



# Farmington City Planning Commission

June 7, 2018



## AGENDA PLANNING COMMISSION MEETING

June 7, 2018

Public Meeting at the Farmington City Hall, 160 S. Main Street, Farmington, Utah

*Study Session: 6:30 p.m. – Conference Room 3 (2<sup>nd</sup> Floor)*

**Regular Session: 7:00 p.m. – City Council Chambers (2<sup>nd</sup> Floor)**

*(Please note: In order to be considerate of everyone attending the meeting and to more closely follow the published agenda times, public comments will be limited to 3 minutes per person per item. A spokesperson who has been asked by a group to summarize their concerns will be allowed 5 minutes to speak. Comments which cannot be made within these limits should be submitted in writing to the Planning Department prior to noon the day before the meeting.)*

1. Minutes
2. City Council Report

### SUBDIVISION

3. Jared Schmidt / Symphony Homes – Applicant is requesting final plat approval of the Eastridge Estates Phase II Conservation Subdivision consisting of 2 lots on 3.87 acres of property located at approximately 1500 South and 200 East in an LR-F (Large Residential – Foothill) zone. (S-4-17)
4. Jerry Preston / Elite Craft Homes – Applicant is requesting a recommendation for schematic plan approval of the proposed Makin Subdivision consisting of 4 lots on .86 acres of property located on the southeast corner of 650 West and Glover Lane in an AE (Agriculture Estates) zone. (S-9-18)

### ZONING MAP AMENDMENT

5. Scott Adamson (Public Hearing) – Applicant is requesting a recommendation for rezone approval of 2.17 acres of property located at 1234 W. Glover Lane from an AA (Agricultural Very Low Density) to an A (Agriculture) zone. (Z-5-18)

### ZONE TEXT AMENDMENT

6. Symphony Homes (Public Hearing) – Applicant is requesting a recommendation for zone text amendment to Section 11-12-090 (Chapter 12) of the Zoning Ordinance related to setback standards for side-loaded garages in conservation subdivisions. (ZT-3-18)

## GENERAL PLAN AMENDMENT

7. Farmington City (Public Hearing) - Applicant is requesting approval to amend the General Plan by adding the recently completed Farmington Linkage Study regarding future I-15/US 89 pedestrian crossing options in the vicinity of the Park Lane Interchange as an appendix to the Farmington City Master Transportation Plan, an element of the City's General Plan. (MP-3-18)

## OTHER

8. Miscellaneous, correspondence, etc.
  - a. Other
9. Motion to Adjourn

*Please Note: Planning Commission applications may be tabled by the Commission if: 1. Additional information is needed in order to take action on the item; OR 2. if the Planning Commission feels there are unresolved issues that may need additional attention before the Commission is ready to make a motion. No agenda item will begin after 10:00 p.m. without a unanimous vote of the Commissioners. The Commission may carry over Agenda items, scheduled late in the evening and not heard to the next regularly scheduled meeting.*

Posted June 4, 2018

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Eric Anderson  
City Planner

**JOINT CITY COUNCIL/PLANNING COMMISSION WORK SESSION:** A work session will be held at 6:00 p.m. in Conference Room #3, Second Floor, of the Farmington City Hall, 160 South Main Street. The work session will be to get training on land use issues and Municipal Ethics and to answer any questions the City Council may have on agenda items. The public is welcome to attend.

## **FARMINGTON CITY COUNCIL MEETING NOTICE AND AGENDA**

Notice is hereby given that the City Council of **Farmington City** will hold a regular City Council meeting on **Tuesday, June 5, 2018, at 7:00 p.m.** The meeting will be held at the Farmington City Hall, 160 South Main Street, Farmington, Utah.

*Meetings of the City Council of Farmington City may be conducted via electronic means pursuant to Utah Code Ann. § 52-4-207, as amended. In such circumstances, contact will be established and maintained via electronic means and the meeting will be conducted pursuant to the Electronic Meetings Policy established by the City Council for electronic meetings.*

The agenda for the meeting shall be as follows:

### **CALL TO ORDER:**

7:00 Roll Call (Opening Comments/Invocation) Pledge of Allegiance

### **PRESENTATIONS:**

7:05 Introduction of 3 New Police Officers and Administration of Oath of Office

7:15 Recognition of Eric Johnsen for 10 Years of Dedicated Service to the Police Department

7:20 Presentation of City Council “Top Shooter” Awards

### **PUBLIC HEARINGS:**

7:25 Boundary Adjustment with Kaysville City – Ken Stuart Property

7:35 Plat Amendments to Farmington Meadows Phases I and II and Rice Farms Phase V and Pheasant Hollow

7:45 Allow public input regarding (A) The issuance and sale of not more than \$1,300,000 aggregate principal amount of excise tax revenue bonds, Series 2018; and (B) Any potential economic impact that the project described herein to be financed with the proceeds of the Series 2018 Bonds issued under the act may have on the private sector and related matters.

**NEW BUSINESS:**

7:55 Rock Mill Estates Subdivision Street Light Proposal

8:05 Rock Mill Estates Subdivision Memo of Understanding and Development Agreement

**SUMMARY ACTION:**

*(Items listed are considered routine in nature and will be voted on in mass unless pulled for separate discussion)*

8:15 Minute Motion Approving Summary Action List

1. Approval of Minutes from May 15, 2018
2. General Plan Amendment Enabling Ordinance – Woodside Homes

**DISCUSSION ITEMS:**

8:20 Possible Code Enforcement Action – 335 East 830 South

8:30 Possible Notification Process Changes to Land Use Applications

8:40 High School Road Striping

**GOVERNING BODY REPORTS:**

8:50 City Manager Report

1. Fire Monthly Activity Report for April
2. Executive Summary for Planning Commission held May 17, 2018

8:55 Mayor Talbot & City Council Reports

*Minute motion adjourning to the Redevelopment Agency meeting.*

*(See RDA Agenda)*

*Minute motion to reconvene the City Council Meeting.*

**ADJOURN**

**CLOSED SESSION**

Minute motion adjourning to closed session, if necessary, for reasons permitted by law.

DATED this 31st day of May, 2018.

**FARMINGTON CITY CORPORATION**

By: \_\_\_\_\_  
Holly Gadd, City Recorder

**\*PLEASE NOTE:** Times listed for each agenda item are estimates only and should not be construed to be binding on the City Council.

*In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting, should notify Holly Gadd, City Recorder, 451-2383 x 205, at least 24 hours prior to the meeting.*



## Planning Commission Staff Report June 7, 2018

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### Item 3: Final Plat for Eastridge Estates Subdivision Phase II

Public Hearing:	No
Application No.:	S-10-17
Property Address:	Approx. 1500 South and 200 East
General Plan Designation:	LDR (Low Density Residential)
Zoning Designation:	LR-F (Large Residential – Foothill)
Area:	3.87 Acres
Number of Lots:	2
Property Owner:	Symphony Homes
Agent:	Jared Schmidt – Symphony Homes

Request: *Applicant is requesting final plat approval for Eastridge Estates Subdivision Phase II.*

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#### Background Information

The applicant desires to develop 3.87 acres of property located at approximately 1500 South and 200 East. Eastridge Estates Phase I was approved in 2014, and Phases II and III are a continuation of Phase I. The applicant received schematic plan approval for Phases II and III concurrently so that the master plan could be memorialized through a development agreement, and the parsed out phases could collectively qualify for a conservation subdivision.

In the LR zone, a property must have at least 10 acres of property to qualify for a conservation subdivision, therefore the applicant needed to consolidate Phases II and III into one schematic plan to qualify for a conservation subdivision. The schematic master plan for Phases II and III was approved in May of 2016, and has been attached for your review.

The yield plan shows that 29 lots could be built for both phases (II and III,) however, the layout of the yield plan was dependent on the mitigation of wetlands that exist over a significant portion of the property. As part of the conservation subdivision requirements, set forth in Chapter 12 of the Zoning Ordinance, the applicant is required to set aside 15% open space. The open space percentage requirement will be met through a portion of the regional detention basin in the western area of the property (near the Lagoon billboard), as it was for Phase I. Because the open space provided in the regional detention basin will be serving as a storm-water facility for other projects and properties beyond Eastridge Estates, it is desirable

to the City to obtain this property as open-space, and it will serve the City and meet a need as outlined on our City Storm Water Master Plan.

Although the yield plan allows for 29 lots, the applicant is proposing 26 total lots, 2 lots in Phase II, 8 lots in Phase III, and 16 lots in Phase IV. The proposed lot sizes and lot dimensions exceed the minimum requirement of 6,500 s.f. for a conservation subdivision in the LR zone significantly (Lot 201 is 82,462 s.f. and Lot 202 is 86,172 s.f.) On **April 19, 2018** the Planning Commission approved the preliminary plat unanimously; the proposed final plat is consistent with the preliminary plat, and the conditions for approval have been met.

### **Suggested Motion:**

Move that the Planning Commission approve the final plat for Eastridge Estates Conservation Subdivision Phase II subject to all applicable Farmington City ordinances and development standards and the following conditions:

1. The applicant shall enter into a development agreement memorializing the approved master plan prior to recordation of final plat;
2. All off-site easements will need recorded easements prior to construction;
3. The applicant shall provide 15% open space in the regional detention basin.

### **Findings for Approval:**

1. The proposed final plat meets the requirements of the subdivision and zoning ordinances.
2. The open space being traded to the City for a regional detention basin is desirable because it provides a regional facility for the southeastern portion of Farmington, and the open space would not be desirable within the subdivision boundaries of Phase II.
3. The area where the regional detention basin is to go is development restricted and leaving it as open space that also benefits the City is preferable to including it as part of the subdivision design.

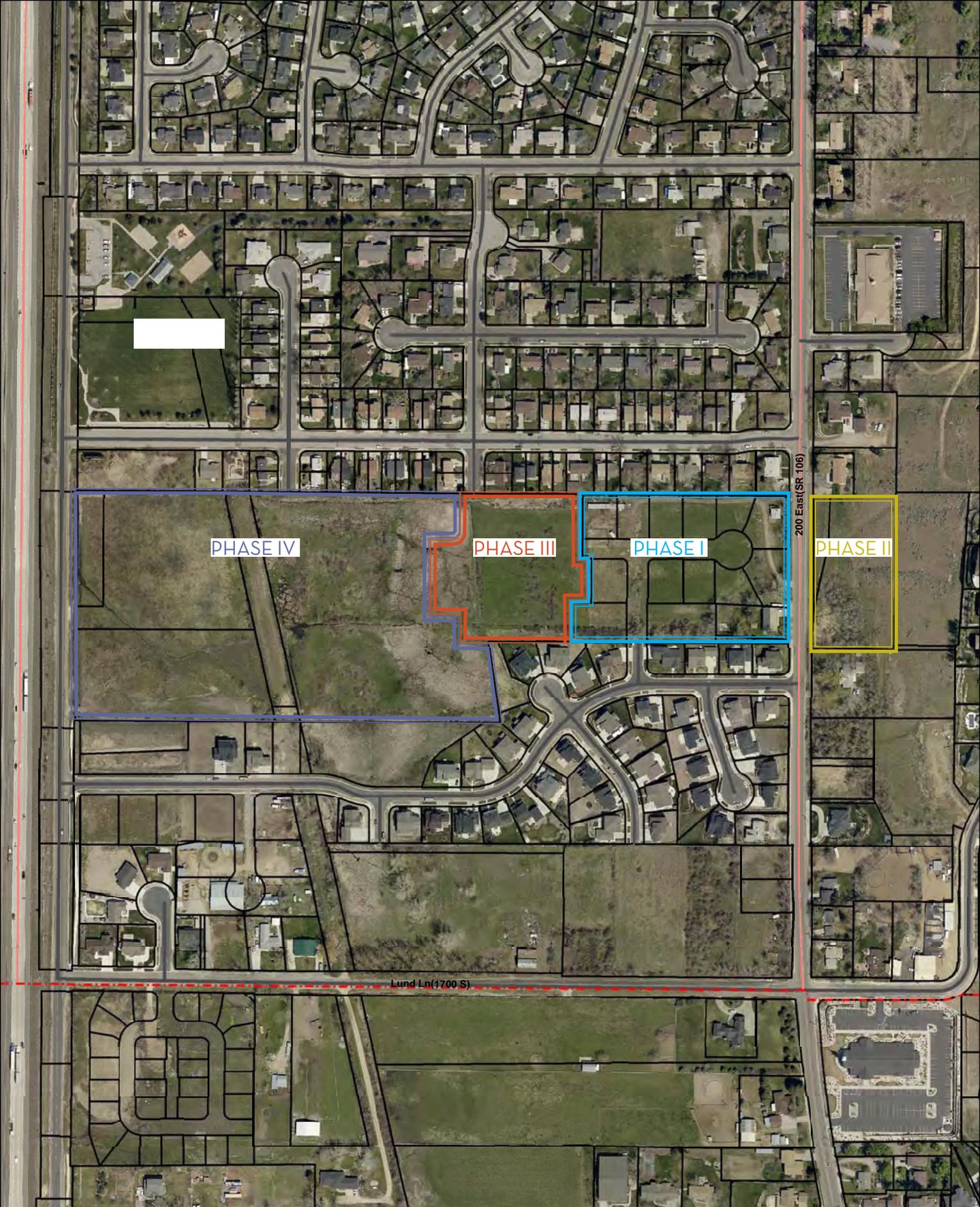
### **Supplemental Information**

1. Vicinity Map
2. Final Plat

### **Applicable Ordinances**

1. Title 12, Chapter 6 – Major Subdivisions
2. Title 12, Chapter 7 – General Requirements for All Subdivisions
3. Title 11, Chapter 11 – Single Family Residential Zones
4. Title 11, Chapter 12 – Conservation Subdivisions
5. Title 11, Chapter 30 – Foothill Development Standards

# Farmington City



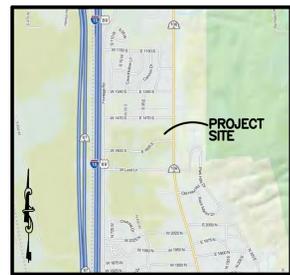
SHEET  
**1 of 3**

# FARMINGTON EASTRIDGE ESTATES - PHASE 2 A CONSERVATION SUBDIVISION

PART OF THE NORTH HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 1 EAST,  
SALT LAKE BASE AND MERIDIAN, U.S. SURVEY  
CITY OF FARMINGTON, DAVIS COUNTY, UTAH  
APRIL, 2018

**ZONING**  
LR ZONE  
PROPOSED USE: 2 LOT  
SUBDIVISION

**DEVELOPER**  
SYMPHONY HOMES  
526 NORTH 400 WEST  
NORTH SALT LAKE  
CITY, UT 84054



**VICINITY MAP**  
NOT TO SCALE

**BASIS OF BEARINGS**

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE NORTH QUARTER SECTION LINE, BETWEEN THE NORTH QUARTER CORNER (FOUND) AND THE CENTER QUARTER CORNER (CALCULATED FROM WITNESS CORNER), OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY. SHOWN HEREON AS S00°15'20"W

**BOUNDARY DESCRIPTION**

PART OF THE NORTH HALF OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY. MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE CALCULATED NORTH QUARTER SECTION LINE BETWEEN THE NORTH QUARTER CORNER AND THE CENTER QUARTER CORNER (CALCULATED FROM FOUND WITNESS CORNER), SAID POINT BEING S00°15'20"W ALONG SAID LINE, 907.51 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 31; AND RUNNING THENCE N89°33'40"E 198.14 FEET TO THE NORTHWEST CORNER OF TUSCAN COVE SUBDIVISION; THENCE S03°41'21"W ALONG SAID WEST LINE, 415.65 FEET; THENCE N89°44'40"W 173.23 FEET TO A POINT ON SAID NORTH QUARTER SECTION LINE OF SECTION 31; THENCE S00°15'21"W ALONG SAID LINE, 14.23 FEET TO A POINT ON AN EXISTING FENCE; THENCE N89°08'31"W ALONG THE EXTENSION OF SAID FENCE, 222.65 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF 200 EAST STREET; THENCE N00°03'35"W ALONG SAID EASTERLY RIGHT-OF-WAY LINE, 409.23 FEET; THENCE S89°44'40"E 224.89 FEET TO A POINT ON SAID NORTH QUARTER SECTION LINE OF SECTION 31; THENCE N00°15'20"E ALONG SAID LINE, 15.17 FEET TO THE POINT OF BEGINNING.

CONTAINING 168,634 SQUARE FEET OR 3.871 ACRES MORE OR LESS

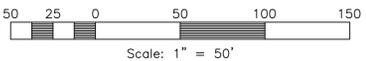
TOGETHER WITH:  
A PART OF THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 3 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT BEING S00°15'20"W 924.06 FEET AND N89°44'40"W 2014.35 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 31; THENCE S00°11'01"W 317.60 FEET; THENCE N89°48'54"W 79.75 FEET; THENCE N00°11'01"E 317.34 FEET; THENCE N90°00'00"E 79.75 FEET TO THE POINT OF BEGINNING.

CONTAINING 25,318 SQUARE FEET OR 0.581 ACRES MORE OR LESS

**LEGEND**

- = SECTION CORNER
- = WITNESS MONUMENT
- = SET 5/8" REBAR & PLASTIC CAP STAMPED "REEVE & ASSOCIATES"
- = PUBLIC UTILITY EASEMENT
- = BOUNDARY LINE
- = LOT LINE
- = ADJOINING PROPERTY
- = ROAD CENTERLINE
- = EXISTING FENCE
- = 10' PUBLIC UTILITY EASEMENT
- = FAULT LINE EASEMENT
- = FAULT LINE
- = 20' ACCESS EASEMENT

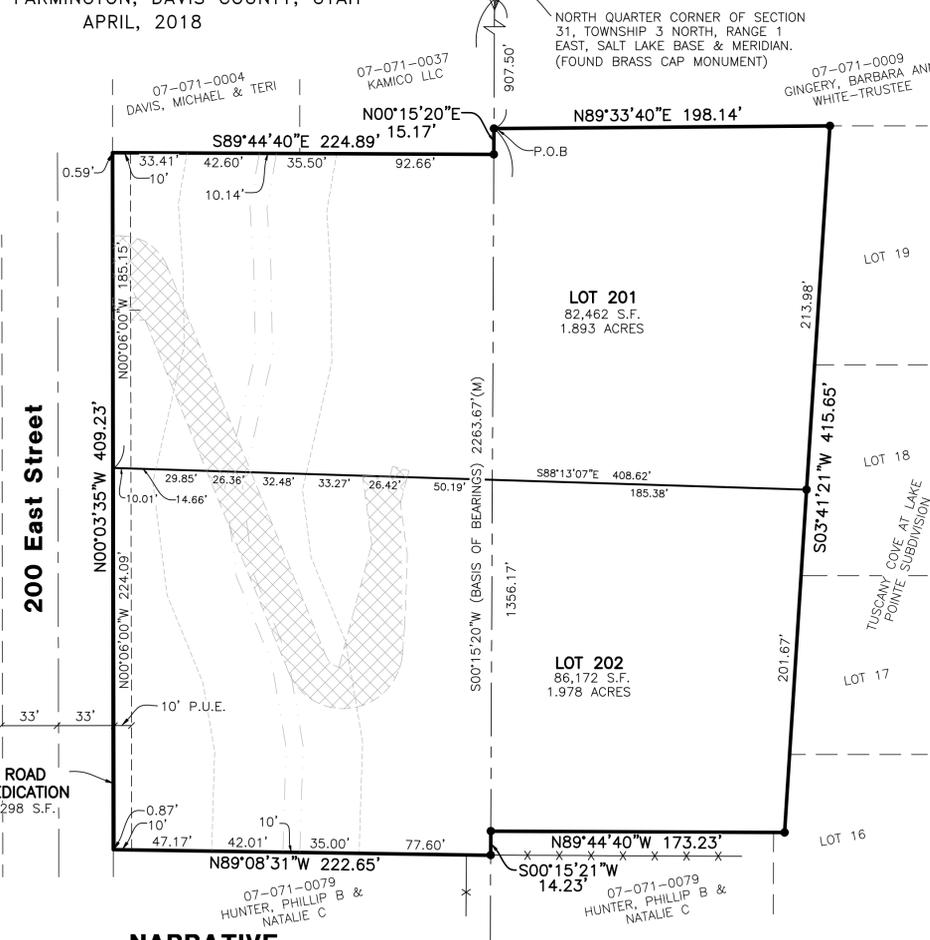


**NOTES**

1. A SOILS REPORT, BY GSH GEOTECHNICAL, INC. (JOB #1458-01N-13 DATED OCT. 1, 2013), HAS BEEN PREPARED AND SUBMITTED TO THE CITY FOR THE PROPOSED SUBDIVISION IN ACCORDANCE WITH THE PROVISIONS OF THIS TITLE
2. A SURFACE FAULT RUPTURE HAZARD ASSESSMENT, BY CMT ENGINEERING LABORATORIES, (CMT PROJECT NO. 10240 DATED SEPT. 18, 2017) HAS BEEN PREPARED AND SUBMITTED TO THE CITY FOR THE PROPOSED SUBDIVISION WITH ACCORDANCE WITH THE PROVISIONS OF THIS TITLE.
3. FAULT LINE AND FAULT LINE EASEMENT DIMENSIONS SHOWN ON SHEET 2
4. SHARED ACCESS EASEMENT DIMENSIONS SHOWN ON SHEET 2

**NARRATIVE**

THE PURPOSE OF THIS PLAT WAS TO DIVIDE THE SUBJECT PROPERTY IN TO TWO LOTS AS SHOWN. THE WEST BOUNDARY LINE WAS DETERMINED BY THE EASTERLY RIGHT-OF-WAY LINE OF 200 EAST STREET. THE NORTH AND SOUTH BOUNDARY LINES WERE DETERMINED BY THE MONUMENT LINE BETWEEN THE NORTH QUARTER CORNER AND A FOUND WITNESS MONUMENT TO THE CENTER QUARTER CORNER, WHICH WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY, AND ALSO BY DEED USING THE MONUMENTS SHOWN HEREON. THE EAST BOUNDARY LINE WAS DETERMINED BY THE WEST LINE OF TUSCAN COVE SUBDIVISION. ALL BOUNDARY CORNERS AND REAR LOT CORNERS WERE SET WITH A 3/8" REBAR AND PLASTIC CAP STAMPED "REEVE & ASSOCIATES". ALL FRONT LOT CORNERS WERE SET WITH A LEAD PLUG IN THE TOP BACK OF CURB AT THE EXTENSION OF THE SIDE LOT LINES.

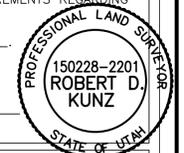


**SURVEYOR'S CERTIFICATE**

I, **ROBERT D. KUNZ**, DO HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF UTAH IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND PROFESSIONAL LAND SURVEYORS ACT; AND THAT I HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17 AND HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THIS PLAT, AND THAT THIS PLAT OF **FARMINGTON EASTRIDGE ESTATES-PHASE 2** IN **FARMINGTON CITY, DAVIS COUNTY, UTAH**, HAS BEEN DRAWN CORRECTLY TO THE DESIGNATED SCALE AND IS A TRUE AND CORRECT REPRESENTATION OF THE HEREIN DESCRIBED LANDS INCLUDED IN SAID SUBDIVISION, BASED UPON DATA COMPILED FROM RECORDS IN THE **DAVIS COUNTY** RECORDER'S OFFICE AND FROM SAID SURVEY MADE BY ME ON THE GROUND, I FURTHER CERTIFY THAT THE REQUIREMENTS OF ALL APPLICABLE STATUTES AND ORDINANCES OF **FARMINGTON, DAVIS COUNTY** CONCERNING ZONING REQUIREMENTS REGARDING LOT MEASUREMENTS HAVE BEEN COMPLIED WITH.

SIGNED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

150228-2201  
UTAH LICENSE NUMBER      **ROBERT D. KUNZ**



**OWNERS DEDICATION AND CERTIFICATION**

WE THE UNDERSIGNED OWNERS OF THE HEREIN DESCRIBED TRACT OF LAND, DO HEREBY SET APART AND SUBDIVIDE THE SAME INTO LOTS AND STREETS AS SHOWN ON THE PLAT AND NAME SAID TRACT **FARMINGTON EASTRIDGE ESTATES-PHASE 2** AND DO HEREBY DEDICATE TO PUBLIC USE ALL THOSE PARTS OR PORTIONS OF SAID TRACT OF LAND DESIGNATED AS STREETS, THE SAME TO BE USED AS PUBLIC THOROUGHFARES, AND ALSO DO GRANT AND DEDICATE A PERPETUAL RIGHT AND EASEMENT OVER, UPON AND UNDER THE LANDS DESIGNATED HEREON AS PUBLIC UTILITY, THE SAME TO BE USED FOR THE INSTALLATION MAINTENANCE AND OPERATION OF PUBLIC UTILITY SERVICE LINE, STORM DRAINAGE FACILITIES, WHICHEVER IS APPLICABLE AS MAY BE AUTHORIZED BY THE GOVERNING AUTHORITY, WITH NO BUILDINGS OR STRUCTURES BEING ERRECTED WITHIN SUCH EASEMENTS, AND DO HEREBY DEDICATE PARCEL "B" TO FARMINGTON CITY AS OPEN SPACE.

SIGNED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

**ACKNOWLEDGMENT**

STATE OF UTAH )ss.  
COUNTY OF \_\_\_\_\_ )

ON THE \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, \_\_\_\_\_ (AND \_\_\_\_\_) SIGNER(S) OF THE ABOVE OWNER'S DEDICATION AND CERTIFICATION, WHO BEING BY ME DULY SWORN, DID ACKNOWLEDGE TO ME \_\_\_\_\_ SIGNED IT FREELY, VOLUNTARILY, AND FOR THE PURPOSES THEREIN MENTIONED.

COMMISSION EXPIRES \_\_\_\_\_ NOTARY PUBLIC \_\_\_\_\_

**ACKNOWLEDGMENT**

STATE OF UTAH )ss.  
COUNTY OF \_\_\_\_\_ )

ON THE \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, \_\_\_\_\_ (AND \_\_\_\_\_) BEING BY ME DULY SWORN, ACKNOWLEDGED TO ME THEY ARE \_\_\_\_\_ AND \_\_\_\_\_ OF SAID CORPORATION AND THAT THEY SIGNED THE ABOVE OWNER'S DEDICATION AND CERTIFICATION FREELY, VOLUNTARILY, AND IN BEHALF OF SAID CORPORATION FOR THE PURPOSES THEREIN MENTIONED.

COMMISSION EXPIRES \_\_\_\_\_ NOTARY PUBLIC \_\_\_\_\_

**BENCHLAND WATER DISTRICT**  
APPROVED BY BENCHLAND WATER DISTRICT  
THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_  
\_\_\_\_\_  
BENCHLAND WATER DISTRICT

**PLANNING COMMISSION APPROVAL**  
APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_ BY THE FARMINGTON CITY PLANNING AND ZONING COMMISSION.  
\_\_\_\_\_  
CHAIRMAN, FARMINGTON CITY PLANNING COMMISSION

**CITY COUNCIL APPROVAL**  
APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_ BY THE FARMINGTON CITY COUNCIL.  
\_\_\_\_\_  
FARMINGTON CITY MAYOR      ATTEST: \_\_\_\_\_  
CITY RECORDER

**SEWER DISTRICT APPROVAL**  
APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_ BY THE CENTRAL DAVIS SEWER DISTRICT.  
\_\_\_\_\_  
CENTRAL DAVIS SEWER DISTRICT

**CITY ATTORNEYS APPROVAL**  
APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_ BY THE FARMINGTON CITY ATTORNEY.  
\_\_\_\_\_  
FARMINGTON CITY ATTORNEY

**CITY ENGINEER'S APPROVAL**  
APPROVED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_ BY THE FARMINGTON CITY ENGINEER.  
\_\_\_\_\_  
FARMINGTON CITY ENGINEER      DATE \_\_\_\_\_

**PROJECT INFORMATION**  
Surveyor: **R. KUNZ**  
Designer: **D. CAVE**  
Begin Date: **4-6-2018**  
Project Name: **EASTRIDGE ESTATES PHASE 2**  
Number: **1864-41**  
Scale: **1"=50'**  
Revision: \_\_\_\_\_  
Sheet: **1 OF 3**

**DAVIS COUNTY RECORDER**  
ENTRY NO. \_\_\_\_\_ FEE PAID \_\_\_\_\_  
FILED FOR RECORD  
AND RECORDED, \_\_\_\_\_ AT \_\_\_\_\_  
IN BOOK \_\_\_\_\_ OF \_\_\_\_\_  
THE OFFICIAL RECORDS, PAGE \_\_\_\_\_  
RECORDED FOR: \_\_\_\_\_  
\_\_\_\_\_  
DAVIS COUNTY RECORDER  
\_\_\_\_\_  
DEPUTY.





## Planning Commission Staff Report June 7, 2018

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### Item 4: Makin Minor Subdivision

Public Hearing:	No (Public Hearing Held & Closed May 17, 2018)
Application No.:	S-9-18
Property Address:	SE Corner of 650 West & Glover Lane
General Plan Designation:	RRD (Rural Residential Density)
Zoning Designation:	AE (Agriculture Estates)
Area:	.86 acres
Number of Lots:	4
Property Owner:	Carolyn Makin
Agent:	Jerry Preston – Elite Craft Homes

Request: *Recommendation for plat approval for a minor subdivision.*

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### Background Information

Jerry Preston would like to subdivide the subject property into 4 lots and create the Makin Subdivision. Any subdivision that is not dedicating land, has less than 10 lots, and abuts a public street can be a minor subdivision. Minor subdivisions have a two-step process, schematic plan and final minor plat. Because the minimum lot size for a conventional subdivision in the AE zone is 1 acre, the applicant could get a yield of 1 lot; in order to do a 4 lot subdivision, he would need 3 TDR (Transfer of Development Rights) lots from the City, as set forth in Section 11-28-240.

The City Council adopted a zone text amendment at their **March 6, 2018** meeting that allows for the use of additional TDR lots (beyond what the ordinance already allows) to incentivize the improvement of blighted properties. The applicant in this case is seeking to employ this new ordinance to get the additional 3 TDR lots.

At the **May 17, 2018** Planning Commission meeting, staff mistakenly stated that the applicant would be utilizing the alternative lot size in this subdivision; however, the number of lots created using the alternative lot size cannot exceed the amount of lots obtained through a yield plan as set forth in Section 11-12-070, which in the AE zone, would require a minimum lot size of 1/2 acre (please note: the yield plan set forth for conservation subdivisions, in Chapter 12, is

different than the yield plan for conventional subdivisions, as set forth in Chapter 28). The subject property is .86 acres and would therefore have the same yield of a conventional subdivision in the AE zone, or 1 lot, and the applicant would not be able to utilize the alternative lot size. Regardless, the applicant would need to use 3 TDR lots to develop the proposed subdivision.

At that same meeting, much of the discussion centered around blight, and whether it is appropriate to require that the applicant complete a blight study at schematic plan. While the intent of the schematic plan is to review the lot size, lot layout, street network, and basic conformity to the Zoning Ordinance; the Planning Commission tabled the item to give the applicant time to get more clarity on the blight issue, and to possibly show an alternate proposal. The Building Official met with the applicant on-site and did find that the building would likely meet the criteria for blight (see attached memo). Based on this, the applicant has determined that the home will have to be removed, and has therefore elected to pursue the 4 lots as proposed.

