX A

## Turning Movement Counts

## Intersection Turning Movement Summary

Intersection: 500 East / 3300 South  
North/South: 500 East  
East/West: 3300 South  
Jurisdiction: Salt Lake City  
Project Title: Wasatch Granite Townhomes TIS  
Project No: UT18-1209  
Weather: Clear

Date: 3-20-18, Tue  
Day of Week Adjustment: 100.0%  
Month of Year Adjustment: 100.0%  
Adjustment Station #: 0  
Growth Rate: 0.0%  
Number of Years: 0



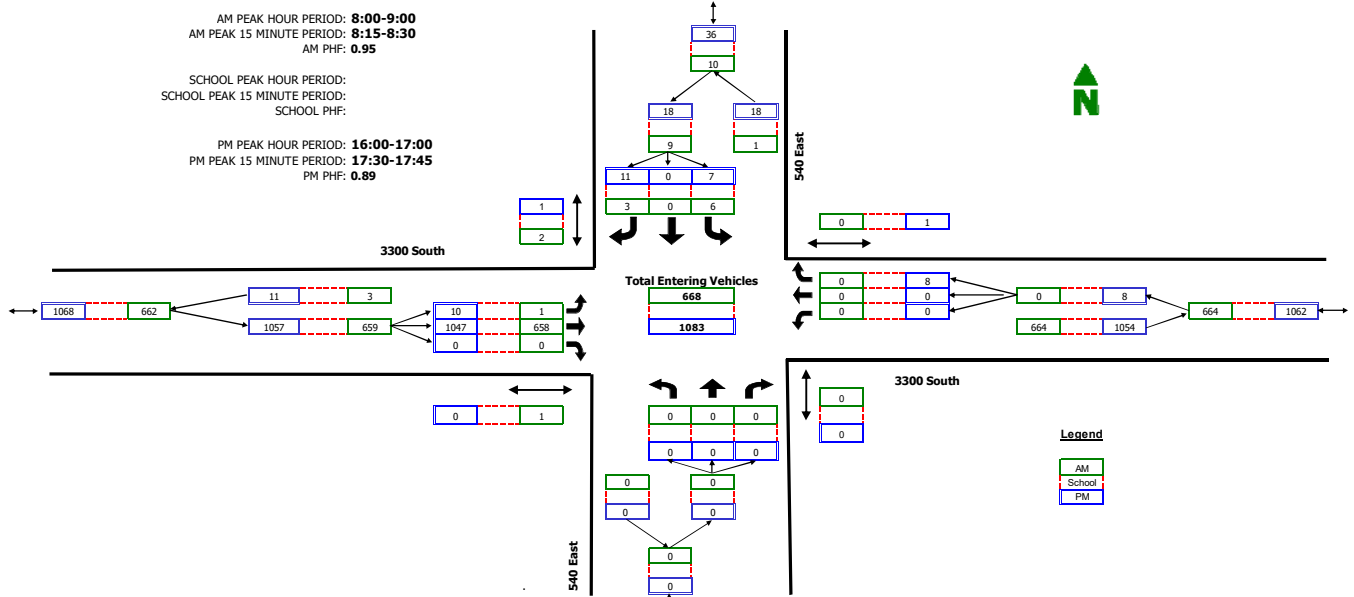
RAW COUNT SUMMARIES	500 East Northbound				500 East Southbound				3300 South Eastbound				3300 South Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	9	8	5	1	4	7	6	0	6	86	6	1	6	111	2	0	256
7:15-7:30	27	15	15	0	6	8	12	0	6	85	8	1	5	114	2	1	303
7:30-7:45	20	29	8	0	6	14	14	0	10	109	15	1	6	163	5	0	399
7:45-8:00	11	30	8	0	8	22	6	0	9	127	23	0	14	169	5	0	432
8:00-8:15	30	18	12	0	3	20	12	0	3	128	31	0	7	170	8	1	442
8:15-8:30	30	25	11	0	6	14	7	0	4	146	11	1	7	170	7	0	438
8:30-8:45	20	25	11	0	4	10	7	0	6	138	11	0	7	183	7	2	429
8:45-9:00	16	25	12	0	5	5	14	0	0	133	14	1	13	211	3	0	451
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00-9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15-9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30-9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45-10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15-10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30-10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45-11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30-13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	21	22	11	1	11	28	15	0	19	229	32	5	23	227	10	0	648
16:15-16:30	18	26	14	1	13	30	13	0	12	229	25	5	17	218	15	4	630
16:30-16:45	18	26	11	0	11	40	16	0	11	257	25	4	22	198	12	0	647
16:45-17:00	16	41	18	1	23	33	12	0	11	232	28	0	23	196	20	2	653
17:00-17:15	20	28	21	2	6	30	8	0	15	222	28	2	12	135	4	1	529
17:15-17:30	18	27	9	2	9	31	11	0	11	229	30	3	7	135	7	0	524
17:30-17:45	25	34	21	1	21	55	10	0	17	246	22	1	9	200	10	0	670
17:45-18:00	21	18	13	9	17	63	19	0	22	224	26	2	16	238	8	2	685



## Intersection Turning Movement Summary

Intersection: 540 East / 3300 South  
North/South: 540 East  
East/West: 3300 South  
Jurisdiction: Salt Lake City  
Project Title: Wasatch Granite Townhomes TIS  
Project No: UT18-1209  
Weather: Clear

Date: 3-20-18, Tue  
Day of Week Adjustment: 100.0%  
Month of Year Adjustment: 100.0%  
Adjustment Station #: 0  
Growth Rate: 0.0%  
Number of Years: 0

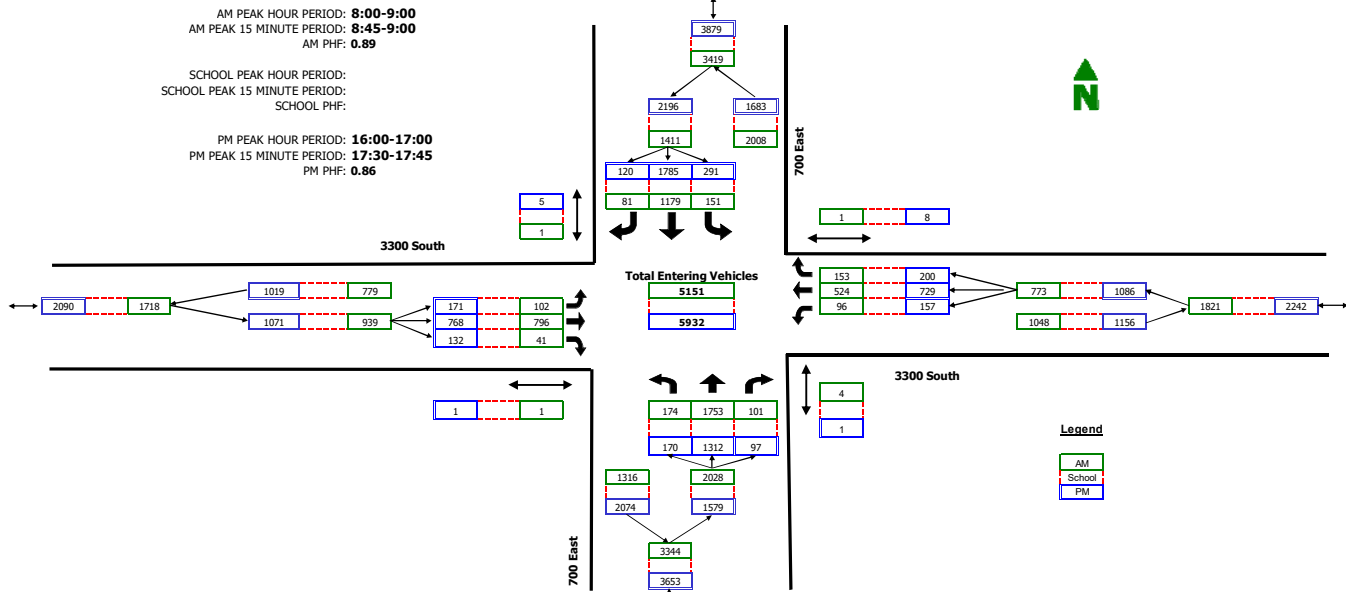


RAW COUNT SUMMARIES	540 East Northbound				540 East Southbound				3300 South Eastbound				3300 South Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	0	0	2	0	1	1	1	102	0	0	0	0	1	0	107
7:15-7:30	0	0	0	0	3	0	2	0	1	108	0	0	0	0	1	0	115
7:30-7:45	0	0	0	0	0	0	3	0	0	129	0	0	0	0	1	0	133
7:45-8:00	0	0	0	0	2	0	4	0	1	151	0	0	0	0	0	0	158
8:00-8:15	0	0	0	0	1	0	1	0	0	149	0	0	0	0	0	0	151
8:15-8:30	0	0	0	0	1	0	1	0	0	174	0	1	0	0	0	0	176
8:30-8:45	0	0	0	0	1	0	0	1	1	171	0	0	0	0	0	0	173
8:45-9:00	0	0	0	0	3	0	1	1	0	164	0	0	0	0	0	0	168
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00-9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15-9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30-9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45-10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15-10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30-10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45-11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30-13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	0	0	0	0	4	0	4	0	3	229	0	0	0	0	2	0	242
16:15-16:30	0	0	0	0	0	0	1	1	2	266	0	0	0	0	4	1	273
16:30-16:45	0	0	0	0	2	0	2	0	4	273	0	0	0	0	2	0	283
16:45-17:00	0	0	0	0	1	0	4	0	1	279	0	0	0	0	0	0	285
17:00-17:15	0	0	0	0	2	0	2	5	2	255	0	0	0	0	2	1	263
17:15-17:30	0	0	0	0	2	0	2	5	5	280	0	0	0	0	2	0	291
17:30-17:45	0	0	0	0	1	0	1	0	4	293	0	0	0	0	4	0	303
17:45-18:00	0	0	0	0	0	0	4	0	5	273	0	0	0	0	7	0	289

## Intersection Turning Movement Summary

Intersection: 700 East / 3300 South  
North/South: 700 East  
East/West: 3300 South  
Jurisdiction: Salt Lake City  
Project Title: Wasatch Granite Townhomes TIS  
Project No: UT18-1209  
Weather: Clear

Date: 3-20-18, Tue  
Day of Week Adjustment: 100.0%  
Month of Year Adjustment: 100.0%  
Adjustment Station #: 0  
Growth Rate: 0.0%  
Number of Years: 0

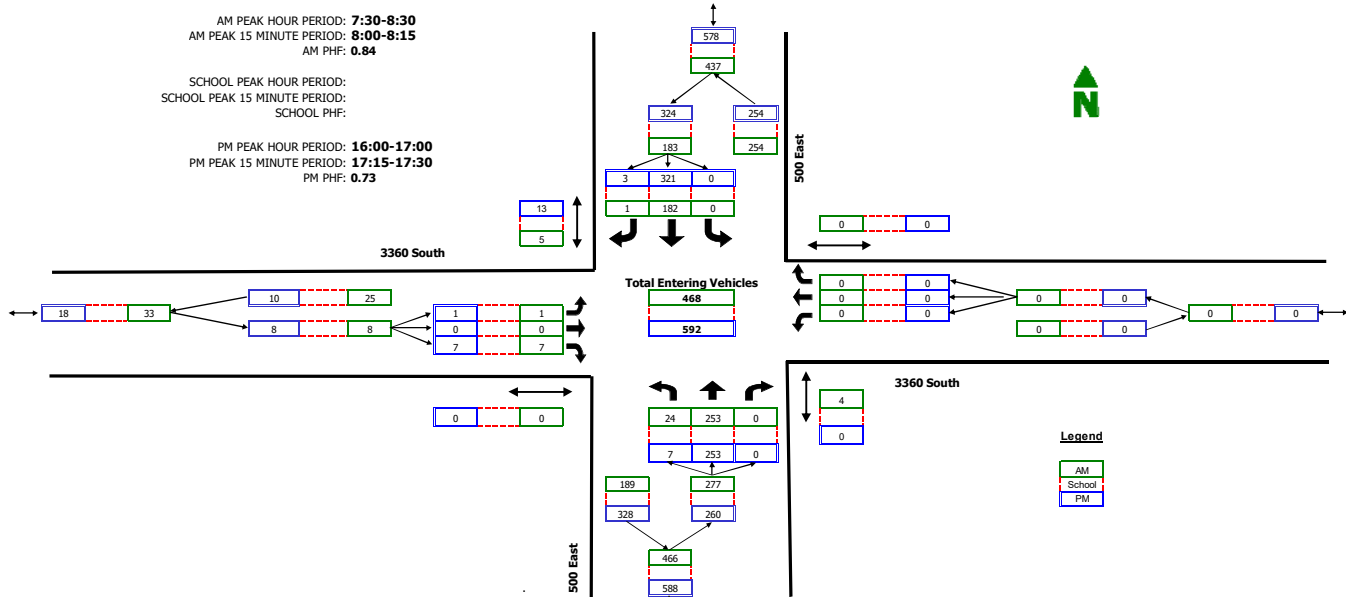


RAW COUNT SUMMARIES	700 East				700 East				3300 South				3300 South				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	29	291	3	0	21	126	14	0	28	66	22	0	25	73	42	3	740
7:15-7:30	29	490	12	0	21	197	11	0	28	128	22	0	17	91	46	0	1092
7:30-7:45	43	523	21	0	28	229	12	1	44	135	19	0	27	118	40	1	1239
7:45-8:00	53	525	24	2	23	282	13	1	19	137	13	0	18	133	30	0	1270
8:00-8:15	48	450	14	0	36	290	27	0	18	184	6	0	30	118	36	0	1257
8:15-8:30	42	458	29	0	41	303	16	0	21	186	8	0	27	128	44	0	1303
8:30-8:45	25	417	27	3	29	229	8	1	25	192	13	0	16	128	28	0	1137
8:45-9:00	59	428	31	1	45	357	30	0	38	234	14	1	23	150	45	1	1454
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00-9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15-9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30-9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45-10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15-10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30-10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45-11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30-13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	52	261	31	0	75	423	38	0	32	194	29	0	40	182	54	5	1411
16:15-16:30	40	329	37	1	89	415	35	2	41	194	34	0	40	181	49	2	1484
16:30-16:45	47	337	17	0	79	472	21	3	45	195	33	0	40	182	52	0	1520
16:45-17:00	31	385	12	0	48	475	26	0	53	185	36	1	37	184	45	1	1517
17:00-17:15	24	441	6	0	70	502	24	0	43	215	49	1	31	198	38	4	1641
17:15-17:30	39	437	11	4	76	425	22	0	48	225	36	2	37	208	52	1	1616
17:30-17:45	20	425	39	2	62	564	15	0	38	235	41	2	39	198	45	2	1721
17:45-18:00	40	416	12	0	72	459	18	1	67	229	32	1	28	225	50	2	1648

### Intersection Turning Movement Summary

Intersection: 500 East / 3360 South  
North/South: 500 East  
East/West: 3360 South  
Jurisdiction: Salt Lake City  
Project Title: Wasatch Granite Townhomes TIS  
Project No: UT18-1209  
Weather: Clear

Date:	3-20-18, Tue
Day of Week Adjustment:	100.0%
Month of Year Adjustment:	100.0%
Adjustment Station #:	0
Growth Rate:	0.0%
Number of Years:	0



RAW COUNT SUMMARIES	500 East				500 East				3360 South				3360 South				
	Left	Northbound	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	5	30	0	0	0	21	0	1	0	0	1	0	0	0	0	0	57
7:15-7:30	6	52	0	1	0	23	1	0	2	0	2	0	0	0	0	0	86
7:30-7:45	7	60	0	1	0	39	1	3	0	0	3	0	0	0	0	0	107
7:45-8:00	5	46	0	2	0	56	0	2	0	0	0	0	0	0	0	0	110
8:00-8:15	9	71	0	5	1	55	0	0	0	0	4	0	0	0	0	1	139
8:15-8:30	3	76	0	0	0	32	0	0	1	0	0	0	0	0	0	0	112
8:30-8:45	3	64	0	2	0	29	1	0	0	0	2	0	0	0	0	0	99
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00-9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15-9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30-9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45-10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15-10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30-10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45-11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30-13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	2	54	0	0	0	71	1	7	0	0	1	0	0	0	0	0	129
16:15-16:30	1	62	0	0	0	80	1	2	0	0	2	0	0	0	0	0	146
16:30-16:45	0	55	0	0	0	83	0	3	0	0	3	0	0	0	0	0	141
16:45-17:00	4	82	0	0	0	87	1	1	1	0	1	0	0	0	0	0	176
17:00-17:15	1	70	0	0	0	95	1	7	0	0	2	0	0	0	0	0	169
17:15-17:30	5	74	0	0	0	109	1	4	2	0	12	1	0	0	0	0	203
17:30-17:45	0	72	0	0	0	84	2	2	0	0	0	0	0	0	0	0	166
17:45-18:00	1	53	0	0	0	96	1	2	0	0	0	0	0	0	0	0	151

# APPENDIX B

## LOS Results



## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Existing (2018) Background  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 500 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	73	70	96	53.5	D
	T	115	113	98	43.5	D
	R	54	52	96	26.4	C
	Subtotal	242	235	97	42.7	D
SB	L	58	55	94	54.3	D
	T	131	130	99	43.7	D
	R	56	57	101	28.5	C
	Subtotal	245	242	99	42.5	D
EB	L	53	49	92	23.7	C
	T	955	946	99	8.8	A
	R	110	107	97	6.3	A
	Subtotal	1,118	1,102	99	9.2	A
WB	L	85	87	103	42.2	D
	T	852	853	100	17.1	B
	R	57	56	98	15.7	B
	Subtotal	994	996	100	19.2	B
<b>Total</b>		2,600	2,575	99	19.3	B

**Intersection:** 700 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	165	163	99	69.2	E
	T	1,312	1,301	99	63.0	E
	R	97	98	101	26.1	C
	Subtotal	1,574	1,562	99	61.3	E
SB	L	291	296	102	59.7	E
	T	1,785	1,762	99	46.1	D
	R	120	122	102	20.7	C
	Subtotal	2,196	2,180	99	46.5	D
EB	L	169	170	101	82.9	F
	T	764	748	98	35.6	D
	R	132	132	100	34.6	C
	Subtotal	1,065	1,050	99	43.1	D
WB	L	157	161	102	92.8	F
	T	715	718	100	73.5	E
	R	200	194	97	70.6	E
	Subtotal	1,072	1,073	100	75.9	E
<b>Total</b>		5,907	5,865	99	55.3	E

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Existing (2018) Background  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 3300 South & 540 East  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	7	6	83	37.1	E
	R	11	12	107	14.5	B
	<b>Subtotal</b>	<b>18</b>	<b>18</b>	<b>100</b>	<b>22.0</b>	<b>C</b>
EB	L	10	10	98	9.8	A
	T	1,058	1,042	99	1.1	A
	<b>Subtotal</b>	<b>1,068</b>	<b>1,052</b>	<b>99</b>	<b>1.2</b>	<b>A</b>
WB	T	992	993	100	4.8	A
	R	8	9	109	5.2	A
	<b>Subtotal</b>	<b>1,000</b>	<b>1,002</b>	<b>100</b>	<b>4.8</b>	<b>A</b>
<b>Total</b>		<b>2,086</b>	<b>2,072</b>	<b>99</b>	<b>3.2</b>	<b>A</b>

**Intersection:** 500 East & 3360 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	7	8	110	3.1	A
	T	241	235	98	0.4	A
	<b>Subtotal</b>	<b>248</b>	<b>243</b>	<b>98</b>	<b>0.5</b>	<b>A</b>
SB	T	324	321	99	1.4	A
	R	3	3	100	1.4	A
	<b>Subtotal</b>	<b>327</b>	<b>324</b>	<b>99</b>	<b>1.4</b>	<b>A</b>
EB	L	1	0	0		
	R	7	7	97	4.3	A
	<b>Subtotal</b>	<b>8</b>	<b>7</b>	<b>88</b>	<b>4.3</b>	<b>A</b>
<b>Total</b>		<b>583</b>	<b>574</b>	<b>98</b>	<b>1.0</b>	<b>A</b>

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.4	0.4
Total Delay (hr)	0.1	0.5	0.0	0.2	1.0	0.1	0.2	0.3	0.1	0.2	0.3	0.1
Total Del/Veh (s)	20.9	7.7	5.5	37.7	16.5	16.5	48.2	42.5	22.8	50.3	39.9	25.4
Vehicles Entered	10	223	25	18	202	14	16	27	12	14	30	14
Vehicles Exited	10	227	25	19	213	14	16	25	11	14	28	14
Hourly Exit Rate	40	908	100	76	852	56	64	100	44	56	112	56
Input Volume	51	916	105	81	817	55	70	110	52	56	126	54
% of Volume	78	99	95	94	104	102	91	91	85	100	89	104

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.1
Total Del/Veh (s)	17.8
Vehicles Entered	605
Vehicles Exited	616
Hourly Exit Rate	2464
Input Volume	2493
% of Volume	99

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.3
Total Delay (hr)	0.1	0.5	0.0	0.2	0.9	0.1	0.3	0.4	0.1	0.2	0.4	0.1
Total Del/Veh (s)	23.3	8.3	5.9	36.7	15.9	14.4	52.2	41.7	25.2	51.1	43.8	28.1
Vehicles Entered	12	231	25	22	208	14	17	29	13	12	31	13
Vehicles Exited	12	226	25	21	198	13	16	30	14	12	32	14
Hourly Exit Rate	48	904	100	84	792	52	64	120	56	48	128	56
Input Volume	51	916	105	81	817	55	70	110	52	56	126	54
% of Volume	94	99	95	104	97	95	91	109	108	86	102	104

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.2
Total Delay (hr)	3.3
Total Del/Veh (s)	18.4
Vehicles Entered	627
Vehicles Exited	613
Hourly Exit Rate	2452
Input Volume	2493
% of Volume	98

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.4	0.4
Total Delay (hr)	0.1	0.8	0.1	0.3	1.3	0.1	0.3	0.4	0.1	0.2	0.5	0.1
Total Del/Veh (s)	25.0	10.0	7.5	49.7	19.3	17.6	49.5	40.5	25.8	44.1	42.6	29.0
Vehicles Entered	14	264	30	23	224	15	22	33	15	15	38	18
Vehicles Exited	13	267	30	24	233	16	22	32	14	15	37	17
Hourly Exit Rate	52	1068	120	96	932	64	88	128	56	60	148	68
Input Volume	60	1073	124	96	956	64	82	129	61	65	147	63
% of Volume	87	100	97	100	97	100	107	99	92	92	101	108

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.2
Total Del/Veh (s)	20.5
Vehicles Entered	711
Vehicles Exited	720
Hourly Exit Rate	2880
Input Volume	2920
% of Volume	99

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.3	0.4
Total Delay (hr)	0.1	0.5	0.0	0.3	0.9	0.1	0.2	0.3	0.1	0.2	0.4	0.1
Total Del/Veh (s)	23.1	7.8	5.3	36.5	15.6	14.0	50.1	40.9	27.5	57.6	41.6	27.4
Vehicles Entered	13	226	27	24	217	14	15	26	13	14	33	12
Vehicles Exited	14	226	27	24	208	13	16	27	13	14	33	12
Hourly Exit Rate	56	904	108	96	832	52	64	108	52	56	132	48
Input Volume	51	916	105	81	817	55	70	110	52	56	126	54
% of Volume	110	99	103	119	102	95	91	98	100	100	105	89

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.3
Total Del/Veh (s)	18.1
Vehicles Entered	634
Vehicles Exited	627
Hourly Exit Rate	2508
Input Volume	2493
% of Volume	101



3: 500 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	2.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.4	0.4
Total Delay (hr)	0.3	2.3	0.2	1.0	4.1	0.3	1.1	1.4	0.4	0.8	1.6	0.5
Total Del/Veh (s)	23.7	8.8	6.3	42.2	17.1	15.7	53.5	43.5	26.4	54.3	43.7	28.5
Vehicles Entered	48	944	107	88	851	57	70	114	52	55	131	57
Vehicles Exited	49	946	107	87	853	56	70	113	52	55	130	57
Hourly Exit Rate	49	946	107	87	853	56	70	113	52	55	130	57
Input Volume	53	955	110	85	852	57	73	115	54	58	131	56
% of Volume	92	99	97	103	100	98	96	98	96	94	99	101

3: 500 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	13.9
Total Del/Veh (s)	19.3
Vehicles Entered	2574
Vehicles Exited	2575
Hourly Exit Rate	2575
Input Volume	2600
% of Volume	99

6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.2	0.3	2.1	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	0.6	1.7	0.3	0.8	2.5	0.6	0.7	4.7	0.1	1.1	4.9	0.1
Total Del/Veh (s)	51.5	32.8	31.4	62.0	49.9	44.9	57.8	48.6	19.2	48.8	37.5	15.4
Vehicles Entered	39	179	30	41	172	49	40	318	22	69	429	28
Vehicles Exited	37	167	27	39	159	46	41	333	22	74	458	30
Hourly Exit Rate	148	668	108	156	636	184	164	1332	88	296	1832	120
Input Volume	162	732	127	151	686	192	158	1258	93	279	1711	115
% of Volume	91	91	85	103	93	96	104	106	95	106	107	104

6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	18.0
Total Del/Veh (s)	42.5
Vehicles Entered	1416
Vehicles Exited	1433
Hourly Exit Rate	5732
Input Volume	5664
% of Volume	101

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.8	0.3	0.3	2.0	0.1	0.2	2.0	0.2	0.2
Total Delay (hr)	0.8	1.7	0.3	0.8	2.6	0.5	0.7	4.1	0.1	1.1	4.8	0.2
Total Del/Veh (s)	62.0	30.5	27.8	61.5	48.1	41.8	58.2	45.8	16.8	53.8	40.3	19.1
Vehicles Entered	44	178	31	41	172	42	40	311	28	68	419	30
Vehicles Exited	44	190	34	42	186	45	38	292	27	63	387	29
Hourly Exit Rate	176	760	136	168	744	180	152	1168	108	252	1548	116
Input Volume	162	732	127	151	686	192	158	1258	93	279	1711	115
% of Volume	109	104	107	111	108	94	96	93	116	90	90	101

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	17.7
Total Del/Veh (s)	42.6
Vehicles Entered	1404
Vehicles Exited	1377
Hourly Exit Rate	5508
Input Volume	5664
% of Volume	97

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.4	0.4	0.4	2.0	0.1	0.2	1.9	0.3	0.5
Total Delay (hr)	1.2	2.2	0.4	1.5	4.8	1.2	1.2	8.3	0.3	1.6	7.8	0.2
Total Del/Veh (s)	87.9	36.4	33.8	111.2	80.8	76.2	84.0	74.9	39.0	61.7	52.1	26.0
Vehicles Entered	46	208	39	44	206	56	47	366	27	83	492	32
Vehicles Exited	41	194	35	38	179	48	46	363	27	87	512	33
Hourly Exit Rate	164	776	140	152	716	192	184	1452	108	348	2048	132
Input Volume	190	858	148	176	803	225	185	1474	109	327	2006	135
% of Volume	86	90	95	86	89	85	99	99	99	106	102	98

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	30.7
Total Del/Veh (s)	62.6
Vehicles Entered	1646
Vehicles Exited	1603
Hourly Exit Rate	6412
Input Volume	6636
% of Volume	97

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.7	0.3	0.3	2.2	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	1.3	1.9	0.4	1.2	5.0	1.4	0.7	6.3	0.2	1.3	5.6	0.2
Total Del/Veh (s)	95.2	34.5	35.2	95.6	86.8	86.3	53.3	65.6	25.2	58.9	45.1	19.2
Vehicles Entered	42	181	32	34	171	49	38	311	22	75	421	31
Vehicles Exited	48	197	36	41	193	56	39	313	22	73	404	30
Hourly Exit Rate	192	788	144	164	772	224	156	1252	88	292	1616	120
Input Volume	162	732	127	151	686	192	158	1258	93	279	1711	115
% of Volume	119	108	113	109	113	117	99	100	95	105	94	104

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	25.5
Total Del/Veh (s)	58.3
Vehicles Entered	1407
Vehicles Exited	1452
Hourly Exit Rate	5808
Input Volume	5664
% of Volume	103

6: 700 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.3	0.3	2.1	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	4.0	7.4	1.3	4.3	14.9	3.9	3.2	23.3	0.7	5.1	23.1	0.7
Total Del/Veh (s)	82.9	35.6	34.6	92.8	73.5	70.6	69.2	63.0	26.1	59.7	46.1	20.7
Vehicles Entered	170	745	132	161	722	196	165	1306	99	296	1762	122
Vehicles Exited	170	748	132	161	718	194	163	1301	98	296	1762	122
Hourly Exit Rate	170	748	132	161	718	194	163	1301	98	296	1762	122
Input Volume	169	764	132	157	715	200	165	1312	97	291	1785	120
% of Volume	101	98	100	102	100	97	99	99	101	102	99	102

6: 700 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.4
Total Delay (hr)	91.9
Total Del/Veh (s)	55.3
Vehicles Entered	5876
Vehicles Exited	5865
Hourly Exit Rate	5865
Input Volume	5907
% of Volume	99

9: 3300 South & 540 East Performance by movement Interval #1 4:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.3	0.0	0.0	0.0	0.4
Total Del/Veh (s)	9.9	1.1	4.5	7.5	40.9	17.4	3.0
Vehicles Entered	3	249	227	2	1	3	485
Vehicles Exited	4	247	233	2	1	3	490
Hourly Exit Rate	16	988	932	8	4	12	1960
Input Volume	10	1014	951	8	7	11	2001
% of Volume	160	97	98	100	57	109	98

9: 3300 South & 540 East Performance by movement Interval #2 4:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.3	0.0	0.0	0.0	0.4
Total Del/Veh (s)	11.6	1.1	4.8	4.1	24.6	10.0	3.1
Vehicles Entered	2	249	251	3	2	3	510
Vehicles Exited	2	251	243	2	2	3	503
Hourly Exit Rate	8	1004	972	8	8	12	2012
Input Volume	10	1014	951	8	7	11	2001
% of Volume	80	99	102	100	114	109	101

9: 3300 South & 540 East Performance by movement Interval #3 4:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.4	0.0	0.0	0.0	0.5
Total Del/Veh (s)	12.0	1.2	5.0	3.1	45.2	21.1	3.3
Vehicles Entered	2	294	256	2	2	4	560
Vehicles Exited	2	290	262	2	2	4	562
Hourly Exit Rate	8	1160	1048	8	8	16	2248
Input Volume	11	1188	1114	9	8	12	2342
% of Volume	73	98	94	89	100	133	96



9: 3300 South & 540 East Performance by movement Interval #4 4:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.3	0.0	0.0	0.0	0.4
Total Del/Veh (s)	5.6	1.0	4.6	4.9	42.1	7.2	3.0
Vehicles Entered	2	251	260	2	1	2	518
Vehicles Exited	2	254	255	2	1	2	516
Hourly Exit Rate	8	1016	1020	8	4	8	2064
Input Volume	10	1014	951	8	7	11	2001
% of Volume	80	100	107	100	57	73	103

9: 3300 South & 540 East Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.3	1.3	0.0	0.1	0.1	1.8
Total Del/Veh (s)	9.8	1.1	4.8	5.2	37.1	14.5	3.2
Vehicles Entered	10	1043	994	9	6	12	2074
Vehicles Exited	10	1042	993	9	6	12	2072
Hourly Exit Rate	10	1042	993	9	6	12	2072
Input Volume	10	1058	992	8	7	11	2086
% of Volume	98	99	100	109	83	107	99

11: 500 East & 3360 South Performance by movement Interval #1 4:00

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.0	3.1	0.3	1.3	1.4	0.9
Vehicles Entered	2	2	53	71	1	129
Vehicles Exited	2	2	54	73	1	132
Hourly Exit Rate	8	8	216	292	4	528
Input Volume	7	7	231	310	3	559
% of Volume	114	114	94	94	133	94

11: 500 East & 3360 South Performance by movement Interval #2 4:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.6	0.2	0.0		0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.6	3.8	0.3	1.4		1.0
Vehicles Entered	2	2	59	78	0	141
Vehicles Exited	2	2	59	75	0	138
Hourly Exit Rate	8	8	236	300	0	552
Input Volume	7	7	231	310	3	559
% of Volume	114	114	102	97	0	99

11: 500 East & 3360 South Performance by movement Interval #3 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.1	0.3	0.0		0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		3.6	4.0	0.5	1.4		1.1
Vehicles Entered	0	2	2	70	90	0	164
Vehicles Exited	0	2	2	70	92	0	166
Hourly Exit Rate	0	8	8	280	368	0	664
Input Volume	1	8	8	271	364	3	655
% of Volume	0	100	100	103	101	0	101

11: 500 East & 3360 South Performance by movement Interval #4 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		6.0	3.3	0.3	1.4	1.4	1.0
Vehicles Entered	0	1	1	53	82	1	138
Vehicles Exited	0	1	1	53	80	1	136
Hourly Exit Rate	0	4	4	212	320	4	544
Input Volume	1	7	7	231	310	3	559
% of Volume	0	57	57	92	103	133	97

11: 500 East & 3360 South Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)		4.3	3.1	0.4	1.4	1.4	1.0
Vehicles Entered	0	7	8	236	322	3	576
Vehicles Exited	0	7	8	235	321	3	574
Hourly Exit Rate	0	7	8	235	321	3	574
Input Volume	1	7	7	241	324	3	583
% of Volume	0	97	110	98	99	100	98

Total Network Performance By Interval

Interval Start	4:00	4:15	4:30	4:45	All
Denied Delay (hr)	0.2	0.2	0.2	0.2	0.8
Denied Del/Veh (s)	0.4	0.4	0.5	0.5	0.5
Total Delay (hr)	23.3	23.0	37.5	30.9	114.8
Total Del/Veh (s)	48.4	48.5	66.9	61.4	62.3
Vehicles Entered	1545	1543	1812	1535	6442
Vehicles Exited	1570	1505	1744	1608	6428
Hourly Exit Rate	6280	6020	6976	6432	6428
Input Volume	16913	16913	19810	16913	17637
% of Volume	37	36	35	38	36

Intersection: 3: 500 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	59	225	222	176	270	287	87	162	95	177
Average Queue (ft)	25	133	116	72	196	222	54	97	51	104
95th Queue (ft)	60	222	217	173	298	316	103	171	110	188
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					1	1				
Queuing Penalty (veh)					3	5				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)		12		3	16		4	13	2	15
Queuing Penalty (veh)		6		13	13		6	9	3	9

Intersection: 3: 500 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	60	231	207	154	272	285	103	185	93	191
Average Queue (ft)	32	145	121	72	190	219	58	111	45	114
95th Queue (ft)	71	243	219	165	297	317	114	189	90	200
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					0	1				
Queuing Penalty (veh)					2	5				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	13		5	15		5	17	2	21
Queuing Penalty (veh)	0	7		19	12		8	12	3	12

Intersection: 3: 500 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	115	259	236	214	288	300	137	192	132	212
Average Queue (ft)	44	167	150	90	229	248	80	117	59	146
95th Queue (ft)	139	265	254	202	314	327	146	211	124	242
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					1	3				
Queuing Penalty (veh)					7	15				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	18		7	20		6	22	2	28
Queuing Penalty (veh)	2	11		32	20		12	18	5	18



Intersection: 3: 500 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	66	220	212	156	277	291	100	177	95	175
Average Queue (ft)	35	137	120	81	207	229	52	104	51	109
95th Queue (ft)	73	226	217	168	291	310	102	179	102	180
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					0	1				
Queuing Penalty (veh)					1	3				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	11		5	16		2	16	4	18
Queuing Penalty (veh)	1	6		21	13		3	11	7	10

Intersection: 3: 500 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	125	288	267	238	298	302	149	222	144	240
Average Queue (ft)	34	146	126	79	206	230	61	107	52	118
95th Queue (ft)	93	242	229	178	304	320	120	189	108	207
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					1	1				
Queuing Penalty (veh)					3	7				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	13		5	17		4	17	2	21
Queuing Penalty (veh)	1	7		21	14		7	13	5	12

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	191	313	351	225	384	408	199	396	371	328	230	348
Average Queue (ft)	123	223	258	137	276	294	132	310	285	233	152	227
95th Queue (ft)	206	358	388	249	409	441	216	419	391	339	258	354
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	2	10		33	55			0				0
Queuing Penalty (veh)	6	17		115	83			1				0

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	481	442	344	231
Average Queue (ft)	380	354	271	168
95th Queue (ft)	503	476	376	256
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)	4			
Queuing Penalty (veh)	11			

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	254	323	345	252	393	394	202	370	343	302	212	297
Average Queue (ft)	145	217	247	159	306	306	124	293	274	225	132	190
95th Queue (ft)	253	343	368	294	431	415	229	384	360	318	237	317
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	7	10		33	52			0				
Queuing Penalty (veh)	26	16		114	79			0				

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	439	416	348	234
Average Queue (ft)	357	329	251	154
95th Queue (ft)	456	429	358	248
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)	2			
Queuing Penalty (veh)	4			

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	299	413	427	400	590	589	257	513	479	431	338	480
Average Queue (ft)	204	284	309	270	455	456	177	412	385	329	250	350
95th Queue (ft)	367	452	480	487	718	700	304	570	532	469	382	546
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	19	16		53	69			11				2
Queuing Penalty (veh)	79	30		215	121			20				8

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	578	526	432	326
Average Queue (ft)	482	439	354	252
95th Queue (ft)	665	597	505	367
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	2	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)	17			
Queuing Penalty (veh)	57			



Intersection: 6: 700 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	292	362	398	398	658	660	192	491	472	414	320	428
Average Queue (ft)	217	255	281	262	518	515	125	367	344	291	190	256
95th Queue (ft)	371	434	463	487	912	884	219	510	482	432	348	451
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)					0	0						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	23	15		36	62			5				1
Queuing Penalty (veh)	83	24		124	94			9				3

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	523	480	385	279
Average Queue (ft)	383	357	277	184
95th Queue (ft)	559	504	414	309
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)	6			
Queuing Penalty (veh)	16			

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	328	421	443	400	682	682	272	530	498	438	346	514
Average Queue (ft)	172	245	274	207	389	393	139	346	322	270	181	256
95th Queue (ft)	319	405	432	411	692	679	249	495	465	410	328	448
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)					0	0						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	13	13		39	59			4				1
Queuing Penalty (veh)	48	22		142	94			7				3

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	601	549	453	329
Average Queue (ft)	400	370	288	189
95th Queue (ft)	570	520	430	313
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	1	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)	7			
Queuing Penalty (veh)	22			

Intersection: 9: 3300 South & 540 East, Interval #1

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	29	23	38	37
Average Queue (ft)	8	4	7	18
95th Queue (ft)	29	34	39	47
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	3			
Queuing Penalty (veh)	16			

Intersection: 9: 3300 South & 540 East, Interval #2

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	24	10	26	38
Average Queue (ft)	6	1	4	16
95th Queue (ft)	26	16	28	43
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	10			

Intersection: 9: 3300 South & 540 East, Interval #3

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	19	5	37	61	38
Average Queue (ft)	4	0	7	11	23
95th Queue (ft)	20	0	42	53	47
Link Distance (ft)		290	1147	1147	488
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	25				
Storage Blk Time (%)	2				
Queuing Penalty (veh)	12				

