A Road Safety Audit

conducted for the

New Mexico Department of Transportation (NMDOT)

in conjunction with the

City of Farmington

for

NM 516 (Main St.) at English Road Intersection

NMDOT District 5
October 2016

Conducted by the Road Safety Audit Team

Occam Engineers Inc.

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I. Introduction

I.A Scope and Purpose of the Road Safety Audit (RSA)

The NMDOT received funding under the Federal Highway Safety Improvement Program (HSIP) to conduct a Road Safety Audit (RSA) for existing conditions at the intersection of NM 516 (Main St.) at English Road (approximately Milepost 3.9), located within the City of Farmington in San Juan County, NM. The objective of the study is to offer traffic safety recommendations for smooth traffic flow and reduce the number of crashes at the intersection. The request was submitted by the City of Farmington in February, 2016. The purpose of the RSA is to evaluate the study area, including accident history, for any potential roadway or safety deficiencies.

The scope of the project includes pre-study preparation, data collection, data analysis, stakeholder workshop, and documentation. As part of the data analysis effort, the RSA team reviewed previous studies that are related to this intersection. The RSA study team conducted a workshop to brainstorm the issues and develop countermeasures to address any safety deficiencies identified by the study.

I.B Project Location

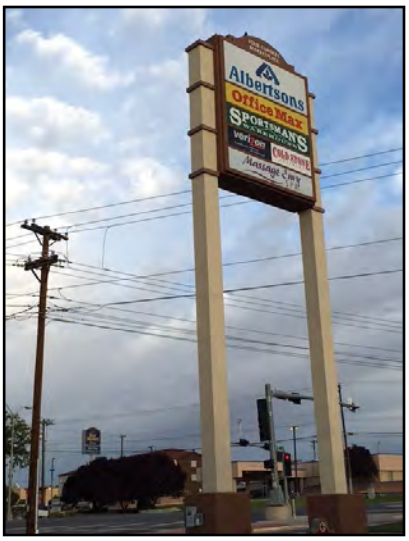
The project location is the intersection of NM 516 with English Road (approximately MP 3.9). Information was collected for the approaches in each direction from the intersection. A vicinity map is provided in Figure 1.

Figure 1. Vicinity Map

I.C Items Reviewed

The intersection and approaches were studied to evaluate the conditions for safe traffic flow and to reduce the number of crashes that occur. The data that was collected and reviewed included traffic counts, pedestrian counts, accident data, roadway typical section elements, construction drawings, previous studies, stakeholder input, site observations, and the stakeholder workshop.

II. Background



II.A Audit Team and Affiliation

The RSA team organized for this study is identified in Table 1. The RSA team consisted of representatives from the City of Farmington, NMDOT General Office—Traffic Section, NMDOT District 5, and Occam Engineers Inc. (**OEI**).

II.B Road Safety Audit Process

The RSA process involves specific steps that allow and encourage stakeholders to assist with locating potential safety issues and contribute ideas that help solve those issues. This process includes the following steps.

First, a scoping/kick-off meeting was held on Thursday, September 8, 2016 at the City of Farmington offices to discuss the general overview of the RSA and to identify specific issues/ locations throughout the corridor. From this meeting, the project scope was discussed and defined. Meeting notes and a list of attendees can be found in the Appendix.

Next, a workshop and site visit was conducted on Tuesday, October 11, 2016 with the RSA workshop team. The site visit was conducted at 8:00 a.m. The workshop was held after the site visit at 9:45 a.m. at the City of Farmington offices. The study background was presented and a discussion of the site visit followed.

The team subsequently entered into a brainstorming session, discussing known operational conditions and observations from the site visit and walk-through. Upon brainstorming the issues, RSA workshop team members listed safety issues at the intersection. After the issues were identified, possible countermeasures were identified for consideration and evaluation or vetting.

After the team developed the list of issues and countermeasures, **OEI** then consolidated them with the assistance of the workshop participants. The final countermeasures are discussed in greater detail in this report.