### Suggested Alternative Motions

- A. Move that the Planning Commission recommend that the City Council approve the schematic plan for the Makin Minor Subdivision subject to all applicable Farmington City development standards and ordinances and the following conditions:
  - 1. The applicant must obtain special exception approval for the additional TDR lot;
  - 2. The applicant must perform a blight study, as defined and consistent with state code, and the City must establish a finding of blight prior to final minor subdivision consideration;
  - 3. The applicant shall obtain approval of the 3-lot TDR by a vote of not less than four (4) City Councilors at final minor subdivision or after a finding of blight has been approved, whichever comes first;
  - 4. The applicant shall amend the schematic plan to show the corrected 650 West right-of-way;
  - 5. The applicant shall provide the sizes for sewer, storm drain, and water lines on final plat.

### Findings for Approval

- 1. Lot dimensions comply with the standards set forth in the Zoning and Subdivision ordinances, provided that the City makes a finding of blight.
- 2. All lots front an existing fully improved public r.o.w. (650 West and Glover Lane).
- 3. The City will receive comparable compensation for lost open space in the form of a TDR transaction through cash payment, which enables the creation of the smaller lot size, and allows the City to use that open space in a better location elsewhere.

OR

- B. Move that the Planning Commission recommend that the City Council deny the schematic plan for the Makin Minor Subdivision.

Findings for Denial

1. The proposed density in the subdivision exceeds any found in the surrounding neighborhoods.
2. With the opening of Farmington High School, this location may not be suitable for four single family residential lots.
3. The proposed subdivision is inconsistent with the underlying zone, the General Plan, and the surrounding neighborhoods.

Supplemental Information

1. Vicinity Map
2. Schematic Plan
3. Memo Written By Eric Miller / Farmington City Building Official
4. State Code 17C-2-303 Conditions on board determination of blight

Applicable Ordinances

1. Title 11, Chapter 3 - Definitions
2. Title 11, Chapter 10 - Agriculture Zones
3. Title 11, Chapter 12 - Conservation Subdivisions
4. Title 11, Chapter 28 - Supplementary and Qualifying Regulations
5. Title 12, Chapter 5 - Minor Subdivisions
6. Title 12, Chapter 7 - General Requirements for All Subdivisions

# Farmington City



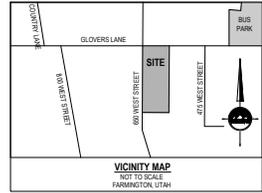


Major Boundary Description  
 Beginning on the South line of Glover's Lane, (925 South) at a point South 0°22'00" East 191.24 feet, (191.40 feet by deed) along the section line to the center line of Glover Lane, (925 South) and North 89°47'25" West 2474.76 feet, (North 89°52'00" West 2473.95 feet by deed) along the center line of Glover Lane, (925 South) and South 0°08'00" West 335.60 feet from the Northeast Corner of the Southeast Quarter of Section 25, Township 3 North, Range 1 West, Salt Lake Base and Meridian, said point being the Northeast Corner of the property described in the Document in Book 423 at Page 895 in the name of Roger Hood;  
 Thence South 0°08'00" West 335.60 feet, (335.60 feet by deed);  
 Thence North 89°52'00" West 111.70 feet to the east line of Topps Lane, (850 West);  
 Thence North 0°08'00" East 335.60 feet along the east line of Topps Lane, (850 West) to the south line of Glover's Lane, (925 South);  
 Thence South 89°47'25" East 111.70 feet, (South 89°52'00" East 111.70 feet by deed) along the south line of Glover's Lane, (925 South) to the point of beginning.  
 Contains 37,475 square feet, 0.860 acres.



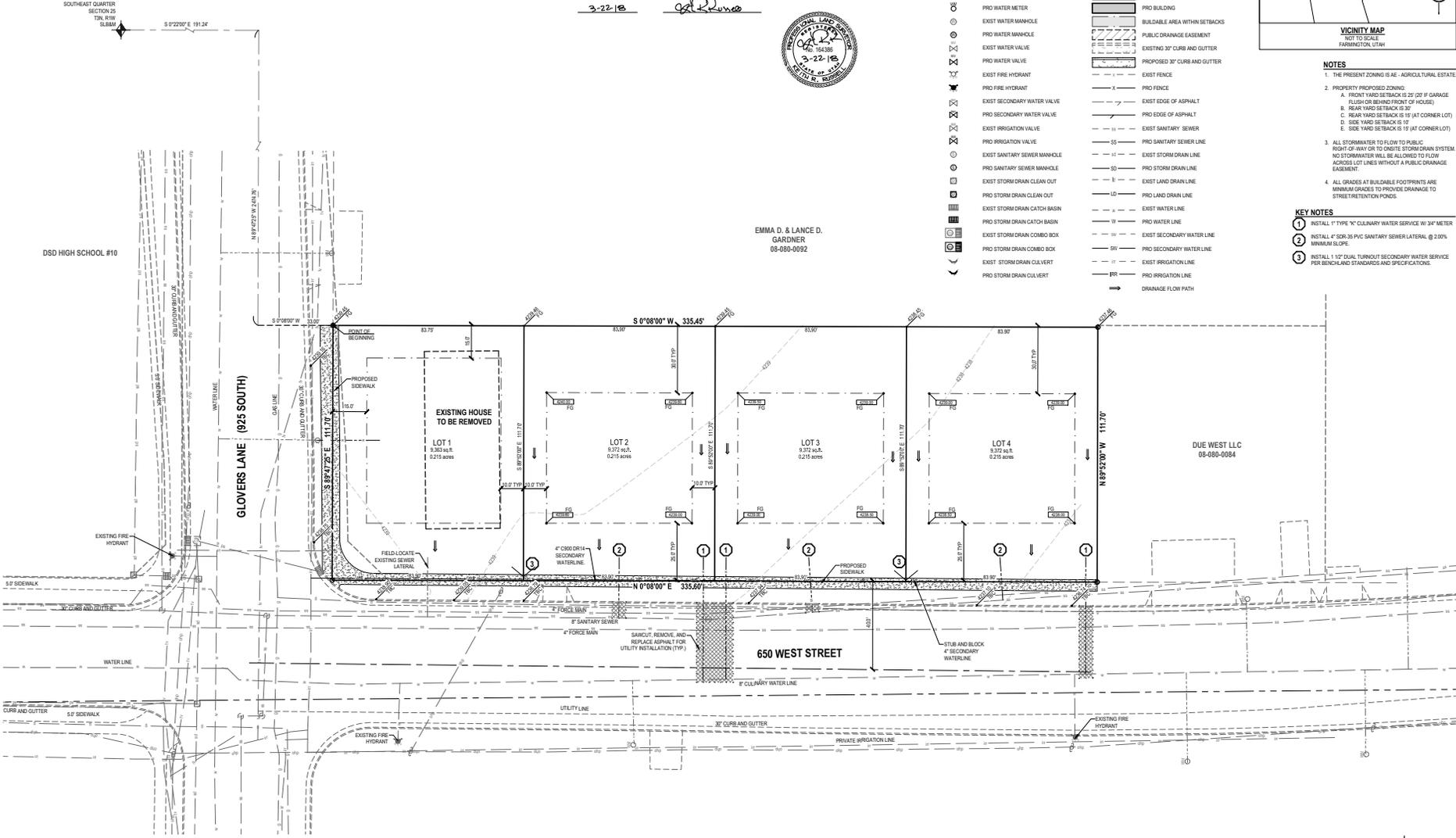
EMMA D. & LANCE D. GARDNER  
 08-080-0092

LEGEND			
	SECTION CORNER		EXIST SION
	EXIST MONUMENT		PRO SION
	PRO MONUMENT		EXIST UTILITY POLE
	EXIST REBAR AND CAP		MINOR CONTOURS 1' INCREMENT
	SET ENSIGN REBAR AND CAP		MAJOR CONTOURS 9' INCREMENT
	EXIST WATER METER		EXIST BUILDING
	PRO WATER METER		PRO BUILDING
	EXIST WATER MANHOLE		BUILDABLE AREA WITHIN SETBACKS
	PRO WATER MANHOLE		PUBLIC DRAINAGE EASEMENT
	EXIST WATER VALVE		EXISTING 30" CURB AND GUTTER
	PRO WATER VALVE		PROPOSED 30" CURB AND GUTTER
	EXIST FIRE HYDRANT		EXIST FENCE
	PRO FIRE HYDRANT		EXIST EDGE OF ASPHALT
	EXIST SECONDARY WATER VALVE		PRO EDGE OF ASPHALT
	PRO SECONDARY WATER VALVE		EXIST SANITARY SEWER
	EXIST IRRIGATION VALVE		PRO SANITARY SEWER LINE
	PRO IRRIGATION VALVE		EXIST STORM DRAIN LINE
	EXIST SANITARY SEWER MANHOLE		PRO STORM DRAIN LINE
	PRO SANITARY SEWER MANHOLE		EXIST LAND DRAIN LINE
	EXIST STORM DRAIN CLEAN OUT		PRO LAND DRAIN LINE
	PRO STORM DRAIN CLEAN OUT		EXIST WATER LINE
	EXIST STORM DRAIN CATCH BASIN		PRO WATER LINE
	PRO STORM DRAIN CATCH BASIN		EXIST SECONDARY WATER LINE
	EXIST STORM DRAIN COMBO BOX		PRO SECONDARY WATER LINE
	PRO STORM DRAIN COMBO BOX		EXIST IRRIGATION LINE
	EXIST STORM DRAIN CULVERT		PRO IRRIGATION LINE
	PRO STORM DRAIN CULVERT		DRAINAGE FLOW PATH



- NOTES**
1. THE PRESENT ZONING IS AE - AGRICULTURAL ESTATE
  2. PROPERTY PROPOSED ZONING:
    - A. FRONT YARD SETBACK IS 25' (20' IF GARAGE FLOOR OR BEHIND FRONT HOUSE)
    - B. REAR YARD SETBACK IS 30'
    - C. REAR YARD SETBACK IS 15' (AT CORNER LOT)
    - D. SIDE YARD SETBACK IS 10'
    - E. SIDE YARD SETBACK IS 15' (AT CORNER LOT)
  3. ALL STORMWATER TO FLOW TO PUBLIC RIGHT-OF-WAY OR TO ON-SITE STORM DRAIN SYSTEM. NO STORMWATER WILL BE ALLOWED TO FLOW ACROSS LOT LINES WITHOUT A PUBLIC DRAINAGE EASEMENT.
  4. ALL GRADES AT BUILDABLE FOOTPRINTS ARE MINIMUM GRADES TO PROVIDE DRAINAGE TO STREET/RETENTION PONDS.

- KEY NOTES**
1. INSTALL 4" TYPE "N" CULINARY WATER SERVICE W/ 3/4" METERS
  2. INSTALL 4" SDR-35 PVC SANITARY SEWER LATERAL @ 2.0% MINIMUM SLOPE.
  3. INSTALL 1" DUAL TURNOUT SECONDARY WATER SERVICE PER GENERAL STANDARDS AND SPECIFICATIONS.



LAYTON  
 1485 W. Hill Field Rd., Ste. 204  
 Layton, UT 84041  
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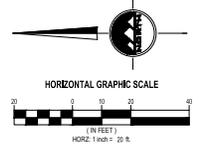
**MAKIN PROPERTY**  
 641 WEST GLOVERS LANE  
 FARMINGTON, UTAH



PRELIMINARY PLAT  
 NOT TO BE RECORDED

PROJECT NUMBER: 1708  
 DATE: 03/18  
 DRAWN BY: HELMER  
 CHECKED BY: PRESTON  
 PROJECT MANAGER: PRESTON

1 OF 1





# F A R M I N G T O N C I T Y

H. JAMES TALBOT  
MAYOR

BRETT ANDERSON  
DOUG ANDERSON  
BRIGHAM MELLOR  
CORY RITZ  
REBECCA WAYMENT  
CITY COUNCIL

DAVE MILLHEIM  
CITY MANAGER

## MEMO

To: Honorable Mayor, City Council, and Planning Commission

From: Eric Miller, Building Official

Date: May 29, 2018

SUBJECT: **MEMO ON PRELIMINARY FINDING OF BLIGHT FOR THE MAKIN  
PROPERTY LOCATED AT 641 WEST GLOVER LANE**  
Applicant: N/A

### RECOMMENDATION

No Action Necessary

### BACKGROUND

On May 23, 2018 I was asked to do a preliminary inspection on the Making property located at 641 West Glover Lane by Jerry Preston. The purpose of this preliminary inspection was to determine if the property could meet a finding of blight as set forth in Section 17C-2-303 of the Utah State Code. While walking through the Makin home I found the following:

1. Piece of siding missing on eave and several holes around house.
2. Window has been broken out in family room.
3. Buckled floors and linoleum in master bathroom from leaking shower.
4. Wrapped and worn counter tops from leaking sink and ceiling.
5. Animal feces and urine in many areas of home and has caused decay and rotting in the walls and floors.
6. Furnace cover missing on the furnace. All equipment must be in working order.
7. Ceiling leaks in two spots above kitchen. Once sheetrock has been removed it must have H.U.D. approval for any fix. The sheetrock is part of the sheer wall in manufactured homes and does not fall under the International Building Codes.
8. The carpet is so torn and loose that it does not provide adequate means of exit in case of fire or panic.
9. Counter tops are warped and missing tile on sides to prevent any sanitation cleanup.
10. Building can become an attractive nuisance to children, a harbor for vagrants, criminals, or immoral persons; or as to enable persons to resort thereto for the purpose of committing unlawful or immoral acts.
11. This dwelling lacks inadequate maintenance, dilapidation, decay, damage, and is unfit for human habitation that can likely cause sickness or disease.

12. Property has been abandoned for a period of 6 months and has become an attractive nuisance or hazard to the public.
13. Mice droppings under bathroom sinks.
14. Broken mirrors over tub; not approved by code and not tempered.
15. Toilet has been leaking in laundry bathroom.
16. Electrical lights missing and or falling out of the ceiling.
17. Unable to check crawl and floor joist since there was a 4' snake at the entry.
18. Black mold is in all bathrooms and laundry.

The conditions for a board determination of blight according to state code, must meet the following four criteria:

1. The property must not be greenfield;
2. The property must be zoned for urban purposes and served by utilities, i.e. zoned to be developed for residential, commercial, or industrial uses;
3. The property must contain at least 50% non-agricultural uses;
4. The property must be shown to be detrimental to public health, safety, and welfare as shown by the following four conditions:
  - A. Either substantial physical dilapidation, deterioration, or defective construction of buildings or infrastructure, OR significant non-compliance with current building, fire, safety, and/or health codes;
  - B. Unsanitary or unsafe conditions;
  - C. Environmental hazards, as defined by state or federal law;
  - D. Excessive vacancy, abandoned buildings, or vacant lots within an area zoned for urban use and served by utilities;
  - E. Abandoned or outdated facilities that pose a threat to public health, safety, or welfare;
  - F. Criminal activity in the project area.

In my expert opinion, after walking through the home, the subject property meets criteria 1-3, and criteria 4 (meets 4A, 4B, 4D, 4E, and 4F).

Respectfully Submitted



Eric Miller  
City Building Official

**Effective 5/10/2016**

**17C-2-303 Conditions on board determination of blight -- Conditions of blight caused by the participant.**

(1) A board may not make a finding of blight in a resolution under Subsection 17C-2-102(1)(a)(ii)

(B) unless the board finds that:

(a)

(i) the proposed project area consists predominantly of nongreenfield parcels;

(ii) the proposed project area is currently zoned for urban purposes and generally served by utilities;

(iii) at least 50% of the parcels within the proposed project area contain nonagricultural or nonaccessory buildings or improvements used or intended for residential, commercial, industrial, or other urban purposes, or any combination of those uses;

(iv) the present condition or use of the proposed project area substantially impairs the sound growth of the municipality, retards the provision of housing accommodations, or constitutes an economic liability or is detrimental to the public health, safety, or welfare, as shown by the existence within the proposed project area of at least four of the following factors:

(A) one of the following, although sometimes interspersed with well maintained buildings and infrastructure:

(I) substantial physical dilapidation, deterioration, or defective construction of buildings or infrastructure; or

(II) significant noncompliance with current building code, safety code, health code, or fire code requirements or local ordinances;

(B) unsanitary or unsafe conditions in the proposed project area that threaten the health, safety, or welfare of the community;

(C) environmental hazards, as defined in state or federal law, that require remediation as a condition for current or future use and development;

(D) excessive vacancy, abandoned buildings, or vacant lots within an area zoned for urban use and served by utilities;

(E) abandoned or outdated facilities that pose a threat to public health, safety, or welfare;

(F) criminal activity in the project area, higher than that of comparable nonblighted areas in the municipality or county; and

(G) defective or unusual conditions of title rendering the title nonmarketable; and

(v)

(A) at least 50% of the privately-owned parcels within the proposed project area are affected by at least one of the factors, but not necessarily the same factor, listed in Subsection (1)(a)(iv); and

(B) the affected parcels comprise at least 66% of the privately-owned acreage of the proposed project area; or

(b) the proposed project area includes some or all of a superfund site, inactive industrial site, or inactive airport site.

(2) No single parcel comprising 10% or more of the acreage of the proposed project area may be counted as satisfying Subsection (1)(a)(iii) or (iv) unless at least 50% of the area of that parcel is occupied by buildings or improvements.

(3)

(a) For purposes of Subsection (1), if a participant involved in the project area development has caused a condition listed in Subsection (1)(a)(iv) within the proposed project area, that condition may not be used in the determination of blight.

(b) Subsection (3)(a) does not apply to a condition that was caused by an owner or tenant who becomes a participant.

Amended by Chapter 350, 2016 General Session



## Planning Commission Staff Report June 7, 2018

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### Item 5: Adamson Rezone

Public Hearing:	Yes
Application No.:	Z-5-18
Property Address:	Northwest Corner of Glover Lane and Shirley Rae Drive
General Plan Designation:	DR (Development Restricted)
Zoning Designation:	AA (Agricultural – Very Low Density)
Area:	2.17 acres
Number of Lots:	1
Property Owner:	Bruce Middleton
Applicant:	Scott Adamson

*Applicant is requesting a recommendation for rezone approval.*

---

### Background Information

The applicant, Scott Adamson is requesting a recommendation for rezone approval in order to split the parcel, which is located on the northwest corner of Glover Lane and Shirley Rae Drive. In the AA zone, the minimum lot size for a conventional subdivision is 10 acres, and the applicant is proposing two lots measuring approximately 47,000 s.f. (1.09 acres) each. As the minimum lot size in the AA zone is 10 acres, and 5 acres for a conservation subdivision, the applicant has a yield of one lot. Therefore, in order to pursue a two-lot subdivision, the applicant will need to obtain a rezone of the property to A, where the minimum alternative lot size is 1 acre.

This application was brought before the Planning Commission at their **May 17, 2018** meeting, but it requested an AE zone designation. The Commission recommended denial to the City Council with direction to the applicant that he bring the application back requesting an A rather than an AE zoning designation. The applicant has amended his request at the direction of the Planning Commission.

In 2016, a different applicant brought forward the Owl's Landing Subdivision for this property, which consisted of 5 lots; the schematic plan was reviewed by the DRC and the Planning Commission. In their review of the Owl's Landing schematic plan, the DRC brought up a

plethora of issues that would have to be resolved in order for the subdivision to occur; based on these issues, the Planning Commission ultimately recommended denial.

The issues brought forward by the DRC still remain, the two biggest of which are bringing in sewer (currently it is located approximately 1300 feet away, as the crow flies), and the feasibility of conveying storm-water away from the site (due to flat topography, low elevation, and high water table). Central Davis Sewer District has initiated the process to bring a sewer line down Shirley Rae, but that has not been completed. Additionally, the applicant will need to improve Glover Lane and Shirley Rae Drive installing, sidewalk, park strip, curb, and gutter, and for Glover Lane the applicant will also need to install approximately 7 feet of asphalt extension. As part of these road improvements, there are several (4-5) power poles that currently sit in the right-of-way, and will need to be relocated at the cost of the applicant. However, most of these issues can be mitigated with the exception of storm-water; at question is whether the addition of one more residential unit (beyond the one lot already allowed by ordinance) would impact the storm-water system enough to stop the application from moving forward.

### Suggested Alternative Motions

- A. Move that the Planning Commission recommend that the City Council deny the zoning map amendment application.

#### Findings for Denial:

1. The rezone application is inconsistent with the General Plan designation of DR.
2. The subject property will not be affected by the General Plan amendment as recommended for approval by the Planning Commission at the May 3, 2018 meeting; i.e. it is still south of the West Davis Corridor highway alignment.
3. The Knighton Subdivision was approved by Davis County, and the lot sizes were grandfathered in when the property was annexed into Farmington City; the subject property is already non-conforming as it is well below the 10 acre minimum threshold in the AA zone. Rezoning the property would allow for a further subdivision of the property, bringing it further into non-compliance.
4. Approval of additional density, beyond the one lot already allowed by ordinance, may result in system-wide issues in the future due to the difficulties with conveying storm-water off site.

OR

- B. Move that the Planning Commission recommend that the City Council approve the zoning map amendment of property identified by parcel identification number 080820006 from AA (Agriculture - Very Low Density) to A (Agriculture), subject to all applicable Farmington City ordinances and development standards and the following condition: as part of a subdivision application, the applicant shall improve, or enter into an extension agreement for both Glover Lane and Shirley Rae Drive, including curb, gutter, sidewalk, park strip, and asphalt extension (on Glover Lane).

### Findings for Approval:

1. While the requested rezone is inconsistent with the General Plan, the applicant is only requesting one additional unit of density beyond what the ordinance currently allows.
2. With the exception of the storm water, all of the issues raised by the DRC and Planning Commission during their review of the Owl's Landing Subdivision can be mitigated; and the potential storm water issues are not likely to be significant because of the two-lot subdivision.
3. The improvement of Glover Lane that will be part of any future subdivision applications will benefit the City because with the opening of the new high school, staff is anticipating that there will be an increase of traffic on 1525 West, 1100 West, 650 West, and Glover Lane.
4. The requested rezone would allow for lot sizes that match other adjacent neighborhoods north and east of the area that have previously been subdivided.

### Supplemental Information

1. Vicinity Map
2. General Land Use Plan
3. Zoning Map
4. Subdivision Concept Plan

### Applicable Ordinances

1. Title 11, Chapter 7 - Site Development Standards
2. Title 11, Chapter 10 - Agriculture Zones
3. Title 11, Chapter 12 - Conservation Subdivisions

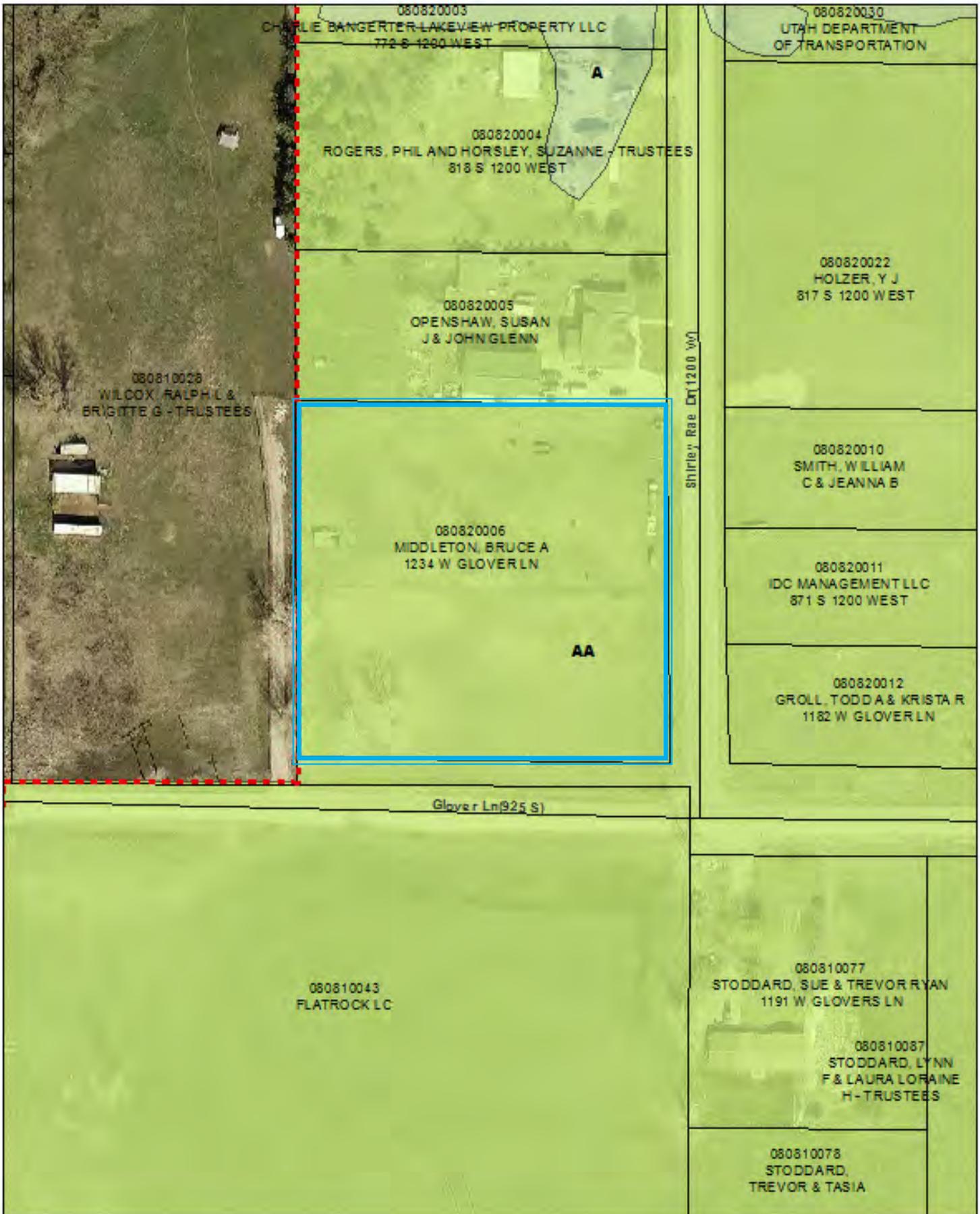
# Farmington City

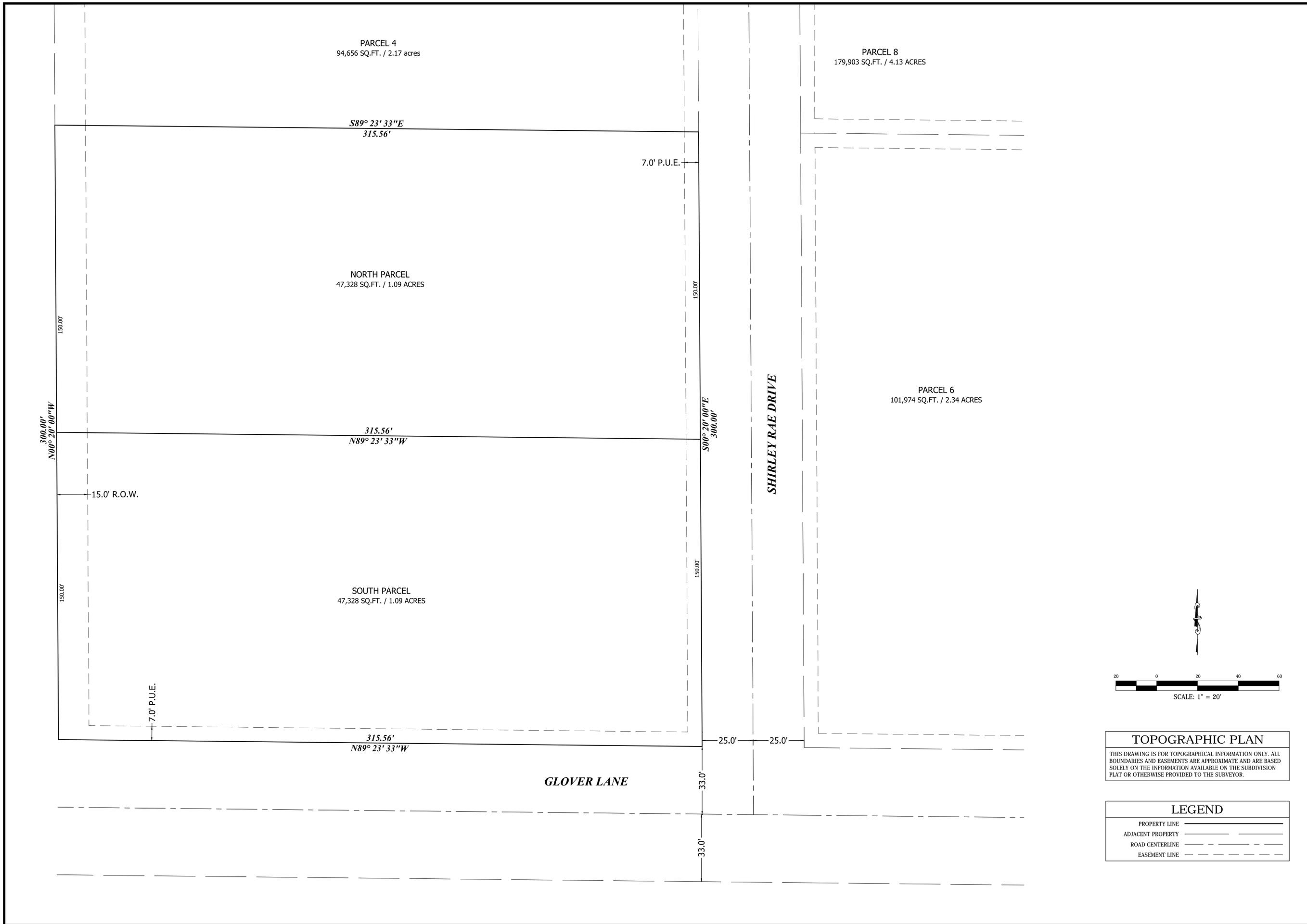


# Farmington City



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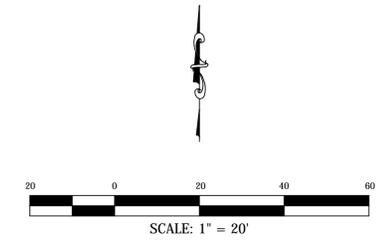
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 Phone 801.298.2236  
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PRELIMINARY  
 NOT FOR  
 CONSTRUCTION

**KNIGHTON SUBDIVISION**

874 SOUTH SHIRLEY RAE DRIVE  
 PARCEL 5  
 LOCATED IN THE EAST 1/4 OF SECTION 26, T.3N., R.1W., S.L.B.&M.  
 FARMINGTON, DAVIS COUNTY, UTAH



**TOPOGRAPHIC PLAN**

THIS DRAWING IS FOR TOPOGRAPHICAL INFORMATION ONLY. ALL BOUNDARIES AND EASEMENTS ARE APPROXIMATE AND ARE BASED SOLELY ON THE INFORMATION AVAILABLE ON THE SUBDIVISION PLAT OR OTHERWISE PROVIDED TO THE SURVEYOR.

LEGEND	
PROPERTY LINE	———
ADJACENT PROPERTY	- - - - -
ROAD CENTERLINE	- · - · -
EASEMENT LINE	- · - · -

DRAWN: DW 04/18/2018  
 APPROVED: [DATE]  
 YRH [DATE]  
 PROJECT: 1016014  
 Knighton Sub.Lot 5 Split.dwg

X900

CONCEPT LOT SPLIT



## Planning Commission Staff Report June 7, 2018

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### Item 6: Zone Text Amendment—Side Loaded Garages in Conservation Subdivisions

Public Hearing:	Yes
Application No.:	ZT-3-18
Property Address:	NA
General Plan Designation:	NA
Zoning Designation:	NA
Area:	NA
Number of Lots:	NA
Applicant:	Symphony Homes

Request: *Applicant is requesting a recommendation for a zone text amendment related to setback standards for side-loaded garages in conservation subdivisions.*

---

#### Background Information

Symphony Homes is now developing Rock Mill Estates, a conservation subdivision at 600 North Main Street (the site of the old Haugen Auto-body business) and desires to implement a “car court” concept on some of the lots within the project, as illustrated on the attached photos. The front set-back for homes in conservation subdivisions is 20 feet, but if the garage projects past the front plane of the home, it is 30 feet. Subsequently, the developer is requesting an amendment to the text of the Zoning Ordinance, to allow them to do the “car court” concept on certain lots in the subdivision where the nearest edge of the building may be closer than 30 feet to the street, as follows:

#### **11-12-090: DIMENSIONAL STANDARDS:**

- D. Yard Regulations: The builder or developer of a conservation subdivision may consider variations in the principal building position and orientation, but shall observe the following minimum standards for buildings within a conservation subdivision. Exceptions to these minimum setback regulations may be approved by the City, in its sole discretion, during plat approval process when deemed appropriate and desirable under the circumstances.