Intersection: 9: 3300 South & 540 East, Interval #4

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	15	8	16	33
Average Queue (ft)	3	1	3	12
95th Queue (ft)	17	13	22	38
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	1			
Queuing Penalty (veh)	3			

Intersection: 9: 3300 South & 540 East, All Intervals

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	35	5	62	70	46
Average Queue (ft)	5	0	3	6	17
95th Queue (ft)	23	0	28	37	45
Link Distance (ft)		290	1147	1147	488
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	25				
Storage Blk Time (%)	2				
Queuing Penalty (veh)	10				

Intersection: 11: 500 East & 3360 South, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	30	18
Average Queue (ft)	8	2
95th Queue (ft)	30	15
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: 500 East & 3360 South, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	24	17
Average Queue (ft)	8	3
95th Queue (ft)	31	20
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		



Intersection: 11: 500 East & 3360 South, Interval #3

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	28	20
Average Queue (ft)	7	2
95th Queue (ft)	27	19
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: 500 East & 3360 South, Interval #4

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	18	19
Average Queue (ft)	5	2
95th Queue (ft)	24	23
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: 500 East & 3360 South, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	33	38
Average Queue (ft)	7	2
95th Queue (ft)	28	20
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty, Interval #1: 315
Network wide Queuing Penalty, Interval #2: 329
Network wide Queuing Penalty, Interval #3: 681
Network wide Queuing Penalty, Interval #4: 430
Network wide Queuing Penalty, All Intervals: 439

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Existing (2018) Plus Project  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 500 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	73	72	99	52.6	D
	T	115	111	97	40.1	D
	R	58	58	100	24.6	C
	Subtotal	246	241	98	40.1	D
SB	L	62	59	96	51.1	D
	T	131	136	104	44.7	D
	R	56	54	96	29.4	C
	Subtotal	249	249	100	42.9	D
EB	L	53	55	103	21.8	C
	T	969	978	101	9.3	A
	R	110	114	104	7.0	A
	Subtotal	1,132	1,147	101	9.7	A
WB	L	87	86	99	43.1	D
	T	858	858	100	17.9	B
	R	59	61	103	15.8	B
	Subtotal	1,004	1,005	100	19.9	B
<b>Total</b>		2,632	2,642	100	19.5	B

**Intersection:** 700 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	173	174	101	67.4	E
	T	1,312	1,312	100	59.1	E
	R	97	94	97	25.7	C
	Subtotal	1,582	1,580	100	58.0	E
SB	L	291	287	99	60.9	E
	T	1,785	1,780	100	45.9	D
	R	126	129	102	21.3	C
	Subtotal	2,202	2,196	100	46.4	D
EB	L	173	172	99	89.7	F
	T	768	776	101	42.8	D
	R	137	133	97	44.2	D
	Subtotal	1,078	1,081	100	50.4	D
WB	L	157	154	98	95.0	F
	T	721	718	100	75.1	E
	R	200	192	96	65.9	E
	Subtotal	1,078	1,064	99	76.3	E
<b>Total</b>		5,940	5,921	100	55.7	E

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Existing (2018) Plus Project  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 3300 South & 540 East  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
<b>SB</b>	L	7	7	97	31.9	D
	R	11	10	89	14.5	B
	<b>Subtotal</b>	<b>18</b>	<b>17</b>	<b>94</b>	<b>21.7</b>	<b>C</b>
EB	L	10	10	98	9.2	A
	T	1,080	1,087	101	1.2	A
	<b>Subtotal</b>	<b>1,090</b>	<b>1,097</b>	<b>101</b>	<b>1.3</b>	<b>A</b>
WB	T	993	994	100	0.5	A
	R	8	8	97	0.0	A
	<b>Subtotal</b>	<b>1,001</b>	<b>1,002</b>	<b>100</b>	<b>0.5</b>	<b>A</b>
<b>Total</b>		<b>2,110</b>	<b>2,116</b>	<b>100</b>	<b>1.1</b>	<b>A</b>

**Intersection:** 500 East & 3360 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	7	9	124	3.1	A
	T	245	243	99	0.3	A
	<b>Subtotal</b>	<b>252</b>	<b>252</b>	<b>100</b>	<b>0.4</b>	<b>A</b>
SB	T	326	331	102	1.4	A
	R	3	4	133	1.3	A
	<b>Subtotal</b>	<b>329</b>	<b>335</b>	<b>102</b>	<b>1.4</b>	<b>A</b>
<b>EB</b>	L	1	1	100	3.5	A
	R	7	9	124	3.7	A
	<b>Subtotal</b>	<b>8</b>	<b>10</b>	<b>125</b>	<b>3.7</b>	<b>A</b>
<b>Total</b>		<b>589</b>	<b>597</b>	<b>101</b>	<b>1.0</b>	<b>A</b>

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Existing (2018) Plus Project  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** East Access & 3300 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
<b>NB</b>	L	7	6	83	27.8	D
	R	7	9	124	7.7	A
	<b>Subtotal</b>	<b>14</b>	<b>15</b>	<b>107</b>	<b>15.7</b>	<b>C</b>
EB	T	1,070	1,073	100	0.6	A
	R	10	10	98	0.4	A
	<b>Subtotal</b>	<b>1,080</b>	<b>1,083</b>	<b>100</b>	<b>0.6</b>	<b>A</b>
WB	L	12	13	106	8.9	A
	T	1,008	1,010	100	3.4	A
	<b>Subtotal</b>	<b>1,020</b>	<b>1,023</b>	<b>100</b>	<b>3.5</b>	<b>A</b>
<b>Total</b>		<b>2,115</b>	<b>2,121</b>	<b>100</b>	<b>2.1</b>	<b>A</b>

**Intersection:** West Access & 3300 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
<b>NB</b>	L	4	3	75	22.3	C
	R	6	6	96	7.3	A
	<b>Subtotal</b>	<b>10</b>	<b>9</b>	<b>90</b>	<b>12.3</b>	<b>B</b>
EB	T	1,074	1,077	100	0.1	A
	R	12	15	122	0.0	A
	<b>Subtotal</b>	<b>1,086</b>	<b>1,092</b>	<b>101</b>	<b>0.1</b>	<b>A</b>
WB	L	8	8	97	5.3	A
	T	997	998	100	1.0	A
	<b>Subtotal</b>	<b>1,005</b>	<b>1,006</b>	<b>100</b>	<b>1.0</b>	<b>A</b>
<b>Total</b>		<b>2,102</b>	<b>2,107</b>	<b>100</b>	<b>0.6</b>	<b>A</b>

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.4	0.5
Total Delay (hr)	0.1	0.6	0.0	0.2	1.1	0.1	0.3	0.3	0.1	0.2	0.4	0.1
Total Del/Veh (s)	18.8	8.7	5.8	36.2	17.7	16.8	52.2	38.4	23.3	48.2	44.4	29.3
Vehicles Entered	12	227	28	19	210	17	18	27	12	13	32	13
Vehicles Exited	12	232	28	20	220	18	18	26	12	14	32	13
Hourly Exit Rate	48	928	112	80	880	72	72	104	48	56	128	52
Input Volume	51	929	105	83	823	57	70	110	56	59	126	54
% of Volume	94	100	107	96	107	126	103	95	86	95	102	96

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.4
Total Del/Veh (s)	18.7
Vehicles Entered	628
Vehicles Exited	645
Hourly Exit Rate	2580
Input Volume	2523
% of Volume	102

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.5
Total Delay (hr)	0.1	0.6	0.0	0.2	1.0	0.0	0.2	0.3	0.1	0.2	0.5	0.1
Total Del/Veh (s)	19.8	8.4	6.2	37.0	16.9	12.6	52.6	42.6	21.9	52.0	46.0	33.9
Vehicles Entered	13	234	27	22	209	13	15	25	16	15	36	13
Vehicles Exited	13	232	27	22	200	13	14	26	16	15	34	12
Hourly Exit Rate	52	928	108	88	800	52	56	104	64	60	136	48
Input Volume	51	929	105	83	823	57	70	110	56	59	126	54
% of Volume	102	100	103	106	97	91	80	95	114	102	108	89

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.4
Total Del/Veh (s)	18.9
Vehicles Entered	638
Vehicles Exited	624
Hourly Exit Rate	2496
Input Volume	2523
% of Volume	99



3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.9	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.4	0.3
Total Delay (hr)	0.1	0.9	0.1	0.4	1.2	0.1	0.3	0.3	0.1	0.2	0.4	0.1
Total Del/Veh (s)	25.2	10.8	8.5	58.5	19.6	19.2	47.2	36.6	23.9	43.0	38.3	27.3
Vehicles Entered	16	282	34	21	219	14	21	32	16	17	36	15
Vehicles Exited	15	283	33	19	228	14	22	31	15	17	38	15
Hourly Exit Rate	60	1132	132	76	912	56	88	124	60	68	152	60
Input Volume	60	1089	124	98	965	66	82	129	65	70	147	63
% of Volume	100	104	106	78	95	85	107	96	92	97	103	95

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.2
Total Del/Veh (s)	20.3
Vehicles Entered	723
Vehicles Exited	730
Hourly Exit Rate	2920
Input Volume	2958
% of Volume	99

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.5
Total Delay (hr)	0.1	0.5	0.1	0.2	1.0	0.1	0.3	0.3	0.1	0.2	0.4	0.1
Total Del/Veh (s)	18.2	7.9	6.9	34.2	16.2	14.4	51.4	39.3	28.0	49.1	42.0	25.7
Vehicles Entered	13	233	26	23	220	16	18	28	14	14	32	14
Vehicles Exited	14	232	26	24	211	16	17	28	15	13	31	14
Hourly Exit Rate	56	928	104	96	844	64	68	112	60	52	124	56
Input Volume	51	929	105	83	823	57	70	110	56	59	126	54
% of Volume	110	100	99	116	103	112	97	102	107	88	98	104

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.3
Total Delay (hr)	3.4
Total Del/Veh (s)	18.1
Vehicles Entered	651
Vehicles Exited	641
Hourly Exit Rate	2564
Input Volume	2523
% of Volume	102

3: 500 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.4	0.4
Total Delay (hr)	0.3	2.5	0.2	1.0	4.3	0.3	1.1	1.3	0.4	0.9	1.7	0.4
Total Del/Veh (s)	21.8	9.3	7.0	43.1	17.9	15.8	52.6	40.1	24.6	51.1	44.7	29.4
Vehicles Entered	54	976	114	86	858	60	72	112	59	60	136	54
Vehicles Exited	55	978	114	86	858	61	72	111	58	59	136	54
Hourly Exit Rate	55	978	114	86	858	61	72	111	58	59	136	54
Input Volume	53	969	110	87	858	59	73	115	58	62	131	56
% of Volume	103	101	104	99	100	103	99	97	100	96	104	96

3: 500 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	14.5
Total Del/Veh (s)	19.5
Vehicles Entered	2641
Vehicles Exited	2642
Hourly Exit Rate	2642
Input Volume	2632
% of Volume	100

6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.3	0.4	2.3	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	0.7	1.6	0.3	0.6	3.3	0.7	1.0	4.6	0.1	1.1	4.8	0.2
Total Del/Veh (s)	62.0	31.3	28.6	55.4	62.3	55.8	72.6	48.0	17.1	50.6	36.4	17.7
Vehicles Entered	37	180	31	37	181	46	45	317	21	69	425	31
Vehicles Exited	36	170	29	35	167	43	44	335	22	73	458	33
Hourly Exit Rate	144	680	116	140	668	172	176	1340	88	292	1832	132
Input Volume	166	736	131	151	691	192	166	1258	93	279	1711	121
% of Volume	87	92	89	93	97	90	106	107	95	105	107	109

6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	19.0
Total Del/Veh (s)	44.3
Vehicles Entered	1420
Vehicles Exited	1445
Hourly Exit Rate	5780
Input Volume	5695
% of Volume	101

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.7	0.3	0.3	2.2	0.1	0.2	2.0	0.2	0.3
Total Delay (hr)	1.0	1.8	0.3	0.7	2.7	0.6	0.7	4.5	0.1	1.1	5.3	0.2
Total Del/Veh (s)	74.9	32.4	30.9	58.7	51.8	41.3	55.2	49.0	17.4	55.7	42.4	22.2
Vehicles Entered	44	189	32	37	168	46	42	317	23	68	436	32
Vehicles Exited	46	200	33	38	184	49	43	296	22	67	405	31
Hourly Exit Rate	184	800	132	152	736	196	172	1184	88	268	1620	124
Input Volume	166	736	131	151	691	192	166	1258	93	279	1711	121
% of Volume	111	109	101	101	107	102	104	94	95	96	95	102

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	19.2
Total Del/Veh (s)	45.0
Vehicles Entered	1434
Vehicles Exited	1414
Hourly Exit Rate	5656
Input Volume	5695
% of Volume	99

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.3	0.3	2.1	0.1	0.2	1.8	0.2	0.3
Total Delay (hr)	1.2	3.2	0.6	1.3	4.2	1.1	1.0	7.2	0.3	1.5	7.2	0.2
Total Del/Veh (s)	87.1	51.2	54.0	105.8	72.1	66.0	70.6	65.1	35.6	65.5	48.7	23.4
Vehicles Entered	46	218	38	41	200	57	47	364	25	78	488	35
Vehicles Exited	42	198	37	34	170	50	46	367	26	79	510	35
Hourly Exit Rate	168	792	148	136	680	200	184	1468	104	316	2040	140
Input Volume	194	863	154	176	810	225	194	1474	109	327	2006	142
% of Volume	87	92	96	77	84	89	95	100	95	97	102	99

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	29.0
Total Del/Veh (s)	59.6
Vehicles Entered	1637
Vehicles Exited	1594
Hourly Exit Rate	6376
Input Volume	6674
% of Volume	96

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.3	0.3	2.2	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	1.4	2.7	0.5	1.5	5.1	1.2	0.6	5.7	0.2	1.2	6.0	0.2
Total Del/Veh (s)	102.2	45.1	48.9	111.4	86.5	76.8	48.5	59.8	25.7	56.3	47.7	19.8
Vehicles Entered	44	190	32	40	175	47	40	316	25	70	428	31
Vehicles Exited	48	208	35	46	197	51	41	314	24	68	407	30
Hourly Exit Rate	192	832	140	184	788	204	164	1256	96	272	1628	120
Input Volume	166	736	131	151	691	192	166	1258	93	279	1711	121
% of Volume	116	113	107	122	114	106	99	100	103	97	95	99

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	26.4
Total Del/Veh (s)	59.4
Vehicles Entered	1438
Vehicles Exited	1469
Hourly Exit Rate	5876
Input Volume	5695
% of Volume	103

6: 700 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.3	0.3	2.2	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	4.4	9.3	1.6	4.2	15.3	3.6	3.3	22.1	0.7	5.0	23.2	0.8
Total Del/Veh (s)	89.7	42.8	44.2	95.0	75.1	65.9	67.4	59.1	25.7	60.9	45.9	21.3
Vehicles Entered	172	777	133	155	724	195	174	1314	95	286	1777	129
Vehicles Exited	172	776	133	154	718	192	174	1312	94	287	1780	129
Hourly Exit Rate	172	776	133	154	718	192	174	1312	94	287	1780	129
Input Volume	173	768	137	157	721	200	173	1312	97	291	1785	126
% of Volume	99	101	97	98	100	96	101	100	97	99	100	102

6: 700 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.4
Total Delay (hr)	93.5
Total Del/Veh (s)	55.7
Vehicles Entered	5931
Vehicles Exited	5921
Hourly Exit Rate	5921
Input Volume	5940
% of Volume	100

9: 3300 South & 540 East Performance by movement Interval #1 4:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	13.0	1.1	0.5	0.0	36.2	16.6	1.1
Vehicles Entered	2	255	244	2	2	2	507
Vehicles Exited	2	252	245	2	2	2	505
Hourly Exit Rate	8	1008	980	8	8	8	2020
Input Volume	10	1036	952	8	7	11	2024
% of Volume	80	97	103	100	114	73	100

9: 3300 South & 540 East Performance by movement Interval #2 4:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	9.8	1.1	0.4	0.0	21.5	11.2	1.0
Vehicles Entered	3	261	243	2	2	2	513
Vehicles Exited	3	264	242	2	2	2	515
Hourly Exit Rate	12	1056	968	8	8	8	2060
Input Volume	10	1036	952	8	7	11	2024
% of Volume	120	102	102	100	114	73	102

9: 3300 South & 540 East Performance by movement Interval #3 4:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	8.2	1.4	0.5	0.0	38.3	13.3	1.2
Vehicles Entered	2	312	251	2	2	3	572
Vehicles Exited	2	309	252	2	2	2	569
Hourly Exit Rate	8	1236	1008	8	8	8	2276
Input Volume	11	1213	1117	9	8	12	2370
% of Volume	73	102	90	89	100	67	96



9: 3300 South & 540 East Performance by movement Interval #4 4:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	10.3	1.1	0.5	0.0	30.9	12.5	1.0
Vehicles Entered	2	258	256	2	1	3	522
Vehicles Exited	2	262	255	2	1	3	525
Hourly Exit Rate	8	1048	1020	8	4	12	2100
Input Volume	10	1036	952	8	7	11	2024
% of Volume	80	101	107	100	57	109	104

9: 3300 South & 540 East Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.4	0.1	0.0	0.1	0.0	0.6
Total Del/Veh (s)	9.2	1.2	0.5	0.0	31.9	14.5	1.1
Vehicles Entered	10	1087	994	8	7	10	2116
Vehicles Exited	10	1087	994	8	7	10	2116
Hourly Exit Rate	10	1087	994	8	7	10	2116
Input Volume	10	1080	993	8	7	11	2110
% of Volume	98	101	100	97	97	89	100

11: 500 East & 3360 South Performance by movement Interval #1 4:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		3.4	3.3	0.3	1.4	0.8	1.0
Vehicles Entered	0	2	3	56	78	2	141
Vehicles Exited	0	2	3	56	80	2	143
Hourly Exit Rate	0	8	12	224	320	8	572
Input Volume	1	7	7	235	312	3	565
% of Volume	0	114	171	95	103	267	101

11: 500 East & 3360 South Performance by movement Interval #2 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		3.4	3.2	0.2	1.4	1.6	1.0
Vehicles Entered	0	3	2	56	83	1	145
Vehicles Exited	0	3	2	57	81	1	144
Hourly Exit Rate	0	12	8	228	324	4	576
Input Volume	1	7	7	235	312	3	565
% of Volume	0	171	114	97	104	133	102

11: 500 East & 3360 South Performance by movement Interval #3 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.3	0.3	0.0		0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		5.0	3.5	0.5	1.3	0.5	1.0
Vehicles Entered	0	2	2	70	90	0	164
Vehicles Exited	0	2	2	70	92	1	167
Hourly Exit Rate	0	8	8	280	368	4	668
Input Volume	1	8	8	275	366	3	661
% of Volume	0	100	100	102	101	133	101

11: 500 East & 3360 South Performance by movement Interval #4 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.3	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		3.2	2.1	0.3	1.3	1.5	0.9
Vehicles Entered	0	2	1	60	81	1	145
Vehicles Exited	0	2	2	60	78	1	143
Hourly Exit Rate	0	8	8	240	312	4	572
Input Volume	1	7	7	235	312	3	565
% of Volume	0	114	114	102	100	133	101

11: 500 East & 3360 South Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	3.5	3.7	3.1	0.3	1.4	1.3	1.0
Vehicles Entered	1	9	8	243	331	4	596
Vehicles Exited	1	9	9	243	331	4	597
Hourly Exit Rate	1	9	9	243	331	4	597
Input Volume	1	7	7	245	326	3	589
% of Volume	100	124	124	99	102	133	101

14: East Access & 3300 South Performance by movement Interval #1 4:00

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	0.3
Total Del/Veh (s)	0.5	0.3	7.1	3.3	17.6	8.7	2.0
Vehicles Entered	250	2	3	241	2	1	499
Vehicles Exited	246	2	3	244	2	1	498
Hourly Exit Rate	984	8	12	976	8	4	1992
Input Volume	1026	10	12	966	7	7	2028
% of Volume	96	80	100	101	114	57	98

14: East Access & 3300 South Performance by movement Interval #2 4:15

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	0.3
Total Del/Veh (s)	0.6	0.4	5.9	3.4	23.0	7.8	2.1
Vehicles Entered	259	2	3	254	1	2	521
Vehicles Exited	263	2	3	253	1	2	524
Hourly Exit Rate	1052	8	12	1012	4	8	2096
Input Volume	1026	10	12	966	7	7	2028
% of Volume	103	80	100	105	57	114	103

14: East Access & 3300 South Performance by movement Interval #3 4:30

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.2	0.0	0.0	0.3
Total Del/Veh (s)	0.7	0.5	11.2	3.3	33.7	9.6	2.1
Vehicles Entered	304	3	2	249	2	2	562
Vehicles Exited	300	3	3	250	2	2	560
Hourly Exit Rate	1200	12	12	1000	8	8	2240
Input Volume	1203	11	13	1133	8	8	2376
% of Volume	100	109	92	88	100	100	94

14: East Access & 3300 South Performance by movement Interval #4 4:45

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.3	0.0	0.0	0.3
Total Del/Veh (s)	0.7	0.6	9.3	3.5	20.8	8.7	2.3
Vehicles Entered	261	2	4	264	2	3	536
Vehicles Exited	264	2	4	264	2	2	538
Hourly Exit Rate	1056	8	16	1056	8	8	2152
Input Volume	1026	10	12	966	7	7	2028
% of Volume	103	80	133	109	114	114	106

14: East Access & 3300 South Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.2	0.0	0.0	1.0	0.0	0.0	1.3
Total Del/Veh (s)	0.6	0.4	8.9	3.4	27.8	7.7	2.1
Vehicles Entered	1073	10	13	1008	6	9	2119
Vehicles Exited	1073	10	13	1010	6	9	2121
Hourly Exit Rate	1073	10	13	1010	6	9	2121
Input Volume	1070	10	12	1008	7	7	2115
% of Volume	100	98	106	100	83	124	100

16: West Access & 3300 South Performance by movement Interval #1 4:00

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.0	5.7	1.1	24.2	10.4	0.7
Vehicles Entered	251	2	2	242	1	2	500
Vehicles Exited	250	2	2	245	1	2	502
Hourly Exit Rate	1000	8	8	980	4	8	2008
Input Volume	1030	12	8	956	4	6	2016
% of Volume	97	67	100	103	100	133	100

16: West Access & 3300 South Performance by movement Interval #2 4:15

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.0	7.1	0.9	15.5	4.7	0.6
Vehicles Entered	259	6	2	249	1	1	518
Vehicles Exited	260	6	2	245	1	2	516
Hourly Exit Rate	1040	24	8	980	4	8	2064
Input Volume	1030	12	8	956	4	6	2016
% of Volume	101	200	100	103	100	133	102

16: West Access & 3300 South Performance by movement Interval #3 4:30

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.0	4.5	1.0	29.0	5.4	0.6
Vehicles Entered	307	4	2	247	1	1	562
Vehicles Exited	305	4	2	251	1	1	564
Hourly Exit Rate	1220	16	8	1004	4	4	2256
Input Volume	1207	13	9	1120	4	7	2360
% of Volume	101	123	89	90	100	57	96



16: West Access & 3300 South Performance by movement Interval #4 4:45

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.0	4.0	1.0	20.5	8.1	0.6
Vehicles Entered	260	3	2	261	1	1	528
Vehicles Exited	262	3	2	257	1	1	526
Hourly Exit Rate	1048	12	8	1028	4	4	2104
Input Volume	1030	12	8	956	4	6	2016
% of Volume	102	100	100	108	100	67	104

16: West Access & 3300 South Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.4
Total Del/Veh (s)	0.1	0.0	5.3	1.0	22.3	7.3	0.6
Vehicles Entered	1077	15	8	998	3	6	2107
Vehicles Exited	1077	15	8	998	3	6	2107
Hourly Exit Rate	1077	15	8	998	3	6	2107
Input Volume	1074	12	8	997	4	6	2102
% of Volume	100	122	97	100	75	96	100

Total Network Performance By Interval

Interval Start	4:00	4:15	4:30	4:45	All
Denied Delay (hr)	0.2	0.2	0.2	0.2	0.8
Denied Del/Veh (s)	0.5	0.4	0.5	0.4	0.5
Total Delay (hr)	24.7	24.8	35.9	32.1	117.5
Total Del/Veh (s)	50.0	50.5	64.0	62.3	62.6
Vehicles Entered	1568	1577	1820	1578	6547
Vehicles Exited	1596	1559	1746	1635	6535
Hourly Exit Rate	6384	6236	6984	6540	6535
Input Volume	21112	21112	24729	21112	22016
% of Volume	30	30	28	31	30

Intersection: 3: 500 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	66	219	210	168	284	288	96	148	116	217
Average Queue (ft)	29	141	118	69	203	224	61	93	54	126
95th Queue (ft)	69	230	214	171	296	310	113	167	126	241
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					1	1				
Queuing Penalty (veh)					3	7				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	15		2	18		3	12	1	20
Queuing Penalty (veh)	1	8		9	15		4	9	2	12

Intersection: 3: 500 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	65	194	187	177	282	292	89	172	123	226
Average Queue (ft)	33	140	128	76	205	226	52	103	57	125
95th Queue (ft)	73	216	205	180	304	321	93	177	124	224
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					0	1				
Queuing Penalty (veh)					2	5				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	13		4	16		2	15	3	23
Queuing Penalty (veh)	2	7		18	13		4	11	6	14

Intersection: 3: 500 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	94	274	264	186	295	297	158	234	109	214
Average Queue (ft)	36	174	168	75	223	243	85	124	57	128
95th Queue (ft)	82	283	276	172	309	322	162	244	117	226
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					1	2				
Queuing Penalty (veh)					7	12				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	19		8	21		7	15	3	21
Queuing Penalty (veh)	5	11		36	21		13	13	6	14

Intersection: 3: 500 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	62	212	198	164	281	292	113	163	104	177
Average Queue (ft)	33	133	118	77	208	231	58	103	47	108
95th Queue (ft)	69	224	210	175	317	333	110	170	87	174
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					1	2				
Queuing Penalty (veh)					3	9				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	11		6	15		3	18	2	19
Queuing Penalty (veh)	1	6		24	13		5	12	4	11

Intersection: 3: 500 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	99	276	264	229	298	302	166	245	172	268
Average Queue (ft)	32	147	133	74	210	231	64	106	54	122
95th Queue (ft)	74	243	233	175	308	323	125	194	115	219
Link Distance (ft)		941	941		290	290		394		694
Upstream Blk Time (%)					1	2				
Queuing Penalty (veh)					4	8				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	15		5	18		4	15	2	21
Queuing Penalty (veh)	2	8		22	15		7	11	4	13

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	205	322	342	305	470	455	233	397	373	329	222	344
Average Queue (ft)	135	216	238	161	341	345	158	312	284	230	145	232
95th Queue (ft)	240	333	358	360	577	562	259	410	384	329	230	346
Link Distance (ft)		783	783		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	5	9		23	60			0				0
Queuing Penalty (veh)	17	15		79	91			1				0

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	459	441	346	273
Average Queue (ft)	373	345	264	177
95th Queue (ft)	471	453	365	284
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)	2			
Queuing Penalty (veh)	6			

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	254	335	364	292	463	442	206	388	373	321	225	375
Average Queue (ft)	177	243	270	152	323	320	141	305	282	234	144	225
95th Queue (ft)	305	374	406	323	506	483	234	398	377	330	250	394
Link Distance (ft)		783	783		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	17	13		27	54			0				0
Queuing Penalty (veh)	61	21		92	82			0				0

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	461	433	377	249
Average Queue (ft)	372	341	267	179
95th Queue (ft)	479	443	387	259
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)	3			
Queuing Penalty (veh)	8			



Intersection: 6: 700 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	375	494	516	372	579	543	235	489	460	406	298	481
Average Queue (ft)	239	350	377	245	409	412	155	378	353	299	214	321
95th Queue (ft)	465	608	628	451	709	692	254	524	506	448	339	529
Link Distance (ft)		783	783		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	1									
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	19	33		51	64			6				2
Queuing Penalty (veh)	79	65		205	112			12				10

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	595	516	419	334
Average Queue (ft)	473	425	337	234
95th Queue (ft)	644	554	455	346
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)	14			
Queuing Penalty (veh)	46			

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	316	452	479	365	652	644	186	444	426	378	280	353
Average Queue (ft)	227	309	344	277	526	517	125	355	332	272	183	216
95th Queue (ft)	453	590	611	480	839	804	202	479	460	407	309	369
Link Distance (ft)		783	783		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		2	2									
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	27	23		52	61			2				0
Queuing Penalty (veh)	97	38		179	92			4				0

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	499	469	378	264
Average Queue (ft)	397	371	292	182
95th Queue (ft)	521	490	399	293
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)	6			
Queuing Penalty (veh)	18			

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	393	504	527	400	708	674	268	502	473	434	313	490
Average Queue (ft)	195	280	307	209	400	399	145	337	313	259	171	249
95th Queue (ft)	387	507	531	423	694	672	240	465	444	389	293	427
Link Distance (ft)		783	783		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	1									
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	17	19		38	60			2				1
Queuing Penalty (veh)	63	35		139	94			4				3

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	618	528	440	343
Average Queue (ft)	404	370	290	193
95th Queue (ft)	549	498	412	304
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)	6			
Queuing Penalty (veh)	19			

Intersection: 9: 3300 South & 540 East, Interval #1

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	21	11	27	35
Average Queue (ft)	5	2	6	17
95th Queue (ft)	24	16	28	45
Link Distance (ft)		8	8	488
Upstream Blk Time (%)		0	1	
Queuing Penalty (veh)		2	6	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	12			

Intersection: 9: 3300 South & 540 East, Interval #2

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	28	3	22	35
Average Queue (ft)	7	0	5	17
95th Queue (ft)	27	6	25	43
Link Distance (ft)		8	8	488
Upstream Blk Time (%)		0	1	
Queuing Penalty (veh)		1	3	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	13			

Intersection: 9: 3300 South & 540 East, Interval #3

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	18	27	31	38
Average Queue (ft)	4	4	6	19
95th Queue (ft)	20	25	26	47
Link Distance (ft)		8	8	488
Upstream Blk Time (%)		1	2	
Queuing Penalty (veh)		4	9	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	1			
Queuing Penalty (veh)	7			

Intersection: 9: 3300 South & 540 East, Interval #4

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	32	2	9	50	40
Average Queue (ft)	4	0	1	12	16
95th Queue (ft)	21	5	12	47	45
Link Distance (ft)		290	8	8	488
Upstream Blk Time (%)			0	2	
Queuing Penalty (veh)			1	9	
Storage Bay Dist (ft)	25				
Storage Blk Time (%)	2				
Queuing Penalty (veh)	8				

Intersection: 9: 3300 South & 540 East, All Intervals

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	33	2	37	53	48
Average Queue (ft)	5	0	2	7	17
95th Queue (ft)	23	2	16	33	45
Link Distance (ft)		290	8	8	488
Upstream Blk Time (%)			0	1	
Queuing Penalty (veh)			2	7	
Storage Bay Dist (ft)	25				
Storage Blk Time (%)	2				
Queuing Penalty (veh)	10				

Intersection: 11: 500 East & 3360 South, Interval #1

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	30	22
Average Queue (ft)	8	5
95th Queue (ft)	30	27
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: 500 East & 3360 South, Interval #2

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	28	9
Average Queue (ft)	9	1
95th Queue (ft)	32	12
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		



Intersection: 11: 500 East & 3360 South, Interval #3

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	24
Average Queue (ft)	9	4
95th Queue (ft)	31	23
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: 500 East & 3360 South, Interval #4

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	28	12
Average Queue (ft)	8	2
95th Queue (ft)	31	13
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: 500 East & 3360 South, All Intervals

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	35
Average Queue (ft)	9	3
95th Queue (ft)	31	20
Link Distance (ft)	490	699
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: East Access & 3300 South , Interval #1

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	30	31
Average Queue (ft)	8	12
95th Queue (ft)	29	36
Link Distance (ft)	361	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: East Access & 3300 South , Interval #2

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	21	31
Average Queue (ft)	5	11
95th Queue (ft)	24	35
Link Distance (ft)	361	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: East Access & 3300 South , Interval #3

Movement	EB	EB	WB	NB
Directions Served	T	TR	L	LR
Maximum Queue (ft)	5	10	28	41
Average Queue (ft)	1	2	8	18
95th Queue (ft)	11	22	29	47
Link Distance (ft)	243	243	361	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: East Access & 3300 South , Interval #4

Movement	EB	EB	WB	NB
Directions Served	T	TR	L	LR
Maximum Queue (ft)	20	18	29	40
Average Queue (ft)	3	4	7	13
95th Queue (ft)	32	36	28	42
Link Distance (ft)	243	243		361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: East Access & 3300 South , All Intervals

Movement	EB	EB	WB	NB
Directions Served	T	TR	L	LR
Maximum Queue (ft)	20	18	33	46
Average Queue (ft)	1	1	7	13
95th Queue (ft)	16	20	28	40
Link Distance (ft)	243	243		361
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: West Access & 3300 South , Interval #1

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	18	20	28	33
Average Queue (ft)	4	1	4	10
95th Queue (ft)	21	13	26	36
Link Distance (ft)		243	243	303
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 16: West Access & 3300 South , Interval #2

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	18	8	17	32
Average Queue (ft)	6	1	2	9
95th Queue (ft)	24	17	20	32
Link Distance (ft)		243	243	303
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: West Access & 3300 South , Interval #3

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	18	20	37	30
Average Queue (ft)	3	3	5	9
95th Queue (ft)	17	28	38	32
Link Distance (ft)		243	243	303
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: West Access & 3300 South , Interval #4

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	18	3	27	28
Average Queue (ft)	3	0	5	8
95th Queue (ft)	18	6	27	30
Link Distance (ft)		243	243	303
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: West Access & 3300 South , All Intervals

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	31	46	66	35
Average Queue (ft)	4	1	4	9
95th Queue (ft)	20	18	28	32
Link Distance (ft)		243	243	303
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Network Summary

Network wide Queuing Penalty, Interval #1: 298
Network wide Queuing Penalty, Interval #2: 362
Network wide Queuing Penalty, Interval #3: 690
Network wide Queuing Penalty, Interval #4: 539
Network wide Queuing Penalty, All Intervals: 472



## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Future (2024) Background  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 500 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	100	101	101	55.9	E
	T	158	161	102	40.3	D
	R	95	89	93	29.9	C
	Subtotal	353	351	99	42.2	D
SB	L	70	65	93	52.6	D
	T	170	174	102	41.7	D
	R	60	61	102	30.4	C
	Subtotal	300	300	100	41.8	D
EB	L	60	61	102	27.0	C
	T	985	982	100	11.8	B
	R	146	142	97	9.5	A
	Subtotal	1,191	1,185	99	12.3	B
WB	L	110	112	102	57.2	E
	T	891	879	99	20.6	C
	R	70	72	103	18.7	B
	Subtotal	1,071	1,063	99	24.3	C
<b>Total</b>		2,914	2,899	99	23.5	C

**Intersection:** 700 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	175	174	99	75.8	E
	T	1,390	1,363	98	104.2	F
	R	110	108	98	59.7	E
	Subtotal	1,675	1,645	98	98.3	F
SB	L	335	341	102	79.2	E
	T	1,875	1,883	100	53.3	D
	R	150	148	99	27.7	C
	Subtotal	2,360	2,372	101	55.4	E
EB	L	210	200	95	82.0	F
	T	795	794	100	41.9	D
	R	145	139	96	43.7	D
	Subtotal	1,150	1,133	99	49.2	D
WB	L	170	162	95	126.8	F
	T	740	729	99	131.3	F
	R	240	239	100	130.6	F
	Subtotal	1,150	1,130	98	130.5	F
<b>Total</b>		6,335	6,280	99	79.4	E

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Future (2024) Background  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 3300 South & 540 East  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
<b>SB</b>	L	10	10	98	28.0	D
	R	15	20	131	14.7	B
	<b>Subtotal</b>	<b>25</b>	<b>30</b>	<b>120</b>	<b>19.1</b>	<b>C</b>
EB	L	10	10	98	9.9	A
	T	1,140	1,127	99	1.3	A
	<b>Subtotal</b>	<b>1,150</b>	<b>1,137</b>	<b>99</b>	<b>1.4</b>	<b>A</b>
WB	T	1,056	1,044	99	4.8	A
	R	10	9	88	3.8	A
	<b>Subtotal</b>	<b>1,066</b>	<b>1,053</b>	<b>99</b>	<b>4.8</b>	<b>A</b>
<b>Total</b>		<b>2,242</b>	<b>2,220</b>	<b>99</b>	<b>3.2</b>	<b>A</b>

**Intersection:** 500 East & 3360 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	10	9	88	4.4	A
	T	250	253	101	1.0	A
	R	35	38	109	0.5	A
	<b>Subtotal</b>	<b>295</b>	<b>300</b>	<b>102</b>	<b>1.0</b>	<b>A</b>
SB	L	91	91	100	4.9	A
	T	330	332	101	2.6	A
	R	5	5	100	1.5	A
	<b>Subtotal</b>	<b>426</b>	<b>428</b>	<b>100</b>	<b>3.1</b>	<b>A</b>
EB	L	5	4	80	11.9	B
	R	10	10	98	3.7	A
	<b>Subtotal</b>	<b>15</b>	<b>14</b>	<b>93</b>	<b>6.0</b>	<b>A</b>
<b>WB</b>	L	40	43	108	11.6	B
	R	97	93	96	5.6	A
	<b>Subtotal</b>	<b>137</b>	<b>136</b>	<b>99</b>	<b>7.5</b>	<b>A</b>
<b>Total</b>		<b>874</b>	<b>878</b>	<b>100</b>	<b>3.1</b>	<b>A</b>

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.5
Total Delay (hr)	0.1	0.8	0.1	0.4	1.3	0.1	0.4	0.4	0.1	0.3	0.5	0.1
Total Del/Veh (s)	26.4	11.5	9.8	56.6	21.3	20.4	49.0	35.6	23.1	50.1	38.2	25.8
Vehicles Entered	15	239	33	25	213	21	23	38	21	17	44	15
Vehicles Exited	15	241	33	26	222	22	24	38	22	18	45	15
Hourly Exit Rate	60	964	132	104	888	88	96	152	88	72	180	60
Input Volume	58	960	142	107	869	68	97	155	93	68	166	58
% of Volume	103	100	93	97	102	129	99	98	95	106	108	103

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.7
Total Del/Veh (s)	22.5
Vehicles Entered	704
Vehicles Exited	721
Hourly Exit Rate	2884
Input Volume	2841
% of Volume	102

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.5	0.5
Total Delay (hr)	0.1	0.8	0.1	0.4	1.2	0.1	0.4	0.4	0.2	0.3	0.5	0.2
Total Del/Veh (s)	25.6	11.4	8.8	48.5	19.8	17.6	51.7	38.8	31.5	54.3	41.4	35.3
Vehicles Entered	16	239	38	29	220	18	25	38	23	16	44	16
Vehicles Exited	16	237	37	29	211	18	24	39	23	16	44	16
Hourly Exit Rate	64	948	148	116	844	72	96	156	92	64	176	64
Input Volume	58	960	142	107	869	68	97	155	93	68	166	58
% of Volume	110	99	104	108	97	106	99	101	99	94	106	110