Table 1. Road Safety Audit Team	
NMDOT General Office	Afshin Jian, PE State Traffic Engineer
NMDOT District 5	Paul Brasher, PE District Engineer
City of Farmington	Charlie Trask, PE
City of Farmington	David Sypher, PE
City of Farmington	Nica Westerling, PE
City of Farmington	Isaac Blue Eyes, EI
Occam Engineers Inc.	Carlos Ruiz, PE Senior Project Manager
Occam Engineers Inc.	Art Garcia, PE Project Engineer
Thompson Engineering Consultants	David Thompson, PE Project Engineer

Comments from the project team are reflected in the meeting notes from the first meeting held on September 8, 2016 and the Field Review/Workshop held on October 11, 2016, and are included in the Appendix.

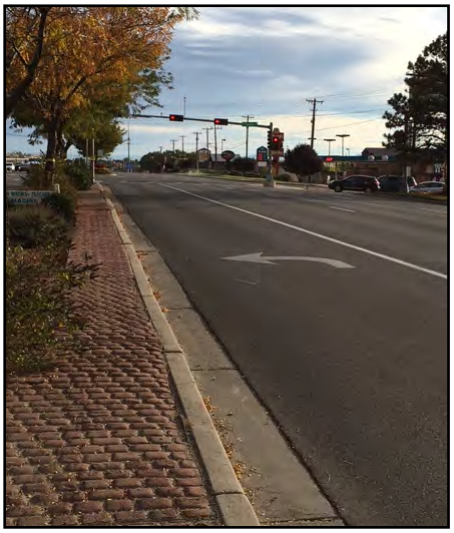
II.C Data Collection

II.C.1. Existing Roadway Conditions

The intersection of NM 516 (Main St.) with English Road is signalized. There is existing corridor street lighting in the median. The medians on NM 516 are raised with concrete curb and are landscaped with bushes and small trees. Crosswalks are located on all four approaches. English Road intersects NM 516 at about a 20 degree skew from perpendicular.

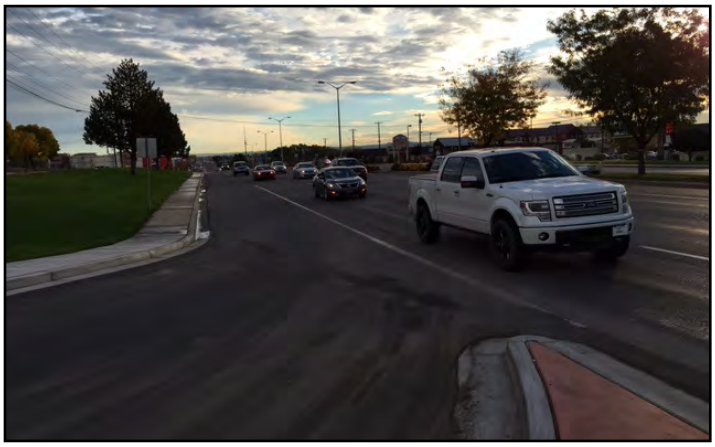
The existing speed limit is 35 mph on NM 516 and 30 mph on English Road.

West Approach. Eastbound NM 516 approaching English Road is a four-lane section with curb and gutter. There is sidewalk that is separated from the roadway by a landscaped buffer. The right lane is a combined through/right-turn lane with no signing or striping to indicate a right turn. There is an exclusive left-turn lane; however, it is short (about 220 feet long) with limited storage due to an additional left-turn lane / median break located about 300 feet west of the intersection that accesses a commercial area on the north side. There is a signalized intersection approximately 1,000 feet west of English Road that provides access to commercial areas north and south of NM 516. There are no entrances to NM 516 from the south in the section between the two signalized intersections.



Westbound NM 516 departing from English Road is a three-lane section with curb and gutter. Sidewalk is adjacent to the curb. There are two entrances in this section.

East Approach. Westbound NM 516 at English Road is a five-lane section with exclusive left-turn and right-turn lanes. There is curb and gutter with sidewalk adjacent to the curb. The westbound to southbound left-turn storage lane is short (about 180 feet). Approximately 550 feet east of the intersection is a median turn lane (combined eastbound to northbound and westbound to southbound) for access into commercial areas. This turn lane impacts the ability to lengthen the left-turn storage at English Road. The westbound to northbound right-turn storage lane is approximately 400 feet long, with a raised turn island and yield control for merging in the northbound lanes with English Road traffic.