1. Front Setback: The minimum front yard setback for main buildings in a conservation subdivision shall be twenty feet (20'). Notwithstanding the foregoing, the minimum front yard setback for **front-loaded** attached garages which extend past the front of the dwelling toward the front property line in any conservation subdivision shall be thirty feet (30').

**Suggested Alternative Motions:**

- A. Move that the Planning Commission recommend approval of the proposed amendment to the Zoning Ordinance.

**Finding:**

Aesthetically, garages can overwhelm the appearance of a residential street streetscape. To help prevent this from happening in conservation subdivisions, the ordinance provides an incentive, or greater use of the lot by the future property owner, if the attached garage remains flush, or recessed, from the front of the home. The “car court” concept proposed by the applicant accomplishes the same result, as attached garages are side-loaded and window openings face the street for garages projecting past the front of the home and not garage doors.

OR

- B. Move that the Planning Commission recommend that the City Council deny the application, and work with the applicant to allow “car court” homes where necessary on specific lots within the Rock Mill Estates subdivision without changing the text of the Zoning Ordinance as a special exception.

**Findings:**

1. The conservation subdivision concept was enacted to create more permanently protected open space within the community. As a trade-off to realize this purpose, opportunities were afforded to the developer for additional “roof-tops”, which sometimes results in smaller lots, particularly in single-family residential developments. Attached garages and/or garage doors, if not designed appropriately, can aesthetically overwhelm the appearance of a narrow lot residential street streetscape. To help prevent this from happening in conservation subdivisions, the ordinance provides an incentive, or greater use of the lot by the future property owner, if the attached garage remains flush, or recessed, from the front of the home. Notwithstanding the foregoing, the Rock Mill Subdivision is comprised of wider lots and the “car court” concept may be appropriate set-back closer to the street than 30 feet.

2. The last sentence in sub-paragraph 11-12-090.D. provides an exception to the minimum setback requirements, a zone text amendment is not necessary.
3. The unintended consequences of a zone text amendment are not known.

OR

- C. Move that the Planning Commission recommend that the City deny the zone text amendment request.

Finding:

The conservation subdivision concept was enacted to create more permanently protected open space within the community. As trade-off to realize this purpose, opportunities were afforded to the developer for additional “roof-tops”, which sometimes results in smaller lots, particularly in single-family residential developments. Garages and/or garage doors, if not designed appropriately, can aesthetically overwhelm the appearance of a residential street streetscape, and in doing so, the front porch area, as a traditional focal point, and gathering area, is compromised. Car courts, while reducing the visibility of the actual garage door from the street, have the potential to encourage an un-inviting not to human scale approach for the pedestrian to the house.

Supplementary Information

1. “Car Court” illustrations by Symphony Homes.

Applicable Ordinances

1. Title 11, Chapter 12 - Conservation Subdivisions









## Planning Commission Staff Report June 7, 2018

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### Item 7: Farmington Linkage Study Adoption

Public Hearing:	Yes
Application No.:	MP-3-18
Property Address:	n/a
General Plan Designation:	n/a
Zoning Designation:	n/a
Area:	City Wide
Number of Lots:	n/a
Property Owner:	n/a
Applicant:	Farmington City

Request: *Recommendation for General Plan Amendment adopting the Farmington Linkage Study as an appendix to the Master Transportation Plan*

---

### Background Information

In March of 2017, Farmington was awarded a Transportation and Land Use Connection (TLC) match grant by Wasatch Front Regional Council (WFRC) to perform a bridge feasibility study for the Park Lane and I-15/US89 area. City staff sent out a Request for Pool Letter of Qualifications to seven firms on the WFRC pool of prescreened consultants, whose expertise is in transportation planning and engineering. Of those seven letters sent, we received three firms' letters, and after careful consideration, chose Fehr & Peers Engineers as the consultant to produce the bridge feasibility study. The goal of the study was to provide potential alternatives to get pedestrians across I-15 and US89 in the Park Lane area. The finished product is a study that is intended to be an appendix to the City's Master Transportation Plan, which is an element of Farmington City's General Plan.

In the final record of decision and environmental impact statement for the West Davis Corridor, UDOT has allocated funds for a portion (approximately half) of a pedestrian bridge over Park Lane. This study will aid in competing the gaps and acquiring the funding necessary to build the bridge. The hope is that the bridge will be piggybacked with other UDOT projects, such as the WDC, and having this study in place, with conceptual level engineering, will further the City's objective in making this important east-west connection.

## Suggested Motion

Move that the Planning Commission recommend that the City Council amend the General Plan adopting the enclosed Farmington Linkage Study as an appendix to the Farmington City Master Transportation which is an element of the General Plan, subject to all applicable Farmington City ordinances.

## Findings for Approval

1. The proposed Bridge Feasibility Study will help guide the City in the future towards developing infrastructure for a safe means of moving pedestrians east to west in the Park Lane area.
2. The proposed Bridge Feasibility Study will better situate the city in locating and acquiring funding sources for bike and pedestrian paths, and related infrastructure.
3. The proposed Bridge Feasibility Study will guide and inform the City in future decisions regarding all modes of transportation.
4. By codifying the Bridge Feasibility Study and adopting it as part of the General Plan, the City is setting a standard, being proactive, and making a commitment to active transportation, which is growing in popularity and being demanded at ever increasing levels.

## Supplemental Information

1. Farmington Bridge Feasibility Study

# FARMINGTON LINKAGE STUDY



## ACKNOWLEDGEMENTS

### Stakeholder Committee

Eric Anderson	Farmington City
Dave Peterson	Farmington City
Scott Hess	Wasatch Front Regional Council
Dave Adamson	Utah Department of Transportation
Levi Roberts	Utah Transit Authority
Amy Shumway	Resident & Community Advocate
Tim Taylor	Consultant Traffic Engineer for Farmington City

### Consultant Team

Kyle Cook	Fehr & Peers
Stephanie Tomlin	Fehr & Peers
Richard Brockmyer	Fehr & Peers
Maria Vyas	Fehr & Peers
Jaime White	AECOM
Casey Brown	AECOM
Greg Davis	AECOM

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## EXECUTIVE SUMMARY

Farmington City is effectively fragmented by several major transportation corridors, including I-15, Legacy Parkway, US-89, and the railroad corridor used by Utah Transit Authority (UTA) and Union Pacific Railroad (UPRR). The purpose of this study is to define a preferred location for a crossing of these barriers that will allow people on foot and bicycle to safely and comfortably travel from east to west in Farmington. The study limits are State Street to the south and Shepard Lane to the north. This feasibility study identifies critical constraints, logical connection points, conceptual designs, and probable costs for several alternatives.

A direct connection between Farmington Station/Station Park and Lagoon amusement park was determined to be infeasible and somewhat redundant to the State Street overpass. Initial alternatives are summarized in Table 1:

**TABLE 1: INITIAL ALTERNATIVES EVALUATED**

Description	Features	Cost Estimate
Alternative A Park Lane Pathway	Separated path on the north side of Park Lane: <ul style="list-style-type: none"> <li>• three separate bridge structures for the trail,</li> <li>• four at-grade signalized crosswalks.</li> </ul>	\$8,639,000
Alternative B Bridge over US-89	Pedestrian bridge over US-89 and the railroad corridor between Shepard Lane and Park Lane.	\$6,444,000
Alternative C Bridge over I-15	Pedestrian bridge over I-15 between Shepard Lane and Park Lane.	\$5,828,000

Source: Fehr & Peers, AECOM

By most qualitative and quantitative measures, the Park Lane Pathway (Alternative A) provides better access to activity centers and created ideal multi-directional network connectivity. Alternatives B and C provide comparable benefit to Alternative A when coupled together, but otherwise only partially addressing the purpose of the proposed pathway connection. The Park Lane Pathway (Alternative A) was iteratively refined to address a number of issues including pedestrian safety and comfort, traffic impacts, and constructability. Table 2 summarizes the refined concepts to the Park Lane Pathway Alternative.

One key differentiation among the alternatives relates to the use of separate bridge decks versus general bridge deck widening to accommodate the active transportation facility. Utah Department of Transportation (UDOT) has indicated a desire to widen the Park Lane bridge, and there may be an opportunity to integrate a path facility with widening for shoulder/vehicle lanes, rather than build separate pedestrian bridges adjacent to the roadway structures. By addressing the needs in one upgrade, the project is more competitive as a funding priority by achieving several important improvements.

**TABLE 2: REFINED PARK LANE ALTERNATIVES**

Description	Features	Cost Estimate
Alternative A2 Box Culvert Tunnels	Separated path on the north side of Park Lane: <ul style="list-style-type: none"> <li>• three separate bridge structures for the trail,</li> <li>• three box culvert tunnels with looping pathway segments,</li> <li>• one at-grade signalized crosswalk.</li> </ul>	\$13,337,000
Alternative A3 Bridge Deck Widening	Separated path on the north side of Park Lane: <ul style="list-style-type: none"> <li>• widening of three existing bridge structures,</li> <li>• three box culvert tunnels with looping pathway segments,</li> <li>• one at-grade signalized crosswalk.</li> </ul>	\$14,976,000
Alternative A4 South Side Pathway Separate Bridge Structures	Separated path on the south side of Park Lane: <ul style="list-style-type: none"> <li>• three separate bridge structures for the trail,</li> <li>• a trail structure to connect to the Frontrunner station from Park Lane,</li> <li>• a box culvert tunnel under Park Lane to connect to the Oakridge Trail,</li> <li>• four at-grade signalized crosswalks.</li> </ul>	\$14,268,000
Alternative A5 South Side Pathway Bridge Deck Widening	Separated path on the south side of Park Lane: <ul style="list-style-type: none"> <li>• widening of three existing bridge structures,</li> <li>• a trail structure to connect to the Frontrunner station from Park Lane,</li> <li>• a box culvert tunnel under Park Lane to connect to the Oakridge Trail,</li> <li>• four at-grade signalized crosswalks.</li> </ul>	\$16,412,000

Source: Fehr & Peers, AECOM

Ultimately, this study validates the thinking that Park Lane is an important gap in the active transportation system and it is the right place to consider an investment. This study does not formally recommend a single variant of the Park Lane Pathway, because such decision is dependent on a number of factors. For instance, UDOT recently obtained a Record of Decision for the West Davis Corridor Environmental Impact Statement (EIS). The Selected Alternative includes numerous improvements to the regional trail system, including a trail crossing I-15 on Park Lane. Given the high cost of the Park Lane Pathway Alternatives, UDOT, Farmington City, and other stakeholders will have to evaluate priority design features and select an option that offers the best benefit and value.

## INTRODUCTION & PROJECT GOALS

Farmington City is situated in a narrow space between the Great Salt Lake wetlands and the Wasatch Mountains. Many different transportation modes converge into this narrow space. As a result, Farmington City is effectively fragmented by several major transportation corridors, including I-15, Legacy Parkway, US-89, and the railroad corridor used by UTA and UPRR. These corridors provide important mobility for many north-south regional trips, but are inherently difficult to cross east-west, usually requiring long and expensive multi-span bridges.

Bicycling, walking, and running have become increasingly popular in Farmington and the surrounding communities for work commutes, access to schools, and recreational activities. Several regionally significant active transportation facilities (e.g. the Denver & Rio Grande Western Rail Trail (D&RGW) Rail Trail and Legacy Parkway Trail) have been built in the City within the past decade. These facilities have proven very popular with residents of Farmington and the neighboring cities in Davis and Salt Lake Counties. However, because they are located west of I-15 and the rail corridor, accessing them remains a challenge for people who live east of the freeway and rail corridor. Additionally, there is a UTA Front Runner station and transit center that is currently inaccessible to pedestrians and bicyclists via Park Lane to points north and east,



IMAGE: VIEW OF PARK LANE INTERCHANGE AND SURROUNDING ACTIVITY CENTERS

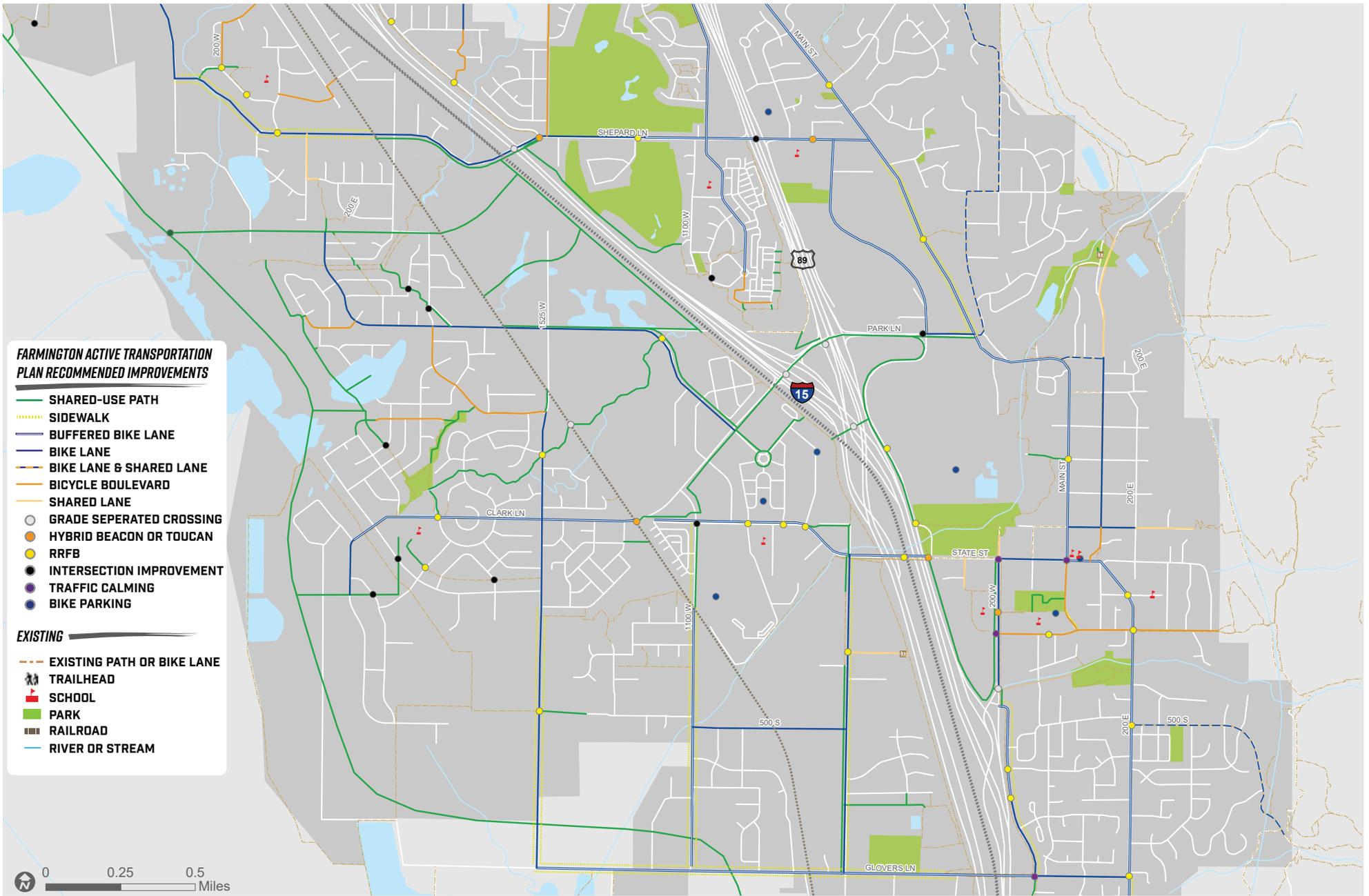
including southern portions of Kaysville, Fruit Heights, and northeast Farmington. Providing a connection would help UTA increase ridership and first and last mile connections in the region.

Lack of crossing options degrade network connectivity, causing travelers to take indirect routes and travel out of direction. This can discourage active transportation modes, leading to reliance on single occupancy vehicles, more congested roadways and fragmented communities. Farmington City, Kaysville, and Davis County have taken steps to address these issues, but gaps in the active transportation system remain – particularly near Park Lane. The 2015 Kaysville and Farmington Active Transportation Plan (KFAT) was the first step in better understanding the challenges of connecting these areas; **Figure 1** illustrates existing and proposed active transportation facilities. One of the recommended projects was a feasibility study to assess how to serve these markets on or near the Park Lane overpass. This feasibility study is the next step in addressing the highest priority gap in the active transportation system in Farmington.

The **purpose of a new pathway connection**, as articulated in the KFAT Plan:

- Unite the east and west, especially across US-89, I-15, and Legacy Parkway, with bicycle and pedestrian improvements that are safe enough to feel comfortable riding with a young child
- Plan, design, and maintain a walking and bicycling network that is visible, attractive, and convenient for all users, regardless of age or ability, especially commuters and driving-age students
- Improve overall connectivity and accessibility for bicyclists and pedestrians, including access to and from neighborhoods, services, public facilities, schools, shopping, food, entertainment, and transit.

The **purpose of this study** is to define a preferred location for a crossing of these barriers that will allow people on foot and bicycle to safely and comfortably travel from east to west in Farmington between State Street and Shepard Lane. This feasibility study identifies critical constraints, logical connection points, conceptual designs, and probable costs for several alternatives.



## EXISTING CONDITIONS

### PHYSICAL INFRASTRUCTURE AND BARRIERS

There are few non-interchange crossings of I-15 and US-89 in Davis County. At-grade rail crossings are intentionally limited because of safety and operational challenges, while freeway interchanges are generally unfriendly places for people on foot or bicycle due to traffic volume, high speed, and conflicting turning movements. The following section highlights key observations for three segments, starting from north to south:

#### Park Lane to Shepard Lane

Between Park Lane and Shepard Lane, there are two distinct transportation corridors that create local mobility barriers; I-15/UPRR/UTA on the west, and US-89 on the east. There are several existing trails, including the Legacy Trail located west of I-15, and the Oakridge Preserve Trail that serves the Farmington Crossings neighborhood. There is also a planned trail east of US-89.

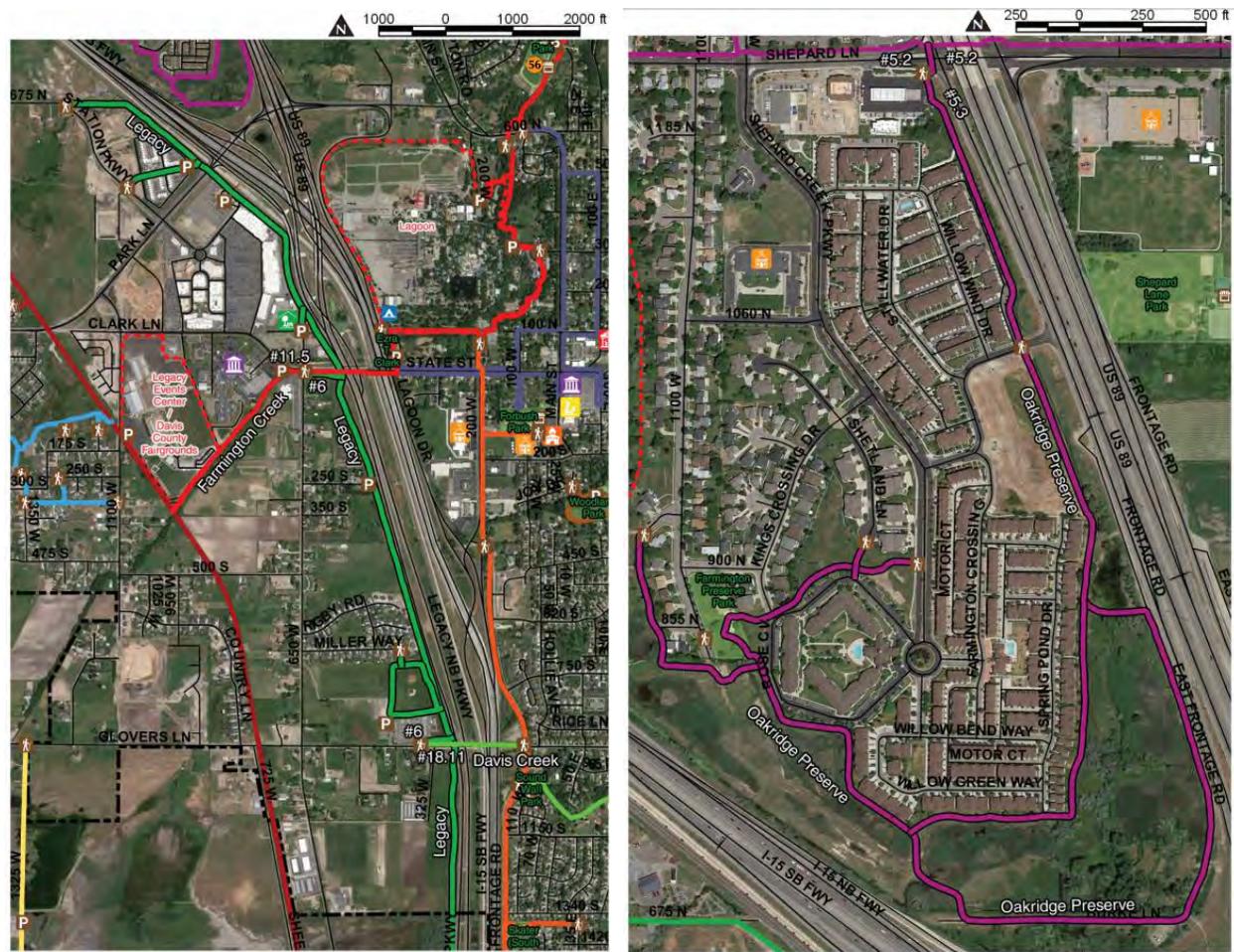


IMAGE: LEGACY TRAIL AND OAKRIDGE PRESERVE TRAIL (SOURCE: [HTTP://WWW.FARMINGTON.UTAH.GOV](http://www.farmington.utah.gov))

The Shepard Lane interchange with US-89 includes crosswalks for pedestrians. Shepard Lane at I-15 is currently a non-interchange overpass, but will be converted to an interchange with full pedestrian/cycling access (construction planned for 2021/2022). Currently the narrow two-lane overpass lacks adequate shoulder for bike lanes or sidewalks, and as such, is not ideal for people to walk or bicycle.

#### **State Street to Park Lane**

Between Park Lane and State Street, there is a complicated interchange where US-89 and I-15 diverge and Legacy Parkway ties into the freeway system. The freeway interchange on Park Lane is unique because there are two distinct freeway interchanges only 600-feet apart. The consolidation of I-15/US-89/Legacy Parkway interchanges on Park Lane was done originally to avoid an alternative Legacy Parkway alignment that would create more segmentation and barriers in the Farmington Community. There were design compromises that created local access to the interstate from Park Lane, but resulted in a situation where there is a substantial amount of vehicle activity in a confined space – essentially two freeway interchanges occupying the space of one.

There are no pedestrian or cycling facilities on Park Lane; the bridge decks have seven vehicle travel lanes and lack additional space for a sidewalk or separated path. Furthermore, the complex lane configurations and free-flowing movements are not conducive to pedestrian/cycling access on the bridge.

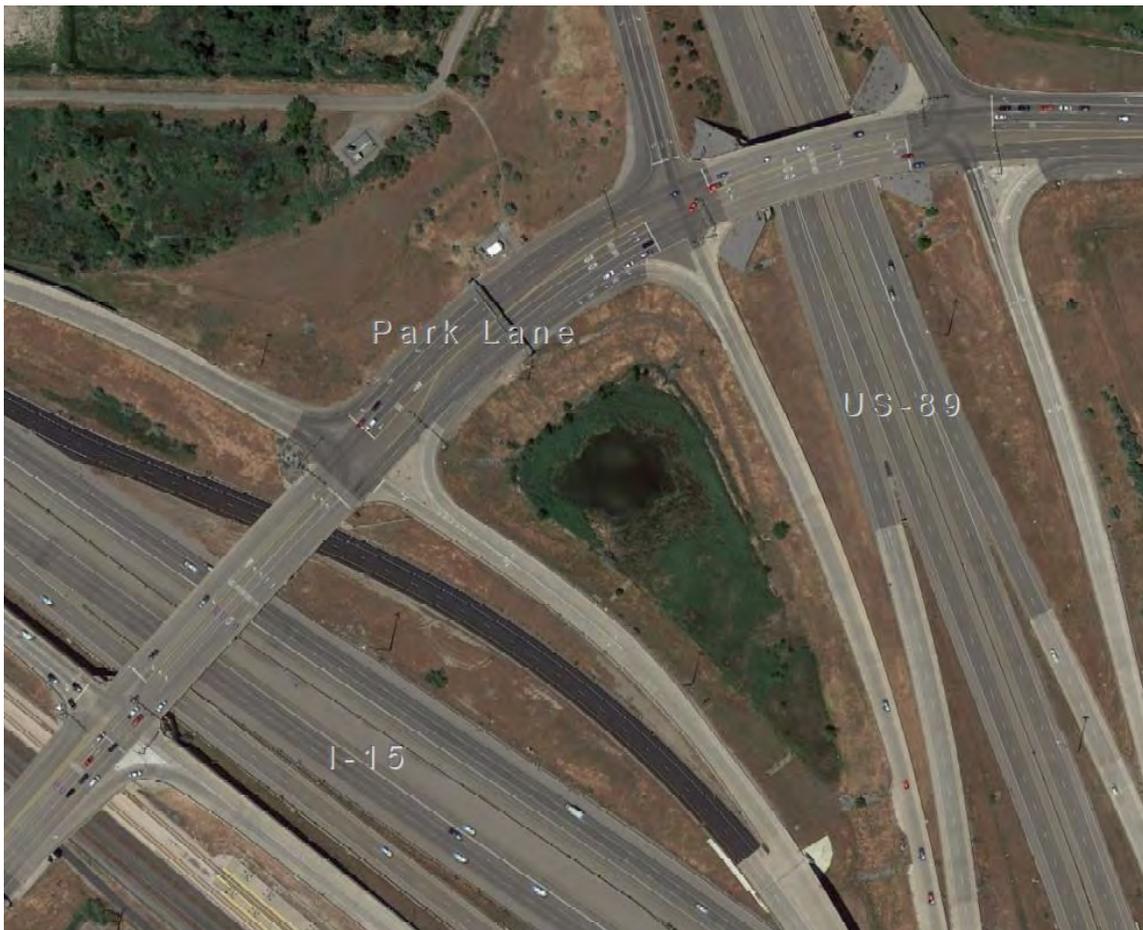


IMAGE: AERIAL VIEW OF PARK LANE INTERCHANGE WITH US-89 AND I-15



IMAGE: GLOVERS LANE PEDESTRIAN BRIDGE



IMAGE: CROSSWALK AND APPROACH TO STATE STREET BRIDGE

### **Glovers Lane to State Street**

In the southern portion of Farmington City the transportation corridors are oriented parallel to one another and are relatively condensed in terms of physical footprint, making grade-separated crossings more practical. In this area there are two non-interchange street crossings at Glovers Lane and State Street, and both crossings include a separated pathway. State Street is the most direct connection between Farmington Station/Station Park and Lagoon/Farmington City center.

## POTENTIAL DEMAND & BENEFIT

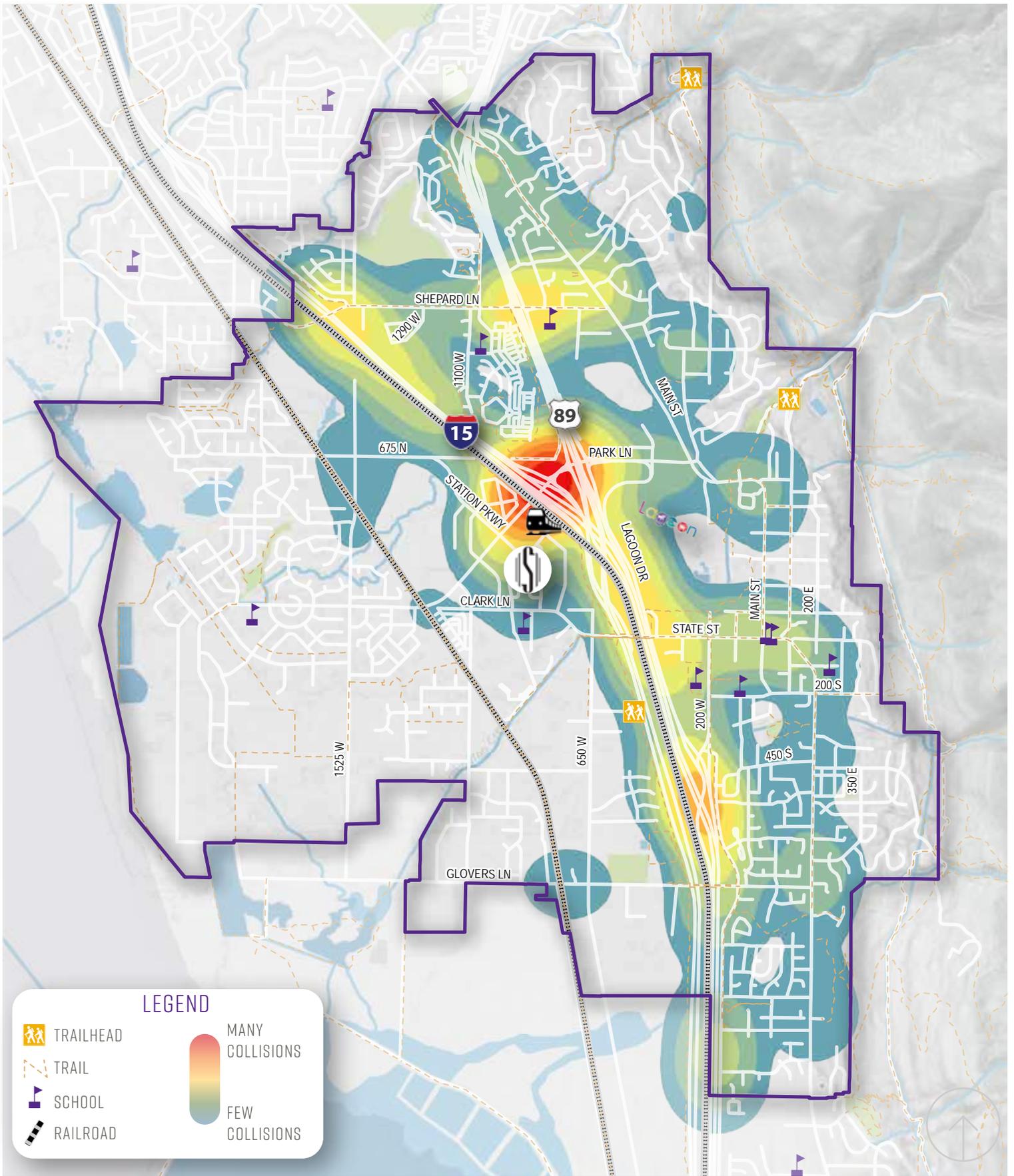
### Collision Information

To assess potential safety issues, UDOT's Numetric<sup>1</sup> crash records system was used to review historic collision data for a five-year period. During this period there were 294 individual incidents that resulted in minor injury, sever injury or fatality, which have been mapped in **Figure 2**; high frequency accident locations are indicated in yellow and red shading. The collision data displayed in **Figure 2** demonstrates that Park Lane, and its associated freeway ramps, is a significant hotspot for collisions. This concentration of collisions on Park Lane may be due to the complex series of on and off ramps in a very small area. Motorists are required to maneuver quickly across multiple lanes to enter the two freeways that are accessible from Park Lane.