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.7
Total Del/Veh (s)	22.6
Vehicles Entered	722
Vehicles Exited	710
Hourly Exit Rate	2840
Input Volume	2841
% of Volume	100

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.5	0.4
Total Delay (hr)	0.1	1.0	0.1	0.5	1.4	0.1	0.4	0.5	0.2	0.2	0.5	0.1
Total Del/Veh (s)	28.6	13.1	10.7	61.5	21.0	18.4	52.1	37.6	27.6	47.1	40.6	30.8
Vehicles Entered	17	263	39	29	222	16	27	42	24	16	45	17
Vehicles Exited	17	263	38	28	230	16	27	41	23	16	45	17
Hourly Exit Rate	68	1052	152	112	920	64	108	164	92	64	180	68
Input Volume	65	1059	157	118	958	75	108	169	102	75	183	65
% of Volume	105	99	97	95	96	85	100	97	90	85	98	105

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	5.2
Total Del/Veh (s)	23.8
Vehicles Entered	757
Vehicles Exited	761
Hourly Exit Rate	3044
Input Volume	3134
% of Volume	97

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.5	0.4
Total Delay (hr)	0.1	0.7	0.1	0.4	1.2	0.1	0.5	0.5	0.2	0.3	0.5	0.1
Total Del/Veh (s)	21.6	9.7	7.5	49.4	19.4	17.9	58.2	42.3	32.4	50.1	42.0	27.3
Vehicles Entered	13	242	32	28	225	17	26	42	21	16	41	13
Vehicles Exited	13	241	33	30	215	16	26	43	21	15	39	13
Hourly Exit Rate	52	964	132	120	860	64	104	172	84	60	156	52
Input Volume	58	960	142	107	869	68	97	155	93	68	166	58
% of Volume	90	100	93	112	99	94	107	111	90	88	94	90

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.6
Total Del/Veh (s)	22.3
Vehicles Entered	716
Vehicles Exited	705
Hourly Exit Rate	2820
Input Volume	2841
% of Volume	99

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	2.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.5	0.4
Total Delay (hr)	0.5	3.3	0.4	1.8	5.1	0.4	1.6	1.8	0.8	1.0	2.0	0.5
Total Del/Veh (s)	27.0	11.8	9.5	57.2	20.6	18.7	55.9	40.3	29.9	52.6	41.7	30.4
Vehicles Entered	61	982	142	112	880	72	101	161	89	65	173	60
Vehicles Exited	61	982	142	112	879	72	101	161	89	65	174	61
Hourly Exit Rate	61	982	142	112	879	72	101	161	89	65	174	61
Input Volume	60	985	146	110	891	70	100	158	95	70	170	60
% of Volume	102	100	97	102	99	103	101	102	93	93	102	102

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	19.2
Total Del/Veh (s)	23.5
Vehicles Entered	2898
Vehicles Exited	2899
Hourly Exit Rate	2899
Input Volume	2914
% of Volume	99

### 6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.5	0.6	2.1	0.1	0.2	1.9	0.2	0.4
Total Delay (hr)	1.0	1.7	0.3	1.0	5.7	1.8	0.9	8.5	0.4	1.7	6.7	0.2
Total Del/Veh (s)	64.6	30.8	30.3	84.3	99.9	100.0	71.1	80.5	44.1	64.3	46.5	22.5
Vehicles Entered	49	194	34	40	187	60	40	332	26	84	468	35
Vehicles Exited	47	183	35	36	168	54	44	355	27	88	496	36
Hourly Exit Rate	188	732	140	144	672	216	176	1420	108	352	1984	144
Input Volume	205	775	141	166	721	234	171	1355	107	327	1828	146
% of Volume	92	94	99	87	93	92	103	105	101	108	109	99

### 6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	29.9
Total Del/Veh (s)	63.0
Vehicles Entered	1549
Vehicles Exited	1569
Hourly Exit Rate	6276
Input Volume	6176
% of Volume	102



6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.4	0.4	2.1	0.1	0.2	1.9	0.2	0.4
Total Delay (hr)	1.1	2.2	0.4	1.4	5.6	1.7	0.8	6.9	0.2	1.7	6.8	0.3
Total Del/Veh (s)	73.4	37.0	40.8	98.7	94.1	90.8	62.0	70.1	28.6	66.8	50.4	22.8
Vehicles Entered	48	198	33	43	179	58	42	329	27	83	462	39
Vehicles Exited	50	208	33	45	196	63	39	314	26	77	438	37
Hourly Exit Rate	200	832	132	180	784	252	156	1256	104	308	1752	148
Input Volume	205	775	141	166	721	234	171	1355	107	327	1828	146
% of Volume	98	107	94	108	109	108	91	93	97	94	96	101

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	29.0
Total Del/Veh (s)	62.3
Vehicles Entered	1541
Vehicles Exited	1526
Hourly Exit Rate	6104
Input Volume	6176
% of Volume	99

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	3.2	1.0	1.0	2.0	0.1	0.2	1.8	0.3	0.5
Total Delay (hr)	1.2	2.7	0.5	1.6	7.5	2.6	1.1	11.7	0.5	2.2	8.3	0.4
Total Del/Veh (s)	75.4	43.5	45.0	118.8	123.9	125.2	73.8	101.9	62.3	77.0	54.2	33.1
Vehicles Entered	52	211	35	44	198	67	49	373	29	88	504	41
Vehicles Exited	48	196	33	36	171	58	47	351	27	94	523	42
Hourly Exit Rate	192	784	132	144	684	232	188	1404	108	376	2092	168
Input Volume	226	856	156	183	796	258	188	1495	118	360	2016	161
% of Volume	85	92	85	79	86	90	100	94	92	104	104	104

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	40.1
Total Del/Veh (s)	78.2
Vehicles Entered	1691
Vehicles Exited	1626
Hourly Exit Rate	6504
Input Volume	6813
% of Volume	95

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	11.7	9.2	7.5	2.1	0.1	0.2	2.0	0.3	0.4
Total Delay (hr)	1.5	2.7	0.5	2.0	8.9	2.9	1.0	14.2	0.7	2.3	6.9	0.3
Total Del/Veh (s)	86.5	45.6	48.3	137.6	142.0	140.4	73.2	127.5	83.7	84.9	52.0	27.1
Vehicles Entered	53	194	36	40	178	58	43	341	28	90	448	34
Vehicles Exited	55	207	38	44	195	64	44	342	28	82	426	33
Hourly Exit Rate	220	828	152	176	780	256	176	1368	112	328	1704	132
Input Volume	205	775	141	166	721	234	171	1355	107	327	1828	146
% of Volume	107	107	108	106	108	109	103	101	105	100	93	90

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	2.0
Total Delay (hr)	43.9
Total Del/Veh (s)	89.9
Vehicles Entered	1543
Vehicles Exited	1558
Hourly Exit Rate	6232
Input Volume	6176
% of Volume	101

6: 700 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.6	0.2	0.1	0.1	0.0	0.2	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	5.0	2.7	2.4	2.1	0.1	0.2	1.9	0.2	0.4
Total Delay (hr)	4.7	9.4	1.7	6.0	27.7	9.0	3.8	41.2	1.9	7.9	28.6	1.2
Total Del/Veh (s)	82.0	41.9	43.7	126.8	131.3	130.6	75.8	104.2	59.7	79.2	53.3	27.7
Vehicles Entered	202	796	138	166	741	243	174	1376	109	345	1883	149
Vehicles Exited	200	794	139	162	729	239	174	1363	108	341	1883	148
Hourly Exit Rate	200	794	139	162	729	239	174	1363	108	341	1883	148
Input Volume	210	795	145	170	740	240	175	1390	110	335	1875	150
% of Volume	95	100	96	95	99	100	99	98	98	102	100	99

6: 700 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	1.4
Denied Del/Veh (s)	0.8
Total Delay (hr)	142.9
Total Del/Veh (s)	79.4
Vehicles Entered	6322
Vehicles Exited	6280
Hourly Exit Rate	6280
Input Volume	6335
% of Volume	99

9: 3300 South & 540 East Performance by movement Interval #1 4:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.3	0.0	0.0	0.0	0.5
Total Del/Veh (s)	14.3	1.3	4.8	3.5	20.7	14.0	3.2
Vehicles Entered	2	279	246	2	2	6	537
Vehicles Exited	2	275	253	2	2	6	540
Hourly Exit Rate	8	1100	1012	8	8	24	2160
Input Volume	10	1112	1029	10	10	15	2186
% of Volume	80	99	98	80	80	160	99

9: 3300 South & 540 East Performance by movement Interval #2 4:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Delay (hr)	0.0	0.1	0.4	0.0	0.0	0.0	0.5
Total Del/Veh (s)	10.1	1.3	4.8	5.0	18.9	12.7	3.2
Vehicles Entered	3	273	270	2	3	4	555
Vehicles Exited	3	277	263	2	3	4	552
Hourly Exit Rate	12	1108	1052	8	12	16	2208
Input Volume	10	1112	1029	10	10	15	2186
% of Volume	120	100	102	80	120	107	101

9: 3300 South & 540 East Performance by movement Interval #3 4:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.3	0.0	0.0	0.0	0.5
Total Del/Veh (s)	10.4	1.5	4.5	4.0	33.0	18.3	3.2
Vehicles Entered	3	300	258	2	3	4	570
Vehicles Exited	2	294	263	2	3	4	568
Hourly Exit Rate	8	1176	1052	8	12	16	2272
Input Volume	11	1226	1135	11	11	16	2410
% of Volume	73	96	93	73	109	100	94

9: 3300 South & 540 East Performance by movement Interval #4 4:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.4	0.0	0.0	0.0	0.5
Total Del/Veh (s)	4.5	1.2	4.6	4.4	27.5	17.2	3.1
Vehicles Entered	2	275	270	2	2	5	556
Vehicles Exited	2	281	266	2	2	5	558
Hourly Exit Rate	8	1124	1064	8	8	20	2232
Input Volume	10	1112	1029	10	10	15	2186
% of Volume	80	101	103	80	80	133	102

9: 3300 South & 540 East Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.4	1.4	0.0	0.1	0.1	2.0
Total Del/Veh (s)	9.9	1.3	4.8	3.8	28.0	14.7	3.2
Vehicles Entered	10	1127	1044	9	10	20	2220
Vehicles Exited	10	1127	1044	9	10	20	2220
Hourly Exit Rate	10	1127	1044	9	10	20	2220
Input Volume	10	1140	1056	10	10	15	2242
% of Volume	98	99	99	88	98	131	99

11: 500 East & 3360 South Performance by movement Interval #1 4:00

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	6.4	4.2	11.4	5.2	5.2	1.0	0.5	4.8	2.7	2.0	3.2
Vehicles Entered	1	2	10	23	3	59	10	24	79	1	212
Vehicles Exited	1	2	11	23	3	59	10	24	80	1	214
Hourly Exit Rate	4	8	44	92	12	236	40	96	320	4	856
Input Volume	5	10	39	95	10	244	34	89	322	5	853
% of Volume	80	80	113	97	120	97	118	108	99	80	100

11: 500 East & 3360 South Performance by movement Interval #2 4:15

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	10.1	3.3	9.2	5.1	4.6	0.8	0.3	4.9	2.5	1.8	2.8
Vehicles Entered	1	2	9	22	2	62	8	23	85	1	215
Vehicles Exited	1	3	9	22	2	62	8	23	84	1	215
Hourly Exit Rate	4	12	36	88	8	248	32	92	336	4	860
Input Volume	5	10	39	95	10	244	34	89	322	5	853
% of Volume	80	120	92	93	80	102	94	103	104	80	101

11: 500 East & 3360 South Performance by movement Interval #3 4:30

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	12.2	5.4	12.9	5.9	3.1	0.9	0.4	5.1	2.6	1.4	3.2
Vehicles Entered	1	2	11	24	2	68	9	22	87	1	227
Vehicles Exited	1	2	11	24	2	68	9	23	89	1	230
Hourly Exit Rate	4	8	44	96	8	272	36	92	356	4	920
Input Volume	5	11	43	104	11	269	38	98	355	5	939
% of Volume	80	73	102	92	73	101	95	94	100	80	98

11: 500 East & 3360 South Performance by movement Interval #4 4:45

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	19.1	3.7	11.6	5.9	4.3	1.1	0.5	4.4	2.4	2.2	3.1
Vehicles Entered	1	2	12	24	2	64	11	21	80	1	218
Vehicles Exited	1	2	12	24	2	64	11	21	78	1	216
Hourly Exit Rate	4	8	48	96	8	256	44	84	312	4	864
Input Volume	5	10	39	95	10	244	34	89	322	5	853
% of Volume	80	80	123	101	80	105	129	94	97	80	101



11: 500 East & 3360 South Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.2	0.0	0.8
Total Del/Veh (s)	11.9	3.7	11.6	5.6	4.4	1.0	0.5	4.9	2.6	1.5	3.1
Vehicles Entered	4	10	43	93	9	253	38	91	332	5	878
Vehicles Exited	4	10	43	93	9	253	38	91	332	5	878
Hourly Exit Rate	4	10	43	93	9	253	38	91	332	5	878
Input Volume	5	10	40	97	10	250	35	91	330	5	874
% of Volume	80	98	108	96	88	101	109	100	101	100	100

Total Network Performance By Interval

Interval Start	4:00	4:15	4:30	4:45	All
Denied Delay (hr)	0.2	0.2	0.3	0.9	1.7
Denied Del/Veh (s)	0.5	0.5	0.6	1.9	0.9
Total Delay (hr)	37.1	36.2	48.1	51.1	172.5
Total Del/Veh (s)	66.6	65.4	80.0	88.3	83.8
Vehicles Entered	1752	1744	1914	1740	7151
Vehicles Exited	1761	1744	1820	1780	7108
Hourly Exit Rate	7044	6976	7280	7120	7108
Input Volume	19025	19025	20985	19025	19515
% of Volume	37	37	35	37	36

Intersection: 3: 500 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	83	235	240	200	281	297	121	221	127	230
Average Queue (ft)	39	162	149	85	225	256	81	140	67	144
95th Queue (ft)	87	241	242	173	300	322	129	245	136	263
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					1	3				
Queuing Penalty (veh)					5	18				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	20		13	24		8	21	4	24
Queuing Penalty (veh)	1	12		55	25		21	20	10	16

Intersection: 3: 500 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	98	269	247	187	285	296	141	249	118	240
Average Queue (ft)	52	180	163	103	229	253	78	153	61	146
95th Queue (ft)	122	274	272	205	312	332	156	257	122	246
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					1	3				
Queuing Penalty (veh)					3	14				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	19		14	20		8	29	3	32
Queuing Penalty (veh)	4	11		59	22		19	28	8	22

Intersection: 3: 500 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	97	296	295	204	283	300	165	252	118	242
Average Queue (ft)	42	192	184	102	233	252	105	157	58	158
95th Queue (ft)	83	295	297	200	302	318	187	270	121	266
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					1	3				
Queuing Penalty (veh)					6	16				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	23		22	24		14	26	3	29
Queuing Penalty (veh)	5	15		107	28		38	29	8	21

Intersection: 3: 500 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	63	253	232	218	286	292	173	275	114	219
Average Queue (ft)	34	160	139	123	231	254	96	165	54	123
95th Queue (ft)	68	261	247	236	323	326	198	294	101	208
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					1	3		0		
Queuing Penalty (veh)					5	13		0		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	16		15	20		14	33	3	25
Queuing Penalty (veh)	1	9		67	21		34	32	8	17

Intersection: 3: 500 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	137	315	317	249	300	310	221	315	174	291
Average Queue (ft)	42	174	159	103	229	254	90	154	60	143
95th Queue (ft)	93	271	268	206	310	325	172	268	121	248
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					1	3		0		
Queuing Penalty (veh)					5	16		0		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	19		16	22		11	27	4	27
Queuing Penalty (veh)	3	12		72	24		28	27	8	19

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	250	335	350	355	643	671	237	496	480	424	342	495
Average Queue (ft)	176	224	253	261	542	545	149	423	404	347	261	321
95th Queue (ft)	295	363	379	497	940	936	270	566	547	475	399	525
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)					2	2						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	10	9		30	68			10				6
Queuing Penalty (veh)	38	19		110	113			18				25

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	572	484	398	319
Average Queue (ft)	451	398	323	230
95th Queue (ft)	599	511	425	335
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)	10			
Queuing Penalty (veh)	32			

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	300	403	423	396	719	699	220	500	478	399	290	480
Average Queue (ft)	194	261	287	280	564	563	147	394	364	299	204	299
95th Queue (ft)	354	446	469	498	995	966	257	527	503	433	315	501
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)					1	1						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	14	17		45	65			5				2
Queuing Penalty (veh)	56	36		161	107			9				7

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	593	524	419	282
Average Queue (ft)	444	404	325	216
95th Queue (ft)	609	539	448	317
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)	10			
Queuing Penalty (veh)	32			



Intersection: 6: 700 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	380	431	456	395	883	858	414	660	631	563	466	513
Average Queue (ft)	226	301	333	278	704	694	213	508	482	411	327	383
95th Queue (ft)	406	519	555	511	1153	1126	491	729	702	617	518	581
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)					4	3						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	18	23		42	71			31				8
Queuing Penalty (veh)	78	52		166	130			58				39

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	645	581	459	367
Average Queue (ft)	500	448	374	275
95th Queue (ft)	678	584	482	379
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)	17			
Queuing Penalty (veh)	63			

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	363	451	464	400	969	912	384	690	666	598	494	487
Average Queue (ft)	249	303	327	332	834	810	227	602	576	507	403	353
95th Queue (ft)	426	525	545	515	1294	1274	545	866	835	750	644	544
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)					13	10						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	27	26		48	67			45				5
Queuing Penalty (veh)	106	54		174	112			78				25

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	554	499	433	312
Average Queue (ft)	432	395	324	217
95th Queue (ft)	598	549	468	341
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)	9			
Queuing Penalty (veh)	30			

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	T	TR	L
Maximum Queue (ft)	432	523	544	400	1011	971	477	706	683	620	520	524
Average Queue (ft)	211	272	300	288	661	653	184	482	456	391	299	339
95th Queue (ft)	379	473	498	511	1138	1112	418	721	695	615	515	544
Link Distance (ft)		1147	1147		1123	1123		1296	1296	1296	1296	
Upstream Blk Time (%)					5	4						
Queuing Penalty (veh)					0	0						
Storage Bay Dist (ft)	200			100			440					425
Storage Blk Time (%)	18	19		41	68			23				5
Queuing Penalty (veh)	70	40		153	116			41				24

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	SB	SB	SB	SB
Directions Served	T	T	T	TR
Maximum Queue (ft)	697	627	494	390
Average Queue (ft)	456	411	336	235
95th Queue (ft)	627	551	462	350
Link Distance (ft)	702	702	702	702
Upstream Blk Time (%)	1	0		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				
Storage Blk Time (%)	12			
Queuing Penalty (veh)	39			

Intersection: 9: 3300 South & 540 East, Interval #1

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	21	21	48	49
Average Queue (ft)	6	3	12	22
95th Queue (ft)	26	24	50	54
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	14			

Intersection: 9: 3300 South & 540 East, Interval #2

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	26	3	56	46
Average Queue (ft)	5	0	9	22
95th Queue (ft)	26	7	46	52
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	13			

Intersection: 9: 3300 South & 540 East, Interval #3

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	27	24	46	52
Average Queue (ft)	8	4	9	26
95th Queue (ft)	30	33	46	59
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	3			
Queuing Penalty (veh)	17			

Intersection: 9: 3300 South & 540 East, Interval #4

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	15	10	32	52
Average Queue (ft)	2	2	5	24
95th Queue (ft)	13	17	29	55
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	1			
Queuing Penalty (veh)	3			

Intersection: 9: 3300 South & 540 East, All Intervals

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	33	47	75	67
Average Queue (ft)	5	2	9	24
95th Queue (ft)	24	22	44	55
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	12			

Intersection: 11: 500 East & 3360 South, Interval #1

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	37	84	41	95
Average Queue (ft)	11	48	7	30
95th Queue (ft)	38	86	32	99
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #2

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	30	69	19	86
Average Queue (ft)	12	42	3	31
95th Queue (ft)	37	68	20	87
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				



Intersection: 11: 500 East & 3360 South, Interval #3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	76	17	93
Average Queue (ft)	14	48	2	32
95th Queue (ft)	39	76	14	84
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #4

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	85	20	86
Average Queue (ft)	11	50	4	30
95th Queue (ft)	35	83	21	83
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, All Intervals

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	40	100	44	140
Average Queue (ft)	12	47	4	31
95th Queue (ft)	38	79	23	89
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 553
Network wide Queuing Penalty, Interval #2: 612
Network wide Queuing Penalty, Interval #3: 876
Network wide Queuing Penalty, Interval #4: 788
Network wide Queuing Penalty, All Intervals: 707

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Future (2024) Background - Mitigated  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 500 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	100	99	99	55.4	E
	T	158	167	105	40.6	D
	R	95	92	97	30.7	C
	Subtotal	353	358	101	42.1	D
SB	L	70	70	100	52.7	D
	T	170	173	102	39.9	D
	R	60	62	104	29.1	C
	Subtotal	300	305	102	40.6	D
EB	L	60	56	94	29.0	C
	T	985	983	100	12.4	B
	R	146	149	102	10.8	B
	Subtotal	1,191	1,188	100	13.0	B
WB	L	110	108	98	60.0	E
	T	891	897	101	22.0	C
	R	70	73	105	21.0	C
	Subtotal	1,071	1,078	101	25.7	C
<b>Total</b>		2,914	2,929	101	24.1	C

**Intersection:** 700 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	175	174	99	72.4	E
	T	1,390	1,388	100	75.0	E
	R	110	111	101	38.3	D
	Subtotal	1,675	1,673	100	72.3	E
SB	L	335	332	99	62.0	E
	T	1,875	1,881	100	45.3	D
	R	150	152	102	23.3	C
	Subtotal	2,360	2,365	100	46.2	D
EB	L	210	203	97	54.5	D
	T	795	802	101	32.5	C
	R	145	138	95	8.3	A
	Subtotal	1,150	1,143	99	33.5	C
WB	L	170	166	98	68.2	E
	T	740	746	101	49.3	D
	R	240	235	98	10.6	B
	Subtotal	1,150	1,147	100	44.1	D
<b>Total</b>		6,335	6,328	100	50.5	D

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Future (2024) Background - Mitigated  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 3300 South & 540 East  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
<b>SB</b>	L	10	9	88	31.3	D
	R	15	15	98	17.8	C
	<b>Subtotal</b>	<b>25</b>	<b>24</b>	<b>96</b>	<b>22.9</b>	<b>C</b>
EB	L	10	10	98	10.4	B
	T	1,140	1,136	100	1.3	A
	<b>Subtotal</b>	<b>1,150</b>	<b>1,146</b>	<b>100</b>	<b>1.4</b>	<b>A</b>
WB	T	1,056	1,064	101	6.4	A
	R	10	10	98	5.8	A
	<b>Subtotal</b>	<b>1,066</b>	<b>1,074</b>	<b>101</b>	<b>6.4</b>	<b>A</b>
<b>Total</b>		<b>2,242</b>	<b>2,244</b>	<b>100</b>	<b>4.0</b>	<b>A</b>

**Intersection:** 500 East & 3360 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	10	10	98	3.6	A
	T	250	253	101	0.8	A
	R	35	36	103	0.5	A
	<b>Subtotal</b>	<b>295</b>	<b>299</b>	<b>101</b>	<b>0.9</b>	<b>A</b>
SB	L	91	87	95	4.6	A
	T	330	338	102	2.6	A
	R	5	6	120	1.7	A
	<b>Subtotal</b>	<b>426</b>	<b>431</b>	<b>101</b>	<b>3.0</b>	<b>A</b>
EB	L	5	5	100	8.2	A
	R	10	12	117	4.6	A
	<b>Subtotal</b>	<b>15</b>	<b>17</b>	<b>113</b>	<b>5.7</b>	<b>A</b>
<b>WB</b>	L	40	44	110	11.4	B
	R	97	101	104	5.9	A
	<b>Subtotal</b>	<b>137</b>	<b>145</b>	<b>106</b>	<b>7.6</b>	<b>A</b>
<b>Total</b>		<b>874</b>	<b>892</b>	<b>102</b>	<b>3.1</b>	<b>A</b>

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.4	0.5
Total Delay (hr)	0.1	0.8	0.1	0.4	1.4	0.1	0.3	0.4	0.2	0.2	0.5	0.1
Total Del/Veh (s)	25.5	11.7	10.0	52.8	22.4	21.6	45.4	36.9	24.9	50.5	39.1	29.5
Vehicles Entered	14	234	37	26	218	17	24	40	21	16	46	16
Vehicles Exited	13	237	38	26	227	18	24	40	20	16	46	16
Hourly Exit Rate	52	948	152	104	908	72	96	160	80	64	184	64
Input Volume	58	960	142	107	869	68	97	155	93	68	166	58
% of Volume	90	99	107	97	104	106	99	103	86	94	111	110

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.8
Total Del/Veh (s)	23.1
Vehicles Entered	709
Vehicles Exited	721
Hourly Exit Rate	2884
Input Volume	2841
% of Volume	102

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.4	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.5
Total Delay (hr)	0.1	0.8	0.1	0.4	1.3	0.1	0.4	0.5	0.2	0.3	0.5	0.1
Total Del/Veh (s)	27.3	11.7	9.8	50.8	20.5	19.2	52.7	38.6	30.0	52.5	37.6	25.8
Vehicles Entered	14	240	37	27	220	19	23	41	24	17	42	16
Vehicles Exited	15	236	35	26	209	18	24	41	24	17	42	17
Hourly Exit Rate	60	944	140	104	836	72	96	164	96	68	168	68
Input Volume	58	960	142	107	869	68	97	155	93	68	166	58
% of Volume	103	98	99	97	96	106	99	106	103	100	101	117

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.7
Total Del/Veh (s)	22.7
Vehicles Entered	720
Vehicles Exited	704
Hourly Exit Rate	2816
Input Volume	2841
% of Volume	99

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.5	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.4	0.5
Total Delay (hr)	0.1	1.1	0.1	0.6	1.6	0.1	0.5	0.5	0.2	0.3	0.5	0.1
Total Del/Veh (s)	33.7	13.7	11.4	70.3	23.0	22.0	57.7	39.6	30.4	50.5	37.6	26.3
Vehicles Entered	15	267	40	27	234	18	28	43	24	18	45	14
Vehicles Exited	14	268	42	26	244	19	27	43	24	18	44	14
Hourly Exit Rate	56	1072	168	104	976	76	108	172	96	72	176	56
Input Volume	65	1059	157	118	958	75	108	169	102	75	183	65
% of Volume	86	101	107	88	102	101	100	102	94	96	96	86

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	5.7
Total Del/Veh (s)	25.2
Vehicles Entered	773
Vehicles Exited	783
Hourly Exit Rate	3132
Input Volume	3134
% of Volume	100

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.5	0.4
Total Delay (hr)	0.1	0.8	0.1	0.4	1.3	0.1	0.4	0.5	0.2	0.2	0.5	0.1
Total Del/Veh (s)	25.1	11.1	10.3	51.2	20.7	20.0	51.0	39.9	29.4	46.0	38.1	29.6
Vehicles Entered	13	243	35	28	227	19	25	43	24	18	39	15
Vehicles Exited	14	242	34	29	217	18	24	43	24	18	41	16
Hourly Exit Rate	56	968	136	116	868	72	96	172	96	72	164	64
Input Volume	58	960	142	107	869	68	97	155	93	68	166	58
% of Volume	97	101	96	108	100	106	99	111	103	106	99	110

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.8
Total Del/Veh (s)	22.6
Vehicles Entered	729
Vehicles Exited	720
Hourly Exit Rate	2880
Input Volume	2841
% of Volume	101

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	2.4	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.4	0.5
Total Delay (hr)	0.5	3.4	0.5	1.8	5.5	0.4	1.6	1.9	0.8	1.0	1.9	0.5
Total Del/Veh (s)	29.0	12.4	10.8	60.0	22.0	21.0	55.4	40.6	30.7	52.7	39.9	29.1
Vehicles Entered	56	985	149	108	897	73	100	167	93	69	172	62
Vehicles Exited	56	983	149	108	897	73	99	167	92	70	173	62
Hourly Exit Rate	56	983	149	108	897	73	99	167	92	70	173	62
Input Volume	60	985	146	110	891	70	100	158	95	70	170	60
% of Volume	94	100	102	98	101	105	99	105	97	100	102	104

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	19.9
Total Del/Veh (s)	24.1
Vehicles Entered	2931
Vehicles Exited	2929
Hourly Exit Rate	2929
Input Volume	2914
% of Volume	101

### 6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.7	0.4	2.5	2.1	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	0.7	1.7	0.1	0.8	2.5	0.1	0.9	5.6	0.2	1.5	5.4	0.2
Total Del/Veh (s)	49.0	30.9	7.0	63.7	47.3	8.7	66.9	55.3	22.9	56.7	38.8	19.4
Vehicles Entered	46	192	32	40	181	54	43	330	26	83	457	37
Vehicles Exited	43	179	32	38	169	54	44	349	26	88	491	39
Hourly Exit Rate	172	716	128	152	676	216	176	1396	104	352	1964	156
Input Volume	205	775	141	166	721	234	171	1355	107	327	1828	146
% of Volume	84	92	91	92	94	92	103	103	97	108	107	107

### 6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	19.7
Total Del/Veh (s)	42.9
Vehicles Entered	1521
Vehicles Exited	1552
Hourly Exit Rate	6208
Input Volume	6176
% of Volume	101



6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.4	2.5	2.1	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	0.7	1.7	0.1	0.6	2.5	0.2	0.9	5.8	0.2	1.5	5.3	0.2
Total Del/Veh (s)	41.6	29.7	7.0	49.7	44.2	9.8	68.2	57.9	27.5	60.2	40.8	22.0
Vehicles Entered	51	194	35	42	182	60	42	342	26	83	454	38
Vehicles Exited	52	204	36	45	195	60	41	323	25	79	422	38
Hourly Exit Rate	208	816	144	180	780	240	164	1292	100	316	1688	152
Input Volume	205	775	141	166	721	234	171	1355	107	327	1828	146
% of Volume	101	105	102	108	108	103	96	95	93	97	92	104

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	19.7
Total Del/Veh (s)	43.0
Vehicles Entered	1549
Vehicles Exited	1520
Hourly Exit Rate	6080
Input Volume	6176
% of Volume	98

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.4	2.4	2.0	0.1	0.2	1.8	0.2	0.4
Total Delay (hr)	1.0	1.8	0.1	0.8	2.8	0.2	1.0	8.9	0.4	1.5	7.6	0.3
Total Del/Veh (s)	61.7	29.3	9.1	62.0	48.6	11.9	69.1	78.0	43.0	57.2	49.5	27.8
Vehicles Entered	56	211	37	43	199	63	46	374	30	84	505	40
Vehicles Exited	55	199	36	38	182	62	45	366	30	88	527	41
Hourly Exit Rate	220	796	144	152	728	248	180	1464	120	352	2108	164
Input Volume	226	856	156	183	796	258	188	1495	118	360	2016	161
% of Volume	97	93	92	83	91	96	96	98	102	98	105	102

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	26.3
Total Del/Veh (s)	52.1
Vehicles Entered	1688
Vehicles Exited	1669
Hourly Exit Rate	6676
Input Volume	6813
% of Volume	98

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.4	2.5	2.2	0.1	0.2	2.0	0.2	0.3
Total Delay (hr)	0.8	2.1	0.1	1.0	2.5	0.2	0.9	9.4	0.4	1.4	5.9	0.2
Total Del/Veh (s)	48.2	33.2	8.6	74.9	43.8	10.5	64.2	88.0	47.7	59.0	43.9	21.8
Vehicles Entered	50	206	33	42	184	58	42	343	29	82	458	36
Vehicles Exited	53	219	35	45	199	60	43	349	30	77	441	35
Hourly Exit Rate	212	876	140	180	796	240	172	1396	120	308	1764	140
Input Volume	205	775	141	166	721	234	171	1355	107	327	1828	146
% of Volume	103	113	99	108	110	103	101	103	112	94	96	96

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	24.9
Total Del/Veh (s)	52.4
Vehicles Entered	1563
Vehicles Exited	1586
Hourly Exit Rate	6344
Input Volume	6176
% of Volume	103

6: 700 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.2	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.4	2.5	2.1	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	3.1	7.3	0.3	3.2	10.4	0.7	3.6	29.7	1.2	5.9	24.2	1.0
Total Del/Veh (s)	54.5	32.5	8.3	68.2	49.3	10.6	72.4	75.0	38.3	62.0	45.3	23.3
Vehicles Entered	204	803	137	167	746	236	173	1389	111	332	1874	152
Vehicles Exited	203	802	138	166	746	235	174	1388	111	332	1881	152
Hourly Exit Rate	203	802	138	166	746	235	174	1388	111	332	1881	152
Input Volume	210	795	145	170	740	240	175	1390	110	335	1875	150
% of Volume	97	101	95	98	101	98	99	100	101	99	100	102

6: 700 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.5
Total Delay (hr)	90.6
Total Del/Veh (s)	50.5
Vehicles Entered	6324
Vehicles Exited	6328
Hourly Exit Rate	6328
Input Volume	6335
% of Volume	100

9: 3300 South & 540 East Performance by movement Interval #1 4:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.4	0.0	0.0	0.0	0.6
Total Del/Veh (s)	9.0	1.3	6.1	5.6	25.6	18.2	3.9
Vehicles Entered	3	271	250	3	2	4	533
Vehicles Exited	2	268	256	3	2	4	535
Hourly Exit Rate	8	1072	1024	12	8	16	2140
Input Volume	10	1112	1029	10	10	15	2186
% of Volume	80	96	100	120	80	107	98

9: 3300 South & 540 East Performance by movement Interval #2 4:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.4	0.0	0.0	0.0	0.6
Total Del/Veh (s)	14.1	1.2	5.9	6.6	34.5	10.7	3.7
Vehicles Entered	2	275	272	2	2	4	557
Vehicles Exited	2	279	262	2	2	3	550
Hourly Exit Rate	8	1116	1048	8	8	12	2200
Input Volume	10	1112	1029	10	10	15	2186
% of Volume	80	100	102	80	80	80	101

9: 3300 South & 540 East Performance by movement Interval #3 4:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.5	0.0	0.0	0.0	0.7
Total Del/Veh (s)	7.7	1.4	6.6	5.6	30.3	16.3	4.1
Vehicles Entered	4	308	267	2	2	4	587
Vehicles Exited	4	302	276	2	2	4	590
Hourly Exit Rate	16	1208	1104	8	8	16	2360
Input Volume	11	1226	1135	11	11	16	2410
% of Volume	145	99	97	73	73	100	98

9: 3300 South & 540 East Performance by movement Interval #4 4:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.5	0.0	0.0	0.0	0.7
Total Del/Veh (s)	8.9	1.3	6.5	5.5	50.3	21.5	4.1
Vehicles Entered	2	282	274	3	2	3	566
Vehicles Exited	2	288	270	3	2	4	569
Hourly Exit Rate	8	1152	1080	12	8	16	2276
Input Volume	10	1112	1029	10	10	15	2186
% of Volume	80	104	105	120	80	107	104

9: 3300 South & 540 East Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.4	1.9	0.0	0.1	0.1	2.5
Total Del/Veh (s)	10.4	1.3	6.4	5.8	31.3	17.8	4.0
Vehicles Entered	10	1136	1063	10	8	15	2242
Vehicles Exited	10	1136	1064	10	9	15	2244
Hourly Exit Rate	10	1136	1064	10	9	15	2244
Input Volume	10	1140	1056	10	10	15	2242
% of Volume	98	100	101	98	88	98	100

11: 500 East & 3360 South Performance by movement Interval #1 4:00

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	7.9	4.4	11.4	6.0	4.0	0.9	0.4	4.3	2.7	3.0	3.2
Vehicles Entered	1	4	12	25	3	59	9	23	86	1	223
Vehicles Exited	1	4	12	25	3	60	9	24	88	1	227
Hourly Exit Rate	4	16	48	100	12	240	36	96	352	4	908
Input Volume	5	10	39	95	10	244	34	89	322	5	853
% of Volume	80	160	123	105	120	98	106	108	109	80	106

11: 500 East & 3360 South Performance by movement Interval #2 4:15

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	6.4	4.0	10.8	4.8	2.4	0.8	0.6	4.7	2.5	1.3	2.8
Vehicles Entered	1	2	10	24	3	63	9	20	82	2	216
Vehicles Exited	1	2	11	24	2	63	9	20	80	2	214
Hourly Exit Rate	4	8	44	96	8	252	36	80	320	8	856
Input Volume	5	10	39	95	10	244	34	89	322	5	853
% of Volume	80	80	113	101	80	103	106	90	99	160	100

11: 500 East & 3360 South Performance by movement Interval #3 4:30

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	7.8	4.6	12.0	6.6	3.2	1.0	0.4	4.7	2.7	1.3	3.2
Vehicles Entered	1	3	11	28	3	66	10	22	89	2	235
Vehicles Exited	1	3	11	28	3	66	10	22	91	2	237
Hourly Exit Rate	4	12	44	112	12	264	40	88	364	8	948
Input Volume	5	11	43	104	11	269	38	98	355	5	939
% of Volume	80	109	102	108	109	98	105	90	103	160	101

11: 500 East & 3360 South Performance by movement Interval #4 4:45

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	9.5	3.9	10.5	5.5	3.4	0.8	0.4	4.5	2.4	2.2	2.9
Vehicles Entered	2	3	11	25	2	66	8	22	81	1	221
Vehicles Exited	2	4	11	24	2	65	8	22	79	1	218
Hourly Exit Rate	8	16	44	96	8	260	32	88	316	4	872
Input Volume	5	10	39	95	10	244	34	89	322	5	853
% of Volume	160	160	113	101	80	107	94	99	98	80	102

11: 500 East & 3360 South Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.1	0.2	0.0	0.8
Total Del/Veh (s)	8.2	4.6	11.4	5.9	3.6	0.8	0.5	4.6	2.6	1.7	3.1
Vehicles Entered	5	12	44	101	10	254	36	87	338	6	893
Vehicles Exited	5	12	44	101	10	253	36	87	338	6	892
Hourly Exit Rate	5	12	44	101	10	253	36	87	338	6	892
Input Volume	5	10	40	97	10	250	35	91	330	5	874
% of Volume	100	117	110	104	98	101	103	95	102	120	102

Total Network Performance By Interval

Interval Start	4:00	4:15	4:30	4:45	All
Denied Delay (hr)	0.3	0.3	0.3	0.3	1.1
Denied Del/Veh (s)	0.6	0.6	0.6	0.6	0.6
Total Delay (hr)	27.1	26.9	35.0	32.4	121.4
Total Del/Veh (s)	49.9	49.8	59.0	57.4	59.2
Vehicles Entered	1734	1753	1911	1759	7164
Vehicles Exited	1767	1718	1861	1810	7161
Hourly Exit Rate	7068	6872	7444	7240	7161
Input Volume	19025	19025	20985	19025	19515
% of Volume	37	36	35	38	37