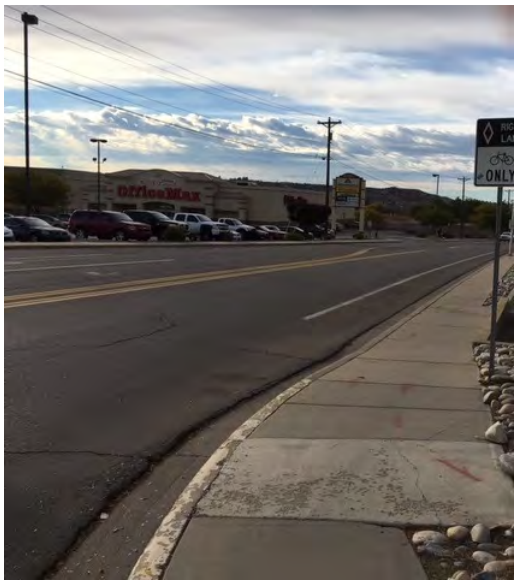


The closest, adjacent signalized intersection from this approach is Pinon Hills Blvd, which is approximately 0.6 miles east of English Road. There are six entrances on the north side of NM 516 between these two intersections.

Eastbound NM 516 departing English Road is a four-lane section for about 500 feet from the intersection. The right lane is an exclusive acceleration lane that doubles as a right-turn lane for access to the commercial area south of NM 516. There is a right turn only sign at the east end of this lane; however, there is no signing at the beginning of this lane to indicate through traffic must merge left. East of this location, NM 516 is a three-lane section. There is curb and

gutter with sidewalk adjacent to the curb. There are two city streets and at least nine commercial entrances on the south side of NM 516 between English Road and Pinon Hills Blvd.

South Approach. English Road is a three-lane section south of NM 516. However, in the immediate vicinity of the intersection, English Road is a four-lane section which includes exclusive left-turn and right-turn lanes with limited storage capacity (140 feet or less). There is no turn lane indication (sign) in advance of the intersection. The northbound to eastbound right-turn lane has a raised turn island and yield control since there is an exclusive merge lane on NM 516.



Southbound English Road south of NM 516 is one lane. There is curb and gutter on both sides of English Road, with sidewalk adjacent to the curbs. There are bike lanes on both sides of English Road that begin several hundred feet south of the intersection.

North Approach. Immediately north of NM 516, southbound English Road is a three-lane section with short left-turn (about 160 feet) and right-turn (100 feet) lanes in addition to the through lane. There is curb and gutter on both sides of English Road, with sidewalk adjacent to the curbs. There is no turn lane indication (sign) in advance of the intersection.

Northbound English Road north of NM 516 is two lanes. There are bike lanes on both sides of English Road that begin several hundred feet north of the intersection.

Median Break West of Intersection. Approximately 300 ft west of the English Road intersection there is an existing median break with a left turn storage lane. This median opening is apparently to allow eastbound (EB) vehicles to turn left into a commercial entrance without having to go through the English Road intersection. The median break seems excessively long, and would appear to allow several potentially unsafe turning movements in addition to the EB left-turns. Specifically, vehicles departing from the entrance on the north side could potentially

make left turns to the EB lanes, and there is nothing to prevent U-turns from occurring at the median opening. In addition, the commercial entrance on the north appears to be confusing to motorists, based on the numerous curb hits (tire marks and broken curbs) evident at the site.

II.C.2. Bicycles and Pedestrians

There was little to no bicycle or pedestrian activity observed during the site visits to the intersection. This was confirmed by the 38-hour counts conducted the weekend of September 30—October 1, 2016: only 3 bicycles on the road and 6 in the crosswalks were noted. There were a total of 115 pedestrians during that same time. The highest number of pedestrians during any one hour was 10. Copies of the counts are located in the Appendix.

II.C.3. Accident Data Collection and Analysis

NMDOT Accident Data. Accident data was obtained from the NMDOT Planning and Traffic Safety Division / Crash Records Bureau for the 5-year period from 2010 through 2014. Due to the limited time available for obtaining and analyzing accident data, the RSA study team did not request accident reports. The accident data is summarized in Tables 2 through 4.

There was a total of 73 crashes in the 5-year study period for the intersection and approaches. Of these, there were 30 injury crashes (41%). There were no fatal crashes. The remaining 43 crashes (39%) were property damage only (PDO). Tables 2 through 4 provide additional information on the accidents reported.

Nearly all of the crashes were caused by some form of driver error. Most of these were typical of intersections: 21 failure to yield, 11 following too closely, 9 driver inattention, 7 disregard traffic signal, 4 improper lane change.