Of note, there was only one pedestrian collision and one cyclist collisions reported on the section of Park Lane that spans the two freeways. This could be because currently, there are no sidewalks, shoulders or trail facilities on that section of road, and thus very few people walk or bike on that segment of road. The collision data provides valuable insight on the importance of considering safety when looking at potential active transportation facility connections, and underscores the importance of improving safety if considering a facility on Park Lane.

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<sup>1</sup> This data is protected under 23 USC 409. Source: UDOT, January 2011 through June 2017.



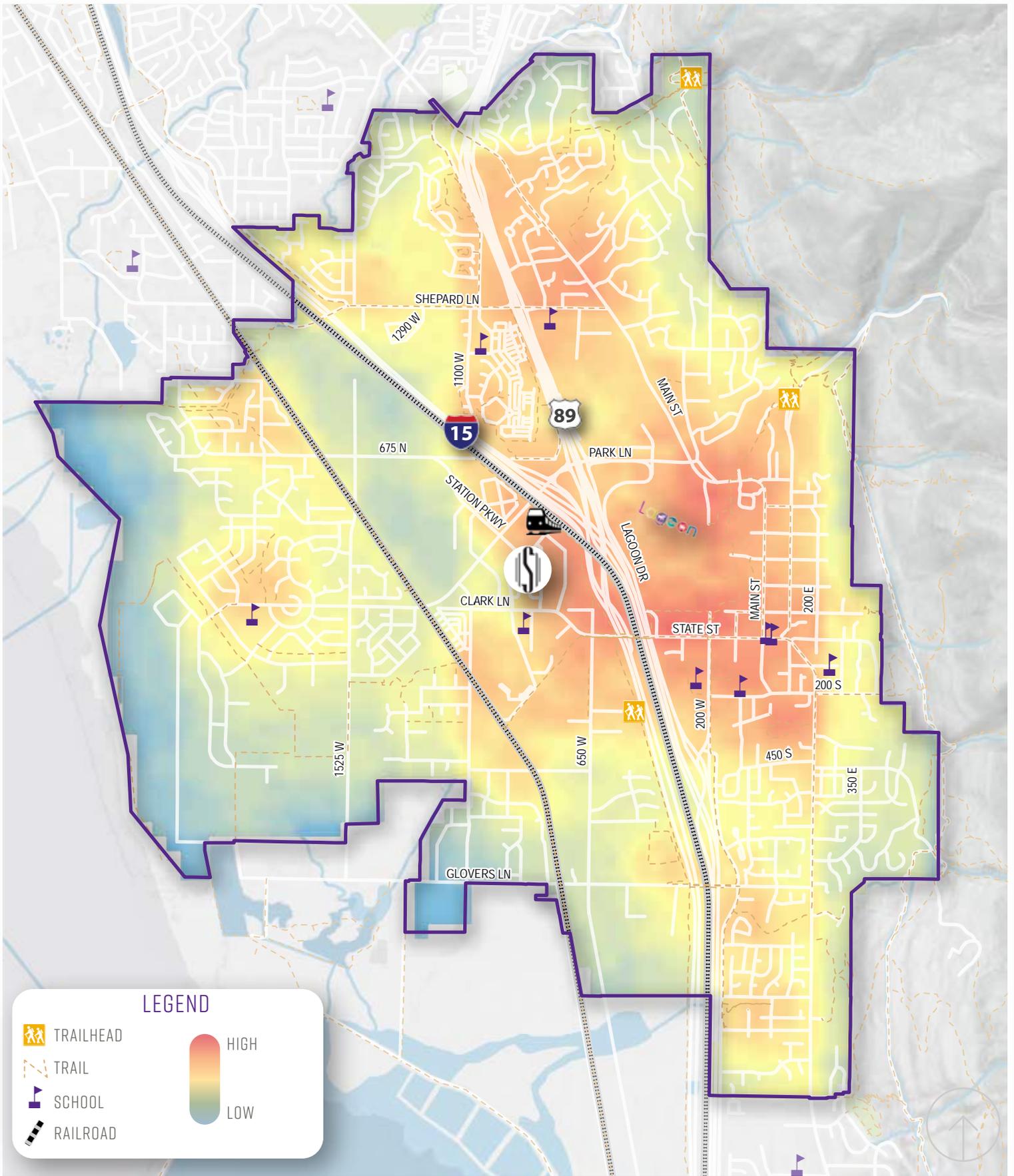
### **Active Transportation Modeling**

Although there is a growing interest in modeling active transportation, most travel demand models are sensitive only to automobile and transit trips. Rather than try to forecast the magnitude of bicycle and pedestrian activity, the Project Team implemented a methodology that determines the relative level of demand for walking and biking in the study area. The Latent Demand Model uses economic, demographic, land use, and built environment factors to identify “hot spots” for active transportation, and provides a logical analysis framework to prioritize attention and investment. The Latent Demand Model indicates areas where there is latent demand for active transportation (not necessarily usage); essentially places where walking or bicycling would be likely to occur if the conditions were favorable. The variables, as well as the corresponding weighting criteria are provided in the Appendix.

Two demand analyses were conducted; base year (2014) and future year (2040). The baseline analysis used current conditions based on GIS layers provided by the Farmington City and 2014 socio-economic data from the WFRC regional travel demand model.

**Figure 3** and **Figure 4** illustrate the analysis results for base year and future year latent demand, using blue color tones to indicate areas of lower demand and red/orange color tones to indicate the higher demand areas. For the 2014 baseline condition, higher active transportation demand is fairly concentrated to the east side of US-89, with pockets on Farmington Station, and other neighborhood developments on the west side of the city. This is rather intuitive since this district has established neighborhoods. Elsewhere there is lower demand, due to low density residential, few employment or commercial destinations, and predominantly agricultural land uses. The future year (2040) analysis resulted in similar patterns, with the exception of the area surrounding 675 North, west of I-15 displaying a higher propensity for walking and biking. This is to be expected based on the anticipated residential growth in that area.

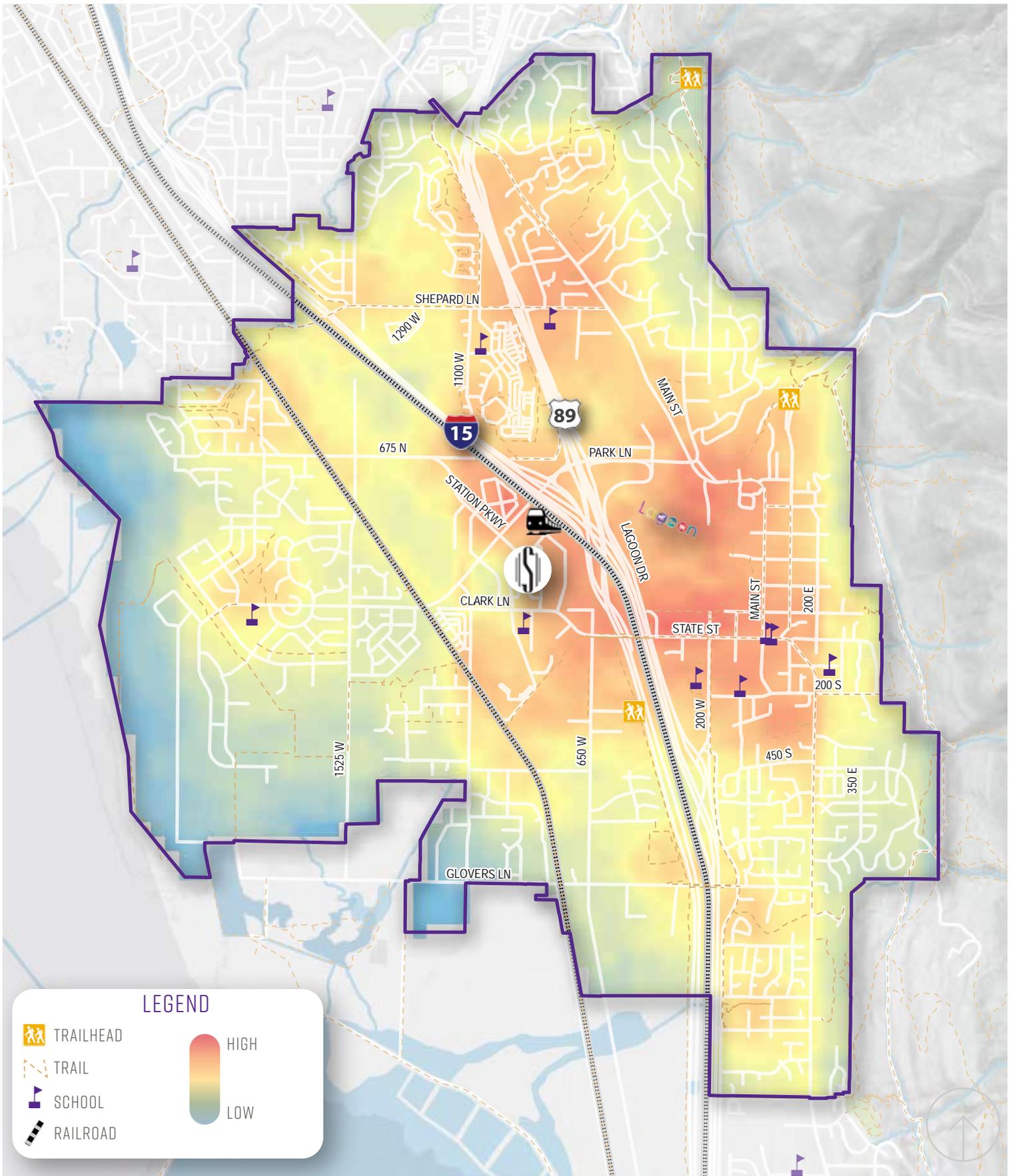
Based on the expected land use changes and increasing popularity of walking and cycling, projected demand for active transportation is expected to increase significantly in terms of relative magnitude and geographic area. This analysis suggests that investment in active transportation infrastructure should be prioritized in the portion of the study area adjacent to Park Lane, Farmington Station and the Farmington Crossing neighborhood.



**LEGEND**

- TRAILHEAD
- TRAIL
- SCHOOL
- RAILROAD

HIGH  
LOW



## FATAL FLAW SCREENING

Discussions with the Steering Committee indicated a general interest in evaluating the feasibility of a direct connection between Farmington Station/Station Park and Lagoon amusement park, two important community destinations. Considering vertical clearance requirements over the railroad (23.5 feet) and the highway (17.5 feet), it is very complicated to thread a pedestrian bridge through the interstate collector-distributor bridge system. The area also exhibits a high ground water table, making a subterranean tunnel impractical. Engineering becomes more feasible closer to State Street; however, there is little benefit in providing a new facility that is redundant to the State Street overpass. For these reasons, a direct connection between Farmington Station/Station Park and Lagoon was screened out for further evaluation.



IMAGE: CONCEPT ILLUSTRATION OF CROSSING BETWEEN PARK LANE AND STATE STREET

## ALTERNATIVES DEVELOPMENT

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The existing conditions analysis and the fatal flaw screening provided context upon which to conceptualize and develop alternatives for an east/west Farmington connection. Each alternative is described below, and summarized in **Figure 5**, **Figure 6**, **Figure 7** with key information about cost, potential use, network connectivity, land use catchment area, and transit user benefit.

### ALTERNATIVE A – PARK LANE PATHWAY

This option provides continuous off-street path on the north side of Park Lane, connecting the eastern and western areas of Farmington City, as well as the Farmington Crossing neighborhood north of Park Lane (**Figure 5**). The existing bridge structures over I-15 and US-89 are too narrow to accommodate a side path, so this option requires three new pedestrian bridges or widening of existing roadway bridges. This option is the most complicated from an engineering perspective; integrating the pedestrian bridge structures into the existing bridge abutments will be challenging, particularly on the western end where there are customized MSE<sup>2</sup> bridge abutments and retaining walls.

The primary concern with the design is the use of at-grade pedestrian crossings at the interchange ramps. This presents a safety/stress concern for path users, and it is unknown how the addition of pedestrian signals would affect traffic operations.

This alternative was generally preferred among the Stakeholder Committee due to its proximity to activity centers, central location, and the multi-directional connections it provides (east-west and north-south).

The planning level cost estimate for Alternative A is \$8,639,000, assuming three separate bridge structures for the trail and at-grade signalized crosswalks at the interchange ramp intersections. An itemized cost estimate is included in the Appendix.

### ALTERNATIVE B – PATHWAY BRIDGE OVER I-15 BETWEEN PARK LANE AND SHEPARD LANE

Alternative B consists of a single bridge (multi-span) constructed over I-15 and the railroad corridor between Shepard Lane and Park Lane (**Figure 6**). This alternative provides a direct connection between the Oakridge Trail and Legacy Trail. By completely separating trail users from vehicle traffic, this option is also low-stress and safer for all ages and abilities.

Compared to Alternative A, building a pedestrian bridge over a basic freeway section is more straightforward and less expensive. This option is complicated by the rail corridor which has a higher clearance requirement (23.5 ft vs 17.5 ft for roadway), which will make the path deck elevation higher on the west side, creating an elevation grade. There are also electric transmission lines parallel to the rail corridor (west of I-15), which create significant but manageable constraints

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<sup>2</sup> Mechanically stabilize earth (MSE)

for the bridge ramp design. Additional consideration of this bridge concept should also account for future widening of I-15.

With respect to the location, there is some flexibility to locate the bridge farther south than shown on **Figure 6** to minimize out of direction travel for the nearby neighborhood. It is noted that Shepard Lane / I-15 overpass is planned to be rebuilt in 2021/2022 as a full interchange with active transportation facilities, so a new crossing location may not be justified if it is situated close to Shepard Lane.

The planning level cost estimate for Alternative B is \$6,444,000.

### **ALTERNATIVE C – PATHWAY BRIDGE OVER US-89 BETWEEN PARK LANE AND SHEPARD LANE**

Similar to Alternative B, this concept is a single bridge (multi-span) constructed over US-89 between Shepard Lane and Park Lane (**Figure 7**). Alternative B and C complement each other and provide facilities to cross US-89 and I-15, but independently they have less value in terms of additional connectivity and benefit to neighborhoods. Moreover, the Shepard Lane / US-89 interchange already has signalized crosswalks and sidewalks, and it is hard to justify this crossing location when another viable option exists nearby.

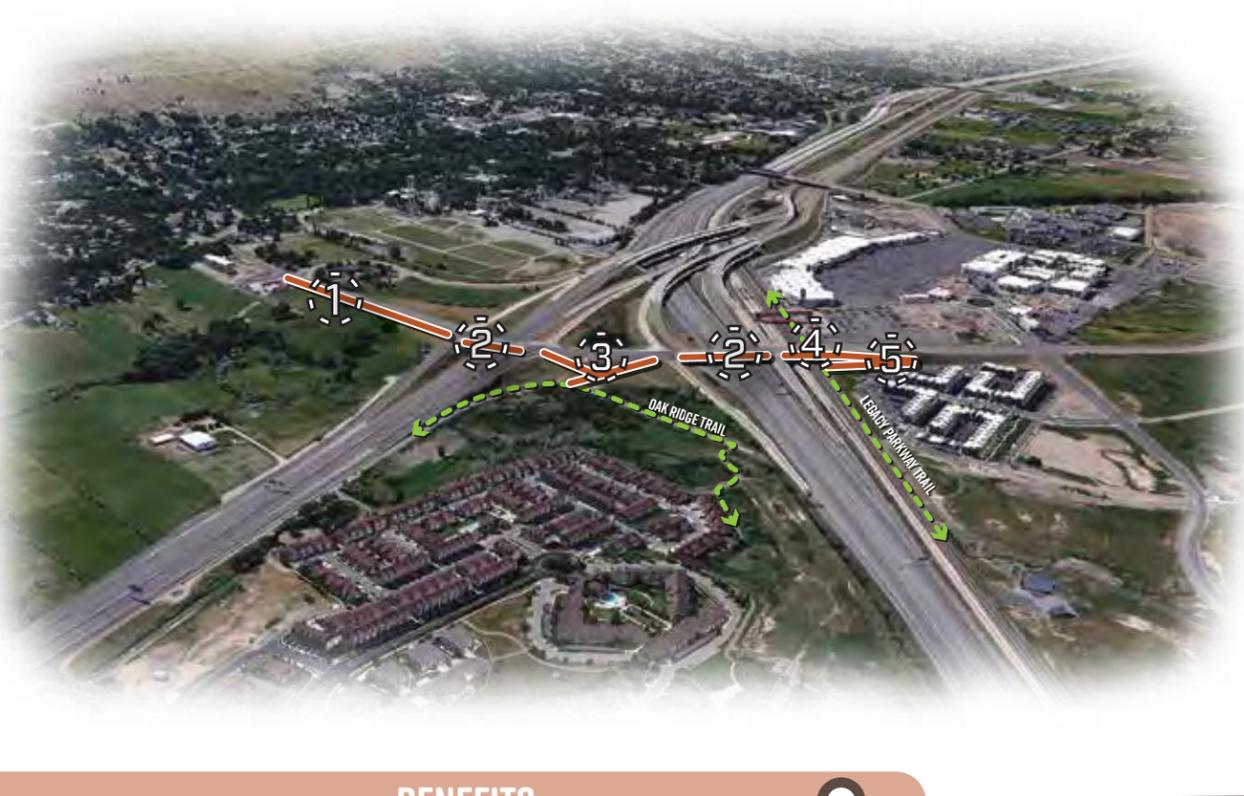
The planning level cost estimate for Alternative C is \$5,828,000.

# ALTERNATIVE A

## PARK LANE PATHWAY

### PHYSICAL CHARACTERISTICS

- 1 Construct off-street pathway on north side of Park Lane between Lagoon Drive and interchange ramps.
- 2 Existing bridge structures over I-15 and US-89 are too narrow to accommodate a side path. A path connection requires separate pedestrian bridges, or widening of existing roadway bridges (three total). Bridges across I-15 and US-89 must provide 17'6" clearance above roadway.
- 3 Pathway segment provides a connection to the Oakridge Trail. Some trail meander would be required to traverse the slope. Constructed on grade (no structure needed).
- 4 Bridge across UPRR/UTA rail corridor must provide 23'6" clearance, requiring the trail deck to slope upward on the west end.
- 5 Pathway segment provides a connection to the Legacy trail. Some trail meander would be required to traverse the slope. Constructed on grade (no structure needed).



### BENEFITS

Alternative A has high potential for use area according to the latent demand analysis, providing a direct connection between neighborhoods, retail destinations, Frontrunner station, and Lagoon Park.

The network analysis indicates that there are over 2,700 people and over 35 retail businesses within a one-mile walking distance of Alternative A.

Alternative A improves access to transit by providing a direct connection for households in the Farmington Crossings neighborhood, and for neighborhoods in north-east Farmington and south-east Kaysville.

### COST

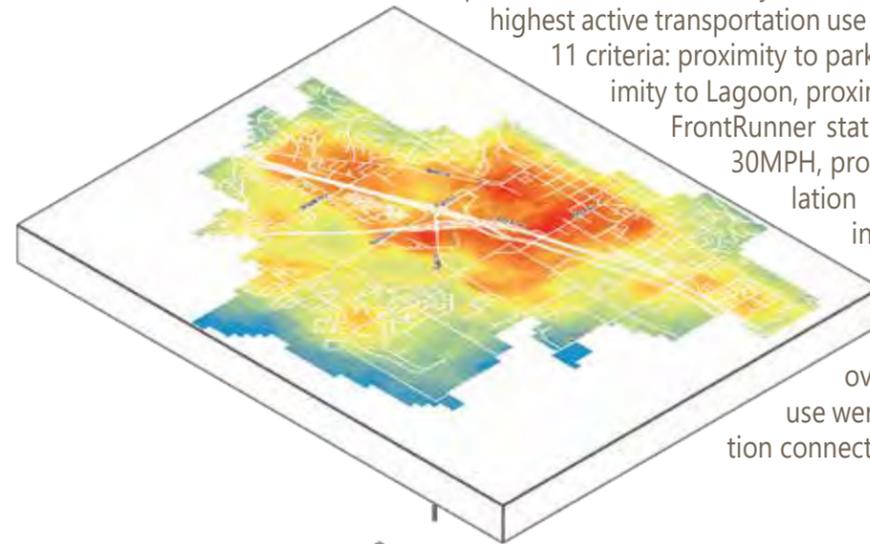
\$8,639,000\*

\*Planning level costs. Excludes right-of-way, assumes new bridge structures for pedestrian and bikes. See Appendix for detailed cost breakdown.

## DATA INPUTS

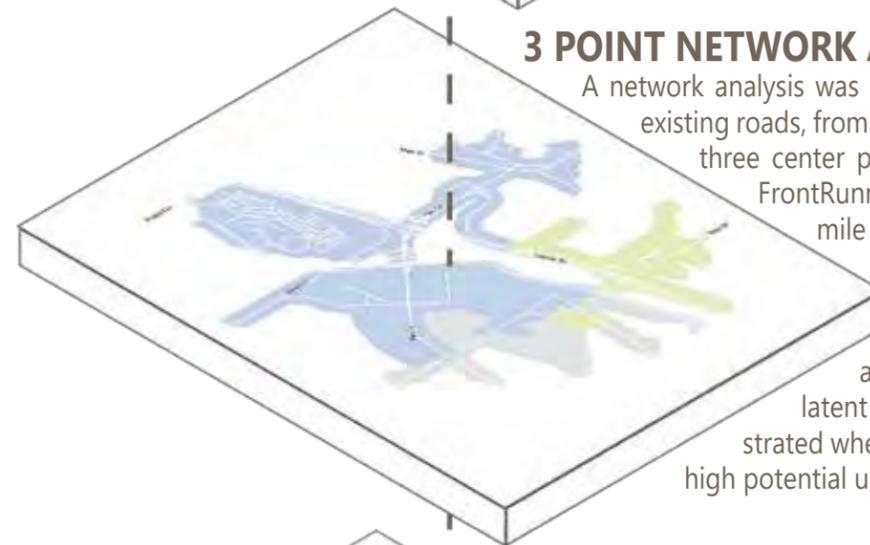
### LATENT DEMAND ANALYSIS:

A spatial latent demand analysis was conducted to determine which areas would have the highest active transportation use currently and into the future based on the following 11 criteria: proximity to parks, proximity to retail and commercial centers, proximity to Lagoon, proximity to schools, proximity to bus stops, proximity to FrontRunner station, proximity to roads with less than or equal to 30MPH, proximity to trails, proximity to trail heads, total population density, and total employment density. All the inputs were weighted based on expressed importance. The output of the analysis is the heat map shown here. The areas with the highest potential for use are those areas with the most number of overlapping criteria. The areas with high potential for use were considered priority areas for an active transportation connection.



### 3 POINT NETWORK ANALYSIS:

A network analysis was completed to demonstrate a one mile radius along existing roads, from a center point. A separate analysis was conducted for three center points: from the proposed Alternative "A", from the FrontRunner station, and from Lagoon, each resulting in a 1 mile buffer zone of the areas accessible on roadways. This analysis provided insight into whether or not the proposed bridge would create a connection to significant origins and destinations within a walkable and bikeable 1 mile distance. When overlayed on the latent demand heat map, this network analysis also demonstrated whether the proposed bridge would serve the areas with high potential use.



### PARK & RIDE USER ORIGINS DENSITIES:

License plate data collected from FrontRunner parking lots was examined to determine where most riders boarding at the Farmington Station are coming from. The origins were broken into zones and the rider origin densities were aggregated into ridership percentages by zone. High percentages were seen west of the station and I-15 and north of the station, in between I-15 and US-89. This analysis was useful in determining whether the bridge could serve those areas with high percentage of riders.

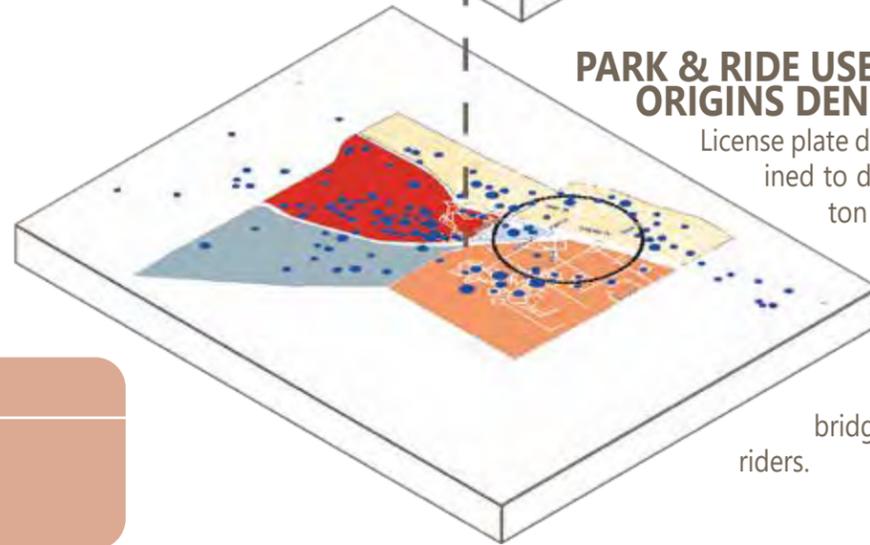


FIGURE 5

# ALTERNATIVE B

## PATHWAY BRIDGE OVER I-15 BETWEEN PARK LANE AND SHEPARD LANE

### PHYSICAL CHARACTERISTICS

- 1 Segment represents path ramp to the bridge elevation, comprised of earthen embankment and bridge structure.
- 2 Three-span bridge structure must provide 17'6" clearance above I-15 roadway and 23'6" clearance above UPRR/UTA rail corridor.
- 3 Path ramp must turn north or south abruptly to avoid conflict with electric transmission corridor.



### BENIFITS

Alternative B has medium potential for use area according to the latent demand analysis, providing an important connection between the Oakridge Trail and Legacy Trail.

The network analysis indicates that there are approximately 2,800 people and 6 retail businesses within a one-mile walking distance of Alternative B.

Alternative B improves access to transit for the Farmington Crossing neighborhood, but does not connect neighborhoods east of US-89.

### COST

\$6,444,000\*

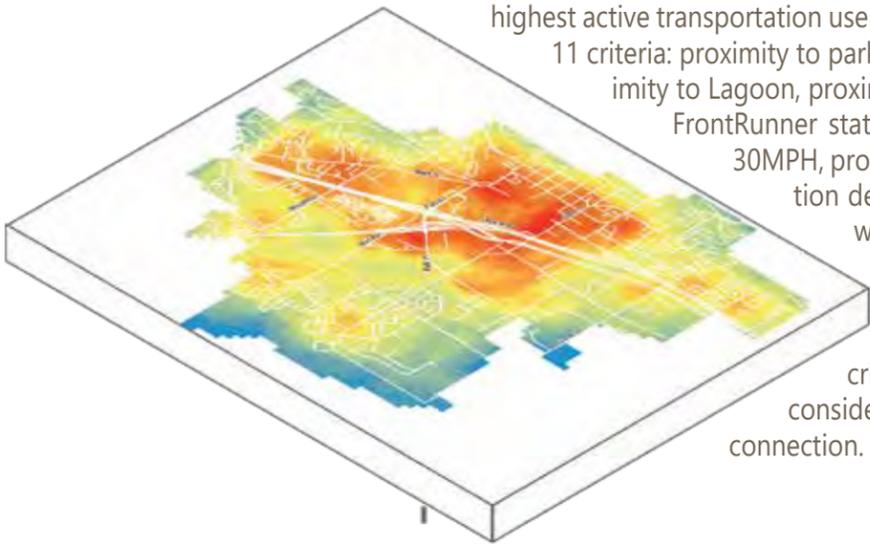
*\*Planning level costs. Excludes right-of-way, assumes new bridge structures for pedestrian and bikes. See Appendix for detailed cost breakdown.*

# DATA INPUTS

### LATENT DEMAND ANALYSIS:

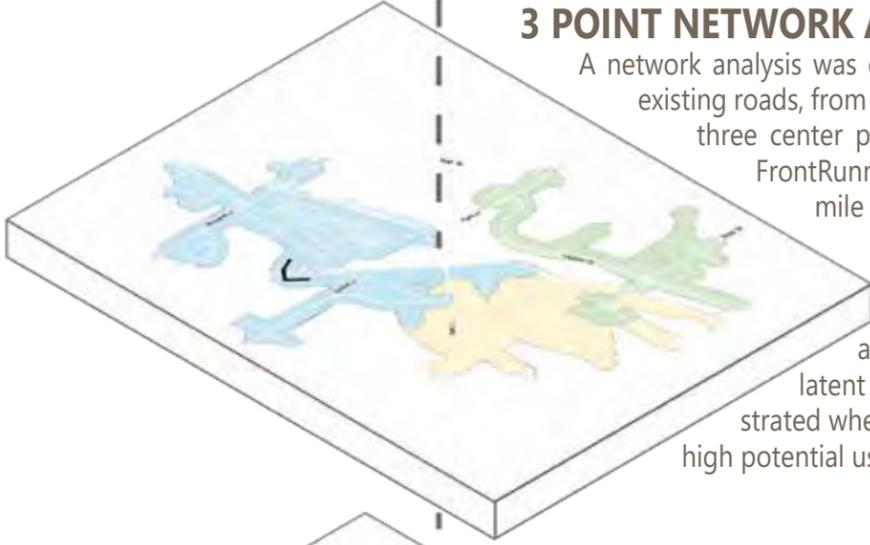
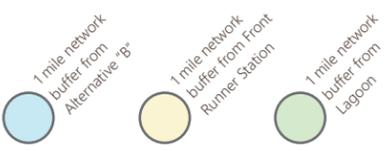


A spatial latent demand analysis was conducted to determine which areas would have the highest active transportation use currently and into the future based on the following 11 criteria: proximity to parks, proximity to retail and commercial centers, proximity to Lagoon, proximity to schools, proximity to bus stops, proximity to FrontRunner station, proximity to roads with less than or equal to 30MPH, proximity to trails, proximity to trail heads, total population density, and total employment density. All the inputs were weighted based on expressed importance. The output of the analysis is the heat map shown here. The areas with the highest potential for use are those areas with the most number of overlapping criteria. The areas with high potential for use were considered priority areas for an active transportation connection.



### 3 POINT NETWORK ANALYSIS:

A network analysis was completed to demonstrate a one mile radius along existing roads, from a center point. A separate analysis was conducted for three center points: from the proposed Alternative "B", from the FrontRunner station, and from Lagoon, each resulting in a 1 mile buffer zone of the areas accessible on roadways. This analysis provided insight into whether or not the proposed bridge would create a connection to significant origins and destinations within a walkable and bikeable 1 mile distance. When overlaid on the latent demand heat map, this network analysis also demonstrated whether the proposed bridge would serve the areas with high potential use.



### PARK & RIDE USER ORIGINS DENSITIES:

License plate data collected from FrontRunner parking lots was examined to determine where most riders boarding at the Farmington Station are coming from. The origins were broken into zones and the rider origin densities were aggregated into ridership percentages by zone. High percentages were seen west of the station and I-15 and north of the station, in between I-15 and US-89. This analysis was useful in determining whether the bridge could serve those areas with high percentage of riders.