Intersection: 3: 500 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	73	245	243	233	288	298	143	226	126	240
Average Queue (ft)	36	165	159	100	234	251	81	144	64	157
95th Queue (ft)	79	247	247	224	326	332	140	246	133	266
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					2	4				
Queuing Penalty (veh)					9	19				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	19		13	24		6	25	2	29
Queuing Penalty (veh)	2	11		55	26		16	24	5	20

Intersection: 3: 500 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	90	258	269	205	294	298	194	271	87	207
Average Queue (ft)	46	179	175	106	226	244	90	155	53	132
95th Queue (ft)	95	269	281	227	322	335	184	272	92	218
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					2	4		0		
Queuing Penalty (veh)					11	19		0		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	19		10	22		10	29	2	25
Queuing Penalty (veh)	5	11		43	24		24	28	5	17

Intersection: 3: 500 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	175	325	302	239	305	306	176	259	106	217
Average Queue (ft)	44	194	179	126	255	269	102	172	65	141
95th Queue (ft)	112	303	294	257	339	340	187	291	117	236
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					4	6				
Queuing Penalty (veh)					23	37				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	23		21	26		15	32	4	24
Queuing Penalty (veh)	7	15		100	31		41	34	9	18

Intersection: 3: 500 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	71	257	244	187	299	302	154	240	96	195
Average Queue (ft)	39	170	160	110	239	255	81	157	56	128
95th Queue (ft)	84	272	267	219	331	334	152	254	104	210
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					2	4				
Queuing Penalty (veh)					13	22				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	17		14	22		9	34	3	25
Queuing Penalty (veh)	4	10		63	24		22	33	6	17

Intersection: 3: 500 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	182	327	323	250	309	311	234	323	143	271
Average Queue (ft)	41	177	168	110	239	254	88	157	60	139
95th Queue (ft)	94	275	274	233	331	337	168	267	113	235
Link Distance (ft)		941	941		290	290		399		694
Upstream Blk Time (%)					3	4		0		
Queuing Penalty (veh)					14	24		0		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	20		14	24		10	30	3	26
Queuing Penalty (veh)	5	12		65	26		26	30	6	18

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	254	308	323	201	239	357	335	232	232	434	410	352
Average Queue (ft)	144	196	215	67	138	252	231	87	145	339	314	262
95th Queue (ft)	261	328	344	206	269	360	343	232	249	458	436	382
Link Distance (ft)		1147	1147			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	5	7	18		30	56	28			1		
Queuing Penalty (veh)	19	14	25		107	93	65			2		

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	267	451	514	453	374	276
Average Queue (ft)	167	307	393	363	286	184
95th Queue (ft)	297	476	545	491	414	309
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)			1			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		2	5			
Queuing Penalty (veh)		10	17			

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	259	290	312	158	224	361	351	281	191	424	412	340
Average Queue (ft)	151	203	216	58	132	270	253	110	143	343	326	267
95th Queue (ft)	252	302	323	183	228	367	355	268	291	443	429	354
Link Distance (ft)		1147	1147			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	5	8	18		27	52	29		0	1		
Queuing Penalty (veh)	20	17	26		97	87	68		0	1		

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	248	431	496	425	366	248
Average Queue (ft)	178	268	366	332	268	164
95th Queue (ft)	270	459	521	455	394	270
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		1	4			
Queuing Penalty (veh)		6	12			

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	287	333	366	277	234	375	363	234	245	548	518	466
Average Queue (ft)	197	208	225	91	132	277	258	118	148	429	407	346
95th Queue (ft)	351	343	370	263	252	400	387	283	247	559	536	480
Link Distance (ft)		1147	1147			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	15	7	20	0	29	60	34	0		13		
Queuing Penalty (veh)	63	16	31	0	116	110	87	0		25		

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	382	453	589	515	436	316
Average Queue (ft)	249	319	464	420	347	248
95th Queue (ft)	382	512	625	542	463	345
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		1	14			
Queuing Penalty (veh)		5	51			

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	243	348	368	273	286	375	367	236	321	571	544	492
Average Queue (ft)	158	229	249	86	180	285	257	101	164	459	436	378
95th Queue (ft)	252	356	384	255	337	404	377	251	361	687	666	611
Link Distance (ft)		1147	1147			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	4	11	24		40	53	27			19		
Queuing Penalty (veh)	17	23	34		143	87	64			33		

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	396	380	537	468	396	262
Average Queue (ft)	285	237	398	368	298	186
95th Queue (ft)	506	390	547	478	414	284
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		0	5			
Queuing Penalty (veh)		1	15			



Intersection: 6: 700 East & 3300 South , All Intervals

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	328	383	407	300	342	428	416	300	370	624	588	539
Average Queue (ft)	163	209	226	75	146	271	250	104	150	392	371	314
95th Queue (ft)	286	335	358	230	278	385	367	260	293	568	547	488
Link Distance (ft)		1147	1147			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	7	8	20	0	31	55	29	0	0	9		
Queuing Penalty (veh)	30	17	29	0	116	94	71	0	0	15		

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	441	507	656	550	459	339
Average Queue (ft)	220	283	405	371	299	196
95th Queue (ft)	392	468	570	502	430	315
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		1	7			
Queuing Penalty (veh)		6	24			

Intersection: 9: 3300 South & 540 East, Interval #1

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	28	44	60	46
Average Queue (ft)	6	9	16	20
95th Queue (ft)	25	49	60	52
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	13			

Intersection: 9: 3300 South & 540 East, Interval #2

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	21	46	63	44
Average Queue (ft)	4	10	16	19
95th Queue (ft)	20	47	68	49
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	3			
Queuing Penalty (veh)	14			

Intersection: 9: 3300 South & 540 East, Interval #3

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	30	74	96	42
Average Queue (ft)	9	20	33	19
95th Queue (ft)	31	75	93	48
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	14			

Intersection: 9: 3300 South & 540 East, Interval #4

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	22	66	77	52
Average Queue (ft)	5	16	21	21
95th Queue (ft)	22	75	84	57
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	1			
Queuing Penalty (veh)	8			

Intersection: 9: 3300 South & 540 East, All Intervals

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	33	114	127	64
Average Queue (ft)	6	14	21	20
95th Queue (ft)	25	63	78	52
Link Distance (ft)		1147	1147	488
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	12			

Intersection: 11: 500 East & 3360 South, Interval #1

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	36	78	30	75
Average Queue (ft)	15	47	5	23
95th Queue (ft)	43	79	25	66
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #2

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	77	14	62
Average Queue (ft)	9	47	3	25
95th Queue (ft)	33	83	18	68
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	85	26	84
Average Queue (ft)	13	50	4	29
95th Queue (ft)	39	89	24	83
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #4

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	79	18	65
Average Queue (ft)	17	51	3	23
95th Queue (ft)	44	81	17	68
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, All Intervals

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	40	109	47	99
Average Queue (ft)	14	49	3	25
95th Queue (ft)	40	83	21	71
Link Distance (ft)	490	657	693	399
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 550
Network wide Queuing Penalty, Interval #2: 536
Network wide Queuing Penalty, Interval #3: 834
Network wide Queuing Penalty, Interval #4: 638
Network wide Queuing Penalty, All Intervals: 639

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Future (2024) Plus Project  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 500 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	100	100	100	53.2	D
	T	158	157	99	39.8	D
	R	99	100	101	28.7	C
	Subtotal	357	357	100	40.4	D
SB	L	74	71	96	55.5	E
	T	170	168	99	41.6	D
	R	60	60	100	28.7	C
	Subtotal	304	299	98	42.3	D
EB	L	60	64	107	28.4	C
	T	999	1,014	102	12.2	B
	R	146	148	101	10.2	B
	Subtotal	1,205	1,226	102	12.8	B
WB	L	112	112	100	65.8	E
	T	897	893	100	21.8	C
	R	72	70	97	20.3	C
	Subtotal	1,081	1,075	99	26.3	C
<b>Total</b>		2,947	2,957	100	24.0	C

**Intersection:** 700 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	183	187	102	78.8	E
	T	1,390	1,363	98	71.8	E
	R	110	110	100	35.5	D
	Subtotal	1,683	1,660	99	70.2	E
SB	L	335	333	99	68.7	E
	T	1,875	1,874	100	46.8	D
	R	156	150	96	24.4	C
	Subtotal	2,366	2,357	100	48.5	D
EB	L	214	221	103	62.2	E
	T	800	803	100	31.5	C
	R	150	151	100	7.5	A
	Subtotal	1,164	1,175	101	34.2	C
WB	L	170	173	102	78.4	E
	T	746	743	100	49.1	D
	R	240	249	104	10.8	B
	Subtotal	1,156	1,165	101	45.3	D
<b>Total</b>		6,370	6,357	100	51.0	D

## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Future (2024) Plus Project  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 3300 South & 540 East  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	10	9	88	33.8	D
	R	15	15	98	15.1	C
	<b>Subtotal</b>	<b>25</b>	<b>24</b>	<b>96</b>	<b>22.1</b>	<b>C</b>
EB	L	10	10	98	7.9	A
	T	1,162	1,176	101	1.3	A
	<b>Subtotal</b>	<b>1,172</b>	<b>1,186</b>	<b>101</b>	<b>1.4</b>	<b>A</b>
WB	T	1,066	1,060	99	0.7	A
	R	10	11	107	0.0	A
	<b>Subtotal</b>	<b>1,076</b>	<b>1,071</b>	<b>100</b>	<b>0.7</b>	<b>A</b>
<b>Total</b>		<b>2,274</b>	<b>2,281</b>	<b>100</b>	<b>1.2</b>	<b>A</b>

**Intersection:** 500 East & 3360 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	10	10	98	3.9	A
	T	254	252	99	0.9	A
	R	35	36	103	0.5	A
	<b>Subtotal</b>	<b>299</b>	<b>298</b>	<b>100</b>	<b>1.0</b>	<b>A</b>
SB	L	91	96	106	4.7	A
	T	334	328	98	2.6	A
	R	5	4	80	3.4	A
	<b>Subtotal</b>	<b>430</b>	<b>428</b>	<b>100</b>	<b>3.1</b>	<b>A</b>
EB	L	5	4	80	11.1	B
	R	10	11	107	4.6	A
	<b>Subtotal</b>	<b>15</b>	<b>15</b>	<b>100</b>	<b>6.3</b>	<b>A</b>
WB	L	40	40	100	11.6	B
	R	97	97	100	5.9	A
	<b>Subtotal</b>	<b>137</b>	<b>137</b>	<b>100</b>	<b>7.6</b>	<b>A</b>
<b>Total</b>		<b>881</b>	<b>878</b>	<b>100</b>	<b>3.1</b>	<b>A</b>



## SimTraffic LOS Report

**Project:** South Salt Lake - Wasatch Granite Townhomes TIS  
**Analysis Period:** Future (2024) Plus Project  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** East Access & 3300 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
<b>NB</b>	L	7	5	69	29.6	D
	R	7	8	110	8.3	A
	<b>Subtotal</b>	<b>14</b>	<b>13</b>	<b>93</b>	<b>16.5</b>	<b>C</b>
EB	T	1,156	1,167	101	0.6	A
	R	10	10	98	0.3	A
	Subtotal	1,166	1,177	101	0.6	A
WB	L	12	11	90	10.0	A
	T	1,074	1,072	100	4.1	A
	Subtotal	1,086	1,083	100	4.2	A
<b>Total</b>		2,267	2,273	100	2.4	A

**Intersection:** West Access & 3300 South  
**Type:** Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
<b>NB</b>	L	4	3	75	36.6	E
	R	6	6	96	9.5	A
	<b>Subtotal</b>	<b>10</b>	<b>9</b>	<b>90</b>	<b>18.5</b>	<b>C</b>
EB	T	1,160	1,171	101	0.1	A
	R	12	14	114	0.0	A
	Subtotal	1,172	1,185	101	0.1	A
WB	L	8	8	97	5.5	A
	T	1,072	1,068	100	1.3	A
	Subtotal	1,080	1,076	100	1.3	A
<b>Total</b>		2,262	2,270	100	0.8	A

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.5	0.3
Total Delay (hr)	0.1	0.8	0.1	0.5	1.4	0.1	0.3	0.4	0.2	0.3	0.4	0.1
Total Del/Veh (s)	25.3	11.6	9.5	56.6	22.1	21.7	45.7	35.6	24.8	50.2	38.1	27.2
Vehicles Entered	15	244	37	28	215	16	23	39	24	19	40	14
Vehicles Exited	16	248	37	28	224	17	23	40	26	18	39	14
Hourly Exit Rate	64	992	148	112	896	68	92	160	104	72	156	56
Input Volume	58	970	142	109	871	70	97	154	96	72	165	58
% of Volume	110	102	104	103	103	97	95	104	108	100	95	97

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.7
Total Del/Veh (s)	22.7
Vehicles Entered	714
Vehicles Exited	730
Hourly Exit Rate	2920
Input Volume	2862
% of Volume	102

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.4
Total Delay (hr)	0.1	0.8	0.1	0.4	1.3	0.1	0.4	0.4	0.2	0.2	0.5	0.1
Total Del/Veh (s)	25.4	11.0	9.1	50.4	20.8	19.1	50.9	40.6	28.2	49.0	39.6	28.4
Vehicles Entered	15	251	37	27	216	17	25	37	25	16	43	16
Vehicles Exited	14	248	37	27	207	16	25	38	25	17	43	16
Hourly Exit Rate	56	992	148	108	828	64	100	152	100	68	172	64
Input Volume	58	970	142	109	871	70	97	154	96	72	165	58
% of Volume	97	102	104	99	95	91	103	99	104	94	104	110

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.7
Total Del/Veh (s)	22.5
Vehicles Entered	725
Vehicles Exited	713
Hourly Exit Rate	2852
Input Volume	2862
% of Volume	100

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.6	0.6
Total Delay (hr)	0.2	1.1	0.1	0.7	1.5	0.1	0.5	0.4	0.2	0.3	0.5	0.1
Total Del/Veh (s)	31.3	13.5	12.1	77.9	22.7	21.1	56.3	36.5	26.3	57.2	39.6	29.5
Vehicles Entered	19	273	40	29	234	18	27	40	27	20	46	15
Vehicles Exited	19	274	40	26	244	19	28	38	27	19	47	15
Hourly Exit Rate	76	1096	160	104	976	76	112	152	108	76	188	60
Input Volume	65	1086	159	122	975	78	109	171	108	80	185	65
% of Volume	117	101	101	85	100	97	103	89	100	95	102	92

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	5.8
Total Del/Veh (s)	25.2
Vehicles Entered	788
Vehicles Exited	796
Hourly Exit Rate	3184
Input Volume	3203
% of Volume	99

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.3	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.5	0.4
Total Delay (hr)	0.1	0.8	0.1	0.5	1.3	0.1	0.4	0.5	0.2	0.3	0.5	0.1
Total Del/Veh (s)	27.2	11.1	9.0	56.9	20.4	18.1	49.1	40.6	31.7	50.9	41.7	25.9
Vehicles Entered	15	245	36	28	228	19	25	40	22	18	40	14
Vehicles Exited	15	244	34	31	218	18	24	41	23	17	39	15
Hourly Exit Rate	60	976	136	124	872	72	96	164	92	68	156	60
Input Volume	58	970	142	109	871	70	97	154	96	72	165	58
% of Volume	103	101	96	114	100	103	99	106	96	94	95	103

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.8
Total Del/Veh (s)	22.9
Vehicles Entered	730
Vehicles Exited	719
Hourly Exit Rate	2876
Input Volume	2862
% of Volume	100

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.5	0.4
Total Delay (hr)	0.5	3.5	0.4	2.1	5.5	0.4	1.5	1.8	0.8	1.1	2.0	0.5
Total Del/Veh (s)	28.4	12.2	10.2	65.8	21.8	20.3	53.2	39.8	28.7	55.5	41.6	28.7
Vehicles Entered	64	1013	149	112	894	70	100	156	98	73	169	60
Vehicles Exited	64	1014	148	112	893	70	100	157	100	71	168	60
Hourly Exit Rate	64	1014	148	112	893	70	100	157	100	71	168	60
Input Volume	60	999	146	112	897	72	100	158	99	74	170	60
% of Volume	107	102	101	100	100	97	100	99	101	96	99	100

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	20.0
Total Del/Veh (s)	24.0
Vehicles Entered	2958
Vehicles Exited	2957
Hourly Exit Rate	2957
Input Volume	2947
% of Volume	100

### 6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.7	0.4	2.5	2.1	0.1	0.2	1.8	0.2	0.4
Total Delay (hr)	0.8	1.7	0.1	0.8	2.6	0.2	1.0	5.8	0.2	1.5	5.5	0.2
Total Del/Veh (s)	52.4	30.5	7.3	59.6	48.6	10.3	71.5	57.9	26.3	57.2	39.5	23.0
Vehicles Entered	51	192	38	45	182	56	46	325	29	83	459	36
Vehicles Exited	49	182	38	43	171	56	45	336	29	85	487	37
Hourly Exit Rate	196	728	152	172	684	224	180	1344	116	340	1948	148
Input Volume	208	777	146	165	724	233	178	1350	107	325	1821	151
% of Volume	94	94	104	104	94	96	101	100	108	105	107	98

### 6: 700 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	20.3
Total Del/Veh (s)	44.0
Vehicles Entered	1542
Vehicles Exited	1558
Hourly Exit Rate	6232
Input Volume	6185
% of Volume	101

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.4	2.6	2.2	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	0.9	1.8	0.1	0.7	2.2	0.2	0.8	6.2	0.2	1.6	5.4	0.2
Total Del/Veh (s)	53.8	29.8	6.4	60.9	40.6	9.8	60.8	61.9	26.2	63.9	41.2	20.5
Vehicles Entered	54	202	38	39	173	64	44	341	29	83	455	37
Vehicles Exited	57	212	39	42	186	64	45	328	28	82	427	36
Hourly Exit Rate	228	848	156	168	744	256	180	1312	112	328	1708	144
Input Volume	208	777	146	165	724	233	178	1350	107	325	1821	151
% of Volume	110	109	107	102	103	110	101	97	105	101	94	95

6: 700 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	20.4
Total Del/Veh (s)	44.1
Vehicles Entered	1559
Vehicles Exited	1546
Hourly Exit Rate	6184
Input Volume	6185
% of Volume	100

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.5	2.4	2.0	0.1	0.3	1.8	0.3	0.3
Total Delay (hr)	1.1	1.8	0.1	1.0	3.0	0.2	1.4	8.4	0.3	1.6	7.5	0.3
Total Del/Veh (s)	63.4	30.0	7.8	73.7	50.2	11.6	85.4	74.7	38.7	59.7	49.4	25.5
Vehicles Entered	61	206	40	48	206	70	52	369	28	86	507	38
Vehicles Exited	55	196	39	42	190	68	50	371	28	84	523	38
Hourly Exit Rate	220	784	156	168	760	272	200	1484	112	336	2092	152
Input Volume	233	869	163	185	811	261	199	1511	120	364	2038	170
% of Volume	94	90	96	91	94	104	101	98	93	92	103	89

6: 700 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	26.7
Total Del/Veh (s)	52.6
Vehicles Entered	1711
Vehicles Exited	1684
Hourly Exit Rate	6736
Input Volume	6924
% of Volume	97

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.4	2.6	2.2	0.1	0.2	1.9	0.2	0.4
Total Delay (hr)	1.1	1.8	0.1	1.3	2.5	0.2	1.0	7.5	0.3	1.9	6.5	0.3
Total Del/Veh (s)	63.4	30.3	7.7	91.1	43.3	10.0	69.3	74.6	46.2	75.5	48.6	25.4
Vehicles Entered	55	203	34	43	182	59	46	329	24	82	455	40
Vehicles Exited	59	214	35	46	196	61	48	327	26	81	438	40
Hourly Exit Rate	236	856	140	184	784	244	192	1308	104	324	1752	160
Input Volume	208	777	146	165	724	233	178	1350	107	325	1821	151
% of Volume	113	110	96	112	108	105	108	97	97	100	96	106

6: 700 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	24.6
Total Del/Veh (s)	52.1
Vehicles Entered	1552
Vehicles Exited	1571
Hourly Exit Rate	6284
Input Volume	6185
% of Volume	102

6: 700 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.2	0.1	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.4	2.5	2.1	0.1	0.2	1.9	0.2	0.3
Total Delay (hr)	3.9	7.1	0.3	3.9	10.3	0.8	4.2	27.9	1.1	6.5	24.9	1.0
Total Del/Veh (s)	62.2	31.5	7.5	78.4	49.1	10.8	78.8	71.8	35.5	68.7	46.8	24.4
Vehicles Entered	222	804	150	176	744	249	189	1364	110	334	1876	151
Vehicles Exited	221	803	151	173	743	249	187	1363	110	333	1874	150
Hourly Exit Rate	221	803	151	173	743	249	187	1363	110	333	1874	150
Input Volume	214	800	150	170	746	240	183	1390	110	335	1875	156
% of Volume	103	100	100	102	100	104	102	98	100	99	100	96

6: 700 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.5
Total Delay (hr)	91.9
Total Del/Veh (s)	51.0
Vehicles Entered	6369
Vehicles Exited	6357
Hourly Exit Rate	6357
Input Volume	6370
% of Volume	100



9: 3300 South & 540 East Performance by movement Interval #1 4:00

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	9.0	1.3	0.6	0.0	22.4	17.1	1.2
Vehicles Entered	2	290	254	3	2	3	554
Vehicles Exited	2	286	255	3	2	3	551
Hourly Exit Rate	8	1144	1020	12	8	12	2204
Input Volume	10	1128	1035	10	10	15	2208
% of Volume	80	101	99	120	80	80	100

9: 3300 South & 540 East Performance by movement Interval #2 4:15

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	5.7	1.2	0.5	0.0	41.9	11.6	1.2
Vehicles Entered	3	287	257	2	2	4	555
Vehicles Exited	3	290	256	2	2	4	557
Hourly Exit Rate	12	1160	1024	8	8	16	2228
Input Volume	10	1128	1035	10	10	15	2208
% of Volume	120	103	99	80	80	107	101

9: 3300 South & 540 East Performance by movement Interval #3 4:30

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	6.9	1.4	0.8	0.0	38.2	17.5	1.4
Vehicles Entered	3	317	276	3	2	5	606
Vehicles Exited	3	313	277	3	2	4	602
Hourly Exit Rate	12	1252	1108	12	8	16	2408
Input Volume	11	1263	1159	11	11	16	2471
% of Volume	109	99	96	109	73	100	97

9: 3300 South & 540 East Performance by movement Interval #4 4:45

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	11.5	1.2	0.6	0.1	33.1	14.4	1.2
Vehicles Entered	2	282	272	4	3	4	567
Vehicles Exited	2	287	271	4	3	4	571
Hourly Exit Rate	8	1148	1084	16	12	16	2284
Input Volume	10	1128	1035	10	10	15	2208
% of Volume	80	102	105	160	120	107	103

9: 3300 South & 540 East Performance by movement Entire Run

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.4	0.2	0.0	0.1	0.1	0.8
Total Del/Veh (s)	7.9	1.3	0.7	0.0	33.8	15.1	1.2
Vehicles Entered	10	1176	1060	11	9	16	2282
Vehicles Exited	10	1176	1060	11	9	15	2281
Hourly Exit Rate	10	1176	1060	11	9	15	2281
Input Volume	10	1162	1066	10	10	15	2274
% of Volume	98	101	99	107	88	98	100

11: 500 East & 3360 South Performance by movement Interval #1 4:00

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	7.8	5.3	9.9	5.5	4.6	0.8	0.5	4.2	2.2	1.4	2.9
Vehicles Entered	2	2	10	23	2	62	8	24	79	1	213
Vehicles Exited	1	2	10	23	2	62	8	24	80	1	213
Hourly Exit Rate	4	8	40	92	8	248	32	96	320	4	852
Input Volume	5	10	39	94	10	247	34	88	324	5	856
% of Volume	80	80	103	98	80	100	94	109	99	80	100

11: 500 East & 3360 South Performance by movement Interval #2 4:15

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	8.8	4.2	11.7	6.3	3.8	0.9	0.5	4.9	2.5	5.5	3.1
Vehicles Entered	1	3	10	23	3	63	9	25	82	1	220
Vehicles Exited	1	3	10	23	3	63	9	24	80	1	217
Hourly Exit Rate	4	12	40	92	12	252	36	96	320	4	868
Input Volume	5	10	39	94	10	247	34	88	324	5	856
% of Volume	80	120	103	98	120	102	106	109	99	80	101

11: 500 East & 3360 South Performance by movement Interval #3 4:30

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	12.5	4.1	12.2	6.0	3.7	0.9	0.6	4.5	2.9	2.0	3.3
Vehicles Entered	1	3	12	26	3	66	11	26	86	2	236
Vehicles Exited	1	3	11	26	3	66	11	26	87	2	236
Hourly Exit Rate	4	12	44	104	12	264	44	104	348	8	944
Input Volume	5	11	43	105	11	276	38	99	362	5	955
% of Volume	80	109	102	99	109	96	116	105	96	160	99

11: 500 East & 3360 South Performance by movement Interval #4 4:45

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	7.3	4.9	11.3	5.3	3.6	0.8	0.4	4.7	2.3	2.5	2.8
Vehicles Entered	1	3	8	24	2	61	8	21	82	1	211
Vehicles Exited	1	3	9	25	2	61	8	20	81	1	211
Hourly Exit Rate	4	12	36	100	8	244	32	80	324	4	844
Input Volume	5	10	39	94	10	247	34	88	324	5	856
% of Volume	80	120	92	106	80	99	94	91	100	80	99

11: 500 East & 3360 South Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.1	0.2	0.0	0.8
Total Del/Veh (s)	11.1	4.6	11.6	5.9	3.9	0.9	0.5	4.7	2.6	3.4	3.1
Vehicles Entered	4	11	40	96	10	252	36	96	328	4	877
Vehicles Exited	4	11	40	97	10	252	36	96	328	4	878
Hourly Exit Rate	4	11	40	97	10	252	36	96	328	4	878
Input Volume	5	10	40	97	10	254	35	91	334	5	881
% of Volume	80	107	100	100	98	99	103	106	98	80	100

14: East Access & 3300 South Performance by movement Interval #1 4:00

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Total Del/Veh (s)	0.5	0.2	9.5	4.0	27.0	8.5	2.3
Vehicles Entered	282	3	3	251	1	2	542
Vehicles Exited	279	3	3	252	1	2	540
Hourly Exit Rate	1116	12	12	1008	4	8	2160
Input Volume	1122	10	12	1043	7	7	2201
% of Volume	99	120	100	97	57	114	98

14: East Access & 3300 South Performance by movement Interval #2 4:15

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.4
Total Del/Veh (s)	0.6	0.3	9.5	4.0	46.4	5.1	2.3
Vehicles Entered	290	2	3	264	1	2	562
Vehicles Exited	293	2	3	265	1	2	566
Hourly Exit Rate	1172	8	12	1060	4	8	2264
Input Volume	1122	10	12	1043	7	7	2201
% of Volume	104	80	100	102	57	114	103

14: East Access & 3300 South Performance by movement Interval #3 4:30

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.0	0.0	0.3	0.0	0.0	0.4
Total Del/Veh (s)	0.6	0.3	13.3	4.3	33.8	8.1	2.5
Vehicles Entered	309	3	2	276	1	2	593
Vehicles Exited	306	2	2	275	1	2	588
Hourly Exit Rate	1224	8	8	1100	4	8	2352
Input Volume	1257	11	13	1167	8	8	2464
% of Volume	97	73	62	94	50	100	95

14: East Access & 3300 South Performance by movement Interval #4 4:45

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.4
Total Del/Veh (s)	0.6	0.3	9.0	4.0	20.3	11.5	2.4
Vehicles Entered	286	3	3	280	2	2	576
Vehicles Exited	290	3	3	280	2	2	580
Hourly Exit Rate	1160	12	12	1120	8	8	2320
Input Volume	1122	10	12	1043	7	7	2201
% of Volume	103	120	100	107	114	114	105

14: East Access & 3300 South Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.2	0.0	0.0	1.2	0.0	0.0	1.5
Total Del/Veh (s)	0.6	0.3	10.0	4.1	29.6	8.3	2.4
Vehicles Entered	1167	10	11	1072	5	8	2273
Vehicles Exited	1167	10	11	1072	5	8	2273
Hourly Exit Rate	1167	10	11	1072	5	8	2273
Input Volume	1156	10	12	1074	7	7	2267
% of Volume	101	98	90	100	69	110	100

16: West Access & 3300 South Performance by movement Interval #1 4:00

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0		0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.0	2.8	1.3		15.3	0.7
Vehicles Entered	284	4	1	252	0	1	542
Vehicles Exited	284	3	2	256	0	1	546
Hourly Exit Rate	1136	12	8	1024	0	4	2184
Input Volume	1126	12	8	1041	4	6	2197
% of Volume	101	100	100	98	0	67	99

16: West Access & 3300 South Performance by movement Interval #2 4:15

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.0	5.8	1.1	35.8	6.6	0.7
Vehicles Entered	289	4	2	263	1	2	561
Vehicles Exited	290	4	2	259	1	2	558
Hourly Exit Rate	1160	16	8	1036	4	8	2232
Input Volume	1126	12	8	1041	4	6	2197
% of Volume	103	133	100	100	100	133	102

16: West Access & 3300 South Performance by movement Interval #3 4:30

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Total Del/Veh (s)	0.1	0.0	7.9	1.6	39.5	8.0	0.9
Vehicles Entered	311	4	2	274	1	2	594
Vehicles Exited	310	4	2	278	1	2	597
Hourly Exit Rate	1240	16	8	1112	4	8	2388
Input Volume	1261	13	9	1165	4	7	2459
% of Volume	98	123	89	95	100	114	97



16: West Access & 3300 South Performance by movement Interval #4 4:45

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.1	0.0	5.4	1.3	26.0	12.7	0.8
Vehicles Entered	286	3	2	279	1	1	572
Vehicles Exited	287	3	2	275	1	1	569
Hourly Exit Rate	1148	12	8	1100	4	4	2276
Input Volume	1126	12	8	1041	4	6	2197
% of Volume	102	100	100	106	100	67	104

16: West Access & 3300 South Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.4	0.0	0.0	0.5
Total Del/Veh (s)	0.1	0.0	5.5	1.3	36.6	9.5	0.8
Vehicles Entered	1171	14	8	1068	3	6	2270
Vehicles Exited	1171	14	8	1068	3	6	2270
Hourly Exit Rate	1171	14	8	1068	3	6	2270
Input Volume	1160	12	8	1072	4	6	2262
% of Volume	101	114	97	100	75	96	100

Total Network Performance By Interval

Interval Start	4:00	4:15	4:30	4:45	All
Denied Delay (hr)	0.3	0.3	0.3	0.3	1.1
Denied Del/Veh (s)	0.6	0.6	0.6	0.6	0.6
Total Delay (hr)	27.7	27.7	35.6	32.1	123.2
Total Del/Veh (s)	50.6	50.4	59.2	57.2	59.6
Vehicles Entered	1749	1768	1952	1748	7221
Vehicles Exited	1759	1763	1894	1795	7210
Hourly Exit Rate	7036	7052	7576	7180	7210
Input Volume	23516	23516	26318	23516	24216
% of Volume	30	30	29	31	30

Intersection: 3: 500 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	96	242	252	228	285	300	162	238	122	204
Average Queue (ft)	39	168	161	99	225	249	85	152	67	132
95th Queue (ft)	102	247	251	207	312	332	163	253	141	218
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					1	3				
Queuing Penalty (veh)					4	17				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	20		12	24		8	25	6	23
Queuing Penalty (veh)	1	12		54	27		19	24	14	17

Intersection: 3: 500 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	74	261	240	211	287	300	160	253	90	215
Average Queue (ft)	41	176	165	108	226	248	79	151	55	138
95th Queue (ft)	84	265	260	213	325	336	147	257	96	223
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					1	3				
Queuing Penalty (veh)					5	16				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	18		15	22		7	27	2	27
Queuing Penalty (veh)	2	10		66	24		17	26	5	20

Intersection: 3: 500 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	127	306	290	249	295	301	183	270	147	248
Average Queue (ft)	55	200	188	121	250	266	106	160	75	160
95th Queue (ft)	135	310	298	253	318	331	191	286	151	271
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					3	5				
Queuing Penalty (veh)					16	29				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	24		26	26		15	25	7	30
Queuing Penalty (veh)	7	16		129	32		42	27	18	24

Intersection: 3: 500 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	119	274	265	246	296	299	153	257	128	225
Average Queue (ft)	48	178	158	133	238	257	79	154	62	133
95th Queue (ft)	133	286	277	256	329	339	153	261	127	231
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					2	4				
Queuing Penalty (veh)					12	21				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	2	17		18	22		7	32	5	26
Queuing Penalty (veh)	9	10		79	24		17	31	12	18

Intersection: 3: 500 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	198	333	325	250	305	308	220	309	175	271
Average Queue (ft)	46	180	168	115	235	255	87	154	65	141
95th Queue (ft)	116	280	274	235	323	336	166	265	131	238
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					2	4				
Queuing Penalty (veh)					9	21				
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	1	20		18	24		9	27	5	26
Queuing Penalty (veh)	5	12		82	27		24	27	12	20

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	255	299	334	208	261	355	348	240	231	436	402	340
Average Queue (ft)	168	207	229	71	151	264	239	95	150	333	315	258
95th Queue (ft)	301	315	339	208	273	384	365	244	265	466	441	379
Link Distance (ft)		783	783			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	8	6	18		35	56	29	0		2		
Queuing Penalty (veh)	30	13	26		126	93	68	0		4		

Intersection: 6: 700 East & 3300 South , Interval #1

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	259	391	473	456	379	253
Average Queue (ft)	169	271	389	359	286	185
95th Queue (ft)	294	424	504	471	399	257
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		1	3			
Queuing Penalty (veh)		6	11			

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	276	294	336	275	197	328	296	207	219	440	407	357
Average Queue (ft)	174	202	223	74	140	254	230	89	149	358	338	283
95th Queue (ft)	304	305	329	227	228	340	308	194	244	480	454	400
Link Distance (ft)		783	783			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	11	8	21		33	49	22	0		2		
Queuing Penalty (veh)	44	16	31		118	80	52	1		3		

Intersection: 6: 700 East & 3300 South , Interval #2

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	284	420	456	418	345	241
Average Queue (ft)	200	280	364	333	276	172
95th Queue (ft)	328	457	494	446	381	266
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		1	3			
Queuing Penalty (veh)		6	9			

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	309	295	320	240	280	372	357	286	327	505	492	440
Average Queue (ft)	212	213	227	88	169	289	273	134	191	407	389	330
95th Queue (ft)	373	314	334	249	328	408	393	310	332	534	521	463
Link Distance (ft)		783	783			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	17	7	18		43	58	35	0	0	8		
Queuing Penalty (veh)	73	17	29		172	108	92	1	1	15		

Intersection: 6: 700 East & 3300 South , Interval #3

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	339	507	635	561	470	359
Average Queue (ft)	244	290	469	428	343	238
95th Queue (ft)	357	490	638	556	463	340
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)			1			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		3	13			
Queuing Penalty (veh)		15	46			



Intersection: 6: 700 East & 3300 South , Interval #4

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	318	305	330	227	278	409	379	260	252	498	473	417
Average Queue (ft)	205	217	241	93	196	297	266	102	171	396	370	319
95th Queue (ft)	344	332	377	271	371	445	412	248	295	527	510	458
Link Distance (ft)		783	783			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	18	10	20		45	50	28	0		6		
Queuing Penalty (veh)	72	20	30		165	83	65	1		11		

Intersection: 6: 700 East & 3300 South , Interval #4

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	315	493	598	509	412	321
Average Queue (ft)	227	323	429	381	297	201
95th Queue (ft)	372	548	628	546	447	338
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)			1			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		6	8			
Queuing Penalty (veh)		27	27			

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	L	T	T	T
Maximum Queue (ft)	375	342	390	300	343	448	430	299	345	532	509	466
Average Queue (ft)	190	209	230	82	164	276	252	105	165	374	353	298
95th Queue (ft)	334	317	346	240	308	400	376	254	289	511	490	434
Link Distance (ft)		783	783			1123	1123			1284	1284	1284
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	100			150	440			
Storage Blk Time (%)	14	8	19		39	53	29	0	0	4		
Queuing Penalty (veh)	54	17	29		145	91	70	1	0	8		

Intersection: 6: 700 East & 3300 South , All Intervals

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	T	TR
Maximum Queue (ft)	362	524	677	585	485	367
Average Queue (ft)	210	291	413	375	300	199
95th Queue (ft)	346	484	583	519	431	311
Link Distance (ft)	1284		690	690	690	690
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		425				
Storage Blk Time (%)		3	7			
Queuing Penalty (veh)		13	23			

Intersection: 9: 3300 South & 540 East, Interval #1

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	21	15	44	42
Average Queue (ft)	4	2	11	20
95th Queue (ft)	21	15	41	48
Link Distance (ft)		8	8	488
Upstream Blk Time (%)		0	3	
Queuing Penalty (veh)		2	16	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	1			
Queuing Penalty (veh)	8			

Intersection: 9: 3300 South & 540 East, Interval #2

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	21	3	35	48
Average Queue (ft)	5	0	10	21
95th Queue (ft)	23	6	37	52
Link Distance (ft)		8	8	488
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		1	13	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	1			
Queuing Penalty (veh)	6			

Intersection: 9: 3300 South & 540 East, Interval #3

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	22	5	25	37	44
Average Queue (ft)	4	1	6	14	22
95th Queue (ft)	22	10	27	44	52
Link Distance (ft)		290	8	8	488
Upstream Blk Time (%)			2	4	
Queuing Penalty (veh)			11	26	
Storage Bay Dist (ft)	25				
Storage Blk Time (%)	1				
Queuing Penalty (veh)	9				

Intersection: 9: 3300 South & 540 East, Interval #4

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	15	24	31	46
Average Queue (ft)	3	3	10	22
95th Queue (ft)	17	19	33	55
Link Distance (ft)		8	8	488
Upstream Blk Time (%)		1	3	
Queuing Penalty (veh)		5	17	
Storage Bay Dist (ft)	25			
Storage Blk Time (%)	2			
Queuing Penalty (veh)	11			

Intersection: 9: 3300 South & 540 East, All Intervals

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	28	5	31	52	60
Average Queue (ft)	4	0	3	11	21
95th Queue (ft)	21	5	18	39	52
Link Distance (ft)		290	8	8	488
Upstream Blk Time (%)			1	3	
Queuing Penalty (veh)			5	18	
Storage Bay Dist (ft)	25				
Storage Blk Time (%)	1				
Queuing Penalty (veh)	9				

Intersection: 11: 500 East & 3360 South, Interval #1

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	74	27	60
Average Queue (ft)	9	45	5	25
95th Queue (ft)	34	74	25	67
Link Distance (ft)	490	506	693	400
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #2

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	70	36	81
Average Queue (ft)	11	48	6	32
95th Queue (ft)	36	78	32	82
Link Distance (ft)	490	506	693	400
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #3

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	30	80	28	88
Average Queue (ft)	12	48	6	35
95th Queue (ft)	38	76	29	96
Link Distance (ft)	490	506	693	400
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, Interval #4

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	31	74	28	81
Average Queue (ft)	14	46	4	29
95th Queue (ft)	39	75	21	78
Link Distance (ft)	490	506	693	400
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: 500 East & 3360 South, All Intervals