The accident data includes classification by type. Using this system, the most common type was left-turn: 24 accidents (33%). Vehicles going straight, including sideswipes, accounted for 21 accidents (29%). There were 12 rear end (16%) and 5 right-angle (7%) crashes.

Four crashes (5.5%) were alcohol-related. Only two accidents might have had weather (rain and snow) as potential factors.

There were five pedestrian, one bicycle, and three motorcycle accidents – all relatively low numbers.

TABLE 2—OVERAL SUMMARY

Year	Number of Crashes	Fatal Crashes	Injury Crashes	Property Damage Only	Dark-not Lighted	Pedestrian Involved	Bicyclist Involved
2010	14	0	5	9	1	1	0
2011	14	0	4	10	0	0	1
2012	17	0	7	10	0	0	0
2013	15	0	9	6	0	4	0
2014	13	0	5	8	0	0	0
Total	**73**	**0**	**30**	**43**	**1**	**5**	**1**

TABLE 3—HIGHEST CONTRIBUTING FACTORS

Year	Number of Crashes	Failed to Yield	Driver Inattention	Disregarded Traffic Signal	Improper Lane Change	Following Too Closely	Alcohol or Drugs Involved	Excessive Speed	Other
2010	14	6	4	1	1	1	0	1	0
2011	14	4	0	2	2	4	1	0	1
2012	17	3	2	3	0	3	2	2	2
2013	15	5	2	0	0	2	0	0	6
2014	13	3	1	1	1	1	1	0	5
Total	**73**	**21**	**9**	**7**	**4**	**11**	**4**	**3**	**14**

TABLE 4—CRASH ANALYSIS

Year	Number of Crashes	Right Angle	Left Turn	Both Going Straight Same Direction	Rear End	Sideswipe	Other
2010	14	1	5	3	1	2	2
2011	14	0	6	3	2	2	1
2012	17	1	2	5	5	1	3
2013	15	2	6	1	3	0	3
2014	13	1	5	4	1	0	2
Total	**73**	**5**	**24**	**16**	**12**	**5**	**11**

Fourteen accidents (19%) were at night. There is existing street lighting; therefore, only one accident was reported as being Dark-Not Lighted.

There was one animal accident involving a deer.

City of Farmington Accident Data. This data came from two sources: the City of Farmington Police Department (PD) which included 13 accidents from February 2015 through August 2016; and from the City of Farmington Traffic Engineering Department, which included 23 accidents from November 2014 through February 2016. The accident data is included in the appendix.

The PD accident data included 5 accidents where no reports were taken, so information on those accidents is not available. Of the remaining 8 accidents, 6 involved rear-end crashes, and the rest were a combination of running a red light (Failure to Yield) and right-angle. These types of accidents are common at signalized intersections. Two involved injuries; the remaining 6 were PDO.

The Traffic Department data set include 5 accidents already included with the PD, and 2 accidents that were already within the NMDOT accident listing. The remaining 16 accidents were in addition to any other data set; however, there was no information provided other than date and time, so no analysis was performed on this data set.

II.C.4. Existing Traffic Data

The intersection of NM 516 with English Road, and adjacent streets and entrances, serve a number of businesses including a few large traffic generators such as Animas Valley Mall, Target, Albertson's, and other businesses including sporting goods, restaurants, banks, hotels, and an urgent care center. There are also residential areas located a few blocks north and south of the intersection. These land uses generate significant

traffic at the intersection.

The average annual daily traffic (AADT) for this intersection was obtained from the NMDOT web-site. The AADT for 2015 was estimated by NMDOT, and published in June 2016, based on actual counts taken in 2011. The 2015 AADT was 24,351. Heavy vehicles were reported at 11%. The AADT report is included in the appendix.

II.C.5. Turning Movement Traffic Counts

Turning movement counts were obtained in the field from 6:00 a.m. on Friday, September 30, 2016 through 8:00 p.m. on Saturday, October 1, 2106 for a total of 38 hours. Traffic flow data was collected in fifteen minute intervals to determine the peak hours. Classifications were conducted to determine the flow of vehicles, bicycles, and pedestrians. The Peak Hours were then determined.

Figures 2 through 5 contain the highest Peak Hour Turning Movements which occur mid-day on both Friday and Saturday. The turning movement counts did not indicate any A.M. or P.M. peak hours. Complete turning movement counts are provided in the Appendix.