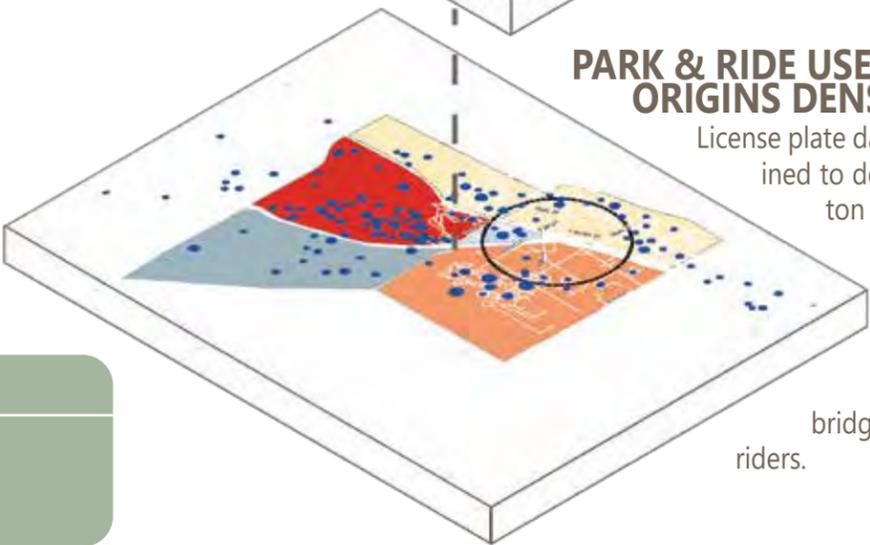


FIGURE 6

# ALTERNATIVE C

## PATHWAY BRIDGE OVER US-89 BETWEEN PARK LANE AND SHEPARD LANE

### PHYSICAL CHARACTERISTICS

- 1 Segment represents path ramp to the bridge elevation, comprised of earthen embankment and bridge structure.
- 2 Two-span bridge structure must provide 17'6" clearance above US-89 roadway.
- 3 Path ramp must turn north or south abruptly to avoid conflict with buildings and church.



### BENEFITS

Alternative C has low-to-medium potential for use area according to the latent demand analysis, providing an alternative to the Shepard Lane / US-89 interchange.

The network analysis indicates that approximately 3,600 people and 7 retail businesses are within a one-mile walking distance of Alternative C.

As a stand-alone option, Alternative C does not improve access to transit (Farmington Station).

### COST

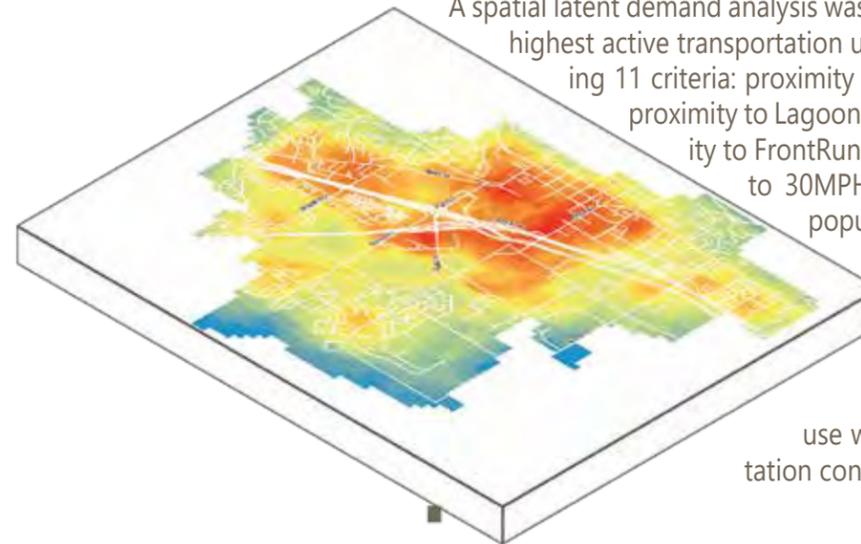
\$5,828,000\*

\*Planning level costs. Excludes right-of-way, assumes new bridge structures for pedestrian and bikes. See Appendix for detailed cost breakdown.

# DATA INPUTS

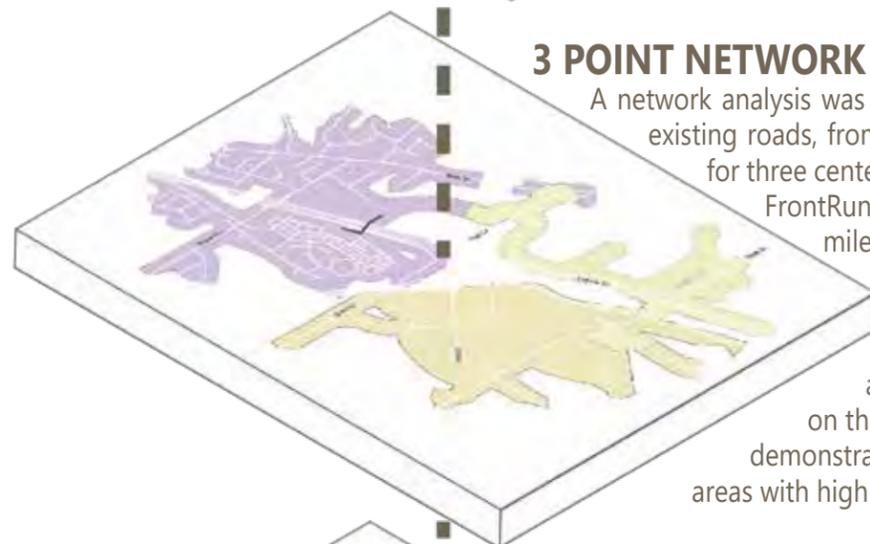
### LATENT DEMAND ANALYSIS:

A spatial latent demand analysis was conducted to determine which areas would have the highest active transportation use currently and into the future based on the following 11 criteria: proximity to parks, proximity to retail and commercial centers, proximity to Lagoon, proximity to schools, proximity to bus stops, proximity to FrontRunner station, proximity to roads with less than or equal to 30MPH, proximity to trails, proximity to trail heads, total population density, and total employment density. All the inputs were weighted based on expressed importance. The output of the analysis is the heat map shown here. The areas with the highest potential for use are those areas with the most number of overlapping criteria. The areas with high potential for use were considered priority areas for an active transportation connection.



### 3 POINT NETWORK ANALYSIS:

A network analysis was completed to demonstrate a one mile radius along existing roads, from a center point. A separate analysis was conducted for three center points: from the proposed Alternative "C", from the FrontRunner station, and from Lagoon, each resulting in a 1 mile buffer zone of the areas accessible on roadways. This analysis provided insight into whether or not the proposed bridge would create a connection to significant origins and destinations within a walkable and bike-able 1 mile distance. When overlaid on the latent demand heat map, this network analysis also demonstrated whether the proposed bridge would serve the areas with high potential use.



### PARK & RIDE USER ORIGINS DENSITIES:

License plate data collected from FrontRunner parking lots was examined to determine where most riders boarding at the Farmington Station are coming from. The origins were broken into zones and the rider origin densities were aggregated into ridership percentages by zone. High percentages were seen west of the station and I-15 and north of the station, between I-15 and US-89. This analysis was useful in determining whether the bridge could serve those areas with high percentage of riders.

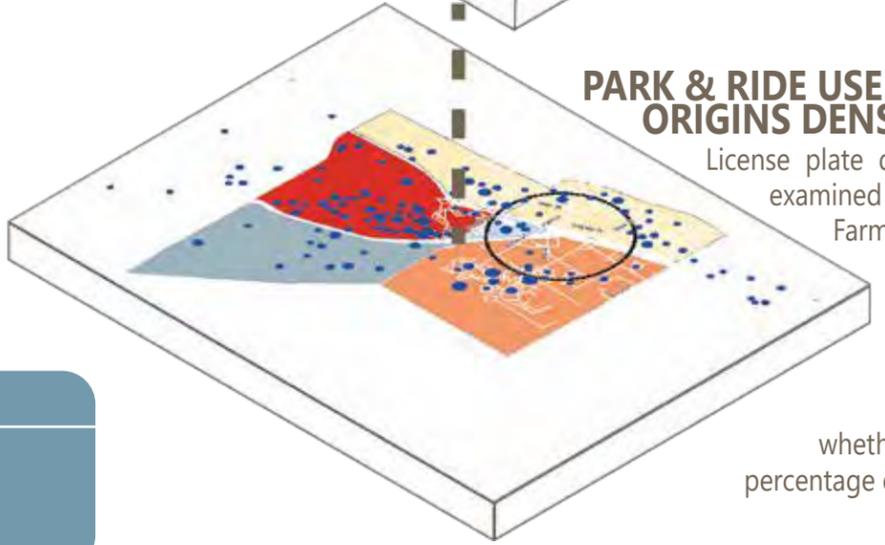


FIGURE 7

## REFINEMENT OF THE PARK LANE ALTERNATIVE

By most qualitative and quantitative measures, the Park Lane Pathway (Alternative A) provides better access to activity centers and created ideal multi-directional network connectivity. This section presents additional refinements to the concept.

### ALTERNATIVE A2 – BOX CULVERT TUNNELS

A key issue with the Park Lane Pathway alternative is the use of at-grade pedestrian crossings at the interchange ramps, which presents a safety/stress concern for path users. Considering that one of the original goals was to create pathway connections without having to traverse freeway interchanges or narrow overpasses, the project team developed a refinement to Alternative A to mitigate this issue.

**Figure 8** illustrates the concept of using box culvert tunnels through the ramp embankments to avoid the at-grade crossings, then “clover loop” the path to get it elevated to the necessary bridge height. This would make the pathway longer and circuitous, but would create a more comfortable facility. Note that the box culvert tunnel is not practical on the western I-15 bridge abutment, where lateral space is very constrained and there is not enough room to accommodate the trail loop; at this location a signalized trail crossing could be used.

The planning level cost estimate for Alternative A2 is \$13,337,000, assuming three separate bridge structures for the pathway, three box culvert tunnels with looping pathway segments, and one at-grade signalized crosswalk.

### ALTERNATIVE A3 – GENERAL BRIDGE DECK WIDENING

The lack of roadway shoulders on Park Lane create safety issues (e.g. stalled vehicles) and maintenance issues (e.g. snow storage). UDOT has indicated a desire to widen the bridge deck to address these issues, although there are no funds currently allocated. There may be an opportunity to integrate a path facility with widening for shoulder/vehicle lanes, rather than build separate pedestrian bridges adjacent to the roadway structures. By combining the projects, it creates a stronger argument for making the improvements to the bridges. The rationale for widening the bridge is based on safety, maintenance, and active transportation connection, which will make the project more competitive as a funding priority by achieving several important improvements.

The planning level cost estimate for Alternative A3 is \$14,976,000, assuming widening of three existing bridge structures, three box culvert tunnels with looping pathway sections, and one at-grade signalized crosswalk. Note that this alternative could be done without the box culvert tunnels.

### ALTERNATIVE A4 & A5 – SOUTH SIDE PATHWAY

Alternative A4 and A5 (**Figure 9**) represent an active transportation pathway on the south side of Park Lane, as opposed to the north side. As discussed previously, the use of at-grade pedestrian crossings at the interchange ramps presents a safety/stress concern for path users. Furthermore, frequent interruptions to traffic flow for pedestrian crossing signal phases will potentially degrade

traffic operations, particularly during the peak commute periods.

Although no traffic data was collected for this study, there are several indicators to suggest ramps on the south side of the Park Lane interchange have less vehicle activity. The lane geometry is one indicator – there are dual left turn lanes for northbound movements and single lanes for southbound left turns. As noted in a letter from Farmington City officials (included in the Appendix), Northern Davis County has five points of access to southbound I-15, but only one access to northbound I-15 (at Park Lane), which naturally focuses more vehicle demand to the ramps on the north side of Park Lane.

Assuming the ramps on the south side of the Park Lane interchange have less vehicle traffic, a pathway alignment on the south side would have fewer potential conflicts and less impact to traffic operations. Although the traffic volumes may be lower on the south side, the free right turn movements are an issue, and would likely require modification to accommodate safe pathway crossings.

Alternative A4 and A5 provide a connection to the Oakridge Trail and the Farmington Crossing neighborhood using a tunnel under Park Lane between US-89 and I-15. With the trail alignment on the south side of Park Lane, a much more direct access to the FrontRunner station is possible using a trail structure. A connection to the Legacy Parkway Trail can be built on the existing grade west of the rail corridor.

As with Alternatives A2 and A3, what distinguishes Alternatives A4 and A5 is the use of separate bridges versus general bridge deck widening to accommodate the active transportation facility.

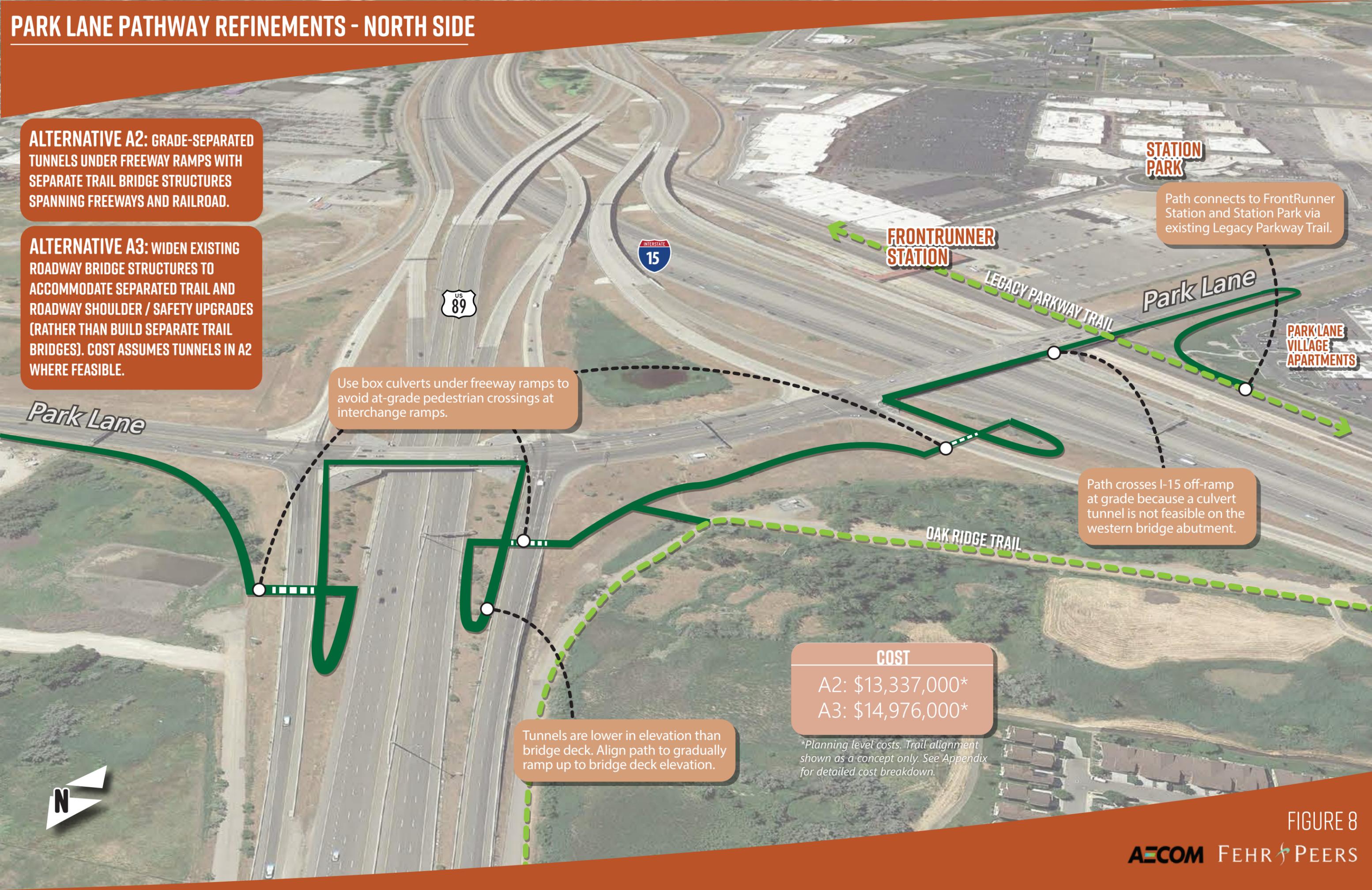
The planning level cost estimate for Alternative A4 is \$14,268,000, assuming three separate bridge structures to span the highways and railroad, one trail structure to connect to the Frontrunner station, one box culvert tunnel under Park Lane, and four at-grade signalized crosswalks.

The planning level cost estimate for Alternative A5 is \$16,412,000, assuming widening of three existing bridge structures, one trail structure to connect to the Frontrunner station, one box culvert tunnel under Park Lane, and four at-grade signalized crosswalks.

# PARK LANE PATHWAY REFINEMENTS - NORTH SIDE

**ALTERNATIVE A2: GRADE-SEPARATED TUNNELS UNDER FREEWAY RAMPS WITH SEPARATE TRAIL BRIDGE STRUCTURES SPANNING FREEWAYS AND RAILROAD.**

**ALTERNATIVE A3: WIDEN EXISTING ROADWAY BRIDGE STRUCTURES TO ACCOMMODATE SEPARATED TRAIL AND ROADWAY SHOULDER / SAFETY UPGRADES (RATHER THAN BUILD SEPARATE TRAIL BRIDGES). COST ASSUMES TUNNELS IN A2 WHERE FEASIBLE.**



**STATION PARK**

Path connects to FrontRunner Station and Station Park via existing Legacy Parkway Trail.

**FRONTRUNNER STATION**

LEGACY PARKWAY TRAIL

Park Lane

**PARK LANE VILLAGE APARTMENTS**

Use box culverts under freeway ramps to avoid at-grade pedestrian crossings at interchange ramps.

Path crosses I-15 off-ramp at grade because a culvert tunnel is not feasible on the western bridge abutment.

OAK RIDGE TRAIL

Park Lane

COST	
A2:	\$13,337,000*
A3:	\$14,976,000*

Tunnels are lower in elevation than bridge deck. Align path to gradually ramp up to bridge deck elevation.

*\*Planning level costs. Trail alignment shown as a concept only. See Appendix for detailed cost breakdown.*



FIGURE 8

# PARK LANE PATHWAY REFINEMENTS - SOUTH SIDE



Pathway segment provides a connection to the Legacy Parkway trail.

**PARK LANE VILLAGE APARTMENTS**

Route pathway along south side of Park Lane. Lower ramp traffic volumes result in less potential conflict between trail users and vehicles.

**ALTERNATIVE A4: SEPARATE TRAIL BRIDGE STRUCTURES SPANNING FREEWAYS AND RAILROAD. COST ASSUMES TRAFFIC SIGNAL MODIFICATIONS TO ACCOMMODATE SIGNALIZED AT-GRADE CROSSWALKS.**

**ALTERNATIVE A5: WIDEN EXISTING ROADWAY BRIDGES TO ACCOMMODATE SEPARATED TRAIL AND ROADWAY SHOULDER / SAFETY UPGRADES (RATHER THAN BUILD SEPARATE TRAIL BRIDGES). COST ASSUMES TRAFFIC SIGNAL MODIFICATIONS TO ACCOMMODATE AT-GRADE SIGNALIZED CROSSWALKS.**

OAK RIDGE TRAIL

Construct off-street pathway on south side of Park Lane between Lagoon Drive and interchange ramps.

**FRONTRUNNER STATION**

Segment represents a connection to the Farmington FrontRunner Station. A structure is needed adjacent to the existing MSE wall and will touch down west of the UTA pedestrian structure.

Pathway provides a connection to the Farmington Crossing neighborhood via a north to south culvert pedestrian tunnel, and a connector trail.



COST	
A4:	\$14,268,000*
A5:	\$16,412,000*

\*Planning level costs. Trail alignment shown as a concept only. See Appendix for detailed cost breakdown.



FIGURE 9

## NEXT STEPS

In September 2017, UDOT obtained a Record of Decision (ROD) for the West Davis Corridor Project, which concludes a multi-year Environmental Impact Statement (EIS) with approval of a Selected Alternative (Alternative B1 with the Wetland Avoidance Option). The West Davis Corridor is a new north-south roadway corridor that connects I-15 / Legacy Parkway in Farmington at Glovers Lane to 4100 West/1800 North in West Point.



IMAGE: WEST DAVIS CORRIDOR SELECTED ALTERNATIVE (SOURCE: ROD)

The Selected Alternative includes numerous improvements to the regional trail system, including a trail crossing I-15 on Park Lane in Farmington. The EIS indicates the trail would be located on the north side of Park Lane and would connect the Legacy Parkway Trail to the Oakridge Preserve Trail. The preliminary concept expands the existing Park Lane bridges over I-15 and UPRR to accommodate the trail, and assumes that trail crossings will occur at the signalized ramp junctions. A crossing of US-89 was not specifically included in the concept. The UDOT concept report for the Park Lane structure widening is included in the Appendix.

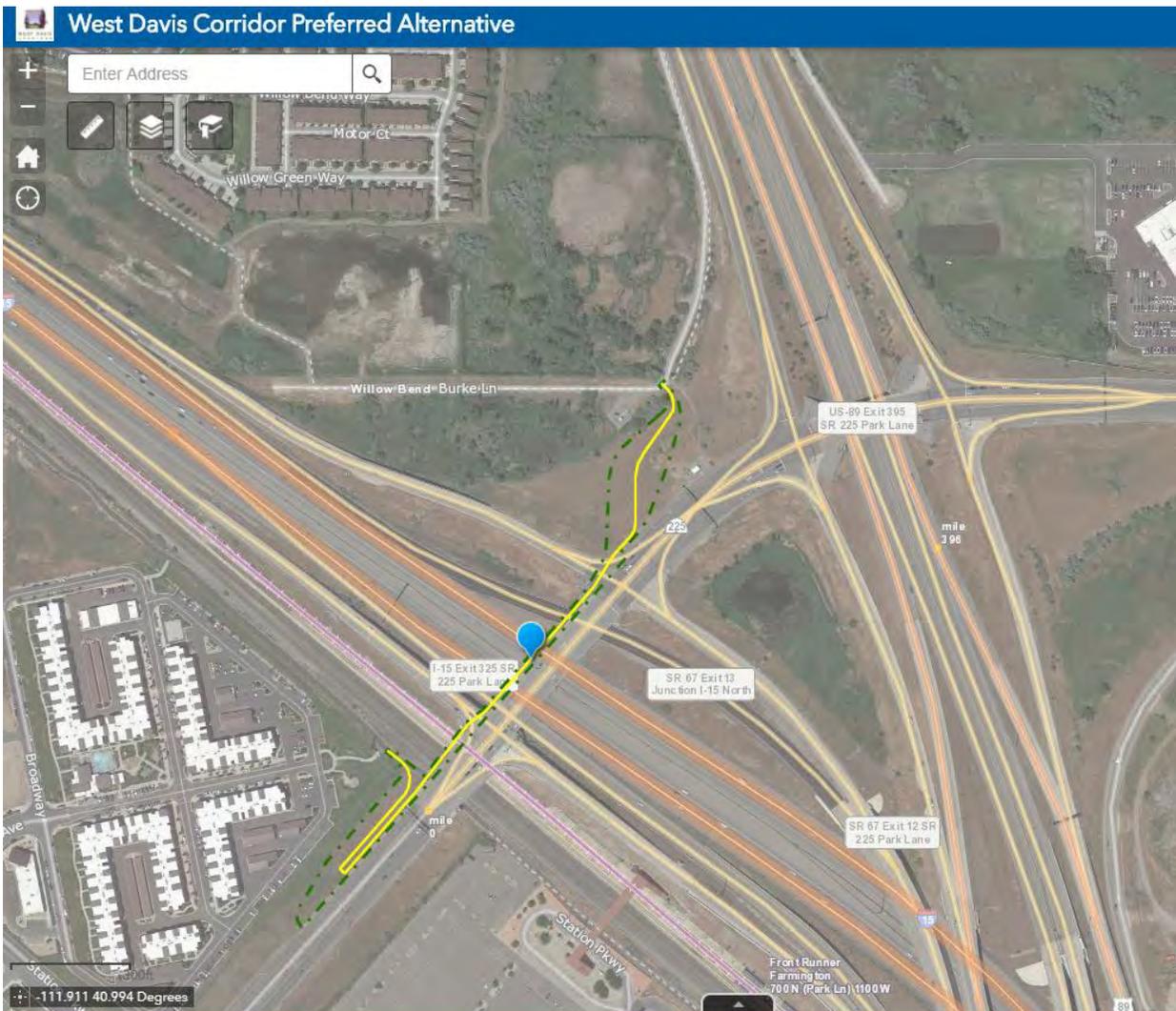


IMAGE: PARK LANE TRAIL IMPROVEMENTS, WEST DAVIS CORRIDOR SELECTED ALTERNATIVE (SOURCE: [HTTP://WWW.UDOT.UTAH.GOV/WESTDAVIS/](http://www.udot.utah.gov/westdavis/))

With the ROD approval, UDOT can now proceed with the remaining steps of project development (right-of-way acquisition, final engineering); construction is planned to begin in 2020. During the design development phase, it will be important for Farmington City and stakeholders to work with UDOT to determine priority design features, such as enhanced trail crossing treatments and a trail

connection over US-89. If at-grade signalized crosswalks are used, it is recommended that a traffic study is done to determine how the addition of pedestrian signals affects traffic operations.

Implementing an active transportation facility along Park Lane be a substantial investment for Farmington City and will require support from city, county, and state leadership, as well as a partnership with UDOT. To begin, Farmington City staff should brief city representatives on the outcomes of this planning effort. By making city representatives and elected officials aware of the outcomes of this study, they can promote the value of the Park Lane path connection, and may help push the initiative forward. Additionally, Farmington City has a Transportation Master Plan which was adopted in 2005. Steps should be taken to adopt this Farmington Linkage Study into the Transportation Master Plan to ensure the city is prepared to begin implementation or seek funding when there is an opportunity to do so.

## APPENDIX

## **APPENDIX A: LATENT DEMAND MODEL VARIABLES**



<b>Latent Active Transportation Demand Scoring</b>	
<b>Built Environment Factors</b>	
<b>Total Population Density (Housing Units per Acre)</b>	<b>Score (12 Maximum)</b>
0 - 0.4	0
0.5 - 1.3	2.4
1.4 - 2.3	4.8
2.4 - 4.1	7.2
4.2 - 6.7	9.6
> 6.7	12
<b>Employment Density (Jobs/Acre)</b>	<b>Score (12 Maximum)</b>
0 - 0.1	0
0.2 - 0.3	2.4
0.4 - 0.6	4.8
0.7 - 1	7.2
1.1 - 1.9	9.6
> 1.9	12
<b>Proximity Factors</b>	
<b>Trails (proximity in feet)</b>	<b>Score (25 Maximum)</b>
0-660	25
661-1320	23.75
1231-2640	21.25
2641-3960	12.5
3961-5280	6.25
>5280	0
<b>Schools (proximity in feet)</b>	<b>Score (20 Maximum)</b>
0-660	20
661-1320	19
1231-2640	17
2641-3960	10
3961-5280	2
>5280	0
<b>Parks (proximity in feet)</b>	<b>Score (20 Maximum)</b>
0 - 660	20
661-1320	15
1231-2640	10
2641-3960	5
>3960	0

Trailheads (proximity in feet)	Score (20 Maximum)
0 - 660	20
661-1320	15
1321 - 2640	10
2641 - 5280	5
>5281	0
Lagoon (proximity in feet)	Score (20 Maximum)
0 -330	20
331-660	15
661 - 1320	10
1321 -2640	5
>2641	0
Retail/Commercial (proximity in feet)	Score (18 Maximum)
0 - 660	18
661-1320	13.5
1321-2640	9
2641-3960	4.5
>3960	0
Bus Stops (proximity in feet)	Score (16 Maximum)
0 -330	16
331-660	12
661 - 1320	8
1321 -2640	4
>2641	0
FrontRunner Station (proximity in feet)	Score (16 Maximum)
0 -330	16
331-660	12
661 - 1320	8
1321 -2640	4
>2641	0
Roads >30MPH (proximity in feet)	Score (12 Maximum)
0 - 660	12
661 - 1320	6
>1321	0

Factor	Type	Variable Used
<b>Built Environment Factors</b>		
Population Density	Polygon	Based on average density
Employment Density	Polygon	Based on average density
<b>Proximity Factors</b>		
Schools	Point	Based on distance from schools
Parks	Point	Based on distance from parks
Retail	Point	Based on distance from commercial retail sites
Trails	Polyline converted to points	Based on distance to trails
Lagoon	Point	Based on distance from Lagoon
Trailheads	Point	Based on distance from trailheads
Bus Stops	Point	Based on distance from bus stops
FrontRunner Station	Point	Based on distance from FrontRunner station
Roads with speed limit >30MPH	Polyline converted to points	Based on distance from roads with a speed limit >30MPH

## **APPENDIX B: ITEMIZED COST ESTIMATES**



**Park Lane Crossing (US-89 and I-15)**  
**Conceptual Cost Estimate**  
**Alternative A1**

10-Jul-17

Description	Quantity	Unit	Unit Price	Total
<b>General</b>				
Mobilization	1	Lump	6.0%	\$ 358,000.00
Traffic Control	1	Lump	2.0%	\$ 120,000.00
Survey	1	Lump	5.0%	\$ 298,000.00
<b>General Subtotal</b>				<b>\$ 776,000.00</b>
<b>Roadway</b>				
Trail (includes HMA, UTBC, Fill)	59,850	sq ft	\$ 20.00	\$ 1,197,000.00
Traffic Signal - modification	4	Lump	\$ 75,000.00	\$ 300,000.00
<b>Roadway Subtotal</b>				<b>\$ 1,497,000.00</b>
<b>Structures</b>				
Bridge I-15	5,138	sq ft	\$ 300.00	\$ 1,541,400.00
Bridge US-89	3,920	sq ft	\$ 300.00	\$ 1,176,000.00
Bridge UPRR and UTA	3,220	sq ft	\$ 300.00	\$ 966,000.00
<b>Structures Subtotal</b>				<b>\$ 3,683,400.00</b>
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 5,956,400.00</b>
<i>Preliminary Engineering (10%)</i>				<i>\$ 596,000.00</i>
<i>Construction Engineering (10%)</i>				<i>\$ 596,000.00</i>
<i>25% CONTINGENCY</i>				<i>\$ 1,490,000.00</i>
<i>Subtotal</i>				<i>\$ 2,682,000.00</i>
<b>TOTAL PROJECT COST</b>				<b>\$ 8,639,000.00</b>