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	36	98	49	117
Average Queue (ft)	12	47	5	30
95th Queue (ft)	37	76	27	82
Link Distance (ft)	490	506	693	400
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: East Access & 3300 South , Interval #1

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	24	34
Average Queue (ft)	7	13
95th Queue (ft)	27	39
Link Distance (ft)	361	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: East Access & 3300 South , Interval #2

Movement	EB	WB	NB
Directions Served	T	L	LR
Maximum Queue (ft)	5	27	33
Average Queue (ft)	1	7	10
95th Queue (ft)	11	28	35
Link Distance (ft)	243		361
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: East Access & 3300 South , Interval #3

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	28	34
Average Queue (ft)	8	13
95th Queue (ft)	31	38
Link Distance (ft)	361	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		



Intersection: 14: East Access & 3300 South , Interval #4

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	30	36
Average Queue (ft)	6	13
95th Queue (ft)	27	41
Link Distance (ft)		361
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: East Access & 3300 South , All Intervals

Movement	EB	WB	NB
Directions Served	T	L	LR
Maximum Queue (ft)	5	37	39
Average Queue (ft)	0	7	12
95th Queue (ft)	6	28	38
Link Distance (ft)	243		361
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: West Access & 3300 South , Interval #1

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	12	17	50	27
Average Queue (ft)	2	3	12	7
95th Queue (ft)	13	23	50	29
Link Distance (ft)		243	243	360
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: West Access & 3300 South , Interval #2

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	26	10	26	28
Average Queue (ft)	5	1	5	11
95th Queue (ft)	24	16	25	35
Link Distance (ft)		243	243	360
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: West Access & 3300 South , Interval #3

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	21	43	60	30
Average Queue (ft)	7	7	16	8
95th Queue (ft)	28	43	58	32
Link Distance (ft)		243	243	360
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 16: West Access & 3300 South , Interval #4

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	18	32	50	26
Average Queue (ft)	3	5	10	8
95th Queue (ft)	19	31	45	32
Link Distance (ft)		243	243	360
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: West Access & 3300 South , All Intervals

Movement	WB	WB	WB	NB
Directions Served	L	T	T	LR
Maximum Queue (ft)	33	59	79	40
Average Queue (ft)	4	4	10	9
95th Queue (ft)	22	30	46	32
Link Distance (ft)		243	243	360
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

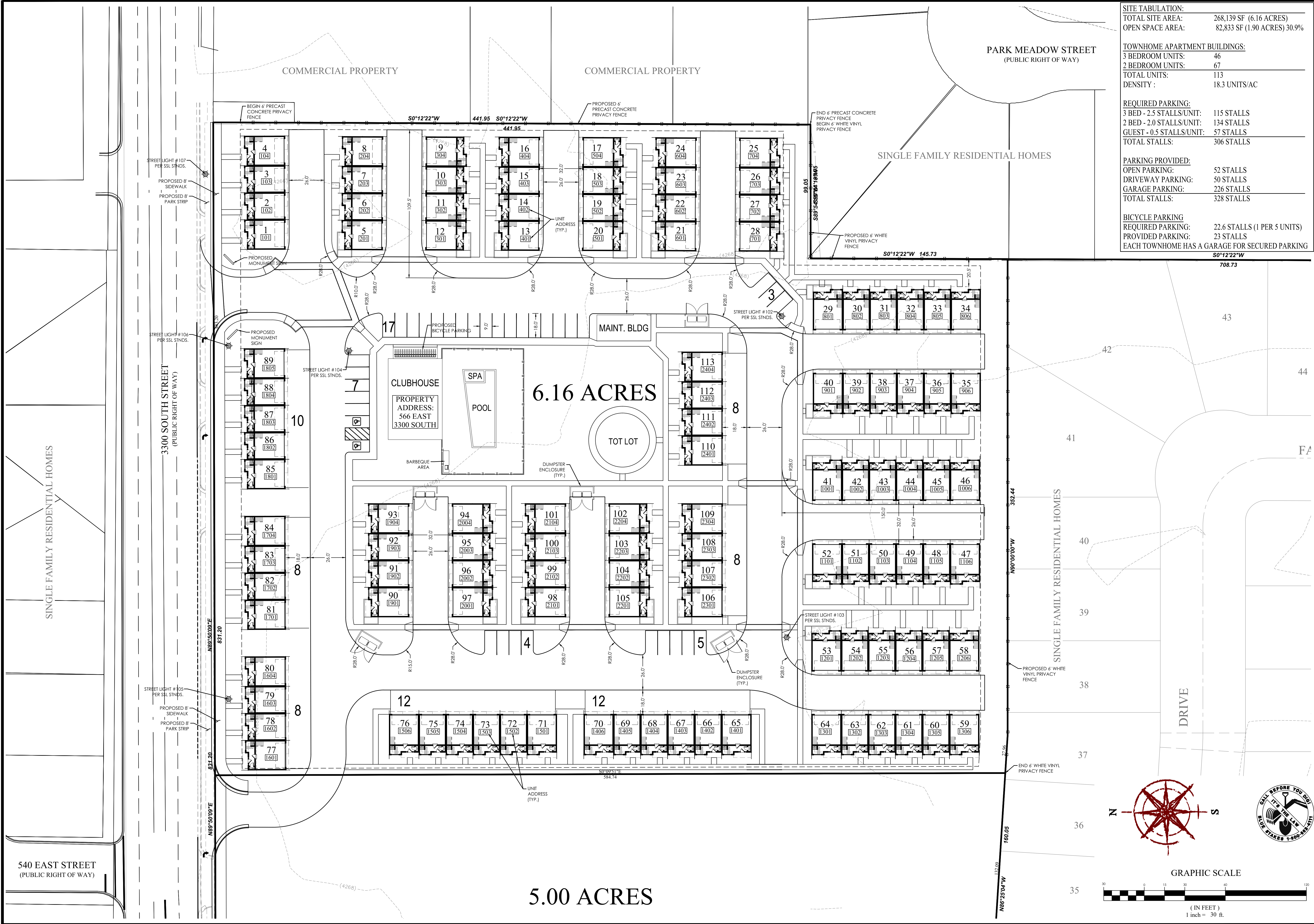
Network Summary

Network wide Queuing Penalty, Interval #1: 590
Network wide Queuing Penalty, Interval #2: 572
Network wide Queuing Penalty, Interval #3: 953
Network wide Queuing Penalty, Interval #4: 765
Network wide Queuing Penalty, All Intervals: 720

# APPENDIX C

## Site Plan





SITE TABULATION:	
TOTAL SITE AREA:	268,139 SF (6.16 ACRES)
OPEN SPACE AREA:	82,833 SF (1.90 ACRES) 30.9%
TOWNHOME APARTMENT BUILDINGS:	
3 BEDROOM UNITS:	46
2 BEDROOM UNITS:	67
TOTAL UNITS:	113
DENSITY :	18.3 UNITS/AC
REQUIRED PARKING:	
3 BED - 2.5 STALLS/UNIT:	115 STALLS
2 BED - 2.0 STALLS/UNIT:	134 STALLS
GUEST - 0.5 STALLS/UNIT:	57 STALLS
TOTAL STALLS:	306 STALLS
PARKING PROVIDED:	
OPEN PARKING:	52 STALLS
DRIVEWAY PARKING:	50 STALLS
GARAGE PARKING:	226 STALLS
TOTAL STALLS:	328 STALLS
BICYCLE PARKING	
REQUIRED PARKING:	22.6 STALLS (1 PER 5 UNITS)
PROVIDED PARKING:	23 STALLS
EACH TOWNHOME HAS A GARAGE FOR SECURED PARKING	



**FOCUS**<sup>®</sup>  
ENGINEERING AND SURVEYING, LLC  
32 WEST CENTER STREET  
MIDVALE, UTAH 84047 PH: (801) 352-0075  
www.focusutah.com

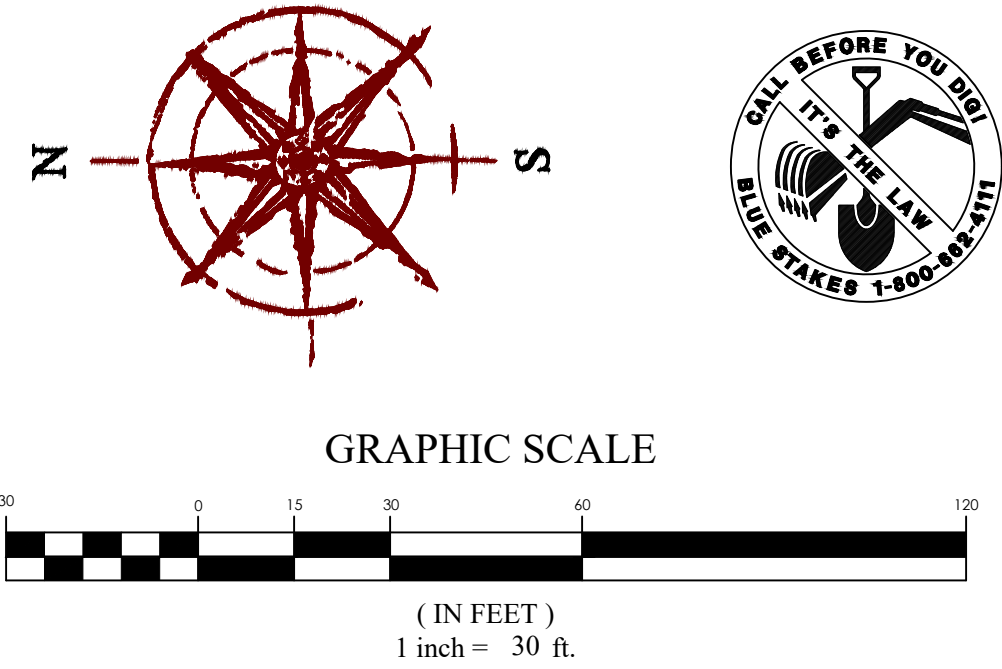
**WASATCH GRANITE TOWNHOMES**  
566 EAST 3300 SOUTH, SOUTH SALT LAKE CITY, UTAH  
**SITE PLAN**

REVISION BLOCK	
#	DESCRIPTION
1	DATE: 06/07/18
2	DATE: 06/07/18
3	DATE: 06/07/18
4	DATE: 06/07/18
5	DATE: 06/07/18
6	DATE: 06/07/18

**SITE PLAN**

Scale: 1"=30'  
Date: 06/07/18  
Job #: 18-097  
Sheet: C3

Drawn: EKW  
Job #: 18-097



# **APPENDIX D**

## **95<sup>th</sup> Percentile Queue Length Reports**



## SimTraffic Queueing Report

Project: South Salt Lake - Wasatch Granite Townhomes TIS

Analysis: Existing (2018) Background

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet)



Project #: UT18-1209

Intersection	EB				NB				SB				WB		
	L	LR	T	TR	L	LT	T	TR	L	LR	T	TR	L	T	TR
3300 South & 540 East	23	--	0	--	--	--	--	--	--	45	--	--	--	28	37
500 East & 3300 South	93	--	242	229	120	--	--	189	108	--	--	207	178	304	320
500 East & 3360 South	--	28	--	--	--	20	--	--	--	--	--	--	--	--	--
700 East & 3300 South	319	--	405	432	249	--	457	328	448	--	507	313	411	692	679

SimTraffic Queueing Report **HALES** ENGINEERING

**Project: South Salt Lake - Wasatch Granite Townhomes TIS**

### Analysis: Existing (2018) Plus Project

**Time Period: Evening Peak Hour**

95<sup>th</sup> Percentile Queue Length (feet) Project #: UT18-1209

**Project #: UT18-1209**

Intersection	EB				NB					SB				WB		
	L	LR	T	TR	L	LR	LT	T	TR	L	LR	T	TR	L	T	TR
3300 South & 540 East	23	--	2	--	--	--	--	--	--	--	45	--	--	--	16	33
500 East & 3300 South	74	--	243	233	125	--	--	--	194	115	--	--	219	175	308	323
500 East & 3360 South	--	31	--	--	--	--	20	--	--	--	--	--	--	--	--	--
700 East & 3300 South	387	--	507	531	240	--	--	433	293	427	--	486	304	423	694	672
East Access & 3300 South	--	--	16	20	--	40	--	--	--	--	--	--	--	28	--	--
West Access & 3300 South	--	--	--	--	--	32	--	--	--	--	--	--	--	20	23	--

## SimTraffic Queueing Report

Project: South Salt Lake - Wasatch Granite Townhomes TIS

Analysis: Future (2024) Background

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet)



Project #: UT18-1209

Intersection	EB				NB				SB					WB			
	L	LTR	T	TR	L	LTR	T	TR	L	LR	LTR	T	TR	L	LTR	T	TR
3300 South & 540 East	24	--	--	--	--	--	--	--	--	55	--	--	--	--	--	22	44
500 East & 3300 South	93	--	271	268	172	--	--	268	121	--	--	--	248	206	--	310	325
500 East & 3360 South	--	38	--	--	--	23	--	--	--	--	89	--	--	--	79	--	--
700 East & 3300 South	379	--	473	498	418	--	677	515	544	--	--	547	350	511	--	1,138	1,112

# SimTraffic Queueing Report

Project: South Salt Lake - Wasatch Granite Townhomes TIS

Analysis: Future (2024) Background - Mitigated

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet)



**HALES ENGINEERING**  
Innovative transportation solutions

Project #: UT18-1209

Intersection	EB					NB				SB					WB				
	L	LTR	R	T	TR	L	LTR	T	TR	L	LR	LTR	T	TR	L	LTR	R	T	TR
3300 South & 540 East	25	--	--	--	--	--	--	--	--	--	52	--	--	--	--	--	--	63	78
500 East & 3300 South	94	--	--	275	274	168	--	--	267	113	--	--	--	235	233	--	--	331	337
500 East & 3360 South	--	40	--	--	--	--	21	--	--	--	--	71	--	--	--	83	--	--	--
700 East & 3300 South	286	--	230	347	--	293	--	534	392	468	--	--	501	315	278	--	260	376	--

## SimTraffic Queueing Report

Project: South Salt Lake - Wasatch Granite Townhomes TIS

Analysis: Future (2024) Plus Project

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet)



Project #: UT18-1209

Intersection	EB					NB					SB					WB				
	L	LTR	R	T	TR	L	LR	LTR	T	TR	L	LR	LTR	T	TR	L	LTR	R	T	TR
3300 South & 540 East	21	--	--	5	--	--	--	--	--	--	--	52	--	--	--	--	--	--	18	39
500 East & 3300 South	116	--	--	280	274	166	--	--	--	265	131	--	--	--	238	235	--	--	323	336
500 East & 3360 South	--	37	--	--	--	--	--	27	--	--	--	--	82	--	--	--	76	--	--	--
700 East & 3300 South	334	--	240	332	--	289	--	--	478	346	484	--	--	511	311	308	--	254	388	--
East Access & 3300 South	--	--	--	6	--	--	38	--	--	--	--	--	--	--	--	28	--	--	--	--
West Access & 3300 South	--	--	--	--	--	--	32	--	--	--	--	--	--	--	--	22	--	--	38	--

# APPENDIX E

## Right-turn Pocket Analysis (LOS & 95<sup>th</sup> Percentile Queue Results)



## SimTraffic LOS Report

**Project:** South Salt Lake - 500 East / 3300 South evaluation TIS  
**Analysis Period:** Future (2024) No NB Right-turn Pocket  
**Time Period:** Evening Peak Hour **Project #:** UT17-1000

**Intersection:** 500 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	112	110	98	61.2	E
	T	158	149	94	40.4	D
	R	111	108	97	29.1	C
	Subtotal	381	367	96	43.3	D
SB	L	74	74	100	53.3	D
	T	171	168	98	41.4	D
	R	60	61	102	29.5	C
	Subtotal	305	303	99	41.9	D
EB	L	60	56	94	26.0	C
	T	999	1,010	101	12.5	B
	R	167	165	99	10.6	B
	Subtotal	1,226	1,231	100	12.9	B
WB	L	122	121	99	74.1	E
	T	898	880	98	21.9	C
	R	72	75	104	19.9	B
	Subtotal	1,092	1,076	99	27.6	C
<b>Total</b>		3,004	2,977	99	25.0	C

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.4	0.6
Total Delay (hr)	0.1	0.9	0.1	0.5	1.4	0.1	0.5	0.4	0.2	0.3	0.4	0.1
Total Del/Veh (s)	23.5	13.0	10.7	60.7	22.2	18.9	55.3	36.4	27.2	57.8	36.6	28.8
Vehicles Entered	16	241	40	27	217	16	30	36	25	19	40	16
Vehicles Exited	15	243	40	27	227	17	30	36	25	20	39	16
Hourly Exit Rate	60	972	160	108	908	68	120	144	100	80	156	64
Input Volume	58	970	162	118	873	70	109	153	108	72	166	58
% of Volume	103	100	99	92	104	97	110	94	93	111	94	110

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	5.1
Total Del/Veh (s)	24.2
Vehicles Entered	723
Vehicles Exited	735
Hourly Exit Rate	2940
Input Volume	2917
% of Volume	101

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.4
Total Delay (hr)	0.1	0.8	0.1	0.4	1.2	0.1	0.5	0.5	0.2	0.3	0.5	0.1
Total Del/Veh (s)	22.7	11.0	9.2	48.9	20.4	21.0	59.7	42.9	31.6	53.5	40.4	30.4
Vehicles Entered	13	251	41	29	212	18	27	38	25	17	43	14
Vehicles Exited	13	248	40	28	202	17	26	38	25	16	44	13
Hourly Exit Rate	52	992	160	112	808	68	104	152	100	64	176	52
Input Volume	58	970	162	118	873	70	109	153	108	72	166	58
% of Volume	90	102	99	95	93	97	95	99	93	89	106	90

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.8
Total Del/Veh (s)	23.1
Vehicles Entered	728
Vehicles Exited	710
Hourly Exit Rate	2840
Input Volume	2917
% of Volume	97

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.5	0.5
Total Delay (hr)	0.1	1.2	0.2	1.0	1.5	0.1	0.6	0.4	0.2	0.2	0.5	0.2
Total Del/Veh (s)	28.5	14.2	12.7	97.2	22.5	20.3	62.7	36.8	28.0	44.7	40.6	35.3
Vehicles Entered	15	283	44	34	228	20	30	37	29	18	46	17
Vehicles Exited	14	283	44	30	236	20	30	37	29	19	45	17
Hourly Exit Rate	56	1132	176	120	944	80	120	148	116	76	180	68
Input Volume	65	1086	182	133	975	78	122	172	121	80	186	65
% of Volume	86	104	97	90	97	103	98	86	96	95	97	105

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	6.2
Total Del/Veh (s)	26.7
Vehicles Entered	801
Vehicles Exited	804
Hourly Exit Rate	3216
Input Volume	3265
% of Volume	98

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.5	0.5
Total Delay (hr)	0.1	0.8	0.1	0.6	1.3	0.1	0.4	0.5	0.3	0.3	0.5	0.1
Total Del/Veh (s)	22.3	11.1	9.6	61.7	20.8	17.8	56.7	42.0	29.1	51.5	41.0	26.4
Vehicles Entered	12	237	40	30	226	19	25	38	29	17	42	14
Vehicles Exited	13	237	40	33	217	18	25	38	29	17	42	13
Hourly Exit Rate	52	948	160	132	868	72	100	152	116	68	168	52
Input Volume	58	970	162	118	873	70	109	153	108	72	166	58
% of Volume	90	98	99	112	99	103	92	99	107	94	101	90

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	5.0
Total Del/Veh (s)	23.6
Vehicles Entered	729
Vehicles Exited	722
Hourly Exit Rate	2888
Input Volume	2917
% of Volume	99

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.5	0.5
Total Delay (hr)	0.4	3.6	0.5	2.5	5.4	0.4	2.0	1.7	0.9	1.1	2.0	0.5
Total Del/Veh (s)	26.1	12.8	10.8	74.5	21.8	19.8	62.2	41.4	29.7	54.8	41.3	31.0
Vehicles Entered	55	1012	164	120	883	73	112	149	108	72	170	60
Vehicles Exited	55	1011	164	119	882	73	112	149	108	72	170	59
Hourly Exit Rate	55	1011	164	119	882	73	112	149	108	72	170	59
Input Volume	60	999	167	122	898	72	112	158	111	74	171	60
% of Volume	92	101	98	98	98	101	100	94	97	97	99	99

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	21.1
Total Del/Veh (s)	25.2
Vehicles Entered	2978
Vehicles Exited	2974
Hourly Exit Rate	2974
Input Volume	3004
% of Volume	99

### Total Zone Performance By Interval

Interval Start	4:00	4:15	4:30	4:45	All
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.2
Denied Del/Veh (s)	0.6	0.5	0.6	0.5	0.6
Total Delay (hr)	5.1	4.8	6.2	5.0	21.1
Total Del/Veh (s)	831.9	422.1	640.1	439.2	1810.0
Vehicles Entered	372	379	423	362	1534
Vehicles Exited	1	1	0	1	2
Hourly Exit Rate	4	4	0	4	2
Input Volume	2917	2917	3265	2917	3004
% of Volume	0	0	0	0	0

Intersection: 3: 500 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	94	302	293	201	290	306	176	228	154	224
Average Queue (ft)	39	182	174	103	232	253	111	141	80	133
95th Queue (ft)	102	293	288	206	314	333	203	254	163	235
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					2	4		0		
Queuing Penalty (veh)					8	20		0		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	20		17	25		17	26	9	24
Queuing Penalty (veh)	2	12		75	29		45	28	21	17

Intersection: 3: 500 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	73	251	237	181	296	294	158	238	106	237
Average Queue (ft)	34	179	167	107	224	245	92	150	56	136
95th Queue (ft)	78	264	254	217	314	321	164	257	107	238
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					2	2		0		
Queuing Penalty (veh)					8	13		0		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	19		10	22		14	32	6	27
Queuing Penalty (veh)	1	11		46	26		36	35	14	19

Intersection: 3: 500 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	101	314	318	250	310	303	187	270	115	264
Average Queue (ft)	42	206	214	150	248	260	115	172	63	166
95th Queue (ft)	107	318	329	272	332	333	216	298	123	314
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					6	5		1		
Queuing Penalty (veh)					37	31		5		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	23		45	26		20	27	4	29
Queuing Penalty (veh)	1	15		221	34		58	32	9	23

Intersection: 3: 500 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	90	249	246	205	297	297	165	296	107	218
Average Queue (ft)	37	173	159	124	240	253	88	153	59	134
95th Queue (ft)	102	269	264	237	329	326	182	291	114	222
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					3	3		1		
Queuing Penalty (veh)					16	17		3		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	18		22	23		12	29	4	27
Queuing Penalty (veh)	1	10		96	27		32	32	9	20

Intersection: 3: 500 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	159	339	342	250	316	311	229	318	179	311
Average Queue (ft)	38	185	179	121	236	253	101	154	64	142
95th Queue (ft)	98	289	290	237	324	329	194	277	130	257
Link Distance (ft)		941	941		290	290		400		694
Upstream Blk Time (%)					3	4		1		
Queuing Penalty (veh)					17	20		2		
Storage Bay Dist (ft)	100			100			100		100	
Storage Blk Time (%)	0	20		24	24		16	28	6	27
Queuing Penalty (veh)	1	12		110	29		43	32	13	20

Zone Summary

Zone wide Queuing Penalty, Interval #1: 258

Zone wide Queuing Penalty, Interval #2: 208

Zone wide Queuing Penalty, Interval #3: 467

Zone wide Queuing Penalty, Interval #4: 262

Zone wide Queuing Penalty, All Intervals: 299



## SimTraffic Queueing Report

**HALES ENGINEERING**



Innovative transportation solutions

Project: South Salt Lake - 500 East / 3300 South evaluation TIS

Analysis: Future (2024) No NB Right-turn Pocket

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet)

Project #: UT18-1209

Intersection	EB			NB		SB		WB		
	L	T	TR	L	TR	L	TR	L	T	TR
500 East & 3300 South	92	283	288	189	273	136	258	245	325	330

## SimTraffic LOS Report

**Project:** South Salt Lake - 500 East / 3300 South evaluation  
**Analysis Period:** Future (2024) With NB Right-turn Pocket  
**Time Period:** Evening Peak Hour **Project #:** UT18-1209

**Intersection:** 500 East & 3300 South  
**Type:** Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	112	110	98	58.2	E
	T	158	156	99	37.5	D
	R	111	111	100	10.1	B
	Subtotal	381	377	99	35.5	D
SB	L	74	68	92	50.4	D
	T	171	162	95	42.4	D
	R	60	53	89	29.4	C
	Subtotal	305	283	93	41.9	D
EB	L	60	58	97	27.3	C
	T	999	1,031	103	11.9	B
	R	167	170	102	10.9	B
	Subtotal	1,226	1,259	103	12.5	B
WB	L	122	119	98	90.2	F
	T	898	900	100	20.8	C
	R	72	70	97	19.3	B
	Subtotal	1,092	1,089	100	28.3	C
<b>Total</b>		3,004	3,008	100	23.9	C

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.3	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.5	0.4
Total Delay (hr)	0.1	0.9	0.1	0.5	1.4	0.1	0.4	0.4	0.1	0.2	0.5	0.1
Total Del/Veh (s)	27.5	12.1	9.6	62.6	21.4	18.8	49.2	36.3	9.8	44.7	40.3	28.1
Vehicles Entered	14	249	43	28	216	16	26	40	24	16	41	13
Vehicles Exited	14	253	43	26	227	17	27	40	24	16	40	13
Hourly Exit Rate	56	1012	172	104	908	68	108	160	96	64	160	52
Input Volume	58	970	162	118	873	70	109	153	108	72	166	58
% of Volume	97	104	106	88	104	97	99	105	89	89	96	90

3: 500 East & 3300 South Performance by movement Interval #1 4:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.8
Total Del/Veh (s)	22.5
Vehicles Entered	726
Vehicles Exited	740
Hourly Exit Rate	2960
Input Volume	2917
% of Volume	101

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.5
Total Delay (hr)	0.1	0.7	0.1	0.7	1.2	0.1	0.4	0.4	0.1	0.2	0.5	0.1
Total Del/Veh (s)	21.8	9.9	8.8	69.7	19.0	17.5	57.6	37.4	8.2	48.6	39.9	29.2
Vehicles Entered	13	246	43	30	221	18	26	35	30	17	39	13
Vehicles Exited	13	243	42	32	210	18	24	36	31	16	39	13
Hourly Exit Rate	52	972	168	128	840	72	96	144	124	64	156	52
Input Volume	58	970	162	118	873	70	109	153	108	72	166	58
% of Volume	90	100	104	108	96	103	88	94	115	89	94	90

3: 500 East & 3300 South Performance by movement Interval #2 4:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.5
Total Del/Veh (s)	21.6
Vehicles Entered	731
Vehicles Exited	717
Hourly Exit Rate	2868
Input Volume	2917
% of Volume	98

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	3.7	0.4	0.5
Total Delay (hr)	0.2	1.1	0.2	1.1	1.5	0.1	0.5	0.4	0.1	0.3	0.5	0.1
Total Del/Veh (s)	31.0	13.2	13.3	114.2	22.1	20.1	56.8	34.0	11.1	43.8	37.2	25.8
Vehicles Entered	17	284	46	34	238	17	31	43	29	19	43	14
Vehicles Exited	16	283	46	29	248	18	33	40	28	19	43	14
Hourly Exit Rate	64	1132	184	116	992	72	132	160	112	76	172	56
Input Volume	65	1086	182	133	975	78	122	172	121	80	186	65
% of Volume	98	104	101	87	102	92	108	93	93	95	92	86

3: 500 East & 3300 South Performance by movement Interval #3 4:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	6.1
Total Del/Veh (s)	25.6
Vehicles Entered	815
Vehicles Exited	817
Hourly Exit Rate	3268
Input Volume	3265
% of Volume	100

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	2.2	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.4	0.3
Total Delay (hr)	0.1	0.8	0.1	0.7	1.2	0.1	0.5	0.4	0.1	0.2	0.5	0.1
Total Del/Veh (s)	22.2	11.0	10.4	75.8	19.1	18.9	57.2	37.1	10.8	48.8	43.8	30.6
Vehicles Entered	13	253	39	28	224	17	27	38	28	16	39	13
Vehicles Exited	14	252	39	31	215	17	26	40	28	16	40	13
Hourly Exit Rate	56	1008	156	124	860	68	104	160	112	64	160	52
Input Volume	58	970	162	118	873	70	109	153	108	72	166	58
% of Volume	97	104	96	105	99	97	95	105	104	89	96	90

3: 500 East & 3300 South Performance by movement Interval #4 4:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.9
Total Del/Veh (s)	22.7
Vehicles Entered	735
Vehicles Exited	731
Hourly Exit Rate	2924
Input Volume	2917
% of Volume	100

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	2.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.4	0.4
Total Delay (hr)	0.4	3.5	0.5	3.1	5.3	0.4	1.8	1.6	0.3	1.0	1.9	0.4
Total Del/Veh (s)	27.3	11.9	10.9	90.2	20.8	19.3	58.2	37.5	10.1	50.4	42.4	29.4
Vehicles Entered	58	1032	171	120	899	69	110	156	111	68	162	53
Vehicles Exited	58	1031	170	119	900	70	110	156	111	68	162	53
Hourly Exit Rate	58	1031	170	119	900	70	110	156	111	68	162	53
Input Volume	60	999	167	122	898	72	112	158	111	74	171	60
% of Volume	97	103	102	98	100	97	98	99	100	92	95	89

### 3: 500 East & 3300 South Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	20.2
Total Del/Veh (s)	23.9
Vehicles Entered	3009
Vehicles Exited	3008
Hourly Exit Rate	3008
Input Volume	3004
% of Volume	100

### Total Zone Performance By Interval

Interval Start	4:00	4:15	4:30	4:45	All
Denied Delay (hr)	0.1	0.1	0.1	0.1	0.2
Denied Del/Veh (s)	0.6	0.5	0.6	0.6	0.6
Total Delay (hr)	4.8	4.5	6.1	4.9	20.2
Total Del/Veh (s)	717.1	418.7	623.6	437.0	1734.4
Vehicles Entered	376	371	423	373	1545
Vehicles Exited	0	1	0	0	2
Hourly Exit Rate	0	4	0	0	2
Input Volume	2917	2917	3265	2917	3004
% of Volume	0	0	0	0	0

Intersection: 3: 500 East & 3300 South , Interval #1

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	74	280	270	216	286	287	131	190	125	128	212
Average Queue (ft)	37	173	173	102	221	237	82	109	46	64	140
95th Queue (ft)	78	265	268	216	317	315	142	209	117	135	229
Link Distance (ft)		941	941		279	279		400			694
Upstream Blk Time (%)					2	4					
Queuing Penalty (veh)					11	19					
Storage Bay Dist (ft)	100			100			100		100	100	
Storage Blk Time (%)	0	20		17	22		11	17	0	3	24
Queuing Penalty (veh)	2	12		73	26		27	37	1	6	18

Intersection: 3: 500 East & 3300 South , Interval #2

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	59	237	230	216	270	283	128	156	84	115	208
Average Queue (ft)	34	162	158	121	211	232	78	92	44	56	130
95th Queue (ft)	71	247	245	225	296	309	131	159	87	124	213
Link Distance (ft)		941	941		279	279		400			694
Upstream Blk Time (%)					1	3					
Queuing Penalty (veh)					5	14					
Storage Bay Dist (ft)	100			100			100		100	100	
Storage Blk Time (%)	0	16		25	19		9	13	0	3	25
Queuing Penalty (veh)	1	9		109	23		23	29	0	6	18

Intersection: 3: 500 East & 3300 South , Interval #3

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	130	289	305	248	298	290	164	196	102	99	221
Average Queue (ft)	47	196	199	149	249	258	112	114	52	65	139
95th Queue (ft)	118	305	315	281	322	320	189	217	115	108	237
Link Distance (ft)		941	941		279	279		400			694
Upstream Blk Time (%)					9	5					
Queuing Penalty (veh)					52	29					
Storage Bay Dist (ft)	100			100			100		100	100	
Storage Blk Time (%)	2	23		44	24		21	15	0	3	23
Queuing Penalty (veh)	10	15		216	32		61	37	1	7	19



Intersection: 3: 500 East & 3300 South , Interval #4

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	89	266	274	204	284	289	138	169	108	102	218
Average Queue (ft)	39	178	173	123	224	238	83	104	52	58	130
95th Queue (ft)	104	284	286	240	316	315	142	177	111	118	215
Link Distance (ft)		941	941		279	279		400			694
Upstream Blk Time (%)					3	3					
Queuing Penalty (veh)					17	14					
Storage Bay Dist (ft)	100			100			100		100	100	
Storage Blk Time (%)	0	18		27	19		13	16	0	2	27
Queuing Penalty (veh)	1	10		119	23		35	34	1	5	20

Intersection: 3: 500 East & 3300 South , All Intervals

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	134	314	316	249	307	298	186	229	153	172	249
Average Queue (ft)	40	177	176	123	226	241	89	105	49	61	135
95th Queue (ft)	95	278	282	244	316	317	156	193	109	122	224
Link Distance (ft)		941	941		279	279		400			694
Upstream Blk Time (%)					4	3					
Queuing Penalty (veh)					21	19					
Storage Bay Dist (ft)	100			100			100		100	100	
Storage Blk Time (%)	1	19		28	21		13	15	0	3	25
Queuing Penalty (veh)	3	11		129	26		36	34	1	6	18

Zone Summary

Zone wide Queuing Penalty, Interval #1: 231

Zone wide Queuing Penalty, Interval #2: 237

Zone wide Queuing Penalty, Interval #3: 477

Zone wide Queuing Penalty, Interval #4: 278

Zone wide Queuing Penalty, All Intervals: 306


# SimTraffic Queueing Report

Project: South Salt Lake - 500 East / 3300 South evaluation TIS

Analysis: Future (2024) With NB Right-turn Pocket

Time Period: Evening Peak Hour

95<sup>th</sup> Percentile Queue Length (feet)



**HALES ENGINEERING**  
Innovative transportation solutions

Project #: UT18-1209

Intersection	EB			NB			SB		WB		
	L	T	TR	L	R	T	L	TR	L	T	TR
500 East & 3300 South	95	278	282	156	109	193	122	224	244	316	317

## **Granite MPMU Ordinance Supplementary Staff Memo**

On March 7, 2019, the Planning Commission recommended that the Council enact version #11 of the Granite Master Planned Mixed Use Ordinance to allow for a new public library and up to 113 high-quality townhomes to be constructed on the last phase of the Granite High School property. Last Saturday and this morning, the Applicant Wasatch Residential sent an email for several additional changes to the Granite MPMU Ordinance version considered by the Planning Commission.

Salt Lake County has requested a minor technical change that Staff has accommodated in the v.12 draft.

With respect to Wasatch Residential's recent feedback, Staff has incorporated all of the Wasatch Residential changes that are merely technical in nature. These changes improve the ordinance and support the Planning Commission's recommendation. A new version of the proposed ordinance (v.12) is attached to this memo.

The v.12 draft does not incorporate all of Wasatch Residential's proposed language changes. We hope that all will agree that many of Wasatch Residential's changes are better addressed in this memo and then again on the public record in tonight's meeting, without complicating the Zoning Code itself.

For example, Staff has assured the Applicant that the recreation amenities that the Applicant has committed to build, and that are listed as requirements in the Granite Townhome District, fully satisfy the requirements for multifamily recreational amenities. Staff would like to reiterate now, in writing, and on the record tomorrow, that the amenities listed in the Granite Townhome District ordinance as enhancements to the project (such as a clubhouse, barbecue area, tot lot, pool, the Millcreek Trail extension, etc.) all qualify as satisfying the far less rigorous demands for recreation amenities found in our general design standards. This language would be unnecessary and inappropriate to include in the Code.

Staff has not incorporated changes that Wasatch Residential has proposed that would lessen the quality of the approved project *or* that would grant this townhome developer an *unfair advantage* over all of the other competing multifamily developments that have been approved under the current design standards elsewhere in the City. Wasatch Residential had agreed with the language contained in the draft approved by the Planning Commission. Their newly proposed changes were never mentioned to the Planning Commission. Staff does not support this type of proposed change—changes that would allow the developer to downgrade both the architecture and the quality of the development, for example, by:

1. Eliminating front doors on facades facing internal streets;
2. Eliminating countertop and cabinet quality requirements in all but the kitchen and only upon initial construction (we aren't at all sure why this is requested, or what this carve out contemplates);

3. Eliminating the requirement that there is an identifiable transition between townhomes (without the identifiable transitions, the buildings will not resemble townhomes, but will look more like monolithic apartments);
4. Eliminating restrictions on stucco (Wasatch Development requests allowing up to 45% stucco on certain facades, but for all multifamily projects, stucco is currently limited to 20% of any façade);
5. Reducing requirements for façade “openings” such as doors and windows (these important requirements, currently in the general design standards, significantly enhance both the internal and external pedestrian experience and ensure a higher quality architecture);
6. Eliminating design requirements for facades with garage doors that face each other (again, this element has never before been waived); and
7. Allowing dumpsters and parking in the setbacks.

Staff has not incorporated these requested changes into the ordinance version before you. Staff encourages the Council to consider how lessening the quality of the project architecture will adversely affect the surrounding community.

Moving on from the proposal to weaken design standards that have been applied throughout the City, Wasatch Residential has also proposed language to override our sign code to allow for 2 very large, otherwise non-complying, monument signs on 3300 South. Staff feels that the Townhome development should comply with the sign code with which all of its competitors must comply.