II.D Other Documents Reviewed

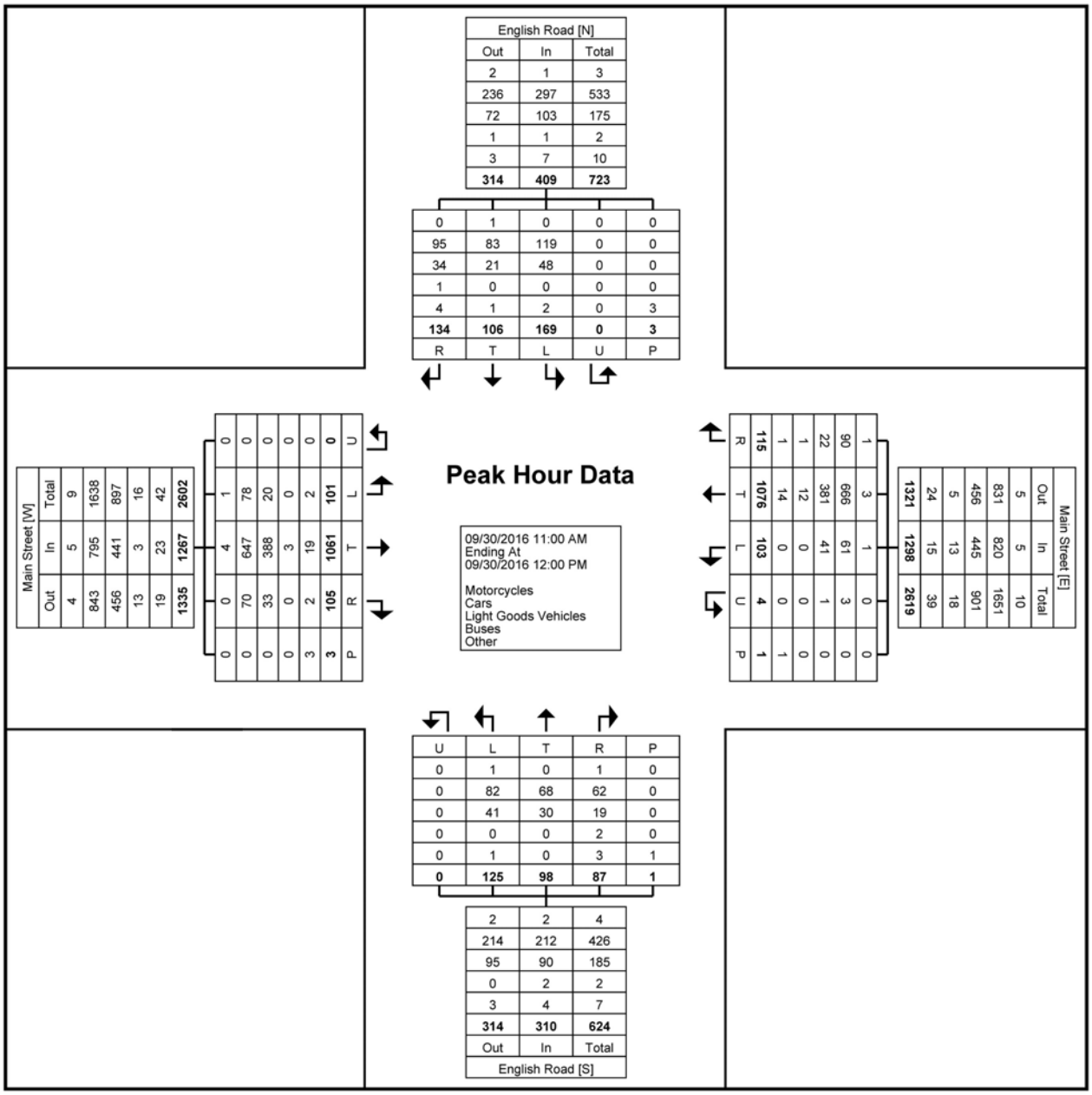
As part of the RSA team's analysis of the study area, **OEI** obtained and reviewed several recent studies related to the project. The studies are listed in the References Section at the end of this report. The studies reviewed included a traffic impact analysis for a nearby commercial entrance. **OEI** requested previous traffic studies from NMDOT District 5 and the City of Farmington but were informed that none were available at this intersection.