**Park Lane Crossing (US-89 and I-15)**  
**Conceptual Cost Estimate**  
**Alternative A2**

10-Jul-17

Description	Quantity	Unit	Unit Price	Total
<b>General</b>				
Mobilization	1	Lump	6.0%	\$ 552,000.00
Traffic Control	1	Lump	2.0%	\$ 184,000.00
Survey	1	Lump	5.0%	\$ 460,000.00
<b>General Subtotal</b>				<b>\$ 1,196,000.00</b>
<b>Roadway</b>				
Trail (includes HMA, UTBC, Fill)	80,850	sq ft	\$ 20.00	\$ 1,617,000.00
Traffic Signal - modification	1	Lump	\$ 75,000.00	\$ 75,000.00
<b>Roadway Subtotal</b>				<b>\$ 1,692,000.00</b>
<b>Structures</b>				
Bridge I-15	5138	sq ft	\$ 300.00	\$ 1,541,400.00
Bridge US-89	3920	sq ft	\$ 300.00	\$ 1,176,000.00
Bridge UPRR and UTA	3220	sq ft	\$ 300.00	\$ 966,000.00
MSE Retaining Wall EB(I-15)	2500	sq ft	\$ 50.00	\$ 125,000.00
MSE Retaining Wall NB (US-89)	2500	sq ft	\$ 50.00	\$ 125,000.00
MSE Retaining Wall SB (US-89)	2500	sq ft	\$ 50.00	\$ 125,000.00
Box Culvert EB (I-15)	150	ln. ft.	\$ 5,000.00	\$ 750,000.00
Box Culvert NB (US-89)	150	ln. ft.	\$ 5,000.00	\$ 750,000.00
Box Culvert SB (US-89)	150	ln. ft.	\$ 5,000.00	\$ 750,000.00
<b>Structures Subtotal</b>				<b>\$ 6,308,400.00</b>
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 9,196,400.00</b>
<i>Preliminary Engineering (10%)</i>				<i>\$ 920,000.00</i>
<i>Construction Engineering (10%)</i>				<i>\$ 920,000.00</i>
<i>25% CONTINGENCY</i>				<i>\$ 2,300,000.00</i>
<i>Subtotal</i>				<i>\$ 4,140,000.00</i>
<b>TOTAL PROJECT COST</b>				<b>\$ 13,337,000.00</b>

**Park Lane Crossing (US-89 and I-15)  
Conceptual Cost Estimate  
Alternative A3**

10-Jul-17

Description	Quantity	Unit	Unit Price	Total
<b>General</b>				
Mobilization	1	Lump	6.0%	\$ 620,000.00
Traffic Control	1	Lump	2.0%	\$ 207,000.00
Survey	1	Lump	5.0%	\$ 517,000.00
<b>General Subtotal</b>				<b>\$ 1,344,000.00</b>
<b>Roadway</b>				
Trail (includes HMA, UTBC, Fill)	80,850	sq ft	\$ 20.00	\$ 1,617,000.00
Traffic Signal - modification	1	Lump	\$ 75,000.00	\$ 75,000.00
<b>Roadway Subtotal</b>				<b>\$ 1,692,000.00</b>
<b>Structures</b>				
Bridge Widening I-15	5,880	sq ft	\$ 350.00	\$ 2,058,000.00
Bridge Widening US-89	2,660	sq ft	\$ 350.00	\$ 931,000.00
Bridge UPRR and UTA	3,080	sq ft	\$ 350.00	\$ 1,078,000.00
Overhead sign at UPRR	1	lump	\$ 600,000.00	\$ 600,000.00
MSE Retaining Wall EB(I-15)	2,500	sq ft	\$ 50.00	\$ 125,000.00
MSE Retaining Wall NB (US-89)	2,500	sq ft	\$ 50.00	\$ 125,000.00
MSE Retaining Wall SB (US-89)	2,500	sq ft	\$ 50.00	\$ 125,000.00
Box Culvert EB (I-15)	150	ln. ft.	\$ 5,000.00	\$ 750,000.00
Box Culvert NB (US-89)	150	ln. ft.	\$ 5,000.00	\$ 750,000.00
Box Culvert SB (US-89)	150	ln. ft.	\$ 5,000.00	\$ 750,000.00
<b>Structures Subtotal</b>				<b>\$ 7,292,000.00</b>
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 10,328,000.00</b>
<i>Preliminary Engineering (10%)</i>				<i>\$ 1,033,000.00</i>
<i>Construction Engineering (10%)</i>				<i>\$ 1,033,000.00</i>
<i>25% CONTINGENCY</i>				<i>\$ 2,582,000.00</i>
<i>Subtotal</i>				<i>\$ 4,648,000.00</i>
<b>TOTAL PROJECT COST</b>				<b>\$ 14,976,000.00</b>

**Park Lane Crossing (US-89 and I-15)**  
**Conceptual Cost Estimate**  
**Alternative A4**

22-Nov-17

Description	Quantity	Unit	Unit Price	Total
<b>General</b>				
Mobilization	1	Lump	6.0%	\$ 590,000.00
Traffic Control	1	Lump	2.0%	\$ 197,000.00
Survey	1	Lump	5.0%	\$ 492,000.00
<b>General Subtotal</b>				<b>\$ 1,279,000.00</b>
<b>Roadway</b>				
Trail (includes HMA, UTBC, Fill)	49,840	sq ft	\$ 20.00	\$ 996,800.00
Traffic Signal - modification	4	Lump	\$ 75,000.00	\$ 300,000.00
<b>Roadway Subtotal</b>				<b>\$ 1,296,800.00</b>
<b>Structures</b>				
Bridge I-15	5880	sq ft	\$ 300.00	\$ 1,764,000.00
Bridge US-89	4480	sq ft	\$ 300.00	\$ 1,344,000.00
Bridge UPRR and UTA	3360	sq ft	\$ 300.00	\$ 1,008,000.00
Bridge Park to UTA	3850	sq ft	\$ 350.00	\$ 1,347,500.00
Box Culvert (US-89)	290	sq ft	\$ 5,000.00	\$ 1,450,000.00
MSE Retaining Wall (US-89)	7000	sq ft	\$ 50.00	\$ 350,000.00
				\$ -
				\$ -
				\$ -
<b>Structures Subtotal</b>				<b>\$ 7,263,500.00</b>
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 9,839,300.00</b>
<i>Preliminary Engineering (10%)</i>				<i>\$ 984,000.00</i>
<i>Construction Engineering (10%)</i>				<i>\$ 984,000.00</i>
<i>25% CONTINGENCY</i>				<i>\$ 2,460,000.00</i>
<i>Subtotal</i>				<i>\$ 4,428,000.00</i>
<b>TOTAL PROJECT COST</b>				<b>\$ 14,268,000.00</b>

**Park Lane Crossing (US-89 and I-15)**  
**Conceptual Cost Estimate**  
**Alternative A5**

22-Nov-17

Description	Quantity	Unit	Unit Price	Total
<b>General</b>				
Mobilization	1	Lump	6.0%	\$ 679,000.00
Traffic Control	1	Lump	2.0%	\$ 226,000.00
Survey	1	Lump	5.0%	\$ 566,000.00
<b>General Subtotal</b>				<b>\$ 1,471,000.00</b>
<b>Roadway</b>				
Trail (includes HMA, UTBC, Fill)	49,840	sq ft	\$ 20.00	\$ 996,800.00
Traffic Signal - modification	4	Lump	\$ 75,000.00	\$ 300,000.00
<b>Roadway Subtotal</b>				<b>\$ 1,296,800.00</b>
<b>Structures</b>				
Bridge Widening I-15	5,880	sq ft	\$ 350.00	\$ 2,058,000.00
Bridge Widening US-89	4,480	sq ft	\$ 350.00	\$ 1,568,000.00
Bridge UPRR and UTA	3,360	sq ft	\$ 350.00	\$ 1,176,000.00
Overhead sign at UPRR	1	lump	\$ 600,000.00	\$ 600,000.00
Bridge Park to UTA	3,850	sq ft	\$ 350.00	\$ 1,347,500.00
Box Culvert (US-89)	290	ln. ft.	\$ 5,000.00	\$ 1,450,000.00
MSE Retaining Wall (US-89)	7,000	sq ft	\$ 50.00	\$ 350,000.00
				\$ -
				\$ -
				\$ -
<b>Structures Subtotal</b>				<b>\$ 8,549,500.00</b>
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 11,317,300.00</b>
<i>Preliminary Engineering (10%)</i>				<i>\$ 1,132,000.00</i>
<i>Construction Engineering (10%)</i>				<i>\$ 1,132,000.00</i>
<i>25% CONTINGENCY</i>				<i>\$ 2,830,000.00</i>
<i>Subtotal</i>				<i>\$ 5,094,000.00</i>
<b>TOTAL PROJECT COST</b>				<b>\$ 16,412,000.00</b>

**I-15 Crossing West of Park Lane  
Conceptual Cost Estimate  
Alternative B**

10-Jul-17

Description	Quantity	Unit	Unit Price	Total
<b>General</b>				
Mobilization	1	Lump	6.0%	\$ 267,000.00
Traffic Control	1	Lump	2.0%	\$ 89,000.00
Survey	1	Lump	5.0%	\$ 223,000.00
<b>General Subtotal</b>				<b>\$ 579,000.00</b>
<b>Roadway</b>				
Trail (includes HMA, UTBC, Fill)	2,800	sq ft	\$ 20.00	\$ 56,000.00
<b>Roadway Subtotal</b>				<b>\$ 56,000.00</b>
<b>Structures</b>				
Bridge I-15	5,040	sq ft	\$ 300.00	\$ 1,512,000.00
Ramps for structure	11,480	sq ft	\$ 200.00	\$ 2,296,000.00
				\$ -
				\$ -
<b>Structures Subtotal</b>				<b>\$ 3,808,000.00</b>
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 4,443,000.00</b>
<i>Preliminary Engineering (10%)</i>				<i>\$ 445,000.00</i>
<i>Construction Engineering (10%)</i>				<i>\$ 445,000.00</i>
<i>25% CONTINGENCY</i>				<i>\$ 1,111,000.00</i>
<i>Subtotal</i>				<i>\$ 2,001,000.00</i>
<b>TOTAL PROJECT COST</b>				<b>\$ 6,444,000.00</b>

**US-89 Crossing North of Park Lane  
Conceptual Cost Estimate  
Alternative C**

10-Jul-17

<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total</b>
<b>General</b>				
Mobilization	1	Lump	6.0%	\$ 242,000.00
Traffic Control	1	Lump	2.0%	\$ 81,000.00
Survey	1	Lump	5.0%	\$ 201,000.00
<b>General Subtotal</b>				<b>\$ 524,000.00</b>
<b>Roadway</b>				
Trail (includes HMA, UTBC, Fill)	2,800	sq ft	\$ 20.00	\$ 56,000.00
<b>Roadway Subtotal</b>				<b>\$ 56,000.00</b>
<b>Structures</b>				
Bridge US-89	4,928	sq ft	\$ 300.00	\$ 1,478,400.00
Ramps for structure	9,800	sq ft	\$ 200.00	\$ 1,960,000.00
				\$ -
				\$ -
<b>Structures Subtotal</b>				<b>\$ 3,438,400.00</b>
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 4,018,400.00</b>
<i>Preliminary Engineering (10%)</i>				\$ 402,000.00
<i>Construction Engineering (10%)</i>				\$ 402,000.00
<i>25% CONTINGENCY</i>				\$ 1,005,000.00
<i>Subtotal</i>				\$ 1,809,000.00
<b>TOTAL PROJECT COST</b>				<b>\$ 5,828,000.00</b>

**APPENDIX C: PARK LANE MEMO**



## Memorandum

To: Kyle Cook, Fehr and Peers  
From: David Petersen, Community Development Director  
Date: October 19, 2017  
SUBJECT: Alternative D

There may be another option, “Alternative D”, as follows:

**BACKGROUND.** Early concepts in the 1990s showed no local Farmington access to the Legacy Highway at what was then the Burke Lane interchange (but was later renamed to Park Lane). The proposal was indefensible for local politicians, including Mayor Greg Bell (a future State Senator and Lieutenant Governor) and Marta Dillree (a very influential State Representative at the time who championed transportation issues statewide—and a former Farmington City Council member). They were extremely put out that Farmington was to take the impact of a large regional interchange, but its residents must back track north to Cherry Hill or 200 North then travel southbound on US 89 or I-15 (or travel to Parrish Lane) to even use the new highway. UDOT agreed and accommodated Farmington’s wishes, but in doing so the interchange became more complicated.

Confusing Ramps. From an aerial view US 89 and Legacy Highway appear to be one facility (“US 89/Legacy Hwy”) which crosses I-15 north to south (or northeast to southwest). However, on the ground it is quite a different matter. To better explain, attached is an aerial photo of the “two” interchanges whereby the four Park Lane intersections/signals are identified and numbered 1 to 4 moving west to east. When one travels east to I-15 from west Farmington to Intersections 1 and 2, one expects both intersections to relate to the interstate they are centered on, but this is not the case. Ramps 1N and 2N relate to I-15, but ramps 1S and 2S deal with Legacy Hwy. Confusing. And as one continues east one would expect that both Intersections 3 and 4 provide access to and from US 89 and its defacto southern continuation Legacy Hwy, but they do not. Only ramps 3N and 4N relate to US 89, while their “counterparts” are associated with I-15. Confusing.

In an effort to reduce the confusion and the number of related accidents, and with the help and strong and persistent urging of Farmington officials, UDOT first tried to paint a logo of the facility on the appropriate lane designed for its access (see attached photos). Then UDOT installed the overhead signage.

**I-15 ACCESS.** In the early 1970s, UDOT constructed a half interchange at 200 West and I-15 which only provides interstate access for motorists to and from points south of Farmington. Meanwhile, the Burke Lane Interchange provided interstate access to and from points north of Farmington (and south).

South. Presently, Farmington citizens and visitors enjoy 5 points of access to I-15 to and from destinations south of the community: 1) All of Centerville north of Parish Lane (including parts of central Centerville), and most of south and southwest Farmington (from about 620 South Street south), use the Parish Lane interchange; 2) Central Farmington, and large portions of central west Farmington, use 200 West; 3) Compton/central east and west Farmington, and to a certain extent northwest Farmington, use Park Lane; 4) Northwest Farmington, most of Oakridge, and Shepard/central east Farmington, use Shepard Lane (Via US 89) and Park Lane; and 5) Northeast Farmington and north Oakridge use Cherry Hill (both via US 89).

North. Farmington citizens and visitors (and large parts of north Centerville) enjoy 1 point of access to I-15 to and from destinations north of the community: Park Lane.

For the reasons mentioned above, the turning movements identified on the attached aerial as 1N, 2N, 3N, and 4N handle significantly more traffic than 1S, 2S, 3S, and 4S. This may be why 1S, 2S, 3S, and 4S have large pork chop shaped islands, because only single lane turning movements are necessary on the south side of the deck due to low traffic counts; meanwhile, many of the north side movements are characterized by double lanes and heavy traffic. Hence, 1N, 2N, 3N, and 4N do not have pork chops.

**ALTERNATIVE D.** This option suggests that UDOT should place the pedestrian way on the south side of Park Lane on not the north side. This choice may be a more effective alternative than A, B or C; and by taking advantage of the aforementioned design flaws and regional local access movements, this option may impede Park Lane vehicle movement and functionality less (and may be more affordable) than alternatives A or A1/A2. Alternative D suggests that UDOT should place the pedestrian way on the south side of Park Lane on not the north side.

Intersection 1. The southbound ramp at this intersection (1S) connects to Legacy Hwy and relatively very few vehicles use this ramp. [Note: at 3:00 pm I pulled up in the right-hand turn lane for “1S a” and realized I overshot the overhead sign (I wanted to take a picture of this sign)—so, I calmly backed up 300 feet knowing that no cars would be in the way using this lane. One could not do this with any of the north side turning movements (1N, 2N, 3N, and 4N)--at any reasonable time of the day they are always too busy]. The predominate commuter movement in Farmington is to the south, and most take I-15--not Legacy. Therefore other than the morning peak, which may not be that much traffic, the right turn movement (1S a) does not get much use. It is a good spot for pedestrians to cross to the safety of a large pork chop shaped island. And in the event a yield sign/light is installed and vehicles must stop for pedestrians as they make their way to the pork chop, the right hand turn lane is very long to accommodate a sizeable cue and not “gum-up” the rest of traffic on Park Lane.

Probably fewer vehicles use 1Sb than 1Sa. [Note: it may be wise to perform a present or

future traffic study to analyze all of the Park Lane turning movements or a past study which was necessary to install the signage and re-stripe the r.o.w.---which UDOT has done more than once].

Any at grade east to west pedestrian crossing on the other side of the street at 1N may be an substantial impediment to vehicular traffic on Park Lane [note: the Park Lane Interchange in comprised of two side by side diamond interchanges and requires an extra long series of synchronized multiple traffic signals to accommodate traffic flow, and therefore, its capacity is limited---much more than had it been a SPUI or even a single diamond interchange; and any “hiccup” to traffic flow may create a domino effect resulting in some congestion;].

Intersection 2. The northbound ramp at this intersection (2S) connects to Legacy Hwy and relatively few vehicles use this ramp. The predominate commuter movement in Farmington is to the south, and most take I-15--not Legacy. Therefore other than the evening peak, which may not be that much traffic, 2S does not get much use. It is a good spot for pedestrians to cross and even has the safety of a large pork chop shaped island. And in the event a yield sign/lights are installed and vehicles must stop for pedestrians, the lane(s) leading up to 2S are very long and can accommodate a sizeable cue and not “gum-up” the rest of traffic on Park Lane.

Tunnel. There is enough room between 2S and 3S to accommodate a tunnel connecting to the Oakridge trail.

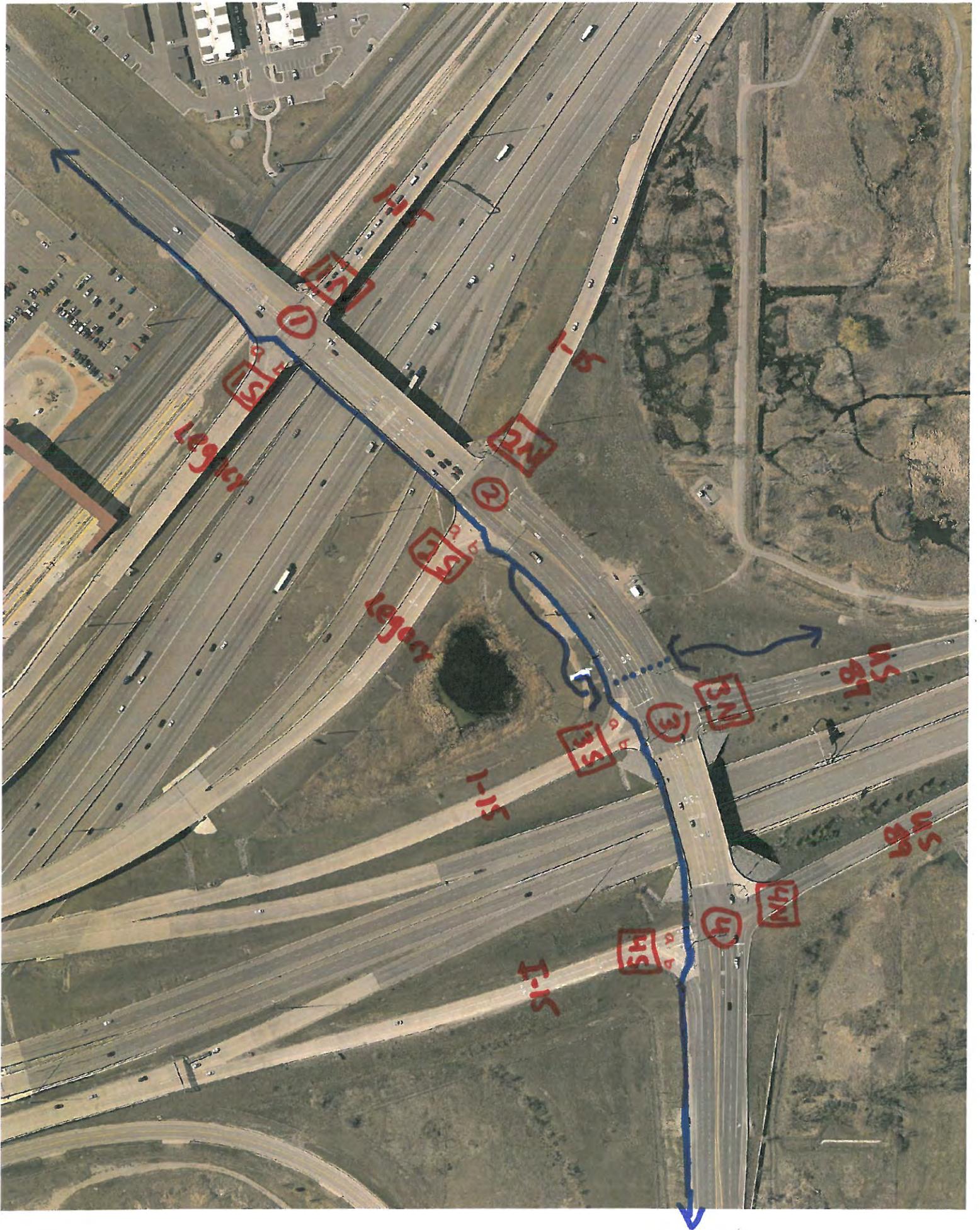
Intersection 3. This intersection (3S) and the next intersection (4S) are much busier than 1S and 2S, but not as busy as 1N, 2N, 3N and 4N. The merge lane for 2S b and the right hand turn lane for 3S a are the same lane. Under normal circumstances this may constitute a red-flag, but since so few vehicles use 2S b, a weave problem does not exist in this lane and there is a enough room for a cue to form in the event a pedestrian uses a signal to cross at 3S a to the safety of the pork chop island. Moreover, ample time is available for pedestrians to cross at 3S b as the traffic signals work at their regular timing to accommodate overall movement on the deck.

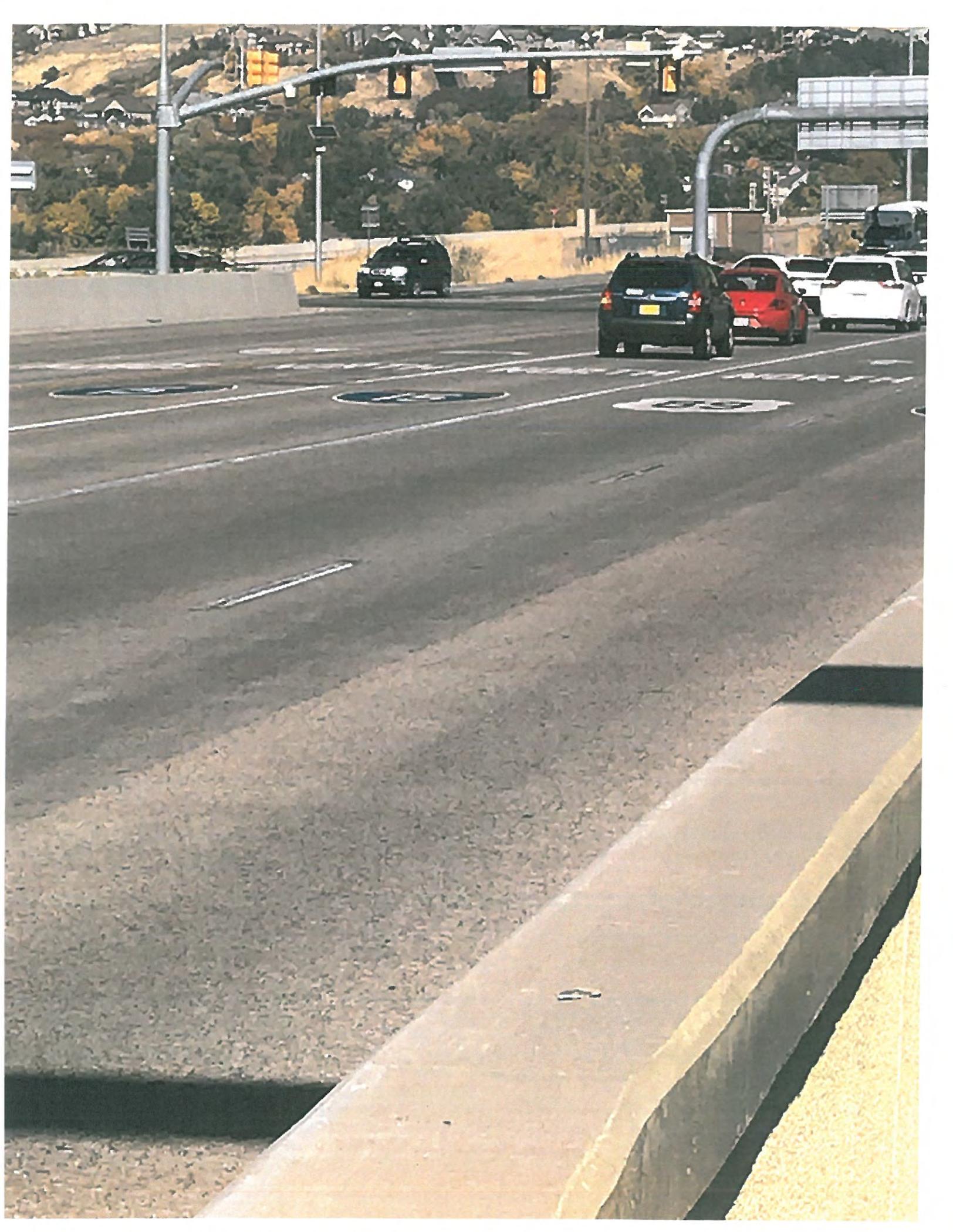
Intersection 4. A cue forms almost every time at 4S a, but it still allows time for pedestrian to cross safely to the porkchop. And there is more than enough room for a long north bound cue to form at 4S b if necessary to stop for pedestrians. Pedestrian movements at 4S can be done in such a way as to not jam Park Lane traffic.

**CONCLUSION.** It appears that Alternative D may hinder the functionality and capacity of the Park Lane interchange less than A, which is very important to the viability of Farmington’s commercial areas/tax base, and it may provide safer and more efficient pedestrian access than A, B, or C. Alternative A1/A2 probably have to much elevation gain, too many tunnels, and is too circuitous and lengthy for the average pedestrian. This may be a deterrent for many, and it may

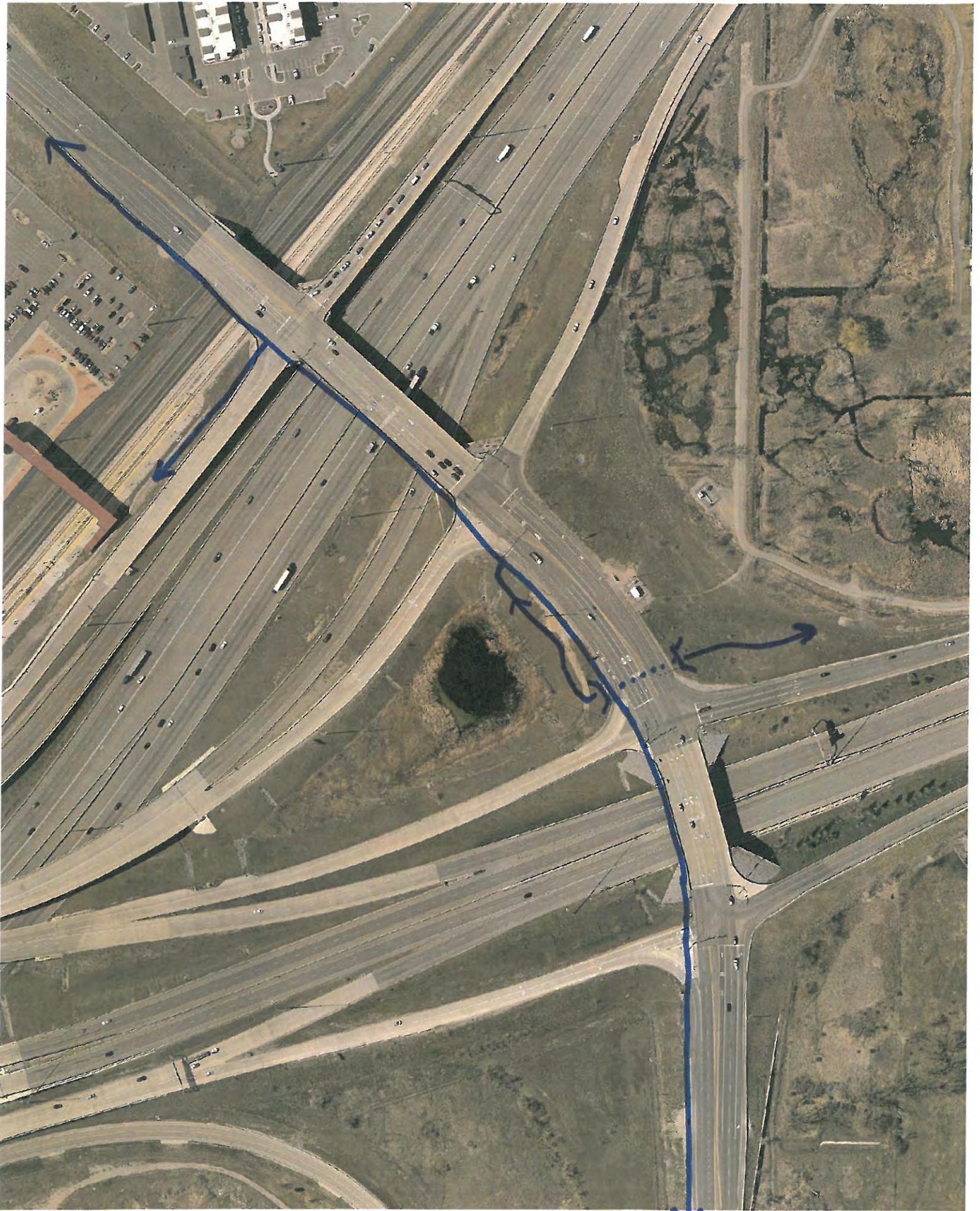
be too costly. And it utilizes the formidable 1N and 2N at grade intersections creating a possibility of hindering traffic on Park Lane.

**OTHER.** Alternative D also creates the possibility of providing the most direct route for the commuter rail user to the commuter rail stop, and at the same time providing allowing access to points west as well.









OTIUR

**APPENDIX D: UDOT PARK LANE CONCEPT REPORT**





## Memo

Date: Friday, September 09, 2016

Project: West Davis Corridor Environmental Impact Statement (EIS)

To: Randy Jefferies PE, UDOT Region 1

From: Boyd Wheeler SE, HDR

Subject: Structural Trail Widening

HDR has been requested to provide a preliminary plan and cost to widen the existing Park Lane bridges over I-15 and the Railroad. The bridges will be widened to add 4' of shoulder to each side and a 12' trail. The existing bridges were constructed using metric units resulting in lane and shoulder widths less than the current standard widths. Additional width was not added to increase these widths.

Structure C-714 is over the railroad and will require an additional three W1850MG/205 or similar prestressed girders on the north side of the structure to be placed parallel to the northernmost girder. Figure 1 details the length of the structure as well as the original width and the proposed width for widening. Structure C-715 is crossing I-15 and will also require an additional three W1850MG/205 or similar prestressed girders on the north side of the structure. Figure 2 details the length of the structure and includes the original width as well as the proposed width for widening. See the attached Figure 7 for the typical widened section and Figure 8 for the plan view for the entire widening project.

The preliminary cost estimate for this study will consist of taking the width of the widening by the out-to-out length of the structure and using a unit cost of \$450 per sq ft. The unit cost is up from the new structure cost of \$220 per sq ft due to the extensive work required to add new piers and to reconstruct the existing MSE walls and tie the proposed work into the existing structure. The cost for widening C-714 will be \$1,440,000 and the cost for widening C-715 will be \$3,310,000, making the total cost to implement the pedestrian and bike lane to be \$4,750,000. This will include the three additional girders, abutment extensions, and MSE wall extensions for each structure as well as the two bents for structure C-715 (See Figure 3 for typical bent).

While the cost estimate for the widening includes the structural items. Items of note adjacent to the bridge not considered is the cost to move the existing traffic signals and corresponding power supply and control box for each structure. It also does not include the cost to realign the turning lanes leading up to the approach slabs. Figure 5 and Figure 6 show the location of the previously mentioned traffic signals for C-714 and C-715, respectively.