In summary, there are a number of policy changes before the Council for consideration tonight, most of which were not presented to the public or the Planning Commission prior to tonight's discussion. As the Council considers Wasatch Residential's requests, the Council should be sensitive to the fact that this is a competitive market and that in the future competing projects will likely request similar concessions to the standards set by the City.





methodstudio

SALT LAKE COUNTY | **GRANITE LIBRARY**

07 MARCH 2019



# Site Plan

## HOLLADAY LIBRARY

Plaza Space

Public Art

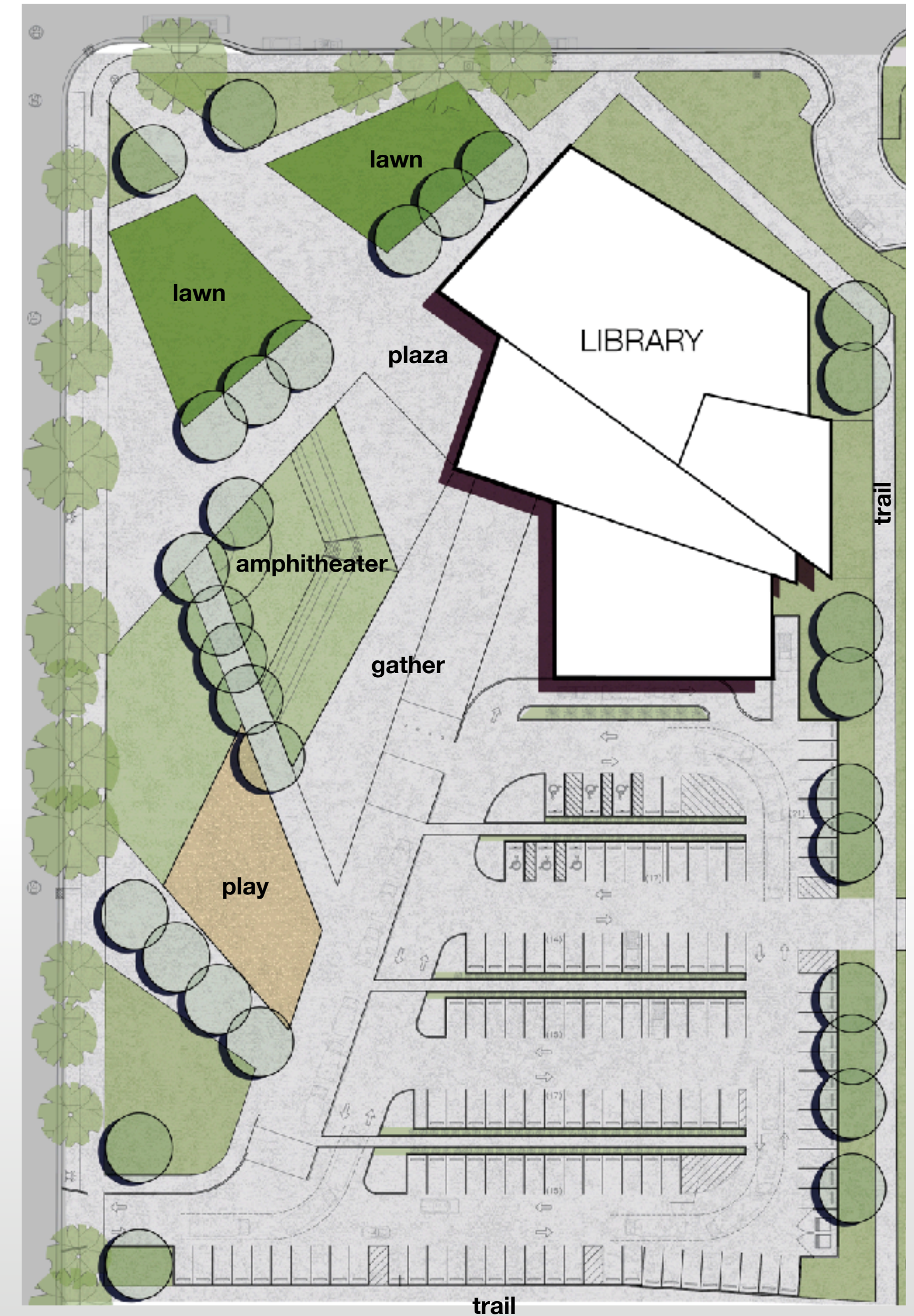
Open Lawn for Library Programming

Gathering Space (food, craft, fair)

Amphitheater

Playground

Fitness Trail

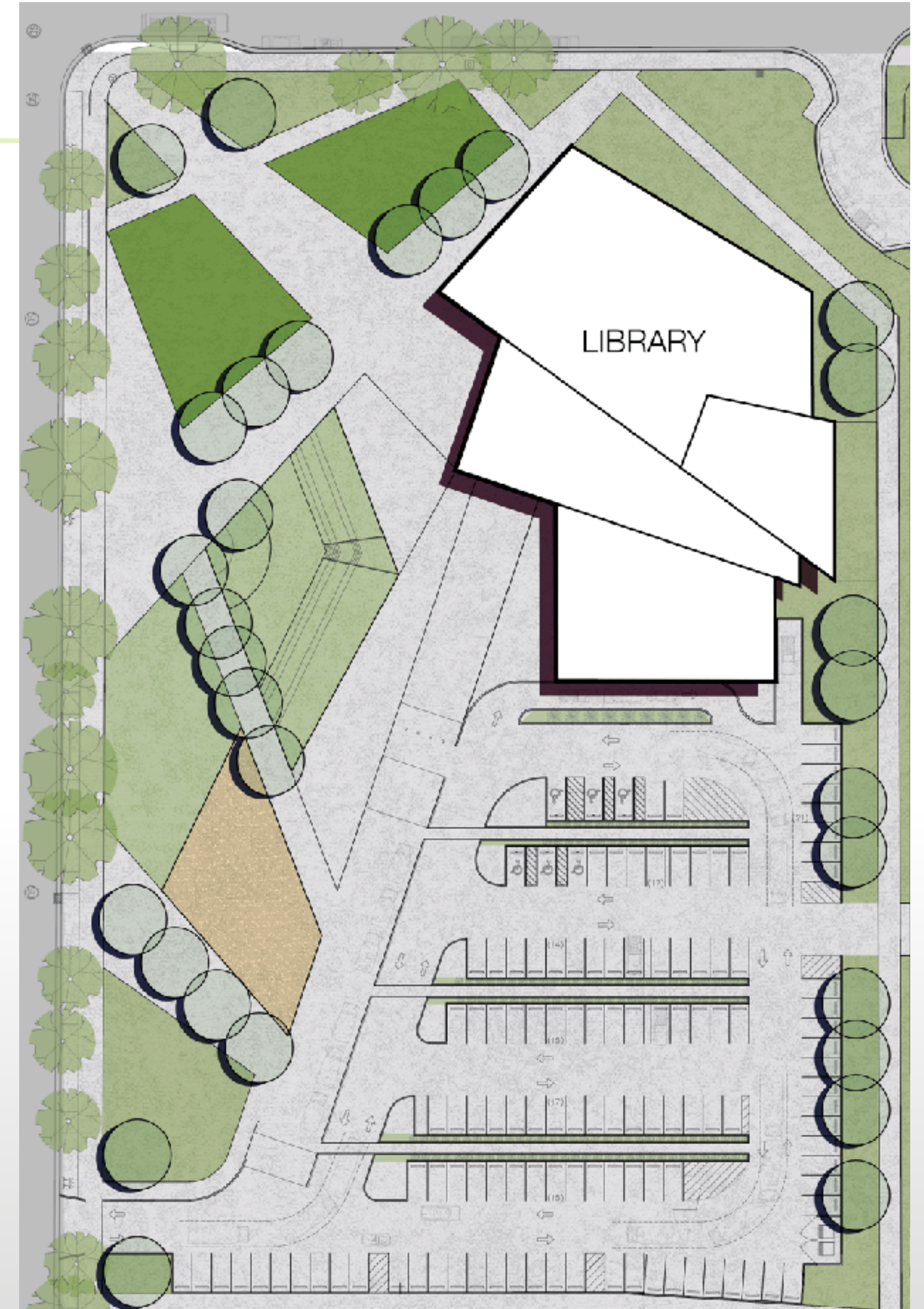




# Site Plan

## CITY COORDINATION

Fire Apparatus Access, Turning  
Max Building Heights  
Fire Lane Connection Between Sites  
Police Pull Out  
Building Official  
City Engineer  
CPTED Design

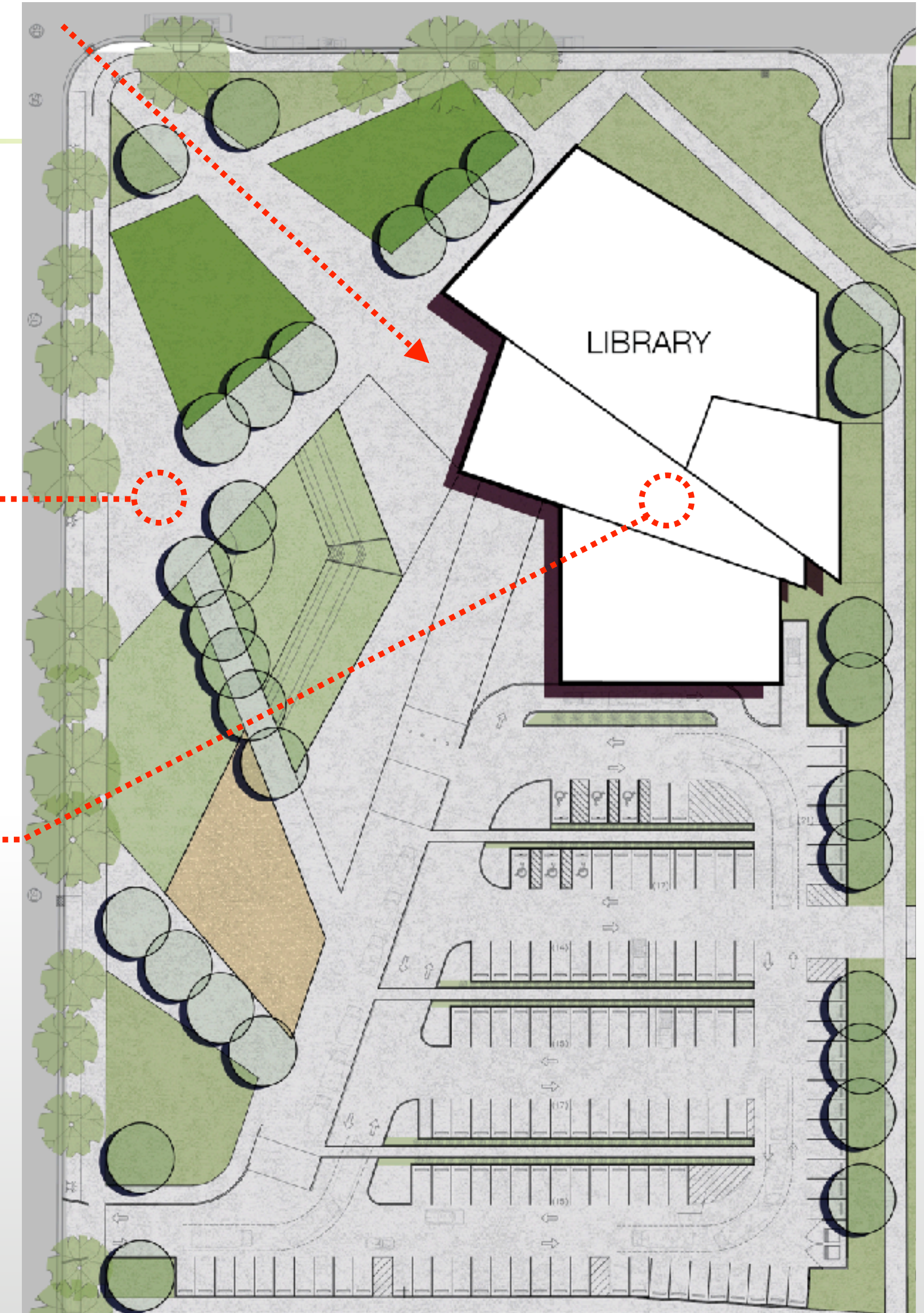




# Site Plan

## GRANITE MONUMENT FEATURES

Site Access from 3300 South  
Seal  
The "Rock"





# Building

## **LIBRARY PROGRAM**

**Media Collections** (Books, Movies, Music, Magazines, Newspapers)

**Children's Areas** (Story Time Activities, Crafts)

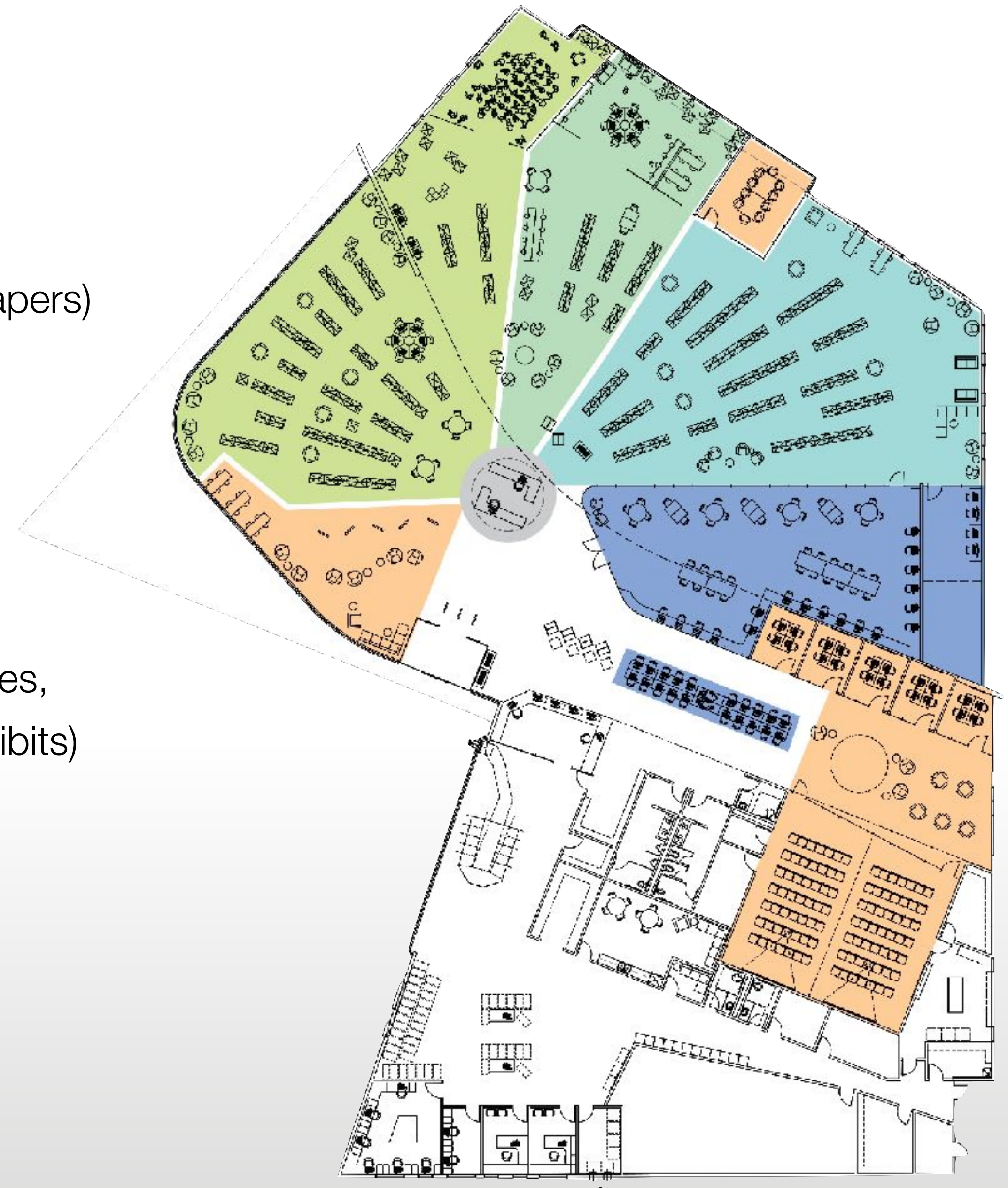
**Teen Areas** (Hang Out Space, Games, Homework Help)

**Meeting Rooms & Social Spaces**

**Technology and Create Spaces**

**Business Resources**

**Activities & Events** (Author Events, Writing Classes, Movie Series, Costume Swaps, Robotics, Cultural Events, Early Learning, Exhibits)





# Building

## DESIGN CONCEPT - HONOR THE PAST, LOOK TO THE FUTURE





# Building

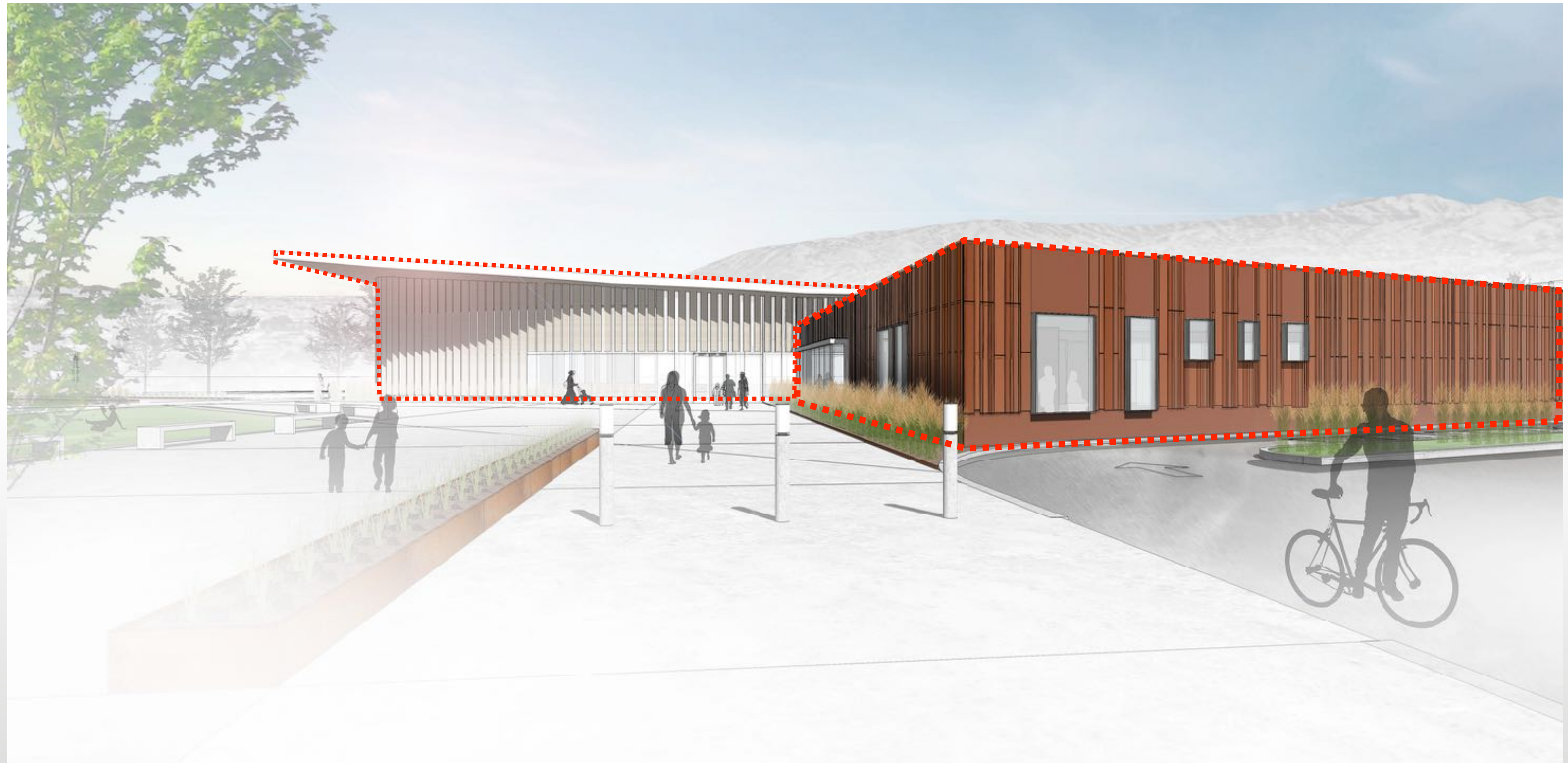
## DESIGN CONCEPT - HONOR THE PAST, LOOK TO THE FUTURE





# Building

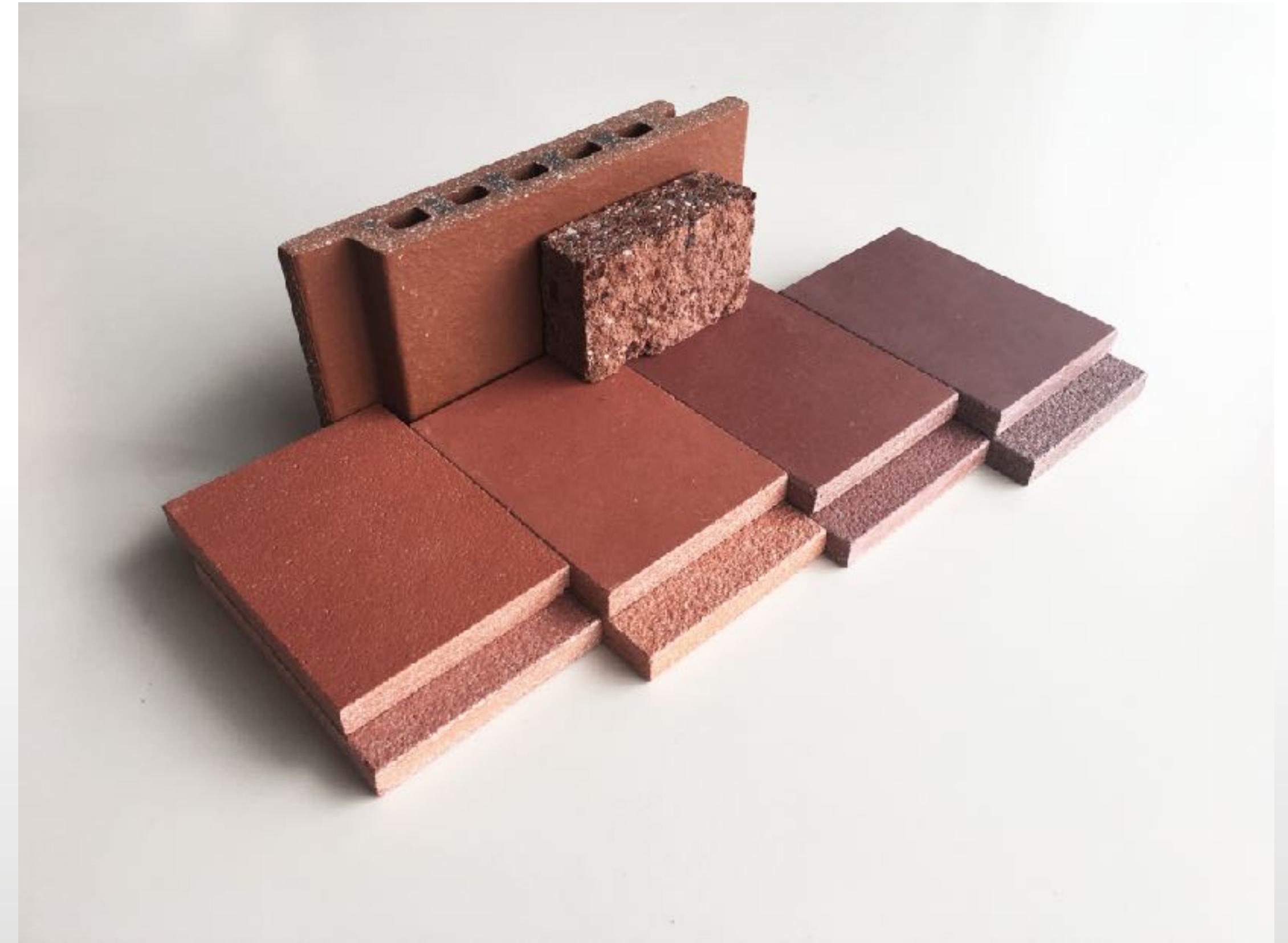
## DESIGN CONCEPT - HONOR THE PAST, LOOK TO THE FUTURE





# Building

## MATERIALS





# Building

## GRANITE HIGH SCHOOL INSPIRATION





# Building

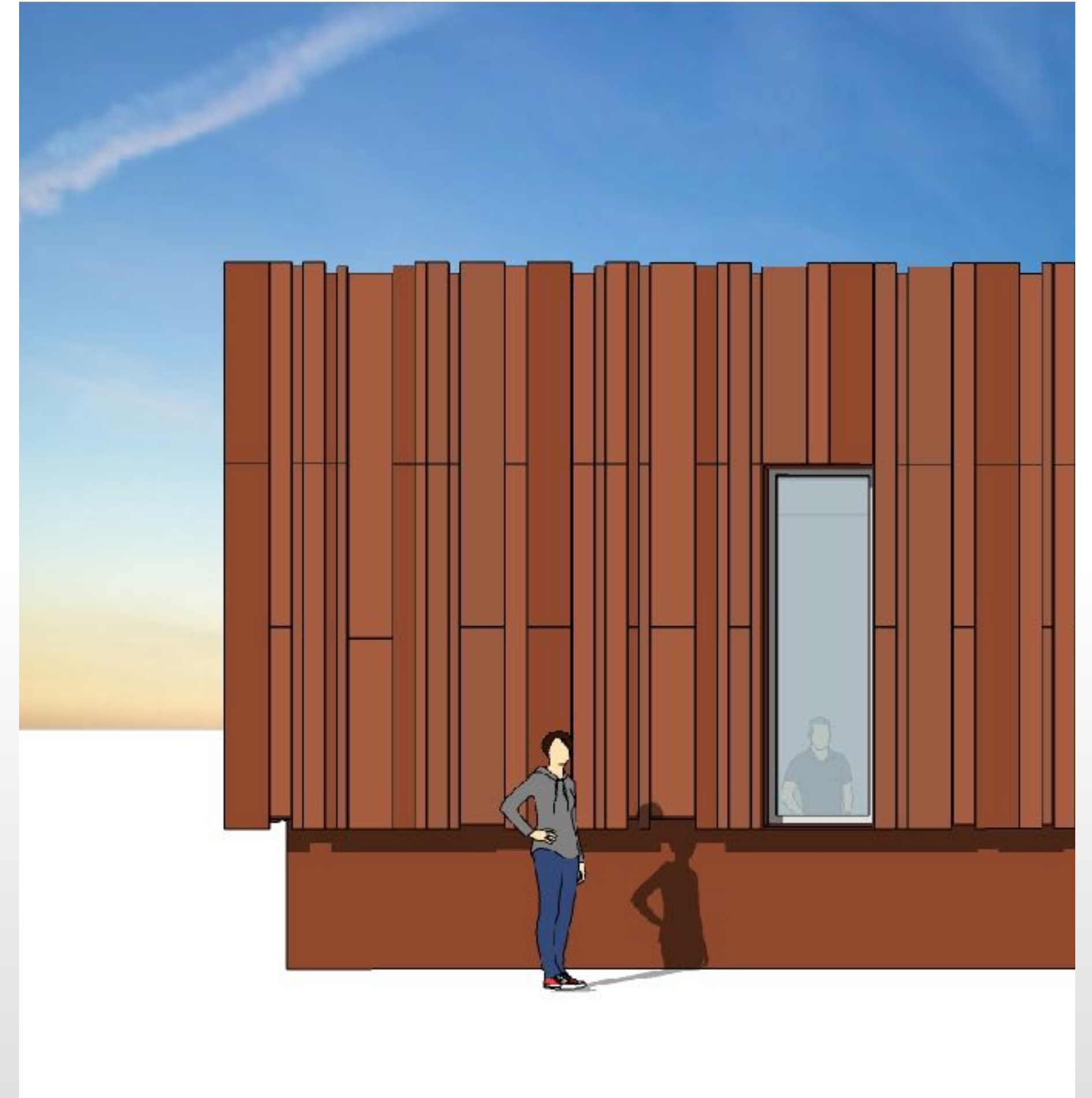
## GRANITE HIGH SCHOOL INSPIRATION





# Building

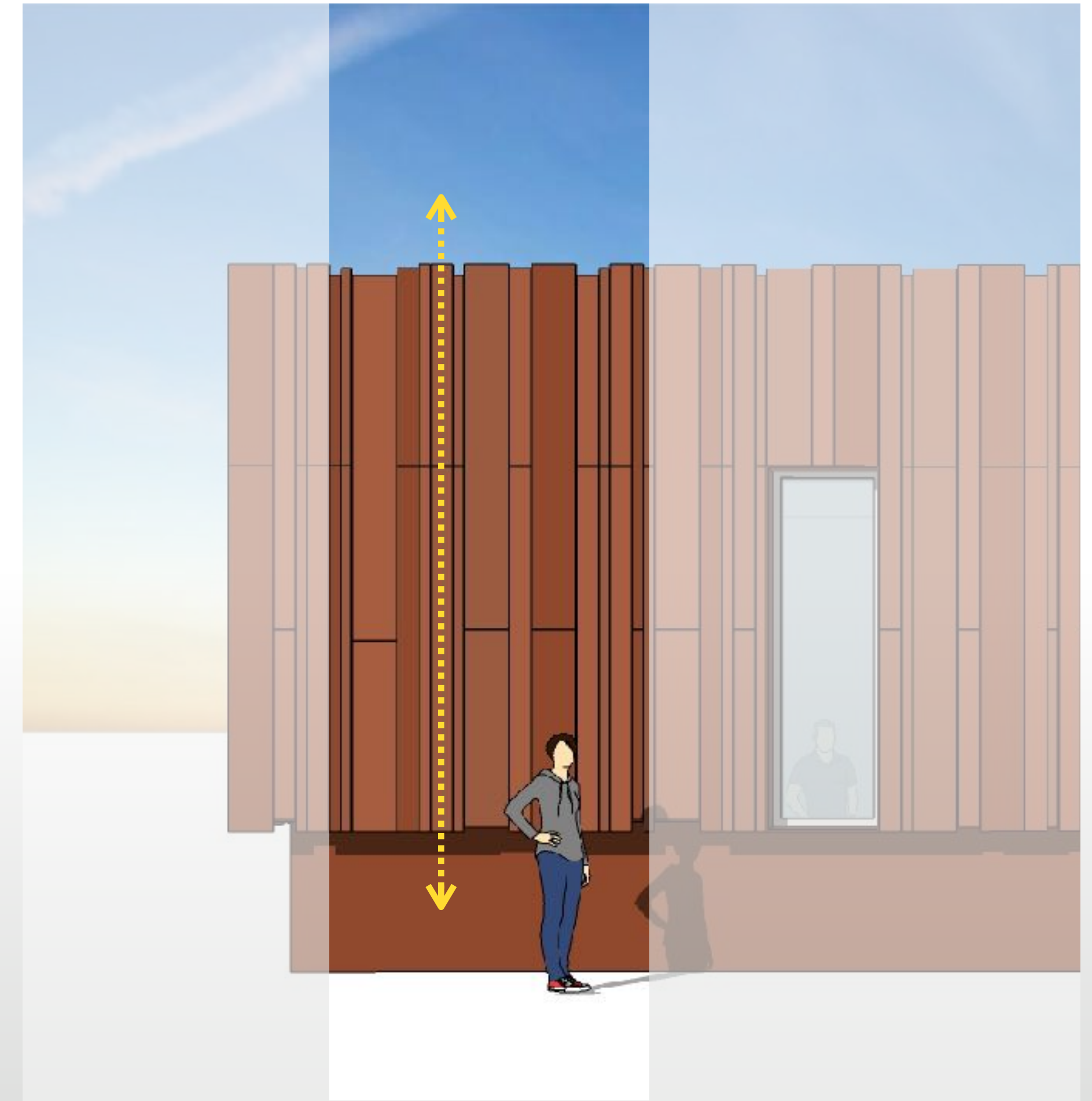
## GRANITE HIGH SCHOOL INSPIRATION





# Building

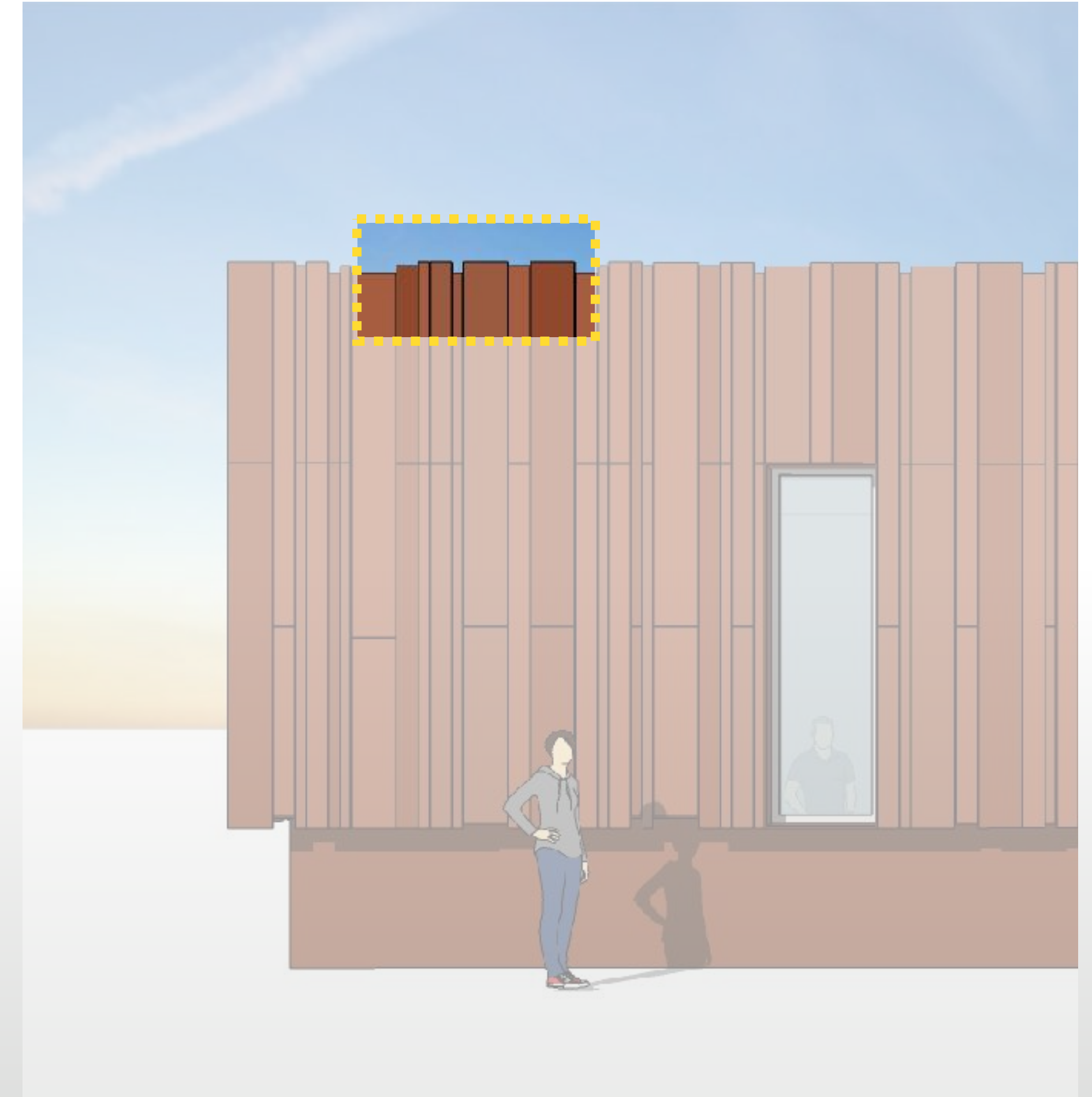
## GRANITE HIGH SCHOOL INSPIRATION





# Building

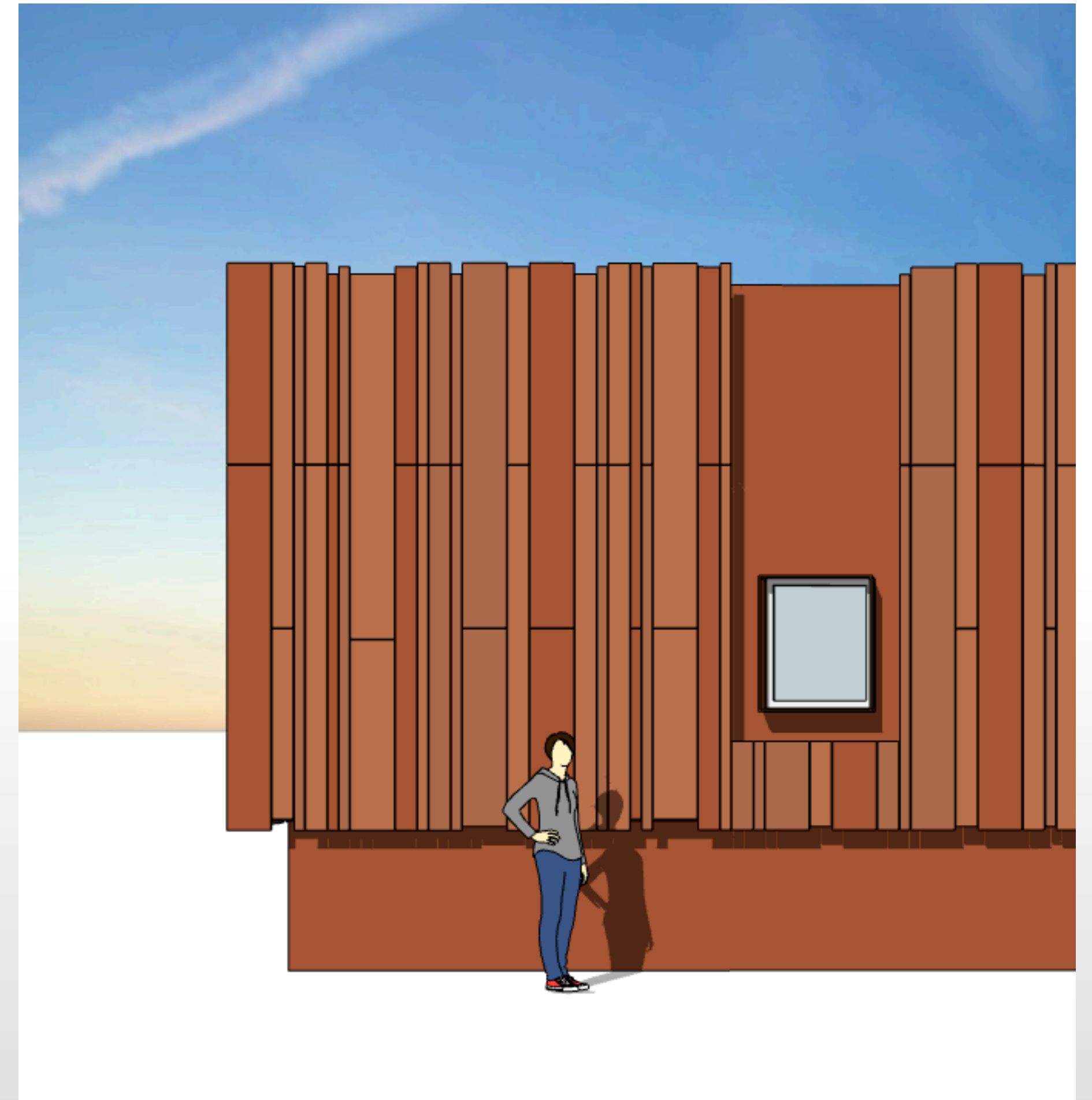
## GRANITE HIGH SCHOOL INSPIRATION





# Building

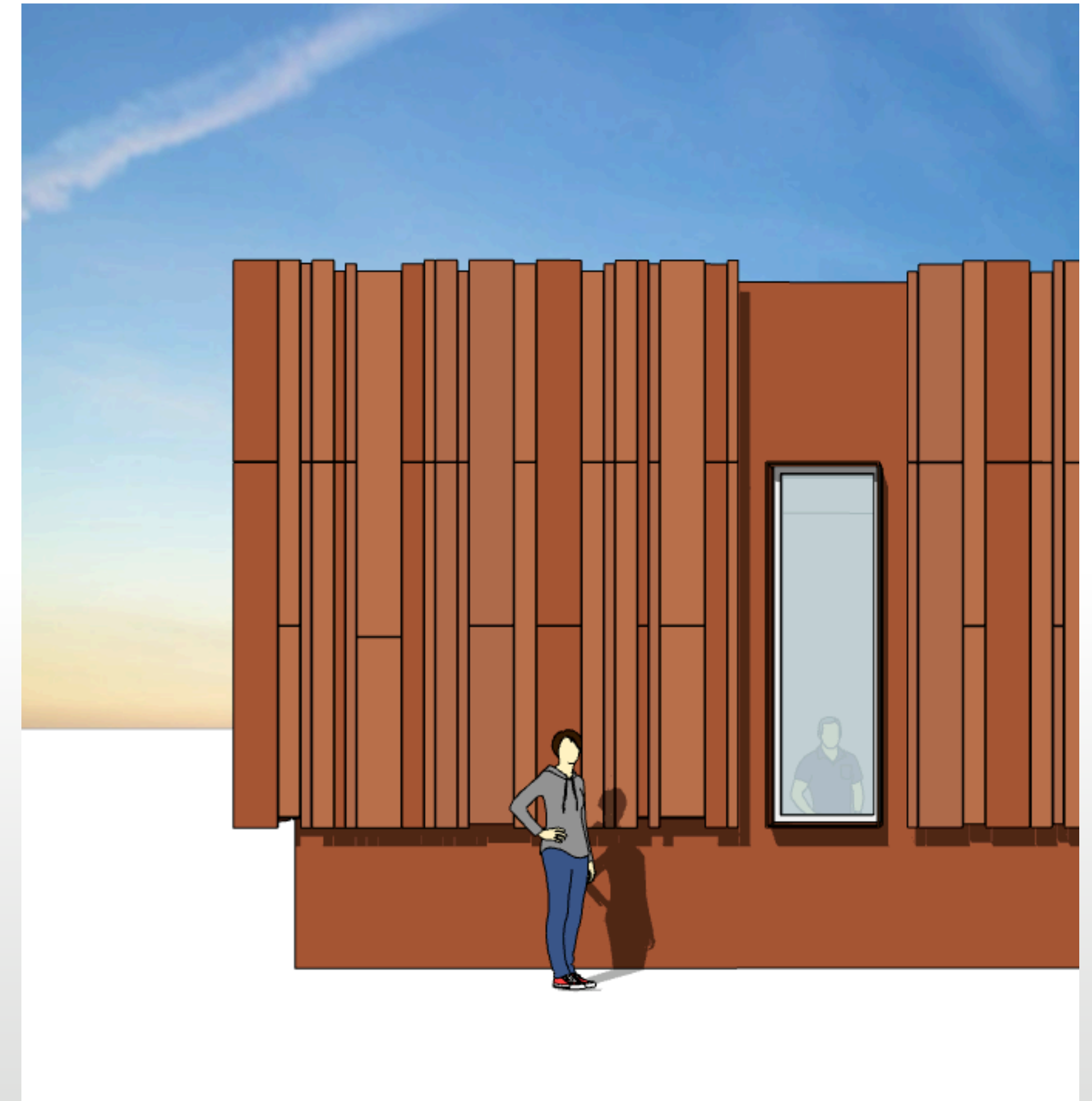
## GRANITE HIGH SCHOOL INSPIRATION





# Building

## GRANITE HIGH SCHOOL INSPIRATION





# Building

## CIVIC AND SUSTAINABLE RESPONSE

Library as a Beacon  
Welcoming and Engaging





# Building

## CIVIC AND SUSTAINABLE RESPONSE

Passive Solar Response

Overhangs

Shading Fins

Multiple Iterations of the Roof





# Building

## CIVIC AND SUSTAINABLE RESPONSE

Passive Solar Response

Overhangs

Shading Fins

Multiple Iterations of the Roof



**ORDINANCE NO. 2019-\_\_\_\_\_**

**AN ORDINANCE OF THE CITY OF SOUTH SALT LAKE CITY COUNCIL REPEALING AND REPLACING TITLE 10 OF THE CITY OF SOUTH SALT LAKE MUNICIPAL CODE, TO IMPLEMENT A RECREATIONAL VEHICLE PARKING PERMIT AND MAKE OTHER NECESSARY REVISIONS, AND AMENDING CHAPTER 3.11 OF THE CITY OF SOUTH SALT LAKE MUNICIPAL CODE TO ADOPT RELEVANT FEES**

WHEREAS, the City Council is authorized by state law to enact and amend ordinances to protect the health, safety, and welfare of the public;

WHEREAS, the City Council finds that the parking of recreational vehicles within the municipal boundaries of the City of South Salt Lake has the ability to negatively affect public health, safety, and welfare if not appropriately regulated;

WHEREAS, the City Council finds that the unregulated parking of recreational vehicles in the City negatively affects the aesthetics and livability of the community and residents;

WHEREAS, the City Council finds that Recreational Vehicles are often a source of illegal activity, including illegal dumping and that due to the transient nature of these vehicles it is often difficult to identify a specific offender;

WHEREAS, the City Council finds that certain changes to Title 10 are desirous to help promote public health, safety, and welfare;

WHEREAS, the City Council finds that current parking regulations are inadequate to address the concerns of parking Recreational Vehicles in the City;

WHEREAS, the City Council finds that property owners and their bona fide guests shall have the opportunity to have limited use of the streets for a finite period of time for the purpose of parking Recreational Vehicles; and

NOW THEREFORE, BE IT ORDAINED, by the City Council of the City of South Salt Lake as follows:

**SECTION I. Repeal and Replace South Salt Lake Municipal Code Title 10 as follows:**

Title 10 - VEHICLES AND TRAFFIC

Chapter 10.01- GENERAL PROVISIONS

10.01.010 - Definitions.