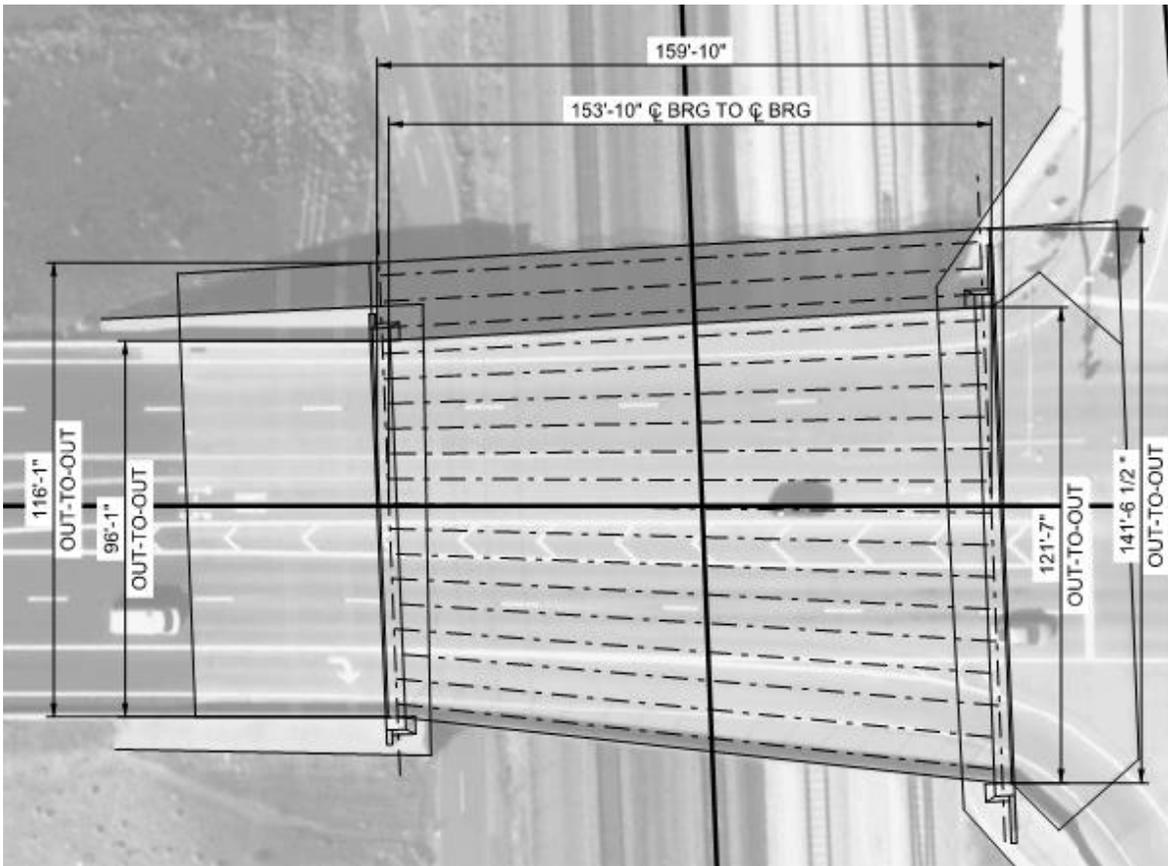


Figure 1: C-714 Plan View

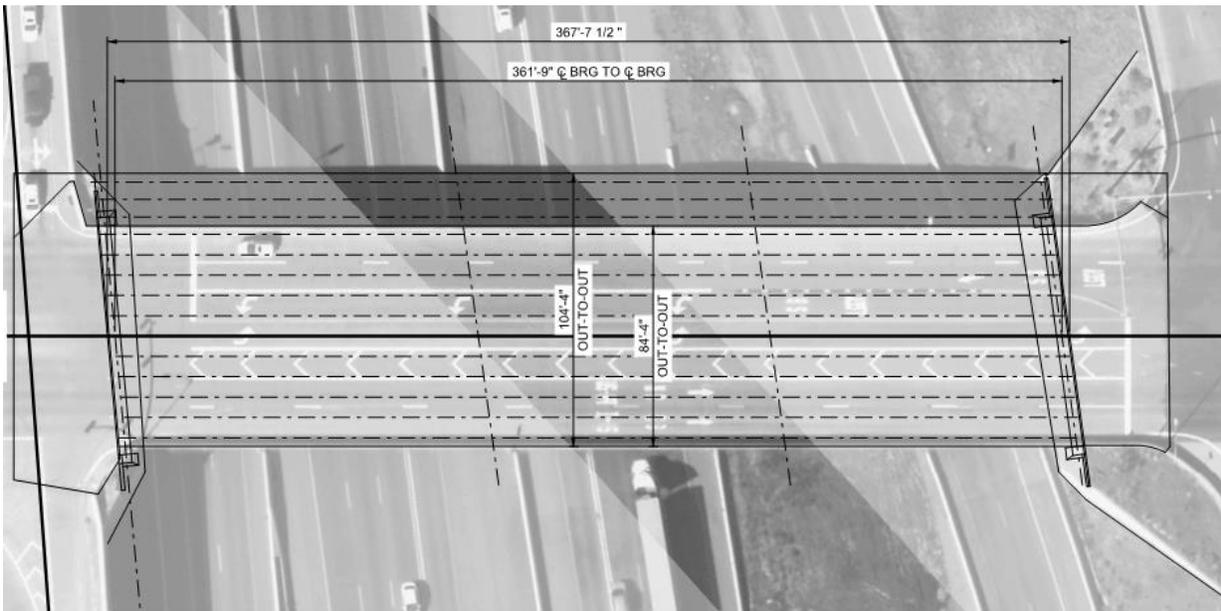


Figure 2: C-715 Plan View



**Figure 3: C-715 Typical Bent**



**Figure 4: Abutment Corner/MSE Wall**



Figure 5: C-714 Traffic Signal



Figure 6: C-715 Traffic Signal

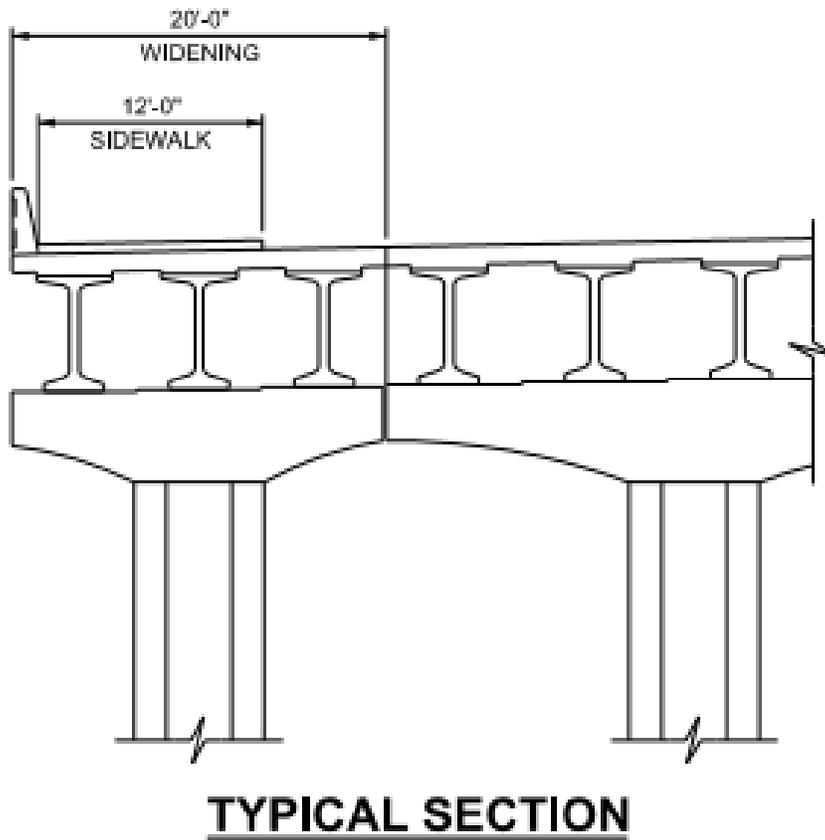
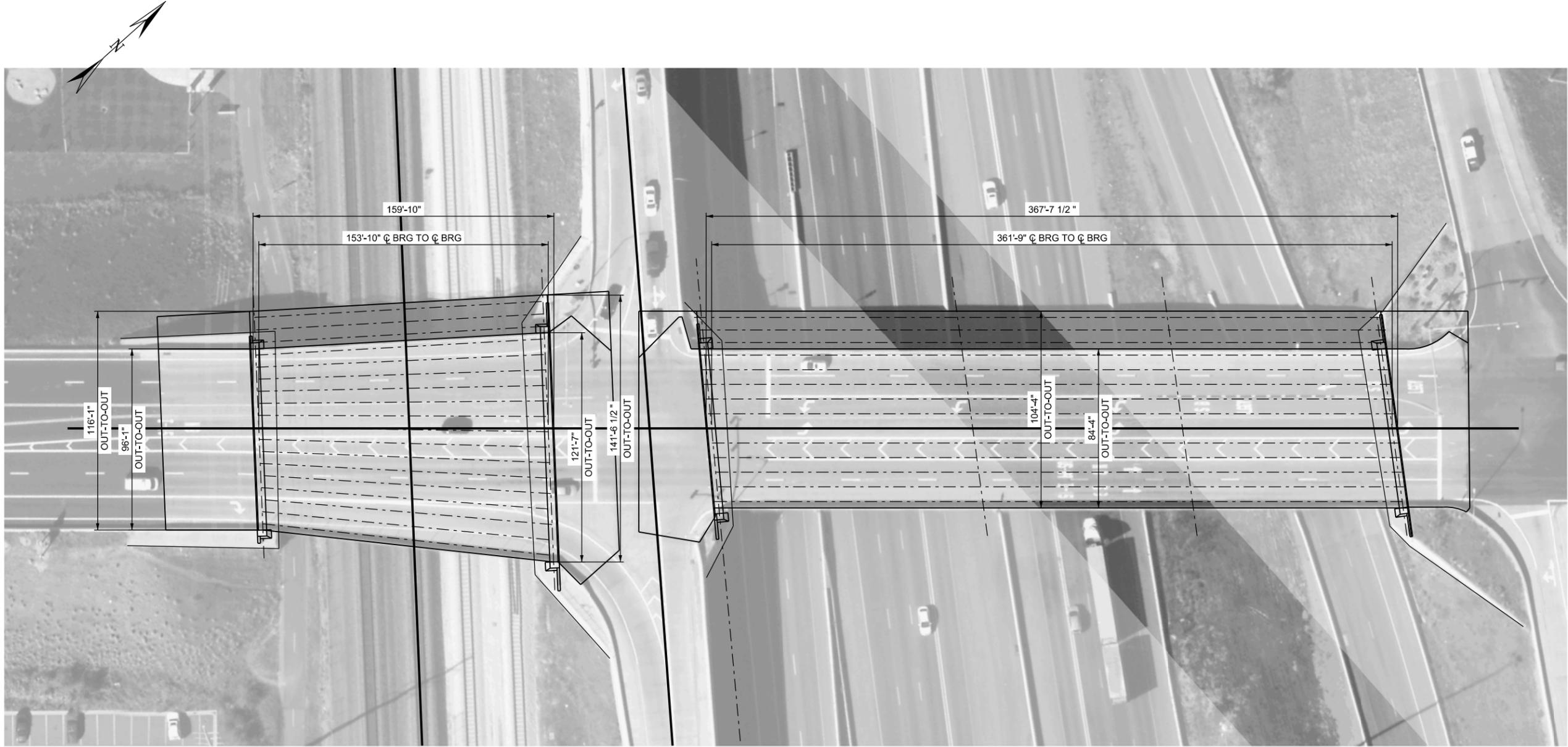


Figure 7: Typical Widened Section

Figure 8: 11x17 Full Plan View

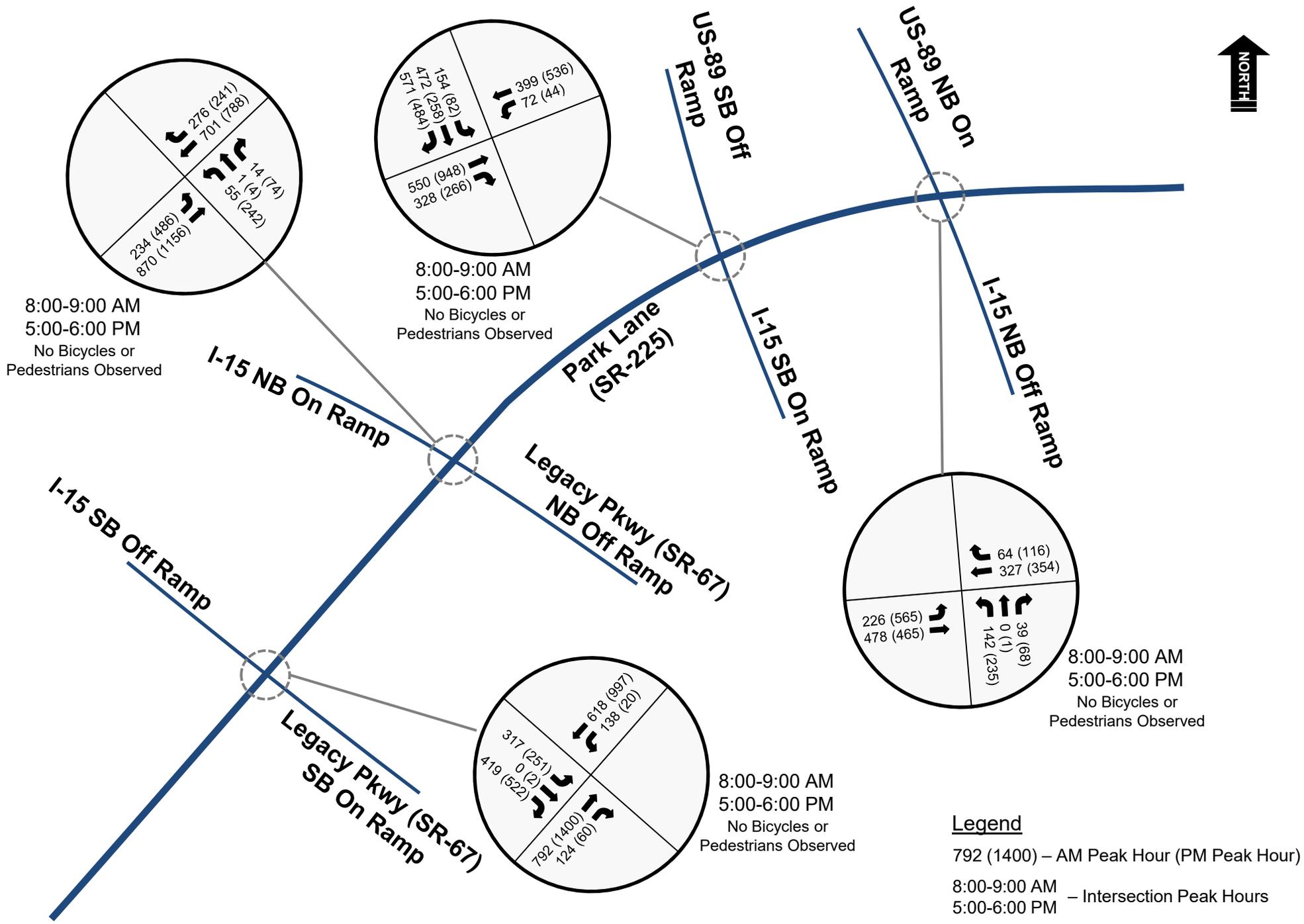


**PLAN**

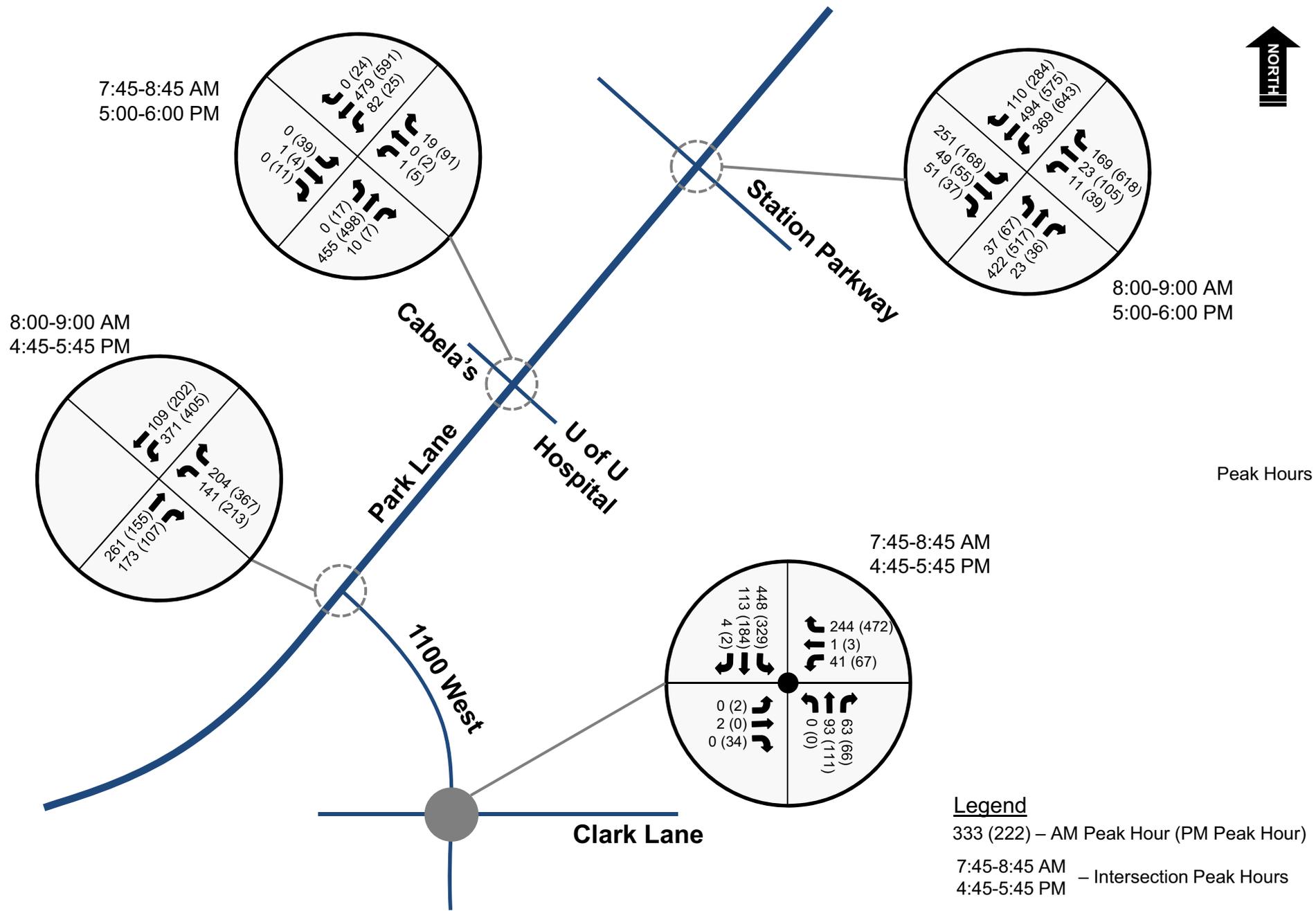
UTAH DEPARTMENT OF TRANSPORTATION		STRUCTURES DIVISION		CONSULTANT NAME	
WEST DAVIS PEDESTRIAN WIDENING EXHIBIT		PROJECT NUMBER		PIN	
COUNTY	XXXXXX	STRUCTURE NUMBER	X-###	DRAWING NUMBER	SHEET OF
REV NO	DATE	BY	REVISION REMARKS	DESIGN	CHECK
APPROVAL RECOMM	MM/DD/YY	DATE	SENIOR DESIGN ENGINEER	DRAWN	CHECK
APPROVED FOR USE	MM/DD/YY	DATE	UDOT DESIGN MANAGER		

## **APPENDIX E: PARK LANE TRAFFIC DATA**





**Figure 1**  
November 7, 2017 AM and PM Peak Hour Volumes



**Figure 1**  
 September 15, 2016 AM and PM Peak Hour Volumes

# L2 Data Collection

L2DataCollection.com  
Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
Intersection: 1100 West / Clark Lane  
City: Farmington, Utah  
Control: Yields - RDBT

File Name : 1100 W & Clark Ln RDBT  
Site Code : 00000000  
Start Date : 9/15/2016  
Page No : 1

### Groups Printed- General Traffic - Turns

Start Time	1100 West From North					Clark Lane From East					1100 West From South					Clark Lane From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
07:00 AM	0	25	60	0	85	27	0	7	0	34	15	12	0	1	28	0	0	0	0	0	0	147
07:15 AM	9	25	49	0	83	27	0	9	0	36	12	26	0	3	41	0	0	0	0	0	0	160
07:30 AM	4	28	79	0	111	24	0	6	0	30	4	26	0	1	31	0	3	1	0	4	4	176
07:45 AM	1	22	137	1	161	42	0	8	0	50	22	16	0	3	41	0	1	0	0	1	1	253
Total	14	100	325	1	440	120	0	30	0	150	53	80	0	8	141	0	4	1	0	5	5	736
08:00 AM	1	17	114	0	132	78	0	10	0	88	8	12	0	3	23	0	0	0	0	0	0	243
08:15 AM	1	28	138	0	167	68	0	7	0	75	11	26	0	5	42	0	0	0	0	0	0	284
08:30 AM	1	46	59	1	107	56	1	16	0	73	22	39	0	2	63	0	1	0	0	1	1	244
08:45 AM	4	43	99	0	146	40	2	10	0	52	12	36	0	1	49	2	0	1	0	3	3	250
Total	7	134	410	1	552	242	3	43	0	288	53	113	0	11	177	2	1	1	0	4	4	1021
-----																						
04:00 PM	2	27	77	0	106	102	0	11	0	113	14	29	0	0	43	0	0	0	0	0	0	262
04:15 PM	1	28	67	0	96	94	1	6	0	101	13	27	0	4	44	0	1	3	1	5	5	246
04:30 PM	1	48	87	0	136	97	2	13	1	113	14	23	0	1	38	2	0	1	2	5	5	292
04:45 PM	0	52	78	0	130	111	3	18	4	136	26	26	0	1	53	0	1	1	0	2	2	321
Total	4	155	309	0	468	404	6	48	5	463	67	105	0	6	178	2	2	5	3	12	12	1121
05:00 PM	2	47	74	0	123	146	0	16	2	164	11	30	0	2	43	0	1	0	0	1	1	331
05:15 PM	0	48	84	0	132	97	0	19	0	116	13	27	0	4	44	0	0	0	2	2	2	294
05:30 PM	0	37	93	0	130	118	0	14	0	132	16	28	0	3	47	0	0	1	1	2	2	311
05:45 PM	0	35	70	1	106	114	1	19	0	134	21	28	0	4	53	1	0	1	3	5	5	298
Total	2	167	321	1	491	475	1	68	2	546	61	113	0	13	187	1	1	2	6	10	10	1234
Grand Total	27	556	1365	3	1951	1241	10	189	7	1447	234	411	0	38	683	5	8	9	9	31	31	4112
Apprch %	1.4	28.5	70	0.2		85.8	0.7	13.1	0.5		34.3	60.2	0	5.6		16.1	25.8	29	29			
Total %	0.7	13.5	33.2	0.1	47.4	30.2	0.2	4.6	0.2	35.2	5.7	10	0	0.9	16.6	0.1	0.2	0.2	0.2	0.8		
General Traffic	27	556	1363	3	1949	1241	10	183	7	1441	234	411	0	38	683	5	8	9	9	31	31	4104
% General Traffic	100	100	99.9	100	99.9	100	100	96.8	100	99.6	100	100	0	100	100	100	100	100	100	100	100	99.8
U-Turns	0	0	2	0	2	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	8
% U-Turns	0	0	0.1	0	0.1	0	0	3.2	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0.2

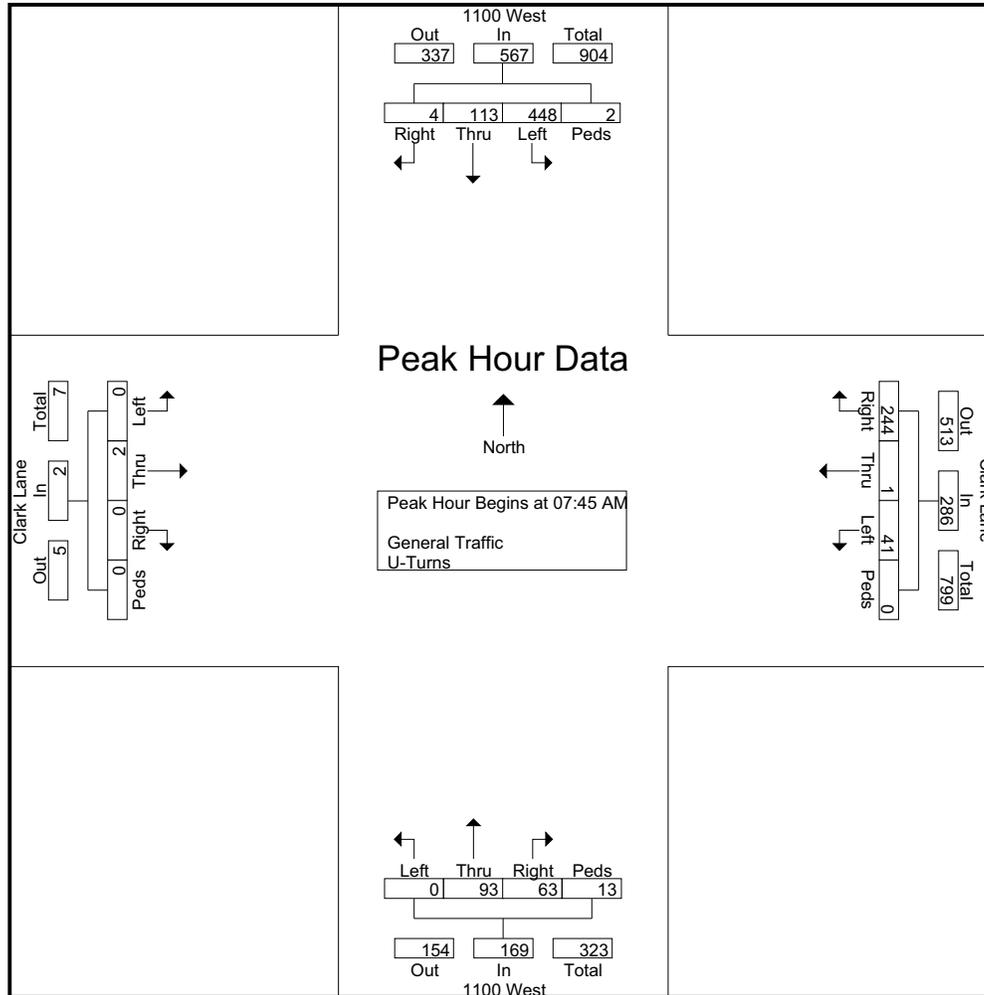
# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: 1100 West / Clark Lane  
 City: Farmington, Utah  
 Control: Yields - RDBT

File Name : 1100 W & Clark Ln RDBT  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 3

Start Time	1100 West From North					Clark Lane From East					1100 West From South					Clark Lane From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
<b>Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1</b>																					
<b>Peak Hour for Entire Intersection Begins at 07:45 AM</b>																					
07:45 AM	1	22	137	1	161	42	0	8	0	50	22	16	0	3	41	0	1	0	0	1	253
08:00 AM	1	17	114	0	132	78	0	10	0	88	8	12	0	3	23	0	0	0	0	0	243
08:15 AM	1	28	138	0	167	68	0	7	0	75	11	26	0	5	42	0	0	0	0	0	284
08:30 AM	1	46	59	1	107	56	1	16	0	73	22	39	0	2	63	0	1	0	0	1	244
Total Volume	4	113	448	2	567	244	1	41	0	286	63	93	0	13	169	0	2	0	0	2	1024
% App. Total	0.7	19.9	79	0.4		85.3	0.3	14.3	0		37.3	55	0	7.7		0	100	0	0		
PHF	1.00	.614	.812	.500	.849	.782	.250	.641	.000	.813	.716	.596	.000	.650	.671	.000	.500	.000	.000	.500	.901



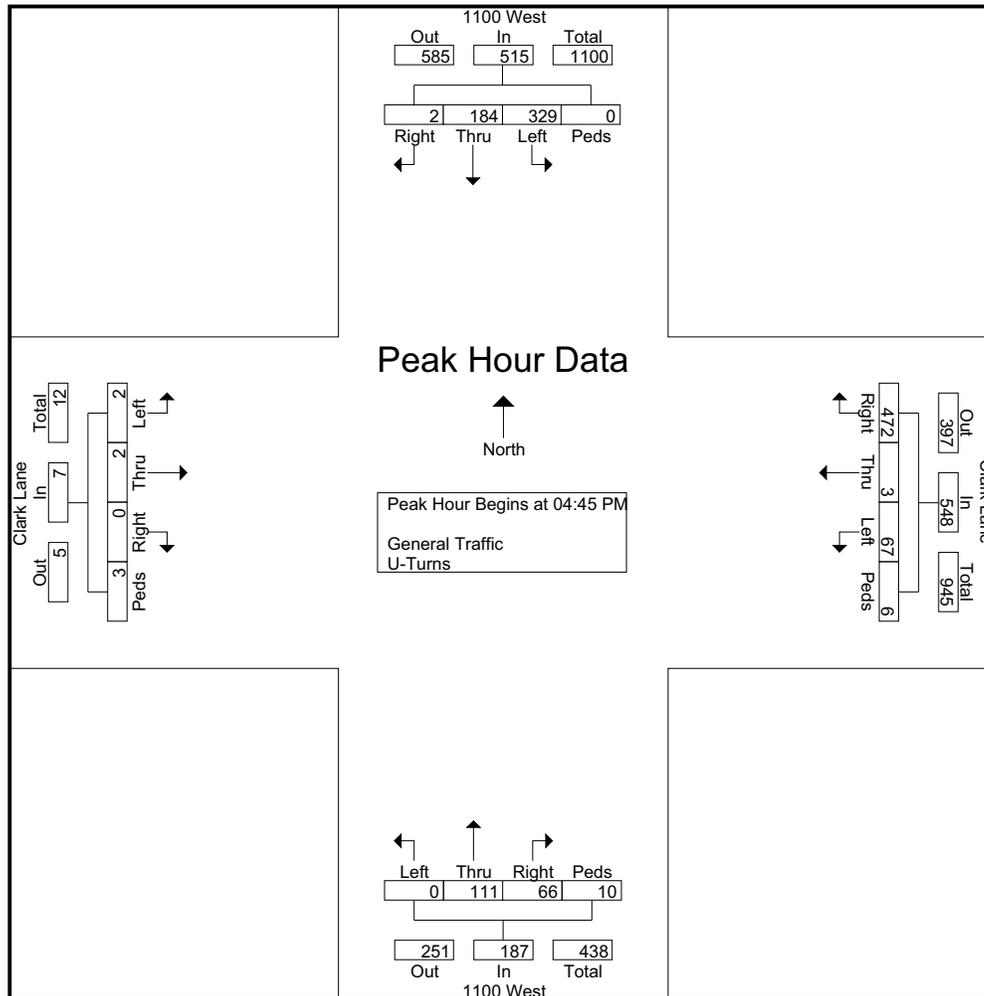
# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: 1100 West / Clark Lane  
 City: Farmington, Utah  
 Control: Yields - RDBT

File Name : 1100 W & Clark Ln RDBT  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 5