For purposes of this Title, the following terms are defined:

"Driveway" means any path used primarily for vehicles, leading from a street or road to a garage or house.

"Enforcement official" has the same definition as that in Section 8.14.100 of this code.

"Impound" means the towing and/or storing of a vehicle by a wrecker service as authorized by the city, or other lawful transport of a vehicle by the police department for temporary storage.

"Impoundment charges" includes costs for both towing and storing of the inoperable vehicle, and administrative impound fees.

"Inoperable vehicle" means a vehicle to which any of the following apply:

1. For a period of at least thirty (30) consecutive days:
  - a. The engine, wheels, tires, or other parts are removed;
  - b. The engine, wheels, tires or other parts have been altered, damaged or otherwise so treated that the vehicle is incapable of being driven under its own motor power; or
  - c. The vehicle has one or more flat tires, has one or more missing windshield or window, or has one or more windshield or window broken to the extent that visibility is limited so as to make driving the vehicle unsafe;
2. The vehicle is currently incapable of being registered, and for a period of one year either registration has not been obtained by the owner, or registration has been expired for longer than one year; or
3. The vehicle is a junked, wrecked, or salvaged vehicle.

"Large Vehicle" means a motor vehicle or other equipment that exceeds thirty-five (35) feet in total length or has more than nine wheels which touch the ground or exceeds a gross vehicle weight of thirty thousand (30,000) pounds.

"Owner" means the registered owner or owners of a vehicle as recorded with the Utah Department of Motor Vehicles or a similar agency outside the state of Utah. Where written notice is required under this chapter, notice shall be given to each registered owner.

"Public property" means any real property owned or managed by any governmental entity within the municipal limits of the city, such as highways, alleys, rights-of-way, and streets, or any property open to the public for use.

"Recreational Vehicle" means a vehicular unit primarily designed as a temporary dwelling for travel, recreational and vacation use, which is either self-propelled or is mounted on or pulled by another vehicle.

"Residential street, highway or road" means all roads or portions of roads within residential zoning districts but shall not include the following:

1. 300 East and 500 East north of 2700 South;
2. West Temple;
3. 1100 West;
4. 2100 South;
5. 2700 South;
6. 3300 South;
7. 400 East between 2100 South and Haven Avenue;
8. Wentworth Avenue between 400 East and 500 East; and
9. I-80;
10. 3900 S.

"Trailer" means any object designed to be towed or pulled behind a vehicle, and designed to travel along the ground by use of wheels, treads, runners, or slides. "Trailer" includes semi-trailers.

"Vehicle" means any device, in, upon, or by which any person or property may be transported or drawn upon a street or highway, propelled by a power other than human power, and designed to travel along



the ground by use of wheels, treads, runners or slides. "Vehicle" includes, without limitation, automobiles, trucks, recreational vehicles, buses, motorcycles, tractors, all-terrain vehicles and snowmobiles. "Vehicle" includes any of the above devices regardless of its source of power, including but not limited to, electric, gas or fuel-powered engines.

"Vehicle parts" means any component of a vehicle, including a vehicle frame, or any component which would normally be affixed, glued, or otherwise attached to or a part of a vehicle or its frame. It also includes pieces of any such component.

## Chapter 10.02 - PARKING AND TRAVEL REGULATIONS

### 10.02.010 - Parking restrictions—Time limitations.

- A. All Night Parking Prohibited. No person shall park a vehicle on any street for a period longer than one hour between the hours of two a.m. and six a.m. of any night when removal of snow from the streets may be necessary. The fact that snow fell during such hours shall be prima facie evidence of the need for its removal.
- B. Parking Limited to Seventy-Two (72) Consecutive Hours. No person shall park a vehicle upon any street or alley for more than seventy-two (72) consecutive hours except as stated below.
  - 1. Recreational Vehicles may be parked up to two hundred forty (240) consecutive hours if they meet the conditions outlined in 10.02.030 and 10.02.040.
- C. Parking Time Limited on Streets.
  - 1. When appropriate signs or traffic markings are erected and put in place by proper authority, no person shall park a vehicle or permit said vehicle to remain parked for a period longer than specified, between the hours shown and upon the streets designated below.
- D. Whenever any vehicle shall have been parked in violation of any ordinance prohibiting or restricting parking, the person in whose name such vehicle is registered shall be per se responsible for such violation and subject to the penalty therefor.

### 10.02.020- Restricted travel for Large Vehicles.

- A. No Large Vehicle or similar apparatus may travel on any residential street, highway or road within the corporate limits of the city of South Salt Lake.
- B. The prohibition contained in 10.02.020(A) shall not apply to any of the following:
  - 1. Commercial vehicles making pickups or delivery of goods, wares or merchandise, or while providing services to a residence, including but not limited to maintenance, construction, or repair services.
  - 2. Construction vehicles for an active construction site in conformance with City approved building permit.
  - 3. Emergency or City owned vehicles.

### 10.02.030- Parking for Recreational Vehicles

- A. No person shall park a Recreational Vehicle on any street, highway, or road within the corporate limits of the City of South Salt Lake except as provided in this Chapter.
- B. The prohibition contained in 10.02.030(A) shall not apply to any of the following:
  - 1. Recreational Vehicles left standing as a result of a mechanical breakdown so as to allow the performance of emergency repairs on the vehicle for a period not to exceed 12 hours; and

2. Recreational Vehicles with a validly displayed Recreational Vehicle Parking Permit.

C. No person shall run electrical cords, extension cords, hoses, cables, or other items across, above or on the park strip or sidewalk from a residential or commercial property to a Recreational Vehicle.

D. Any enforcement official may move or cause to be moved and impounded a Recreational Vehicle found to be in violation of this Chapter, at the expense of the owner

10.02.040- Parking and Travel Permits

A. To park a Recreational Vehicle on a street, highway, or road within the corporate limits of the City of South Salt Lake, said vehicle must obtain a Recreational Vehicle Parking Permit through the South Salt Lake Police Department. All permits must be prominently displayed on the lower portion of the front windshield on the driver's side so that it is clearly visible from the exterior of the vehicle.

B. Application for a Recreational Vehicle Parking Permit shall be made to the Chief of Police or his designee on a form provided by the Police Department. Incomplete applications will not be accepted or considered. Proof of a valid driver's license, registration, and insurance must be provided prior to issuance of a Recreational Vehicle Parking Permit. The applicant must sign the application under penalty of perjury.

C. To be eligible to apply for a Recreational Vehicle Parking Permit the applicant must be a bona fide City property owner or tenant or be a guest of a bona fide City property owner or tenant.

D. Permits granted shall not exceed a period of 10 consecutive days. No permit shall be granted to an applicant or for a Recreational Vehicle if that applicant or Recreational vehicle has received a permit in the last 60 days.

E. Recreational Vehicle Parking Permits are non-transferable.

F. A recreational Vehicle Parking Permit does not relieve any person from the obligation to comply with Federal, State, or Local laws. Violations of State, Federal, or local laws will deem the Recreational Vehicle Permit void.

G. Recreational Vehicle Parking Permits are subject to a fee as set forth in the Consolidated Fee Schedule.

Chapter 10.03 - INOPERABLE VEHICLES

10.03.010 - Purpose.

Sections 10.03.010 et seq. are intended to promote the general health, safety and welfare of the people of the city by preventing inoperable vehicles from littering property and creating health hazards. They are also intended to protect and improve the integrity and aesthetic qualities in the city by preventing the use of private and public property as a disposal or storage area for inoperable vehicles.

10.03.020 - Storage of inoperable vehicles, scrap metal and vehicle parts prohibited—Exceptions.

A. Inoperable vehicles, scrap metal and vehicle parts which remain on property and premises are unsightly and deleterious objects.

B. It shall be unlawful for a person to cause or permit any inoperable vehicle to remain on property or premises within the corporate limits of the City of South Salt Lake unless in connection with a licensed and lawfully situated business, or as otherwise excepted or permitted by the provisions of this section.

C. Scrap metal and vehicle parts:

1. It shall be unlawful for a person to cause or permit any scrap metal or vehicle parts to remain on any property or premises within the city for more than seven days, unless in connection with a licensed and lawfully situated business, or as otherwise excepted or permitted by the provisions of this section.
  2. It is not a defense that different parts or scrap are present than the parts which were observed seven days previous to the date of citation.
  3. The presence of vehicle parts or scrap metal on both the first and seventh day of a period is prima facie evidence of the violation.
  4. The removal of vehicle parts or scrap metal for a period of less than four consecutive days during the seven-day period is not a defense to a violation of this section.
- D. It shall be unlawful to leave an inoperable vehicle, trailer, or any part thereof, on any public property or on any private property, without the property owner's, tenant's, or occupant's consent.
- E. Proof that the vehicle's odometer shows movement of no more than two-tenths of one mile during any specified period of time shall be prima facie evidence of lack of movement, but lack of movement may also be established by other evidence.
- F. Inoperable vehicles or vehicle parts may be kept within an enclosed accessory structure, such as a garage or barn, provided that such building does not impose a threat to life safety or a nuisance or health hazard, and complies with all municipal and state ordinances, building codes, and zoning codes at the time of the building's original construction. Carports are not considered "enclosed" for the purpose of this chapter.
- G. Notwithstanding any other provision, it shall be permissible for any person to keep one inoperable vehicle on his or her property, so long as: (1) the vehicle is kept behind at least a four-foot opaque fence or structure which has the effect of blocking the view of the vehicles from public or private property; (2) the vehicle is covered during periods of rain or snowfall such that precipitation does not enter the vehicle's interior; and (3) the vehicle's placement does not constitute a health or environmental hazard. Vehicles stored pursuant to this subsection must be parked on a hard surface, as required by Title 17 of this code.
- H. Notwithstanding subsection G of this section, no inoperable vehicles shall be permitted to be kept in apartment complex or condominium parking lots unless the owner meets the requirements of subsection F of this section.

Chapter 10.04- Enforcement

10.04.010 - Enforcement—Authority to remove—Administrative impound fees.

- (A) Enforcement officials have discretion to enforce the provisions of this Title under the authority of the code enforcement program, Section 8.14.010 et seq. of this code.
- (B) An order of abatement entered by a court or administrative law judge relating to an inoperable vehicle shall require the impounding of any inoperable vehicle or trailer found in violation of this chapter, and such an order shall require the owner to pay impoundment charges, regardless of whether the owner retrieves his or her vehicle from impound. For orders relating to the abatement of vehicle parts, the administrative law judge shall require the payment of all costs of abatement. The order shall assess fees equal to the city's actual costs, plus an administrative nuisance abatement fee in the amount established in the consolidated fee schedule.
- (C) Vehicles ordered removed shall be towed and impounded according to procedures established under state law.

Chapter 10.05 - MISCELLANEOUS RULES

10.05.010 - Avoiding designated intersections.

- A. Avoiding Intersection or Highway. It is unlawful for the driver of any vehicle to avoid designated intersections or highways, or the traffic regulations set forth herein, by cutting through any service station lot, parking lot, or other public or private lot.
- B. Violation and Penalty. Any person who violates or refuses to comply with any of the provisions of this section shall be guilty of a Class C misdemeanor and, upon conviction, shall be punished as defined in state law for such misdemeanors.

#### 10.05.020 - Vehicle trespass.

- A. The owner or lessee of commercial property that invites the public to park or drive motor vehicles upon the property during business hours may close the property to the public during non-business hours by posting on the property a sign, clearly visible, stating the time(s) the public is prohibited to park or drive a motor vehicle upon it. It shall be unlawful for any person to park or drive a motor vehicle upon a property that has been posted closed to the public at any time when the property is so closed.
- B. The owner or lessee of commercial property may restrict access to the property during business hours by posting a sign, clearly visible, limiting access to patrons of the business. The owner or lessee may revoke a patron's permission to be on the property.
- C. It shall be a defense that: (1) the owner or lessee of the property has granted express permission to the person to park or drive upon the property; (2) the person is operating a police or other emergency vehicle; or (3) the vehicle being operated or parked upon the property is devoted to commercial or industrial purposes in connection with the property and permission for such operation is impliedly or expressly given by the property owner.
- D. Vehicle trespass is a strict liability offense.

#### Chapter 10.06 - NEGLIGENCE DRIVING

##### 10.06.010 - Negligent collision.

It is unlawful to operate a vehicle with such lack of due care and in such negligent manner as to cause the same to collide with any vehicle, person or object.

#### Chapter 10.07 - STREET USE RESTRICTIONS

##### 10.07.010 - Restricted parking for large vehicles.

On all streets in the city, parking of large vehicles shall not be allowed.

##### 10.07.020 - Restricted parking for trailers.

On all streets in the city, no parking shall be allowed at any time for any trailer not attached to a licensed, registered, insured, and operable vehicle.

##### 10.07.020 - Violations and penalties.

Unless otherwise prescribed, Moving violations shall be a Class C misdemeanor and parking violations shall be an infraction.

##### 10.07.030 - Low profile motorized vehicles.

- A. Definitions. For purposes of this section:
  - 1. "Low profile motorized vehicle" shall mean any motorized vehicle that:
    - a. Is not regulated by the state or by any other city code provision;
    - b. Is not otherwise permitted upon the highways or sidewalks; and,

- c. Is less than thirty-six inches (36") in height when in its normal operating position, notwithstanding any flag, antenna, or other device attached, or modifications made thereto. This definition includes, but is not limited to, "pocket bikes" or miniature motorcycles, and "go-carts."
- B. It is unlawful for any person to operate a low profile motorized vehicle upon any public property within the city, including, but not limited to, streets, sidewalks, public parking lots, or parks. It is unlawful for an owner, parent or guardian to allow a minor to operate such a vehicle on public property within the city.
- C. Penalty. A violation of this section is a Class C misdemeanor and is punishable as such.

#### Chapter 10.08 - IDLING OF VEHICLES

##### 10.08.010 - Purpose.

The purpose of this chapter is to educate owners and operators of vehicles of the adverse effects of vehicle idling, to protect the public health and improve the environment by reducing emissions while conserving fuel, and to enforce the provisions of this chapter after the appropriate notification has been provided to vehicle owners and operators.

##### 10.08.020 - Definitions.

For purposes of this chapter, these definitions shall apply:

"Driver" means any person who drives, operates, or is in actual physical control of a vehicle.

"Idle" means the operation of a vehicle engine while the vehicle is stationary or not in the act of performing work or its normal function.

"Owner" means the person or persons listed on the vehicle's registration.

"Vehicle" means any self-propelled vehicle that is required to be registered and have a license plate by the Utah department of motor vehicles.

##### 10.08.030 - Property subject to this chapter; enforcement.

- A. This chapter shall be enforceable on all public property and on private property that is open to the general public, unless the private property owner:
  - 1. Has a private business that has a drive-through service as a component of the private property owner's business operations, and posts a sign provided by or acceptable to the city informing its customers and the public of the city's time limit for idling vehicle engines; or
  - 2. Adopts an idle reduction education policy approved by the city.
- B. Law enforcement personnel shall exercise reasonable caution and utilize customary safety procedures in their enforcement of this chapter.
- C. A citation may be issued by any official designated by the city.
- D. Citations and warnings shall be given to the vehicle's driver or owner, or if the vehicle is left unattended, left in a prominent place on the vehicle such as the window or windshield.

##### 10.08.040 - Idling restriction within city limits.

No driver, while operating a vehicle within city limits, nor any vehicle owner, who is allowing another to operate a vehicle, shall cause or permit a vehicle's engine to idle for more than two minutes, except in the following circumstances:

- A. Idling while stopped:
  - 1. At the direction of an official traffic control device or traffic control signal; or

2. At the direction of a peace officer or emergency responder;
- B. Idling as needed to operate heaters or air conditioners where the temperature is below thirty-two degrees Fahrenheit (32°F) or above ninety degrees Fahrenheit (90°F), as measured at the Salt Lake City Airport and determined by the National Weather Service, for the health or safety of a driver or passenger, including service animals;
- C. Idling for the minimum amount of time required for the operation of defrosters or other equipment to clear the windshield and windows to provide unobstructed views and ensure visibility while driving;
- D. Idling as needed for emergency vehicles to operate equipment;
- E. Idling as needed to ascertain that a vehicle is in safe operating condition and equipped as required by all provisions of law, and that all equipment is in good working order, either as part of the daily vehicle inspection, or as otherwise needed;
- F. Idling as needed for testing, servicing, repairing, installation, maintenance or diagnostic purposes;
- G. Idling for the period recommended by the manufacturer to warm up or cool down a turbocharged heavy duty vehicle;
- H. Idling as needed to operate auxiliary equipment for which the vehicle was primarily designed or equipped, other than transporting goods, such as: operating a transportation refrigeration unit (TRU), lift, crane, pump, drill, hoist, ready mixed equipment, except a heater or air conditioner;
- I. Idling as needed to operate a lift or other piece of equipment designed to ensure safe loading and unloading of goods or people;
- J. Idling to recharge a battery or other energy storage unit of a hybrid electric vehicle;
- K. Idling as needed for vehicles that house K-9 or other service animals; or
- L. Idling by on duty police officers as necessary for the performance of their official duties.

#### 10.08.050 - Penalties.

Violation of this chapter is a civil offense and shall be penalized as follows:

1. First offense: A warning but no fine.
2. Subsequent offenses: A civil fine in an amount determined by the consolidated fee schedule.



**SECTION II. Amend South Salt Lake Municipal Code Chapter 3.11 as follows:**

**Section VII. Police Department**

**Reports & Documents**

DI-9 (crash) Reports	\$15 (provided at station)
Crash reports available at <a href="https://crashreport.utah.gov">https://crashreport.utah.gov</a>	\$9.50 (provided online)
Police Reports (includes research/redaction costs)	
<50 pages	\$10
50-100 pages	\$20
101-200 pages	\$30
201+ pages	As quoted
Dashboard/Body/Security/Other Video/Audio Recording (incl. disc, research/redaction, staff time)	\$45 per recording device

**Work Cards**

Work/ID Card (alcohol, sexually oriented businesses)	\$25
Duplicate Work/ID Cards	\$10

**Sex Offender Registration**

Sex Offender Registration Fee	\$25
DNA Collection Fee	\$125

**Permits**

<u>Recreational Vehicle Parking Permit</u>	<u>\$25</u>
--	-------------

**Section VI. Courts, City Attorney, & Recreation**

**Justice Court**

Fines and bails	As set by Utah Administrative Office of Courts
-----------------	--

Filing fees	As set by <a href="#">Utah Code Ann. § 78A-2-301.5</a>
Record production fees	As set by <a href="#">Utah R. Jud. Admin. 4-202.08</a>
Traffic school tuition	\$50
Trust check processing fee	\$10
Fingerprinting fee	\$10
<a href="#">No Recreational Vehicle Parking Permit</a>	<a href="#">\$100</a>

### **City Attorney**

Discovery in criminal cases*	
Class C/infraction-level cases	\$10
Other criminal cases	\$15
Audio/video/color copies/etc.	See Section I
Debt-collection account administrative fee	\$25

\* Fees in criminal cases shall not be assessed to or collected from defendants found indigent by the court in which their case is pending; however, duplicates/replacements of materials already provided to indigent defendants shall be charged at the standard rates above.

\* Fee includes cost of mailing, and will provide all reports received by the prosecution office for the case requested.

### **Recreation**

Youth Programs (uniform, team photo, award, practices & games)	Enrollment fee*
One child	\$25
Second child in family	\$20
Third and subsequent child in family	\$15

\* Scholarships covering all or part of youth program fees are available based upon income eligibility.

**SECTION III. Severability.** If any section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

**SECTION IV. Conflict with Existing Ordinances, Resolutions, or Policies.** To the extent that any ordinances, resolutions, or policies of the City of South Salt Lake conflict with the provisions of this ordinance, this ordinance shall prevail.

**SECTION V. Effective Date.** This ordinance shall become effective upon transmission to the office of the Mayor, and upon either the Mayor's signature and publication, or after fifteen days of transmission to the office of the Mayor if neither approved nor disapproved by the Mayor, and thereafter, publication.

DATED this \_\_\_\_ day of \_\_\_\_\_ 2019.

BY THE CITY COUNCIL:

\_\_\_\_\_  
Ben Pender, Council Chair

ATTEST:

\_\_\_\_\_  
Craig D. Burton, City Recorder

City Council Vote as Recorded:

Bynum	_____
deWolfe	_____
Kindred	_____
Mila	_____
Pender	_____
Siwik	_____
Thomas	_____

Transmitted to the Mayor's office on this \_\_\_\_ day of \_\_\_\_\_ 2019.

\_\_\_\_\_  
Craig D. Burton, City Recorder

MAYOR'S ACTION: \_\_\_\_\_

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Cherie Wood, Mayor

ATTEST:

\_\_\_\_\_  
Craig D. Burton, City Recorder

**ORDINANCE NO. 2019-\_\_\_\_\_**

**AN ORDINANCE OF THE CITY OF SOUTH SALT LAKE CITY COUNCIL REPEALING AND REPLACING SOUTH SALT LAKE MUNICIPAL CODE CHAPTER 13.76 (STORM WATER MANAGEMENT PROGRAM), CHAPTER 13.78 (POLLUTANT DISCHARGES FROM CONSTRUCTION SITES), AND CHAPTER 13.80 (ILLICIT DISCHARGES AND CONNECTIONS) AND ENACTING A NEW CHAPTER REGULATING POST CONSTRUCTION STORMWATER MANAGEMENT MEASURES**

**WHEREAS**, the South Salt Lake City Council (the "Council") met in a regular session on [DATE] to consider, among other things, repealing and replacing Chapters 13.76, 13.78 and 13.80 of the City of South Salt Lake Municipal Code and implementing a new chapter to implement necessary revisions for consistency with the requirements of the Jordan Valley Municipalities Stormwater Permit No. UTS000001, to remove unnecessary language from the extant ordinance, and to implement additional post-construction stormwater management requirements; and

**WHEREAS**, the City of South Salt Lake ("City") owns and operates a stormwater-collection system which has been developed over many years and consists of a network of natural conveyances, manmade structures, and conduits that collect, control, and route stormwater runoff; and

**WHEREAS**, pursuant to the Federal Clean Water Act, 33 U.S.C. Chapter 26, the U.S. Environmental Protection Agency ("EPA") has established rules and regulations setting forth the National Pollutant Discharge Elimination System permit requirements for municipal stormwater discharges ("Phase II Permit Program"); and

**WHEREAS**, the State of Utah, through its Department of Environmental Quality, has been delegated authority by EPA to administer the Phase II Permit Program and has adopted state rules and regulations implementing the Phase II Permit Program; and

**WHEREAS**, the City, along with other municipalities in the Jordan Valley as a co-permittee of a Phase II stormwater permit, is required, among other things, to implement a stormwater-management program and associated ordinance to (1) control the contribution of pollutants to the stormwater system associated with industrial sites, construction sites, and other activities within the City; (2) prohibit illicit discharges of pollutants into the stormwater-collection system, including spills, dumping, or disposal of materials other than stormwater; (3) promote implementation and maintenance of long-term stormwater controls on development sites; (4) educate City residents and businesses about the stormwater program; and (5) enforce compliance with the program and ordinance.

**WHEREAS**, the City has authority under the Utah Municipal Code, Utah Code Annotated section 10-8-38(1)-(2), to "construct, reconstruct, maintain, and operate . . . culverts, drains, sewers, catch basins, manholes, cesspools, and all systems, equipment and facilities necessary to the proper drainage" of the City; and

**WHEREAS**, the Council finds that inadequate management of the quantity and quality of stormwater runoff causes flooding and property damage; carries concentrations of heavy metals, oils, and toxic materials into receiving and ground waters; and degrades the integrity of the integrity of City neighborhoods and infrastructure; and

**WHEREAS**, the Council finds that such are hazards and pose a significant risk to public health, safety, and welfare; and

**WHEREAS**, the City has had a stormwater ordinance in place since 2010, but finds it necessary to update the ordinance to reflect current Phase II Permit Program requirements, including post-construction stormwater controls, and to clarify the ordinance to remove unnecessary language;

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City South Salt Lake City as follows:

**SECTION I. Repeal and Replace South Salt Lake Municipal Code Chapters 13.76, 13.78, AND 13.80 as follows:**

Division IV.- Storm Sewer System

Chapter 13.76 - STORM WATER MANAGEMENT PROGRAM

13.76.010 - Intent.

By implementing this ordinance as part of its Storm Water Management Program, the City intends to reduce the amount of Pollutants entering streams, lakes and rivers as a result of Runoff from residential, commercial, public and industrial areas, and to enable the City to comply with Utah Pollutant Discharge Elimination System permit (NPDES/UPDES) No. UTS000001 for Jordan Valley Municipalities ("State MS4 Permit") and applicable regulations, 40 CFR § 122.26 et. seq., for Storm Water discharges. The provisions of Division IV, Storm Sewer System, are required under the Federal Clean Water Act, the Utah Water Quality Act and regulations promulgated by the U.S. Environmental Protection Agency and Utah Department of Environmental Quality.

13.76.020 - Definitions.

As used in Division IV of this code:

"Analytical Monitoring" refers to Monitoring of waterbodies (streams, ponds, lakes, etc.) or of Storm Water, according to state and federal regulations or to protocols established by state or federal agencies for biomonitoring or stream bioassessments.

"Authorized Enforcement Agent" means the City Engineer and/or any individual that the City Engineer, the provisions of this ordinance, or the underlying legal authorities designate as authorized to implement and enforce this ordinance, which individuals include, but are not limited to, City employees, employees of the Utah Division of Water Quality, and EPA personnel.

"Best Management Practices" or "BMPs" means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, Maintenance procedures, and other management practices to prevent or reduce the discharge of Pollutants directly or indirectly to Storm Water, receiving waters, or Storm Water conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control Site Runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

"Channel" means a natural or artificial Watercourse with a definite bed and banks that conducts flowing water continuously or periodically.

"City" means the City of South Salt Lake, Utah, including the mayor and all other employees of the administrative branch of the City.

"City Engineer" means the professional engineer for the City or a designee of the professional engineer.

"City Permit" means a project approval from the City including, but is not limited to, a building permit, street cut permit, or excavation permit.

"Clean Water Act" means the federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

"Clearing" means any activity that removes the vegetative surface cover.

"Construction Activity" means activities subject an NPDES Construction Permit. NPDES Storm Water Phase II Permits are required for construction projects resulting in land disturbance of one acre or more. Such activities include but are not limited to Clearing and Grubbing, grading, excavating, and demolition.

"Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

"Control Measure" refers to any BMP or other method used to prevent or reduce the discharge of Pollutants to the Storm Water system or waters protected by the state of Utah or the federal government.

"DEQ" refers to the Utah Department of Environmental Quality.

"Discharge" means to dispose, deposit, spill, pour, inject, seep, dump, leak or place by any other means including direct or indirect entry of a solid or liquid matter into the MS4.

"Division" means the Utah Division of Water Quality.

"Drainage Way" means any Channel that conveys surface Runoff throughout a construction Site.

"Erosion Control" means a measure that prevents erosion.

"Grading" means excavation or fill of material, including the resulting conditions thereof.

"Grubbing" means to clear roots and stumps.

"Ground Water" means water in a saturated zone or stratum beneath the surface of land or below a surface water body.

"Hazardous Materials" means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. See 40 C.F.R. part 262.

"Illegal Discharge" means any direct or indirect Non-Storm Water Discharge to the storm drain system, except as exempted in Section 13.80.070.

"Illicit Connections" means either of the following:

1. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal Discharge to enter the storm drain system including but not limited to any conveyances which allow any non-Storm Water Discharge including sewage, process Wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency; or
2. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

"Industrial Activity" means activities subject to NPDES industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

"Intentionally" has the same meaning as in Section 76-2-103(1) of the Utah Criminal Code, as amended.



"Knowingly" has the same meaning as in Section 76-2-103(2) of the Utah Criminal Code, as amended.

"Maintenance" means any activity that is necessary to keep a Storm Water facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a Storm Water facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the Site property that may directly impair the functions of the Storm Water facility.

"Maintenance Agreement" means a duly executed and legally recorded document that provides for long-term maintenance of Post-Construction Stormwater Management Measures.

"Manual" refers to the SWMP guidance document published by Salt Lake County Engineering and Flood Control.

"MS4" is an acronym referring to the City Municipal Separate Storm Sewer System.

"MS4 Permit" refers to UPDES Permit No. UTS000001 for Jordan Valley Municipalities, including the City, as amended.

"Maximum Extent Practicable" or "MEP" is the technology-based Discharge standard for MS4s established by the Clean Water Act.

"Monitoring" means tracking or measuring activities, progress, results, etc.

"Municipal Separate Storm Sewer System" means the conveyance system employed by the City to collect and convey Storm Water into Waters of the State, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, man-made Channels, and storm drains.

"National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit" means a permit issued by EPA (or by the state of Utah under authority delegated pursuant to 33 USC § 1342) that authorizes the Discharge of Pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

"Negligence" means simple negligence, the failure to exercise that degree of care that an ordinary reasonable and prudent person exercises under like or similar circumstances.

"Non-storm Water Discharge" means any discharge to the storm drain system that is not composed entirely of Storm Water.

"Perimeter Control" means a barrier that prevents Sediment from leaving a Site by filtering Sediment-laden Runoff or diverting it to a Sediment trap or basin.

"Permit" refers to authorization to Discharge municipal Storm Water under the UPDES, including but not limited to coverage under UPDES Construction General Permit No. UTRC000000 ("Construction General Permit") and UPDES General Multi-Sector Industrial Storm Water Permit Industrial Storm Water No. UTR000000 ("Industrial General Permit").

"Person" means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

"Phasing" means clearing a parcel of land in distinct phases, with the Stabilization of each phase completed before the Clearing of the next.

"Pollutant" means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordnances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

"Post Construction Stormwater Management Measures" means the use of structural or non-structural measures at developed sites after construction that are designed to reduce storm water runoff and pollutant loading to the MS4, as directed by the City's SWMP and approved by the City Engineer.

"Premises" means any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

"Qualified Person" means a person knowledgeable in the principles and practice of erosion control, sediment control, and pollution prevention who possesses the skills to assess conditions at effectiveness of any stormwater controls selected and installed to meet Permit requirements, such as but not limited to, the following: Utah Registered Stormwater Inspector (RSI); Certified Professional in Erosion and Sediment Control (CPESC); Certified Professional in Stormwater Quality (CPSWQ); Certified Erosion, Sediment, and Stormwater Inspector (CESSWI); Certified Inspector of Sediment and Erosion Control (CISEC); National Institute for Certification in Engineering Technologies, Erosion, and Sediment Control, Level 3 (NICET); and Utah Department of Transportation Erosion Control Supervisor (ECS).

"Recklessly" has the same meaning as in Section 76-2-103(3) of the Utah Criminal Code, as amended.

"Responsible Person" means the Person(s) determined by the City who is responsible for causing or maintaining a violation of this ordinance. The term shall include, but is not limited to, a property owner, agent, tenant, lessee, occupant, architect, builder, contractor, or other Person who individually or together with another Person is responsible for the violation of any provision of this chapter.

"Runoff" is water that travels across the land surface, or laterally through the ground near the land surface, and Discharges to water bodies either directly or through a collection and conveyance system. Runoff includes Storm Water and water from other sources that travels across the land surface.

"Sediment" means solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level, and which can settle in stream beds and disrupt the natural flow of the stream.

"Sediment control" means measures that prevent Sediment from leaving the Site.

"Site" means a parcel of land or a contiguous combination thereof, where Grading work is performed as a single unified operation.

"Stabilization" means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.

"Standard Operating Procedure" or "SOP" means a set of written instructions that document a routine or repetitive activity. For purposes of this ordinance, SOPs refer to pollution Control Measures to protect water quality.

"Start of Construction" means the first land-disturbing activity associated with a development, including land preparation such as Clearing, Grading, and filling; installation of streets and walkways; excavation for basements, footings, piers, or foundations; erection of temporary forms; and installation of accessory buildings such as garages.

"Storm Drainage System" means publicly-owned facilities by which Storm Water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage Channels, reservoirs, and other drainage structures.

"Storm Water" means Storm Water Runoff, snowmelt Runoff, and surface Runoff and drainage.

"Storm Water Management Plan" or "SWMP" means a written plan that outlines various control measures required under the Ms4 Permit, including specifications to accomplish measurable goals, actions, and activities which are designed to reduce the Discharge of Pollutants from the MS4 to the quality and quantity of Storm Water Runoff to pre-development levels, and to protect water quality.

"Storm Water Pollution Prevention Plan" or "SWPPP" means a document which describes the BMPs and activities to be implemented by a Person or business to identify sources of pollution or contamination at a Site and the actions to eliminate or reduce Pollutant Discharges to Storm Water, Storm Water conveyance systems, and/or receiving waters to the MEP.

"Storm Water Runoff" means flow on the surface of the ground, resulting from precipitation.

"Uncontaminated" means water which is free from all physical, chemical, biological, or radiological substances or matter.

"Utah Pollutant Discharge Elimination System" or "UPDES" has the same meaning as the current version of Utah Administrative Rule R317-8-1.5(63), and which is currently defined as the state-wide program for issuing, modifying, revoking and reissuing, terminating, Monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under the Utah Water Quality Act.

"UPDES Permit" means a permit issued by the Utah Water Quality Board pursuant to Utah laws and regulations.

"Wastewater" means any water or other liquid, other than Uncontaminated Storm Water, Discharged from a facility.

"Watercourse" means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water within the City, regardless of its source.

"Waterway" means a Channel that directs surface Runoff to a watercourse or to the MS4.

"Waters of the State" means all streams, lakes, ponds, water-courses, Waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private which are contained within, flow through, or border upon the state of Utah. "Waters of the State" does not include bodies of water confined to and retained within the limits of private property which do not develop into or constitute a nuisance, a public health hazard, or a menace to fish or wildlife.

#### 13.76.030 - Creation and Maintenance of SWMP—Policies and Procedures.

- A. The City Engineer is responsible for the creation and Maintenance of a Storm Water Management Program for all Discharges into the Storm Water system of the City.
- B. The City Engineer shall have authority to implement policies and procedures consistent with the provisions of this chapter.
- C. The City Engineer, in consultation with the City Attorney, shall have the authority to bring administrative or civil actions to enforce the provisions of this chapter, or the policies and procedures duly created and published by the City Engineer. The City Attorney shall have the authority to bring criminal actions to enforce the provisions of this chapter, or the policies and procedures duly created and published by the City Engineer.

#### 13.76.040 - Non-storm Water Discharges Exempt from SWMP.

The following Discharges are not prohibited, unless the City Engineer determines that these Discharges are a significant source of Pollutants to the MS4 or the Waters of the State:

- A. Water line flushing;
- B. Landscape irrigation;
- C. Diverted stream flows;
- D. Rising Ground Waters;

- E. Uncontaminated Ground Water infiltration to separate storm sewers;
- F. Uncontaminated pumped Ground Water;
- G. Discharges from potable water sources;
- H. Uncontaminated foundation or footing drains;
- I. Air conditioning condensate;
- J. Irrigation water;
- K. Springs;
- L. Uncontaminated water from crawl space pumps;
- M. Individual residential car washing;
- N. Flows from riparian habitats and wetlands;
- O. De-chlorinated swimming pool or water reservoir Discharges;
- P. Residual street wash water;
- Q. Discharges or flows from emergency firefighting activity;
- R. Any other Discharge specifically exempted by a UPDES Permit.

#### 13.76.050 - Altering Drainage Channels.

- A. Property owners shall not alter or restrict natural Channels and Waterways without proper federal, state, and City permits.
- B. Modification of sensitive areas may require approval from other governing agencies.
- C. Property owners proposing to redirect Runoff, surface, and/or pipe flow to properties or facilities outside of City boundaries shall provide written approval from the state, county, or municipality onto which the water will be directed.
- D. Discharges or modifications to the canal require written approval from the canal owners and applicable government agencies.

### Chapter 13.78 - POLLUTANT DISCHARGES FROM CONSTRUCTION SITES

#### 13.78.010 - Introduction/purpose.

During the construction process, soil is highly vulnerable to erosion by wind and water. Watercourses are also vulnerable to debris, chemicals and other potentially harmful construction materials if those materials are permitted to enter the City's MS4. Eroded soil is a major cause of stream degradation and necessitates repair of sewers and ditches and the dredging of rivers. As a result, the purpose of this local regulation is to safeguard persons, protect property, and prevent damage to the environment within and around the City. This chapter will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and Maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth on land in the City.

#### 13.78.020 - Definitions.

Definitions for this chapter are included in Section 13.76.020.

#### 13.78.030 – City Permits.

- A. No Person shall be granted a Building Permit or other city permit for land-disturbing activity that would uncover one acre or more without obtaining coverage under the general construction Storm Water Permit from the Utah State Division of Water Quality. If a Site less than one acre in size is part of a common plan of development or sale more than one acre in size, the requirements of this section will still apply.
- B. Permittees for Sites greater than one acre in size, or Sites that are less than one acre in size but are part of a common plan of development or sale one acre in size or more, shall employ Post Construction Stormwater Management Measures.
- C. No Person shall be granted a Building Permit for land disturbing activity of less than one acre of land if such activity poses a significant or unique threat to water or public health or safety without obtaining coverage under the Construction General Permit. .
- D. Prior to issuing a City Permit, a SWPPP complying with the requirements of the general construction Storm Water Permit and this chapter shall be submitted for review and approval by the City Engineer, addressing Sediment and Erosion Control and other applicable requirements of the SWMP.
- E. No SWPPP is required for the following activities, unless otherwise provided:
  - 1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources;
  - 2. Existing nursery and agricultural operations conducted as a permitted main or accessory use;
  - 3. Agricultural activity that is consistent with an approved farm conservation plan or a management plan prepared or approved by the appropriate City, federal, or state agency;
  - 4. Additions or modifications to existing single-family structures; or
  - 5. Residential gardening.
- F. Each SWPPP shall include the following:
  - 1. Name(s) and address(es) of the owner or developer of the Site, and of any consulting firm retained by the applicant together with the name and telephone number of the applicant's contact at such firm that will be responsible for the implementation of the SWPPP;
  - 2. Address and legal description of the subject property including the tax reference number and parcel number of the subject property;
  - 3. A statement indicating the nature, extent and purpose of the land disturbing activity, and a certification that any land Clearing, construction, or development involving the movement of earth shall be in accordance with the SWPPP; and
  - 4. Measures addressing the requirements of Section 13.78.050.
- G. The applicant may be required to file with the City building official a faithful performance bond, letter of credit, or other improvement security in an amount deemed sufficient by the City to cover all costs of improvements, landscaping, Maintenance of improvements for such period as specified by the City, and engineering and inspection costs to cover the cost of failure or repair of improvements installed on the Site.
- H. Notwithstanding the provisions of this section, all land disturbance activity must be carried out in accordance with the the Control Measures addressed in a SWPPP.

#### 13.78.040 - Review and Approval.



- A. For every Construction Activity that meets or exceeds the scope designated in Section 13.78.030 of this chapter, the City building official will review each application for a City Permit to determine its conformance with the provisions of this regulation. Within thirty (30) days after receiving an application, the City Engineer shall, in writing:
  - 1. Approve the City Permit application;
  - 2. Approve the City Permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation, and issue the permit subject to these conditions; or
  - 3. Disapprove the City Permit application, indicating the reason(s) and procedure for submitting a revised application and/or submission.
- B. Failure of the City Engineer to act on an original or revised application within thirty (30) days of receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and the City. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the City.

#### 13.78.050 - Storm Water Pollution Prevention Plan.

- A. The SWPPP shall include the following information:
  - 1. A general location map and a Site map (including spot elevations and contour lines before and after construction) indicating:
    - a. Drainage patterns before and after minor Grading activities;
    - b. Construction boundaries and a description of existing vegetation prior to Grading activities;
    - c. Estimates of the total area of the Site and the total area that will be disturbed by construction activities;
    - d. The location of major structural and nonstructural controls identified in the plans;
    - e. The location of areas where Stabilization practices are expected to occur;
    - f. All surface waters including wetlands;
    - g. Locations where Storm Water is Discharged to surface water;
    - h. Locations of material and equipment storage;
  - 2. A description of the nature and location of construction activities;
  - 3. A description of the intended sequence and schedule of major construction activities for development of the Site, including Clearing and Grubbing; rough Grading; construction of utilities, infrastructure, and buildings; and final Grading and landscaping. Sequencing shall identify the expected date on which Clearing will begin, the estimated duration of exposure of cleared areas, areas of Clearing, installation of temporary erosion and Sediment Control Measures, and establishment of permanent vegetation pursuant to an approved landscaping plan;
  - 4. An estimate of the Runoff coefficient for the Site before and after construction activities are completed;
  - 5. The name of waters receiving Runoff from the Site;
  - 6. A copy of the Construction General Permit requirements;

7. A description of all Control Measures that will be implemented to meet the objectives of the Construction General Permit throughout all phases of construction and after completion of development of the Site. Depending upon the complexity of the project, the drafting of intermediate plans may be required at the close of each season;
  8. The name, address and phone number of the Person or entity responsible for implementation of each Control Measure;
  9. Provisions for Maintenance of control facilities, including easements and estimates of the cost of Maintenance;
  10. Statement of recognition and permission for an Authorized Enforcement Agent to inspect the Site for compliance with the SWPPP.
  11. All parties responsible for execution of the SWPPP must certify and sign the SWPPP.
- B. Modifications to the SWPPP shall be processed and approved or disapproved in the same manner as Section 13.78.040 of this chapter, may be authorized by the City Engineer by written authorization to the permittee, and shall include:
1. Major amendments of the SWPPP submitted to the City Engineer;
  2. Field modifications of a minor nature.

#### 13.78.060 - Design Requirements.

- A. Control Measures shall be designed to meet the following criteria:
1. Prevent or Minimize Discharges. The proposed Control Measures shall be designed to prevent or minimize the Discharge of Sediment, chemicals, debris, and other construction-related Pollutants from the construction Site by Storm Water Runoff into the Storm Drainage System.
  2. Prevent or Minimize Construction Debris. The proposed Control Measures shall be designed to prevent or minimize, to the MEP, the deposit, Discharge, tracking by construction vehicles, or dropping of mud, Sediment, debris, or other potential Pollutants onto the public streets and rights-of-way.
  3. The proposed Control Measures shall include BMPs available at the time that the SWPPP is submitted.
  4. The proposed Control Measures shall be designed to preserve existing vegetation, where possible. Disturbed portions of the Site shall be stabilized.
  5. The proposed Control Measures shall be employed to minimize the risk of Discharge of construction-related Pollutants (such as paint, thinners, solvents and other chemicals) from the construction Site.
- B. Clearing and Grading of sensitive areas such as forests and wetlands, is not permitted, except when in compliance with all other chapters of this ordinance. Clearing techniques that retain natural vegetation and drainage patterns shall be used to the satisfaction of the City Engineer.
- C. Clearing, except that necessary to establish Sediment control devices, shall not begin until all Sediment control devices have been installed and have been stabilized.
- D. Phasing shall be required on all Sites disturbing greater than thirty (30) acres, with the size of each phase to be established at plan review and as approved by the City Engineer.
- E. Erosion Control requirements shall include the following:
1. Soil Stabilization shall be completed as soon as practicable, but in no case more than fourteen (14) days after Clearing or inactivity in construction except under the following circumstances:

- a. If the initiation of Stabilization measures by the fourteenth day after Construction Activity temporarily or permanently ceases is precluded by snow cover or frozen ground conditions, Stabilization measures shall be initiated as soon as practicable; or
  - b. If Construction Activity on a portion of the Site is temporarily ceased, and earth disturbing will resume within fourteen (14) days, temporary Stabilization measures need not be initiated on that portion of the Site.
2. If seeding or another vegetative Erosion Control method is used, it shall become established within two weeks or the City Engineer may require the Site to be reseeded or a nonvegetative option employed.
3. Special techniques that meet the design criteria outlined in the Manual on steep slopes or in Drainage Ways shall be used to ensure Stabilization.
4. Soil stockpiles must be stabilized or covered at the end of each workday.
5. If the City Engineer deems it necessary, the entire Site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
6. Techniques shall be employed to prevent the blowing of dust or Sediment from the Site.
7. Techniques that divert upland Runoff past disturbed slopes shall be employed.
8. Sediment control requirements shall include:
  - a. Settling basins, Sediment traps, or tanks and Perimeter Controls. Sediment must be removed from Sediment traps or settling basins when design capacity has been reduced by fifty (50) percent;
  - b. Settling basins that are designed in a manner that allows adaptation to provide long-term Storm Water management, if required by the City Engineer;
  - c. Protection for adjacent properties and Waterways by the use of a vegetated buffer strip in combination with Perimeter Controls.
9. Waterway and watercourse protection requirements shall include:
  - a. A temporary stream crossing installed and approved by Salt Lake County if a wet Watercourse will be crossed regularly during construction;
  - b. Stabilization of the Watercourse Channel before, during, and after any in-Channel work;
  - c. All on-site Storm Water conveyance Channels designed according to the criteria outlined in the Manual;
  - d. Stabilization adequate to prevent erosion located at the outlets of all pipes and paved Channels.
10. The use of impervious surfaces for Stabilization should be minimally used.

#### 13.78.070 - Low Impact Development.

As required by the MS4 Permit, the City encourages a Low Impact Development (LID) approach, which includes the implementation of structural BMPs, where practicable, that infiltrate, evapotranspire, or harvest and use the Storm Water for the Site to protect water quality. All development requiring a City Permit and compliance with the Construction General Permit must include an LID analysis.

#### 13.78.080 - Inspection.

- A. The construction permittee shall allow an Authorized Enforcement Agent to enter the Premises to make inspections as hereinafter required or authorized. Upon inspection, the Authorized Enforcement Agent shall approve the portion of the work completed or shall notify the permittee wherein the completed work fails to comply with the SWPPP, as approved. The permittee shall maintain a copy of the SWPPP at the Site during the progress of the work. The permittee shall notify the City building official at least two working days before the following:
  - 1. Start of Construction;
  - 2. Installation of Sediment and erosion measures;
  - 3. Completion of Site Clearing;
  - 4. Completion of rough Grading;
  - 5. Completion of final Grading;
  - 6. Close of the construction season;
  - 7. Completion of final landscaping.
- B. The permittee or his/her agent shall make regular inspections of all Control Measures at least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm that produced twenty-five one-hundredths (0.25) of an inch of rainfall or greater. The purpose of such inspections will be to determine the overall effectiveness of the control plan and the need for additional Control Measures. All inspections shall be documented in written form, maintained on-Site, and made available to the City building official or Authorized Enforcement Agent upon request.
- C. An Authorized Enforcement Agent is hereby authorized to enter the property of the applicant as deemed necessary to make regular inspections to ensure the validity of the reports filed pursuant to subsection (B) of this section.

#### 13.78.090 - Post-Construction Inspections—Maintenance Agreements.

- A. Consistent with the requirements of the MS4 Permit, the City is required to inspect storm water control measures on private property to ensure that adequate maintenance is being performed.
- B. Property owners must, for the purposes of maintenance of Post-Construction Stormwater Management Measures:
  - 1. Provide permission for inspections of Post-Construction Stormwater Management Measures on private property annually by a Qualified Person pursuant to a Maintenance Agreement and every five years by an Authorized Enforcement Agent, or more frequently at the discretion of the City Engineer, when that property Discharges into the MS4, as necessary;
  - 2. Prior to issuance of a City permit, enter into a Maintenance Agreement which requires the property owner to reimburse the city for inspection costs and that requires annual certification of Maintenance by the property owner, tenant or a qualified third party. Such certification must state that all Maintenance has been performed and that the structural controls are operating as designed to protect water quality. The Maintenance Agreement shall run with the land and must be transferred to subsequent purchasers.
- B. The City may conduct oversight inspections every five years, or when there is an apparent system failure. If a property owner objects to the inspection, an Authorized Enforcement Agent may apply for an administrative warrant to inspect the property.
- C. If a property owner does not appropriately maintain the Storm Water Control Measures, then the City may seek all remedies identified in this chapter, including abatement and assessment of costs, civil or criminal actions, and declaratory or injunctive relief.

#### 13.78.100 - Construction Site Access and Traffic.

This section shall apply to all construction activities regardless of the size of the construction Site.

- A. Construction Site access requirements shall include a temporary access road provided at all Sites as well as the following measures to assure that Sediment is not carried onto public streets by construction vehicles or washed into storm drains.
- B. Each permittee shall be responsible to see that vehicles used in the process of carrying out the work authorized by the Building Permit shall not track any mud, dirt, or debris of any kind upon any City street and, if necessary, shall install a suitable process to clean vehicles prior to leaving the job Site and entering City streets. The suitable process shall consist of:
  - 1. A cleaning area and crew to clean mud and dirt off the wheels and exterior body surface of the equipment;
  - 2. The cleaning area shall be arranged to provide adequate drainage to prevent puddling, and the cleaning area shall be kept mud-free and may be on a macadam or concrete slab;
  - 3. The cleaning area shall be located on private property and arranged in such a way that there is no blocking of traffic on City streets;
  - 4. The cleaning water or solution used for cleaning shall not be allowed to enter the City street, gutter or storm drain system.
- C. All trucks and equipment leaving the Site with earthen materials or loose debris shall be loaded and/or covered in such a manner as to prevent dropping of materials on City streets and/or sidewalks.
- D. Ramps constructed over curbs and gutters shall not interfere with or block the passage of water along the gutter and shall be constructed of material that will not erode or deteriorate under adverse weather conditions.

#### 13.78.110 – Required Measures and Enforcement.

- A. The permittee shall install erosion and water Runoff controls sufficient to ensure that no Storm Water, surface water, or debris from the construction Site shall erode, drain, wash, or be tracked into any public right-of-way, including curb and gutter, into any part of the City's storm sewer system or into any ditch, canal, stream, or river. These controls shall be sufficient to cover any contingency, including, but not limited to, seasonal storms, unseasonable storms, and methods of construction.
- B. The sidewalk, street, and/or curb and gutter shall not be used for storage of debris, dirt, or excavated materials. The sidewalks shall not be removed, blocked, or otherwise rendered unusable by either the storage of construction equipment or material or the construction procedures unless a safe, usable alternate walkway along the same side of the street is provided by the contractor. All alternate walkways shall be ramped and so constructed as to provide a walking surface four feet wide and as sound and smooth as the normal concrete sidewalk.
- C. The permittee shall be responsible for the immediate removal of mud, dirt, or debris deposited on City streets, sidewalks, and/or curb and gutters by equipment leaving the Site or by his construction procedures.
- D. If it becomes necessary for the City to remove any mud, dirt, or debris which has been deposited upon a street, gutter, or sidewalk, or in any storm sewer, the total cost to the City for such removal will be charged to the property owner, including legal fees, if any. Payment of such charges will be made to the City prior to final inspections, utility clearances, and issuance of a certificate of occupancy. Pursuant to South Salt Lake City Ordinance, 2.22, the property owner may appeal the costs of such abatement.



- E. If any Person holding a City Permit pursuant to this chapter violates the terms of the permit or implements Site development in such a manner as to materially and adversely affect the health, welfare, or safety of persons residing or working in the neighborhood or development Site so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, the City building official may stop the work and suspend or revoke the City Permit.
- F. The permittee shall develop and implement Post Construction Stormwater Management Measures to reduce Runoff and the discharge of Pollutants after construction is completed, as directed and approved by the City Engineer. These Post Construction Measures shall be sufficient to cover any contingency, including, but not limited to, seasonal and unseasonable storms.

#### 13.78.120 - Violation and Penalties.

- A. Any Person who violates a provision of this chapter, or who fails to comply with an affirmative obligation established by this chapter, shall be deemed guilty of a class B misdemeanor of a separate offense for each day during which any violation [of] a provision of this chapter is committed, continued, or permitted.
- B. In its sole discretion, the City may choose to enforce this chapter against any Person violating any of its provisions by criminal citation, civil citation, notice of violation, and summons as provided in Chapter 8.14 of this ordinance, or other judicial remedies, including injunctive relief.
- C. Any Person found responsible in a civil proceeding of violating any provision of this chapter shall be deemed responsible for a separate violation of this ordinance for each day during which any violation of any of the ordinance is committed, continued, or permitted. Upon civil citation for any such violation, such Person, partnership, or corporation shall be punished by a civil fine of not more than one thousand dollars (\$1,000.00) for each offense.
- D. In addition to any other penalty authorized by this section, any Person, partnership, or corporation convicted of violating any of the provisions of this chapter shall be required to bear the expense of any work or restoration performed by the City pursuant to an order from an administrative proceeding. Properties which require correction by the City are subject to liens for the work completed by the City.

#### 13.78.130 - Separability.

The provisions and sections of this chapter shall be deemed to be separable, and the invalidity of any portion of this chapter shall not affect the validity of the remainder.

### Chapter 13.80 - ILLICIT DISCHARGES AND CONNECTIONS

#### **Sections:**

#### 13.80.010 - Purpose/Intent.

The purpose of this chapter is to provide for the health, safety, and general welfare of the citizens of the City through the regulation of non-Storm Water Discharges to the Storm Drainage System to the MEP as required by federal and state law. This chapter establishes methods for controlling the introduction of Pollutants into the MS4 to comply with requirements of the NPDES Permit process. The objectives of this chapter are:

1. To regulate the contribution of Pollutants to the MS4 by Storm Water Discharges by any user.
2. To prohibit Illicit Connections and Discharges to the MS4.

3. To establish legal authority to carry out all inspection, surveillance, and Monitoring procedures necessary to ensure compliance with this chapter.

(Ord. No. 2010-02, 1-13-2010; Ord. No. 2013-18, 12-5-2013)

#### 13.80.020 - Definitions.

For the purposes of this chapter, the definitions in Section 13.76.020 apply.

#### 13.80.030 - Applicability.

This chapter shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted by an Authorized Enforcement Agent.

#### 13.80.040 - Responsibility for Administration.

City, county, state, and federal authorities (as defined as "Authorized Enforcement Agent") shall administer, implement, and enforce the provisions of this chapter. Any powers granted or duties imposed upon the City may be delegated in writing by the City Engineer to persons or entities acting in the beneficial interest of or in the employ of the City.

#### 13.80.050 - Severability.

If any provision, clause, sentence, or paragraph of this chapter or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this chapter.

#### 13.80.060 - Ultimate Responsibility.

The standards set forth herein and promulgated pursuant to this chapter are minimum standards; therefore, this chapter does not intend nor imply that compliance with these standards by any Person will ensure that there will be no contamination, pollution, nor unauthorized Discharge of Pollutants.

#### 13.80.070 - Discharge Prohibitions.

- A. Prohibition of Illegal Discharges. All Persons are prohibited from discharging or causing to be Discharged into the MS4 or Watercourses any materials, including but not limited to Pollutants or waters containing any Pollutants, other than Storm Water, has violated this ordinance.
- B. The commencement, conduct or continuance of any illegal Discharge to the storm drain system is prohibited, except as described as follows:
  1. Uncontaminated water line flushing or other potable water sources;
  2. Uncontaminated landscape irrigation or lawn watering;
  3. Diverted stream flows;
  4. Rising Ground Water;

5. Ground Water infiltration to storm drains;
  6. Uncontaminated springs or pumped Ground Water;
  7. Uncontaminated foundation or footing drains;
  8. Uncontaminated crawl space pumps or air conditioning condensation;
  9. Individual residential car washing;
  10. Natural riparian habitat or wetland flows;
  11. Swimming pools (if dechlorinated - typically less than one PPM chlorine);
  12. Dye-testing, if verbal notification is provided to the Authorized Enforcement Agent prior to the time of the test; and
  13. Emergency fire fighting activities or Discharges specified in writing by the authorized enforcement agent as being necessary to protect public health and safety.
- C. The prohibition does not apply to any non-Storm Water Discharge permitted under an NPDES Permit, waiver, or waste Discharge order issued to the Discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the Permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any Discharge to the storm drain system.
- D. Sanitary sewer overflows are expressly prohibited from entering the MS4, and must be immediately reported to the City Engineer or other Authorized Enforcement Agent. Removal and clean-up of such overflows must be immediately undertaken when they occur.
- E. Prohibition of Illicit Connections.
1. The construction, use, Maintenance, or continued existence of Illicit Connections to the storm drain system is prohibited.
  2. This prohibition expressly includes, without limitation, Illicit Connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
  3. A Person violates this chapter if having ownership or control over a sewage line, such sewage line conveys or discharges sewage into the MS4.

#### 13.80.080 - Suspension of MS4 Access.

- A. Suspension Due to Illicit Discharges in Emergency Situations. The City may, without prior notice, suspend MS4 Discharge access to a Person when such suspension is necessary to stop an actual or threatened Discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the Authorized Enforcement Agent may take such steps as deemed necessary to prevent or minimize damage to the MS4 or waters of the United States, or to minimize danger to persons.
- B. Suspension Due to the Detection of Illicit Discharge. Any Person discharging to the MS4 in violation of this chapter may have their MS4 access terminated if such termination would abate or reduce an illicit Discharge. The Authorized Enforcement Agent shall notify a violator of the proposed termination of its MS4 access. Pursuant to South Salt Lake City Ordinance 2.22, the violator may appeal the proposed termination of its MS4 access.
- C. Unauthorized Reinstatement. A Person violates this chapter if the Person reinstates MS4 access to premises terminated pursuant to this section, without the prior approval of the Authorized Enforcement Agent.

#### 13.80.090 - Industrial or Construction Activity Discharges.

Any Person subject to a State Industrial or Construction General Permit shall comply with all provisions of such Permit. Industrial and high-risk users are subject to inspections and reporting requirements, as provided in the City's SWMP. Proof of compliance with said Permit may be required in a form acceptable to the City prior to the allowing of Discharges to the MS4.

#### 13.80.100 - Monitoring of Discharges.

- A. Applicability. This section applies to all facilities that have Storm Water Discharges associated with Industrial Activity, including Construction Activity.
- B. Access to Commercial and Industrial Facilities.
  - 1. Facility operators shall permit the Authorized Enforcement Agent to enter and inspect facilities subject to regulation under this chapter as often as may be necessary to determine compliance with this chapter. 2. Facility operators shall allow the Authorized Enforcement Agent ready access to all parts of the Premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of a Permit to Discharge Storm Water, and the performance of any additional duties as defined by state and federal law.
  - 3. An Authorized Enforcement Agent may set up on any permitted facility such devices as are necessary in the opinion of the Authorized Enforcement Agent to conduct Monitoring and/or sampling of the facility's Storm Water Discharge.
  - 4. An Authorized Enforcement Agent may require the discharger to install monitoring equipment as necessary. The discharger shall maintain the facility's sampling and monitoring equipment at all times in a safe and proper operating condition at its own expense. The discharger shall calibrate all devices used to measure Storm Water flow and quality to ensure their accuracy.
  - 5. At the request of an Authorized Enforcement Agent, the operator shall promptly remove and not replace any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled. The operator shall bear the costs of clearing such access.
  - 6. Unreasonable delays in allowing an Authorized Enforcement Agent access to a permitted facility is a violation of this chapter. The operator of a facility with a NPDES Permit to Discharge Storm Water associated with Industrial Activity commits an offense if the operator denies the Authorized Enforcement Agent reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this chapter.
  - 7. If the Authorized Enforcement Agent has been refused access to any part of the Premises from which Storm Water is Discharged and is able to demonstrate probable cause to believe that there may be a violation of this chapter; that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this chapter or any order issued hereunder; or to protect the overall public health, safety, and welfare of the community, then the Authorized Enforcement Agent may seek issuance of a search warrant from any court of competent jurisdiction.

#### 13.80.110 - Requirement to Prevent, Control, and Reduce Storm Water Pollutants by Use of Best Management Practices.

- A. The owner or operator of a commercial or industrial facility shall provide, at their own expense, reasonable protection from accidental Discharge of prohibited materials or other wastes into the municipal storm drain system or Watercourses through the use of these structural and non-structural BMPs. The owner or operator shall bear the expense of all Maintenance and annual inspections of BMPs.
- B. Any Person responsible for a property or premises, which is, or may be, the source of an Illicit Discharge, may be required to implement, at that Person's expense, additional structural and non-structural BMPs to prevent the further Discharge of Pollutants to the MS4.

- C. Compliance with all terms and conditions of a valid Industrial General Permit, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a SWPP as necessary for compliance with requirements of the NPDES Permit.

#### 13.80.120 - Watercourse Protection.

Every Person owning, licensing, or leasing property through which a Watercourse passes shall keep and maintain that part of the Watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the Watercourse. In addition, the owner, licensee, or lessee shall maintain existing privately-owned structures within or adjacent to a Watercourse, so that such structures will not compromise the use, function, or physical integrity of the Watercourse.

#### 13.80.130 - Notification of Spills.

Notwithstanding other requirements of law, as soon as any Person responsible for a facility or operation, or responsible for the emergency response of that facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal Discharges or Pollutants discharging into Storm Water, the storm drain system, or Water of the State., said Person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of Hazardous Materials said Person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-Hazardous Materials, said Person shall notify the Authorized Enforcement Agent in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City within three business days of the phone notice. If the Discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the Discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least five years and provided to the authorized agent upon request.

#### 13.80.140 - Enforcement.

- A. Enforcement Actions. Whenever the City Engineer, in consultation with the City Attorney, has reason to believe that a person has violated or is violating a prohibition or failed to meet a requirement of this chapter, the City may pursue any and all remedies under the law to obtain compliance.
- B. Each Day a Separate Offense. Any person found responsible in a civil proceeding of violating any provision of this chapter shall be deemed responsible for a separate violation of this ordinance for each day during which any violation of any of the ordinance is committed, continued, or permitted, and may be fined a maximum of one thousand dollars (\$1,000.00) for each of those violations.
- C. Culpability of Responsible Person. When imposing fines, the City shall take into consideration whether the act was committed intentionally, knowingly, or recklessly as opposed to negligently. violation, this shall constitute prima facie evidence that further violations or the continuation of the violation are committed Intentionally.
- D. Increased Penalty for Discharge of Hazardous Materials. A person who Discharges Hazardous Materials in violation of this chapter, regardless of whether that act was committed Intentionally, Knowingly, Recklessly, or negligently, shall be subject to higher fines than one who Discharges Pollutants that are not considered Hazardous Materials, due to the added harm that Hazardous Materials contribute to the environment and the City's added expense of Monitoring and abating those Discharges.
- E. Increased Penalty for Repeat Offenders. A person who violates a provision of this chapter is subject to higher penalties if that person has been found to have violated a provision of this chapter within the previous three years. For purposes of this section, a previous violation includes an uncontested civil citation, an order from the administrative court upholding a citation or notice of violation, or a criminal conviction.

#### 13.80.150 - Criminal Prosecution.



Any person that has Intentionally, Knowingly, Recklessly, or Negligently violated or continues to violate this chapter shall be liable to criminal prosecution to the fullest extent of the law and shall be guilty of a class B misdemeanor. The City may recover all attorney fees, court costs, and other expenses associated with enforcement of this chapter, including sampling and Monitoring expenses.

#### 13.80.160 - Notice of Violation and Summons.

- A. Whenever the City finds that a person has violated a prohibition or failed to meet a requirement of this chapter, the City may order compliance by written notice of violation to the Responsible Person. Such notice may require without limitation:
  - 1. The performance of Monitoring, analyses, and reporting;
  - 2. An order to eliminate Illicit Connections or Discharges;
  - 3. That violating Discharges, practices, or operations shall cease and desist;
  - 4. Abatement or remediation of Storm Water pollution or contamination hazards and the restoration of any affected property;
  - 5. Imposition of fines and fees to cover administrative and remediation costs; and
  - 6. Requirement to implement Control Measures, including but not limited to treatment BMPs.
- B. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work may be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.
- C. The notice of violation and summons shall be issued in accordance with the provisions of Section 8.14.310 of this ordinance, and served in accordance with Section 8.14.120 of this ordinance.
- D. When a person has been served with a notice of violation and summons, that person shall be directed to attend a hearing before the City's administrative law judge to make final administrative determinations. The administrative law judge has authority to assess civil fines and order abatement of the violation, as provided in Chapter 2.22 of this ordinance. Fines shall be in the amount established in the consolidated fee schedule.
- E. When a Responsible Person who, after receiving notification of an administrative hearing as provided in this section, fails to appear at the hearing, the administrative law judge shall accept evidence in that person's absence. If the administrative law judge upholds the violation alleged in the notice of violation and summons, the administrative law judge shall enter an administrative order requiring the action demanded in the City's notice of violation and summons, shall assess fines and fees, and may grant the City authority to enter the property to abate the violation if the responsible person fails to do so by the deadline established in the notice of violation and summons.
- F. If the City abates a violation, it shall comply with the provisions of Sections 8.14.360 and 8.14.380 of this ordinance, as well as any applicable state laws relating to filing liens or garnishments upon the abated property.

#### 13.80.162 - Emergency Abatement on Private Property.

If the Authorized Enforcement Agent determines that a Discharge from private property, which requires entry onto the property to stop the Discharge, constitutes an imminent threat to the health or safety of the community, he may take immediate action to abate the violation.

#### 13.80.170 - Administrative Citation.

- A. Whenever the City finds that a person has violated a prohibition or failed to meet a requirement of this chapter, the City may issue an administrative citation.

- B. The administrative citation shall comply with the content and notice provisions of Sections 8.14.210 and 8.14.120, respectively.
- C. Civil fees are due and payable immediately upon service of the administrative citation, and the provisions of Section 8.14.220 shall apply to administrative citations issued under this chapter. Fines shall be in the amount established in the consolidated fee schedule.
- D. A Responsible Person that has received an administrative citation shall have the right to contest the citation at an administrative hearing. A request for hearing shall comply with Section 2.22.040 of this ordinance. The failure to request an administrative hearing shall constitute a waiver of the right to a hearing and a waiver of the right of appeal.

#### 13.80.180 - Injunctive Relief.

It is unlawful for any person to violate any provision or fail to comply with any of the requirements of this chapter. If a person has violated or continues to violate the provisions of this chapter, the City may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

#### 13.80.190 - Compensatory Action.

In lieu of enforcement proceedings, penalties, and remedies authorized by this chapter, the City may require a Responsible Person to perform alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc.

#### 13.80.200 - Violations Deemed a Public Nuisance.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this chapter is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

#### 13.80.210 - Remedies not Exclusive.

The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the City to seek cumulative remedies.

### **SECTION II. Enact Chapter 13.79 as follows:**

#### **Chapter 13.79 - POST-CONSTRUCTION STORMWATER MANAGEMENT MEASURES**

##### 13.79.010 – Policy

Property owners shall use a combination of structural and nonstructural Stormwater Management Measures to minimize the discharge of stormwater to the MS4 and to achieve flood control, groundwater recharge, and pollutant reduction. Property owners shall select and develop stormwater BMPs based on physical site conditions and the origin, nature, and anticipated quantity and quality of pollutants. Multiple Stormwater Management Measures may be necessary to achieve established performance standards for water quality, quantity, and groundwater recharge.

##### 13.79.020 – Purpose

The purpose of this Chapter 13.79 is to establish minimum long-term stormwater-management requirements and controls for new development and redevelopment in the City.

##### 13.79.030 – Applicability

The provisions of this Chapter 13.79 apply to new development and redevelopment projects that discharge to the MS4 with a land disturbance of greater than or equal to one acre, including projects that are less than one acre but are part of a common plan of development or sale with a land disturbance greater than one acre.

#### 13.79.040 – Site Plans

A. Property owners subject to this Chapter 13.79 shall develop a site plan for development that demonstrate that the development or redevelopment project meets the standards set forth in this ordinance.

B. The site plan shall include the following information:

1. Assessment of the water-quality impacts of the project;
2. Description of nonstructural and structural Stormwater Management Measures to be employed through the life of the project from commencing land disturbance to post-construction Stormwater Management Measures;
3. A topographic base map extending at least 200 feet beyond the limits of the proposed development that includes the following information: existing surface-water drainage, shorelines, steep slopes, soils, erodible soils, perennial or intermittent streams, wetlands, pervious or vegetative surfaces, impervious surfaces, existing man-made structures, and significant natural and man-made features not otherwise shown;
4. An environmental analysis consisting of a written and graphic description of the natural and man-made features of the project site and its immediately surrounding environs. The written description shall include, as appropriate to the site conditions, a discussion of soil conditions, slopes, wetlands, waterways, and vegetation on the project site. Particular attention should be given to unique, unusual, or environmentally sensitive features; and
5. A project description, including map(s), at the scale of the topographical base map indicating the location of existing and proposed buildings, roads, parking areas, utilities, structural facilities for stormwater-management, and other permanent structures.

C. The property owner shall submit the site plan to the City Engineer for review and approval.

D. The City Engineer may waive submission of any of the requirements of the site plan listed in subsection B of this provision when the property owner can demonstrate:

1. that the required information cannot be obtained or that obtaining the required information would impose a hardship on the property owner; and
2. that the absence of the required information will not materially affect the site plan review process.

#### 13.79.050 – Standards for Nonstructural Stormwater Management Measures

A. To the maximum extent practicable, property owners shall use nonstructural Stormwater Management Measures to reduce the discharge of stormwater to the MS4 and to achieve flood control, groundwater recharge, and pollutant reduction.

B. Nonstructural Stormwater Management Measures shall:

1. Protect areas that provide water-quality benefits and areas that are particularly susceptible to erosion or sediment loss;
2. Minimize impervious surfaces and break up or disconnect the flow of runoff from impervious surfaces;
3. Maximize the protection of natural drainage features and vegetation;

4. Provide low-maintenance landscaping that encourages retention and the planting of native vegetation and minimizes the use of fertilizers and pesticides;
5. Provide vegetated open-channel conveyance systems discharging into and through stable vegetated areas; and
6. Provide other source controls to prevent or minimize the use or exposure of pollutants at the site to prevent the release of pollutants to the MS4 including, but not limited to:
  - a. Site design features that prevent accumulation of trash and debris in drainage systems;
  - b. Site design features that prevent the discharge of trash and debris from drainage systems; and
  - c. Site design features that prevent or contain spills or other harmful accumulations of pollutants at industrial or commercial development sites.

#### 13.79.060 – Standards for Structural Stormwater Management Measures

A. Structural Stormwater Management Measures shall be designed to take into account existing site conditions, including, but not limited to, environmentally critical areas; wetlands; flood-prone areas; slopes; depth to seasonal high-water table; soil type, permeability, and texture; and drainage area and drainage patterns.

B. Structural Stormwater Management Measures shall be designed to minimize maintenance, facilitate maintenance and repairs, and ensure proper functioning.

C. Structural Stormwater Management Measures shall be designed, constructed, and installed to be strong and corrosion resistant.

#### 13.79.070 – Maintenance of Stormwater Management Measures

A. Property owners shall maintain in good condition and promptly repair and restore all Stormwater Management Measures, maintenance access routes and appurtenances, including, but not limited to, surfaces, walls, drains, dams, structures, vegetation, erosion and sediment-control practices, and other stormwater maintenance facilities.

B. Property owners shall perform preventative and corrective measures to maintain the functioning of all Stormwater Management Measures, including, but not limited to, repair or replacement of Stormwater Management Measures; sediment, debris, and trash removal; restoration of eroded areas; snow and ice removal; fence repair or replacement; and vegetation restoration.

#### 13.79.080 - Failure to Maintain

A. If the property owner fails to maintain Stormwater Management Measures in accordance with the provisions of this ordinance and the Maintenance Agreement, an Authorized Enforcement Agent may perform any corrective work after 30 days' written notice.

B. The 30-day notice requirement is waived if an Authorized Enforcement Agent determines that the violation constitutes an immediate risk to the public health, safety, or the environment. Upon an immediate-risk determination, the Authorized Enforcement Agent may enter the premises to perform any necessary corrective work on 24 hours' notice to the property owner.

C. If the City performs repairs, remediation, or maintenance work in accordance with the provisions of this ordinance or other applicable ordinances, the City may assess the property owner for

the cost of corrective work and any applicable penalties or administrative fees. The City shall assess the cost of any corrective work as a lien on the property.

#### 13.79.090 – Recordkeeping

Property owners shall make records of the installation, maintenance, and repairs of all Stormwater Management Measures and shall retain these records onsite for at least 5 years. The property owner shall make these records available to the Authorized Enforcement Agent during inspections and shall furnish them to the City upon request.

**SECTION III. Severability.** If any section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

**SECTION IV. Conflict with Existing Ordinances, Resolutions, or Policies.** To the extent that any ordinances, resolutions, or policies of the City of South Salt Lake conflict with the provisions of this ordinance, this ordinance shall prevail.

**SECTION V. Effective Date.** This ordinance shall become effective upon transmission to the office of the Mayor, and upon either the Mayor's signature and publication, or after fifteen days of transmission to the office of the Mayor if neither approved nor disapproved by the Mayor, and thereafter, publication.

DATED this \_\_\_\_ day of \_\_\_\_\_ 2019.

BY THE CITY COUNCIL:

\_\_\_\_\_  
Ben Pender, Council Chair

ATTEST:

\_\_\_\_\_  
Craig D. Burton, City Recorder

City Council Vote as Recorded:

Bynum	_____
deWolfe	_____
Kindred	_____
Mila	_____
Pender	_____
Siwik	_____
Thomas	_____

Transmitted to the Mayor's office on this \_\_\_\_\_ day of \_\_\_\_\_ 2019.

\_\_\_\_\_  
Craig D. Burton, City Recorder

MAYOR'S ACTION: \_\_\_\_\_



Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

ATTEST:

\_\_\_\_\_  
Cherie Wood, Mayor

\_\_\_\_\_  
Craig D. Burton, City Recorder