Start Time	1100 West From North					Clark Lane From East					1100 West From South					Clark Lane From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	52	78	0	130	111	3	18	4	136	26	26	0	1	53	0	1	1	0	2	321
05:00 PM	2	47	74	0	123	146	0	16	2	164	11	30	0	2	43	0	1	0	0	1	331
05:15 PM	0	48	84	0	132	97	0	19	0	116	13	27	0	4	44	0	0	0	2	2	294
05:30 PM	0	37	93	0	130	118	0	14	0	132	16	28	0	3	47	0	0	1	1	2	311
Total Volume	2	184	329	0	515	472	3	67	6	548	66	111	0	10	187	0	2	2	3	7	1257
% App. Total	0.4	35.7	63.9	0		86.1	0.5	12.2	1.1		35.3	59.4	0	5.3		0	28.6	28.6	42.9		
PHF	.250	.885	.884	.000	.975	.808	.250	.882	.375	.835	.635	.925	.000	.625	.882	.000	.500	.500	.375	.875	.949



# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Lane / 1100 West  
 City: Farmington, Utah  
 Control: Signalized

File Name : Park Ln & 1100 W  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 1

### Groups Printed- General Traffic

Start Time	Park Lane From Northeast				1100 West From Southeast				Park Lane From Southwest				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:00 AM	10	70	0	80	29	7	0	36	12	81	0	93	209
07:15 AM	15	75	0	90	43	10	0	53	13	62	0	75	218
07:30 AM	26	70	0	96	36	17	0	53	40	54	0	94	243
07:45 AM	14	100	0	114	31	24	0	55	70	43	0	113	282
Total	65	315	0	380	139	58	0	197	135	240	0	375	952
08:00 AM	18	83	0	101	41	45	0	86	45	53	0	98	285
08:15 AM	26	112	0	138	65	31	1	97	52	50	0	102	337
08:30 AM	39	71	0	110	56	35	1	92	36	71	0	107	309
08:45 AM	26	105	0	131	42	30	0	72	40	87	0	127	330
Total	109	371	0	480	204	141	2	347	173	261	0	434	1261
-----													
04:00 PM	50	70	0	120	93	34	0	127	25	44	0	69	316
04:15 PM	46	80	0	126	84	36	0	120	19	30	0	49	295
04:30 PM	42	113	0	155	88	41	0	129	28	39	0	67	351
04:45 PM	44	101	0	145	85	61	0	146	31	36	0	67	358
Total	182	364	0	546	350	172	0	522	103	149	0	252	1320
05:00 PM	57	100	0	157	111	60	0	171	25	37	0	62	390
05:15 PM	43	105	0	148	80	42	0	122	25	28	0	53	323
05:30 PM	58	99	0	157	91	50	1	142	26	54	0	80	379
05:45 PM	69	80	0	149	86	58	0	144	25	40	0	65	358
Total	227	384	0	611	368	210	1	579	101	159	0	260	1450
Grand Total	583	1434	0	2017	1061	581	3	1645	512	809	0	1321	4983
Apprch %	28.9	71.1	0		64.5	35.3	0.2		38.8	61.2	0		
Total %	11.7	28.8	0	40.5	21.3	11.7	0.1	33	10.3	16.2	0	26.5	

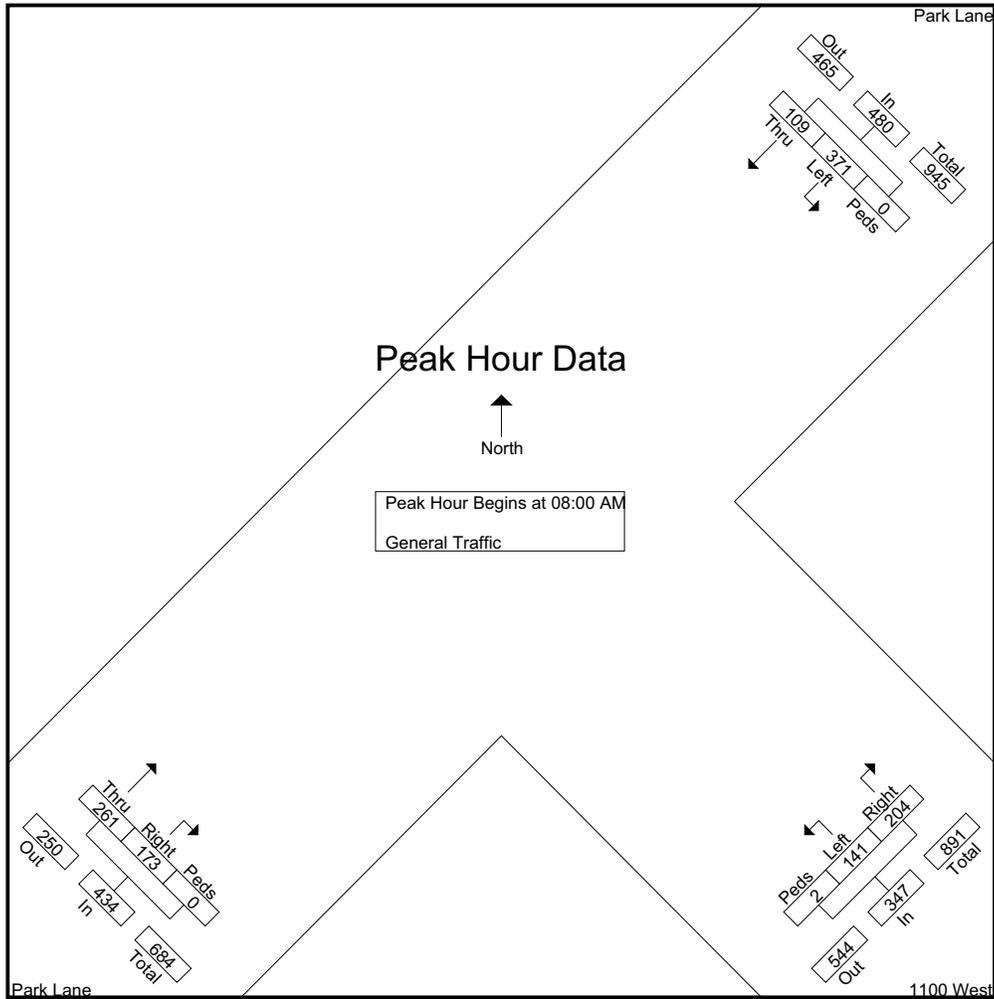
# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Lane / 1100 West  
 City: Farmington, Utah  
 Control: Signalized

File Name : Park Ln & 1100 W  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 3

Start Time	Park Lane From Northeast				1100 West From Southeast				Park Lane From Southwest				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	18	83	0	101	41	45	0	86	45	53	0	98	285
08:15 AM	26	112	0	138	65	31	1	97	52	50	0	102	337
08:30 AM	39	71	0	110	56	35	1	92	36	71	0	107	309
08:45 AM	26	105	0	131	42	30	0	72	40	87	0	127	330
Total Volume	109	371	0	480	204	141	2	347	173	261	0	434	1261
% App. Total	22.7	77.3	0		58.8	40.6	0.6		39.9	60.1	0		
PHF	.699	.828	.000	.870	.785	.783	.500	.894	.832	.750	.000	.854	.935



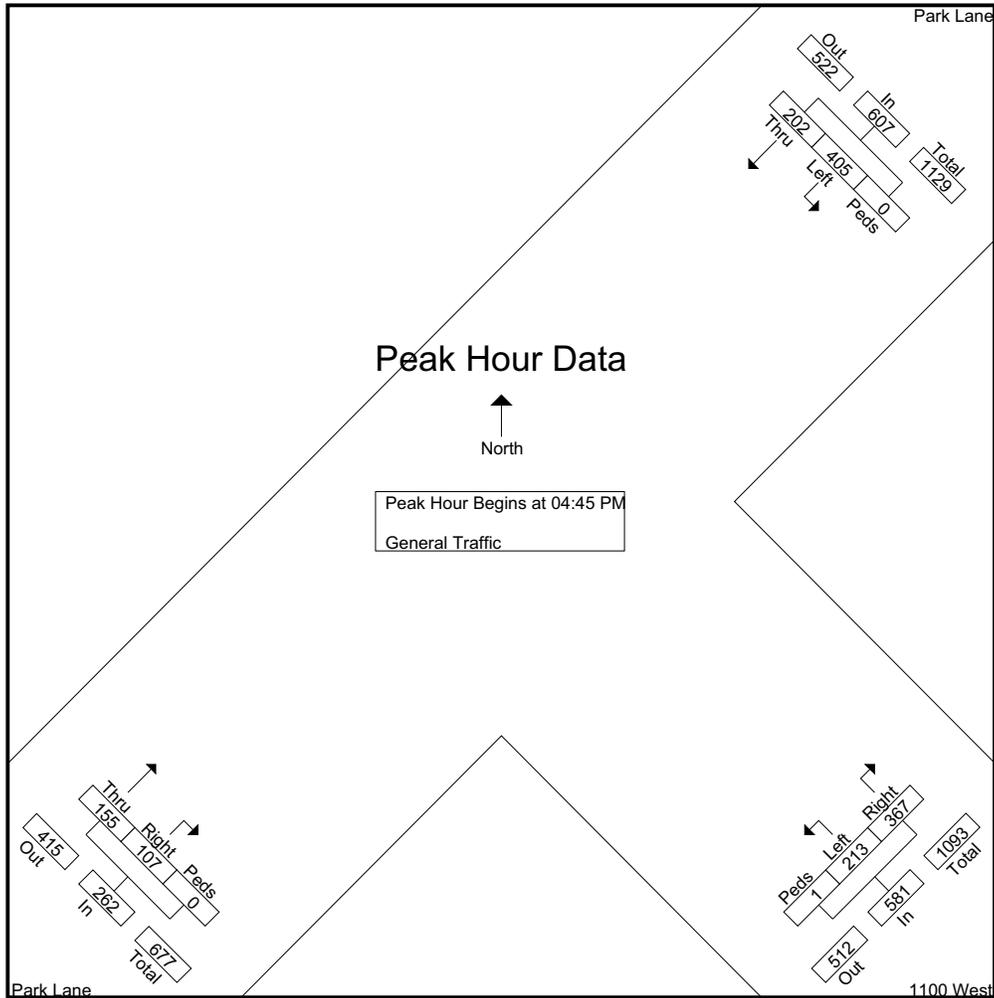
# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Lane / 1100 West  
 City: Farmington, Utah  
 Control: Signalized

File Name : Park Ln & 1100 W  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 5

Start Time	Park Lane From Northeast				1100 West From Southeast				Park Lane From Southwest				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	44	101	0	145	85	<b>61</b>	0	146	<b>31</b>	36	0	67	358
05:00 PM	57	100	0	<b>157</b>	<b>111</b>	60	0	<b>171</b>	25	37	0	62	<b>390</b>
05:15 PM	43	<b>105</b>	0	148	80	42	0	122	25	28	0	53	323
05:30 PM	<b>58</b>	99	0	157	91	50	<b>1</b>	142	26	<b>54</b>	0	<b>80</b>	379
Total Volume	202	405	0	607	367	213	1	581	107	155	0	262	1450
% App. Total	33.3	66.7	0		63.2	36.7	0.2		40.8	59.2	0		
PHF	.871	.964	.000	.967	.827	.873	.250	.849	.863	.718	.000	.819	.929



# L2 Data Collection

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 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Ln / Commercial Drive  
 City: Farmington, Utah  
 Control: Stop Sign

File Name : Park Ln & Commercial Drive  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 1

### Groups Printed- General Traffic (Turns Only)

Start Time	Park Lane From Northeast				Commercial Driveway From Southeast					Park Lane From Southwest				Commercial Driveway From Northwest					Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	21	0	21	1	0	0	0	1	0	0	0	0	0	0	1	0	1	23
07:15 AM	0	14	0	14	1	0	0	0	1	1	0	0	1	0	0	0	0	0	16
07:30 AM	0	15	0	15	5	1	0	0	6	1	0	0	1	1	0	0	0	1	23
07:45 AM	0	20	0	20	4	0	0	0	4	3	0	0	3	0	1	0	0	1	28
<b>Total</b>	0	70	0	70	11	1	0	0	12	5	0	0	5	1	1	1	0	3	90
08:00 AM	0	24	0	24	5	0	1	0	6	3	0	0	3	0	0	0	0	0	33
08:15 AM	0	21	0	21	5	0	0	0	5	2	0	0	2	0	0	0	0	0	28
08:30 AM	0	17	0	17	5	0	0	0	5	2	0	0	2	0	0	0	0	0	24
08:45 AM	0	11	0	11	8	0	1	0	9	0	3	0	3	2	0	0	0	2	25
<b>Total</b>	0	73	0	73	23	0	2	0	25	7	3	0	10	2	0	0	0	2	110
-----																			
04:00 PM	3	7	0	10	15	1	0	0	16	3	4	0	7	3	3	5	0	11	44
04:15 PM	8	4	0	12	13	0	2	0	15	1	6	0	7	2	0	6	0	8	42
04:30 PM	3	6	0	9	19	1	1	0	21	4	4	0	8	3	2	7	0	12	50
04:45 PM	3	5	0	8	15	0	0	0	15	3	7	0	10	5	0	7	0	12	45
<b>Total</b>	17	22	0	39	62	2	3	0	67	11	21	0	32	13	5	25	0	43	181
05:00 PM	4	6	0	10	36	0	1	0	37	3	4	0	7	2	1	9	0	12	66
05:15 PM	11	7	0	18	19	1	1	0	21	1	4	0	5	0	0	6	0	6	50
05:30 PM	4	5	0	9	21	1	0	0	22	3	5	0	8	5	2	9	0	16	55
05:45 PM	5	7	0	12	15	0	3	0	18	0	4	0	4	4	1	15	0	20	54
<b>Total</b>	24	25	0	49	91	2	5	0	98	7	17	0	24	11	4	39	0	54	225
<b>Grand Total</b>	41	190	0	231	187	5	10	0	202	30	41	0	71	27	10	65	0	102	606
Apprch %	17.7	82.3	0		92.6	2.5	5	0		42.3	57.7	0		26.5	9.8	63.7	0		
Total %	6.8	31.4	0	38.1	30.9	0.8	1.7	0	33.3	5	6.8	0	11.7	4.5	1.7	10.7	0	16.8	

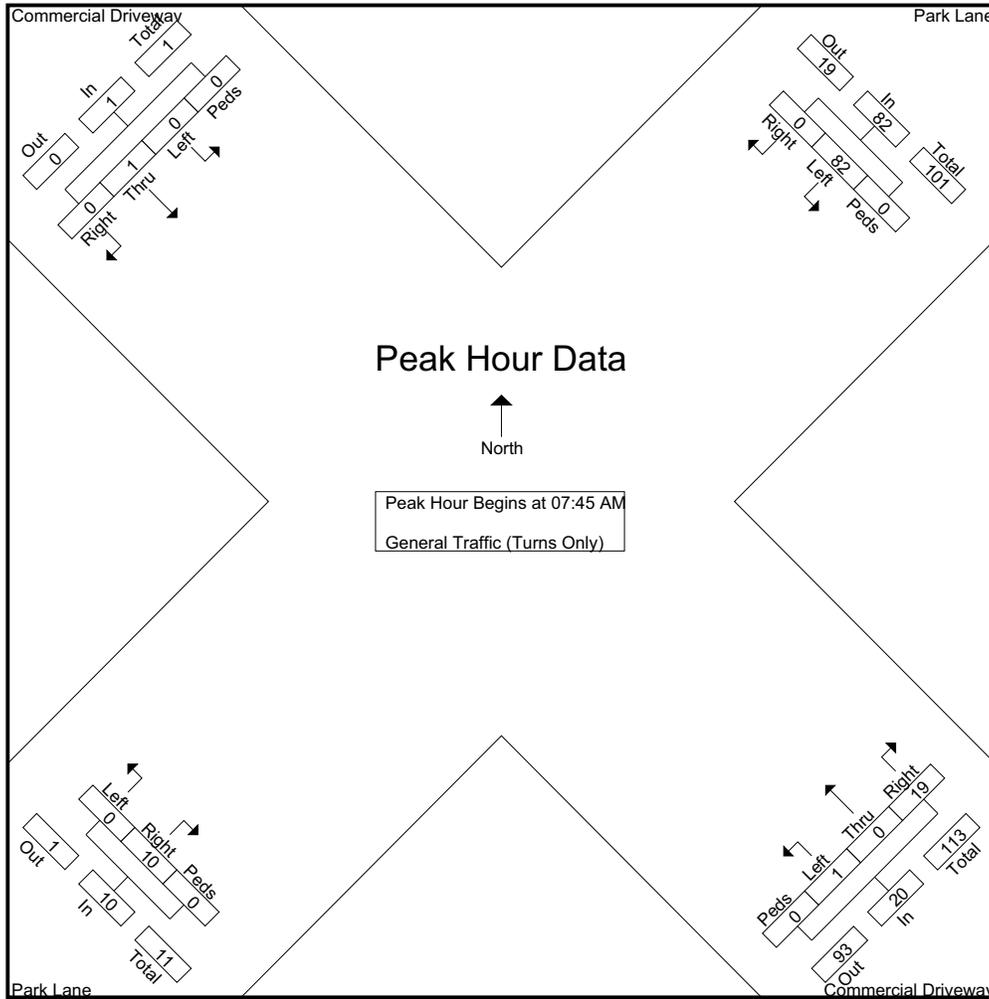
# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Ln / Commercial Drive  
 City: Farmington, Utah  
 Control: Stop Sign

File Name : Park Ln & Commercial Drive  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 3

Start Time	Park Lane From Northeast				Commercial Driveway From Southeast				Park Lane From Southwest				Commercial Driveway From Northwest				Int. Total		
	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left		Peds	App. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:45 AM																			
07:45 AM	0	20	0	20	4	0	0	0	4	3	0	0	3	0	1	0	0	1	28
08:00 AM	0	24	0	24	5	0	1	0	6	3	0	0	3	0	0	0	0	0	33
08:15 AM	0	21	0	21	5	0	0	0	5	2	0	0	2	0	0	0	0	0	28
08:30 AM	0	17	0	17	5	0	0	0	5	2	0	0	2	0	0	0	0	0	24
Total Volume	0	82	0	82	19	0	1	0	20	10	0	0	10	0	1	0	0	1	113
% App. Total	0	100	0		95	0	5	0		100	0	0		0	100	0	0		
PHF	.000	.854	.000	.854	.950	.000	.250	.000	.833	.833	.000	.000	.833	.000	.250	.000	.000	.250	.856



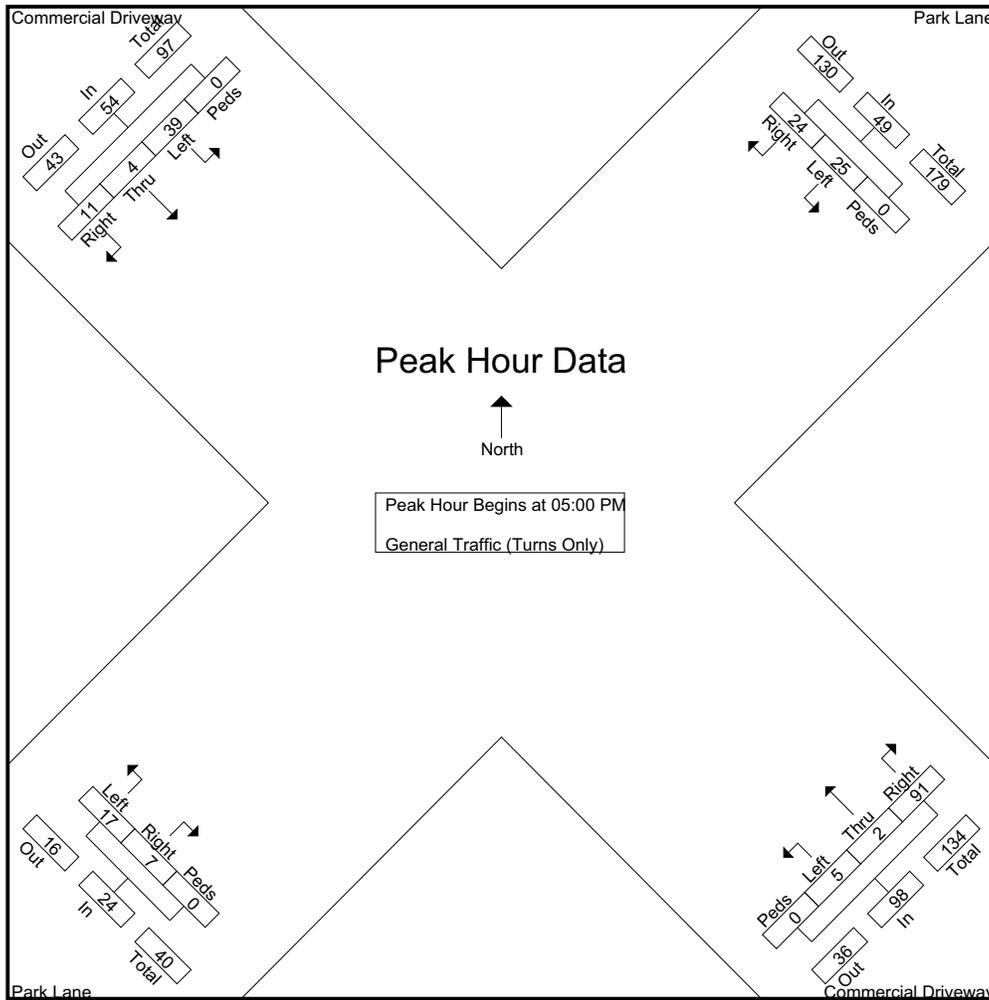
# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Ln / Commercial Drive  
 City: Farmington, Utah  
 Control: Stop Sign

File Name : Park Ln & Commercial Drive  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 5

Start Time	Park Lane From Northeast				Commercial Driveway From Southeast					Park Lane From Southwest				Commercial Driveway From Northwest					Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	4	6	0	10	36	0	1	0	37	3	4	0	7	2	1	9	0	12	66
05:15 PM	11	7	0	18	19	1	1	0	21	1	4	0	5	0	0	6	0	6	50
05:30 PM	4	5	0	9	21	1	0	0	22	3	5	0	8	5	2	9	0	16	55
05:45 PM	5	7	0	12	15	0	3	0	18	0	4	0	4	4	1	15	0	20	54
Total Volume	24	25	0	49	91	2	5	0	98	7	17	0	24	11	4	39	0	54	225
% App. Total	49	51	0		92.9	2	5.1	0		29.2	70.8	0		20.4	7.4	72.2	0		
PHF	.545	.893	.000	.681	.632	.500	.417	.000	.662	.583	.850	.000	.750	.550	.500	.650	.000	.675	.852



# L2 Data Collection

L2DataCollection.com  
Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
Intersection: Park Ln / Station Parkway  
City: Farmington, Utah  
Control: Signalized

File Name : Park Ln & Station Pkwy  
Site Code : 00000000  
Start Date : 9/15/2016  
Page No : 1

### Groups Printed- General Traffic - Turns

Start Time	Park Lane From Northeast					Station Parkway From Southeast					Park Lane From Southwest					Station Parkway From Northwest					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	19	95	84	0	198	34	3	1	0	38	3	110	5	0	118	7	10	76	0	93	447
07:15 AM	25	102	84	0	211	32	4	4	1	41	12	89	2	0	103	4	13	70	0	87	442
07:30 AM	26	95	85	0	206	42	3	0	0	45	6	86	6	0	98	10	12	41	0	63	412
07:45 AM	33	120	86	0	239	42	3	2	1	48	1	69	7	0	77	7	16	65	0	88	452
Total	103	412	339	0	854	150	13	7	2	172	22	354	20	0	396	28	51	252	0	331	1753
08:00 AM	19	114	83	0	216	34	6	4	0	44	4	80	13	0	97	11	16	70	0	97	454
08:15 AM	28	145	68	0	241	30	4	3	1	38	3	113	5	0	121	16	8	56	0	80	480
08:30 AM	29	118	92	0	239	71	7	3	0	81	8	110	8	0	126	9	10	64	0	83	529
08:45 AM	34	117	126	0	277	34	6	1	0	41	8	119	11	0	138	15	15	61	0	91	547
Total	110	494	369	0	973	169	23	11	1	204	23	422	37	0	482	51	49	251	0	351	2010
-----																					
04:00 PM	64	105	126	0	295	160	18	7	0	185	6	132	8	0	146	11	18	45	1	75	701
04:15 PM	62	131	143	1	337	130	18	3	0	151	5	107	14	0	126	4	11	38	0	53	667
04:30 PM	68	147	130	0	345	138	25	7	0	170	9	129	21	0	159	9	7	46	0	62	736
04:45 PM	59	137	143	0	339	128	18	8	0	154	9	107	10	0	126	4	17	51	0	72	691
Total	253	520	542	1	1316	556	79	25	0	660	29	475	53	0	557	28	53	180	1	262	2795
05:00 PM	65	147	137	1	350	153	15	12	0	180	6	159	11	0	176	5	15	41	0	61	767
05:15 PM	80	145	154	0	379	158	31	11	0	200	10	117	18	0	145	8	6	33	0	47	771
05:30 PM	68	140	176	0	384	129	27	11	0	167	8	126	22	0	156	13	22	52	0	87	794
05:45 PM	71	143	176	0	390	178	32	5	0	215	12	115	16	0	143	11	12	42	0	65	813
Total	284	575	643	1	1503	618	105	39	0	762	36	517	67	0	620	37	55	168	0	260	3145
Grand Total	750	2001	1893	2	4646	1493	220	82	3	1798	110	1768	177	0	2055	144	208	851	1	1204	9703
Apprch %	16.1	43.1	40.7	0		83	12.2	4.6	0.2		5.4	86	8.6	0		12	17.3	70.7	0.1		
Total %	7.7	20.6	19.5	0	47.9	15.4	2.3	0.8	0	18.5	1.1	18.2	1.8	0	21.2	1.5	2.1	8.8	0	12.4	
General Traffic	750	2001	1892	2	4645	1493	220	81	3	1797	110	1768	177	0	2055	144	208	851	1	1204	9701
% General Traffic	100	100	99.9	100	100	100	100	98.8	100	99.9	100	100	100	0	100	100	100	100	100	100	100
U-Turns	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
% U-Turns	0	0	0.1	0	0	0	0	1.2	0	0.1	0	0	0	0	0	0	0	0	0	0	0

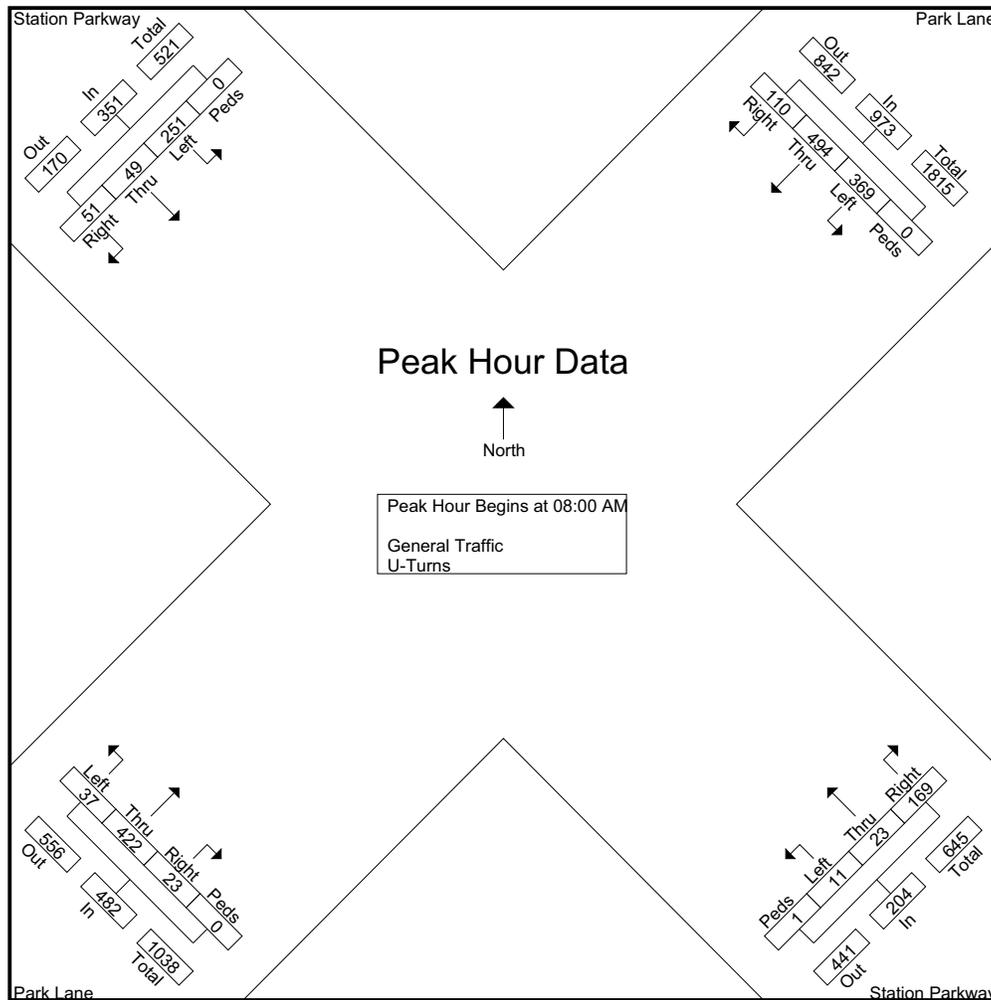
# L2 Data Collection

L2DataCollection.com  
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Ln / Station Parkway  
 City: Farmington, Utah  
 Control: Signalized

File Name : Park Ln & Station Pkwy  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 3

Start Time	Park Lane From Northeast					Station Parkway From Southeast					Park Lane From Southwest					Station Parkway From Northwest					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	19	114	83	0	216	34	6	4	0	44	4	80	13	0	97	11	16	70	0	97	454
08:15 AM	28	145	68	0	241	30	4	3	1	38	3	113	5	0	121	16	8	56	0	80	480
08:30 AM	29	118	92	0	239	71	7	3	0	81	8	110	8	0	126	9	10	64	0	83	529
08:45 AM	34	117	126	0	277	34	6	1	0	41	8	119	11	0	138	15	15	61	0	91	547
Total Volume	110	494	369	0	973	169	23	11	1	204	23	422	37	0	482	51	49	251	0	351	2010
% App. Total	11.3	50.8	37.9	0		82.8	11.3	5.4	0.5		4.8	87.6	7.7	0		14.5	14	71.5	0		
PHF	.809	.852	.732	.000	.878	.595	.821	.688	.250	.630	.719	.887	.712	.000	.873	.797	.766	.896	.000	.905	.919



# L2 Data Collection

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 Idaho (208) 860-7554 Utah (801) 413-2993

Study: WCEC0017  
 Intersection: Park Ln / Station Parkway  
 City: Farmington, Utah  
 Control: Signalized

File Name : Park Ln & Station Pkwy  
 Site Code : 00000000  
 Start Date : 9/15/2016  
 Page No : 5

Start Time	Park Lane From Northeast					Station Parkway From Southeast					Park Lane From Southwest					Station Parkway From Northwest					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Right	Thr u	Left	Peds	App. Total	Right	Thr u	Left	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	65	147	137	1	350	153	15	12	0	180	6	159	11	0	176	5	15	41	0	61	767
05:15 PM	80	145	154	0	379	158	31	11	0	200	10	117	18	0	145	8	6	33	0	47	771
05:30 PM	68	140	176	0	384	129	27	11	0	167	8	126	22	0	156	13	22	52	0	87	794
05:45 PM	71	143	176	0	390	178	32	5	0	215	12	115	16	0	143	11	12	42	0	65	813
Total Volume	284	575	643	1	1503	618	105	39	0	762	36	517	67	0	620	37	55	168	0	260	3145
% App. Total	18.9	38.3	42.8	0.1		81.1	13.8	5.1	0		5.8	83.4	10.8	0		14.2	21.2	64.6	0		
PHF	.888	.978	.913	.250	.963	.868	.820	.813	.000	.886	.750	.813	.761	.000	.881	.712	.625	.808	.000	.747	.967