II.E Site Visit General Observations

The study team conducted a site visit on the morning of the RSA workshop on October 11, 2016. The observations from the RSA workshop are provided in the meeting notes from the field review workshop. These can be found in the Appendix.

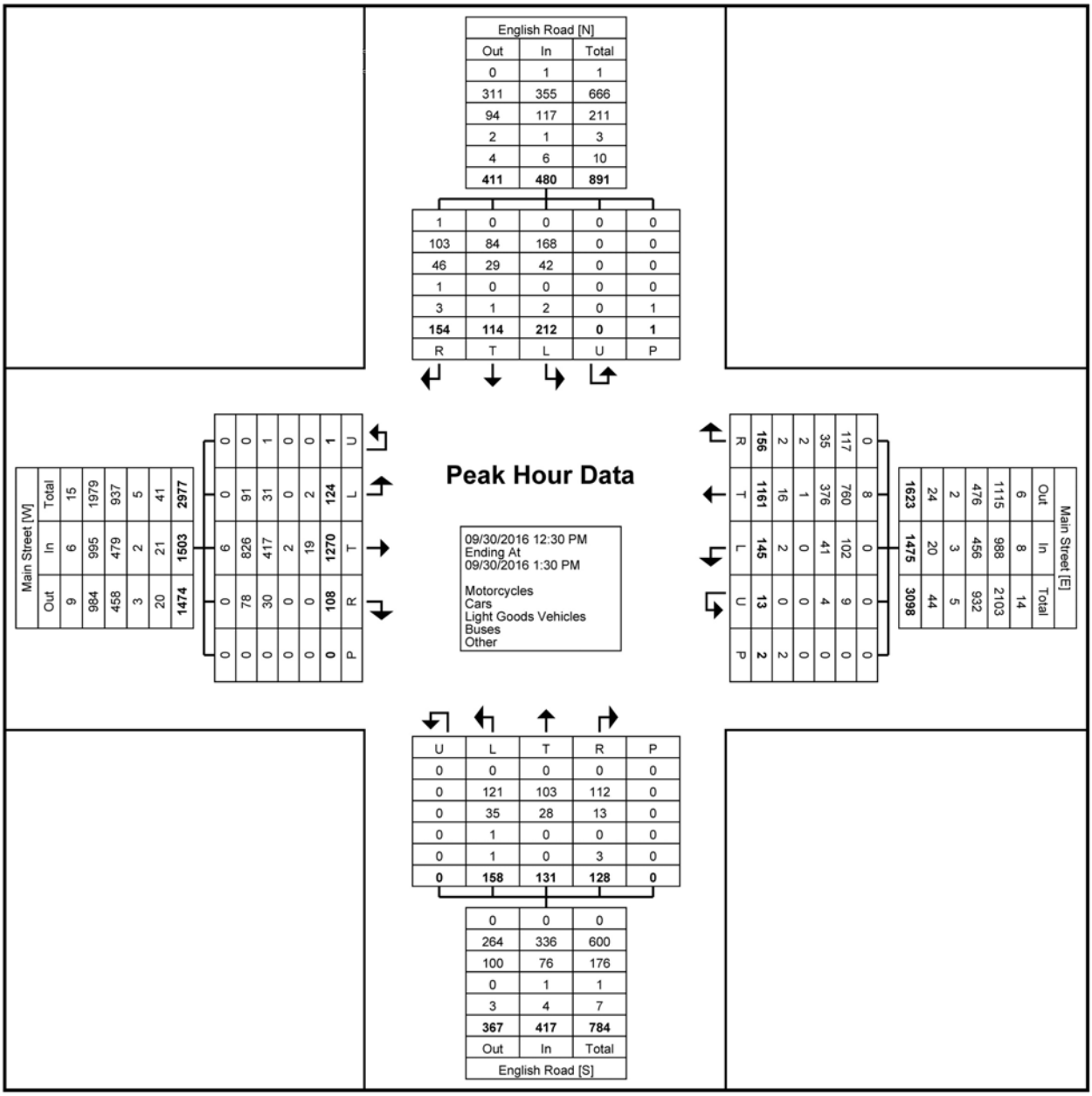
Aerial photographs from Google and pictures taken of the project area by **OEI** are provided in the Appendix.

Figure 2. Friday Peak Hour Turning Movements



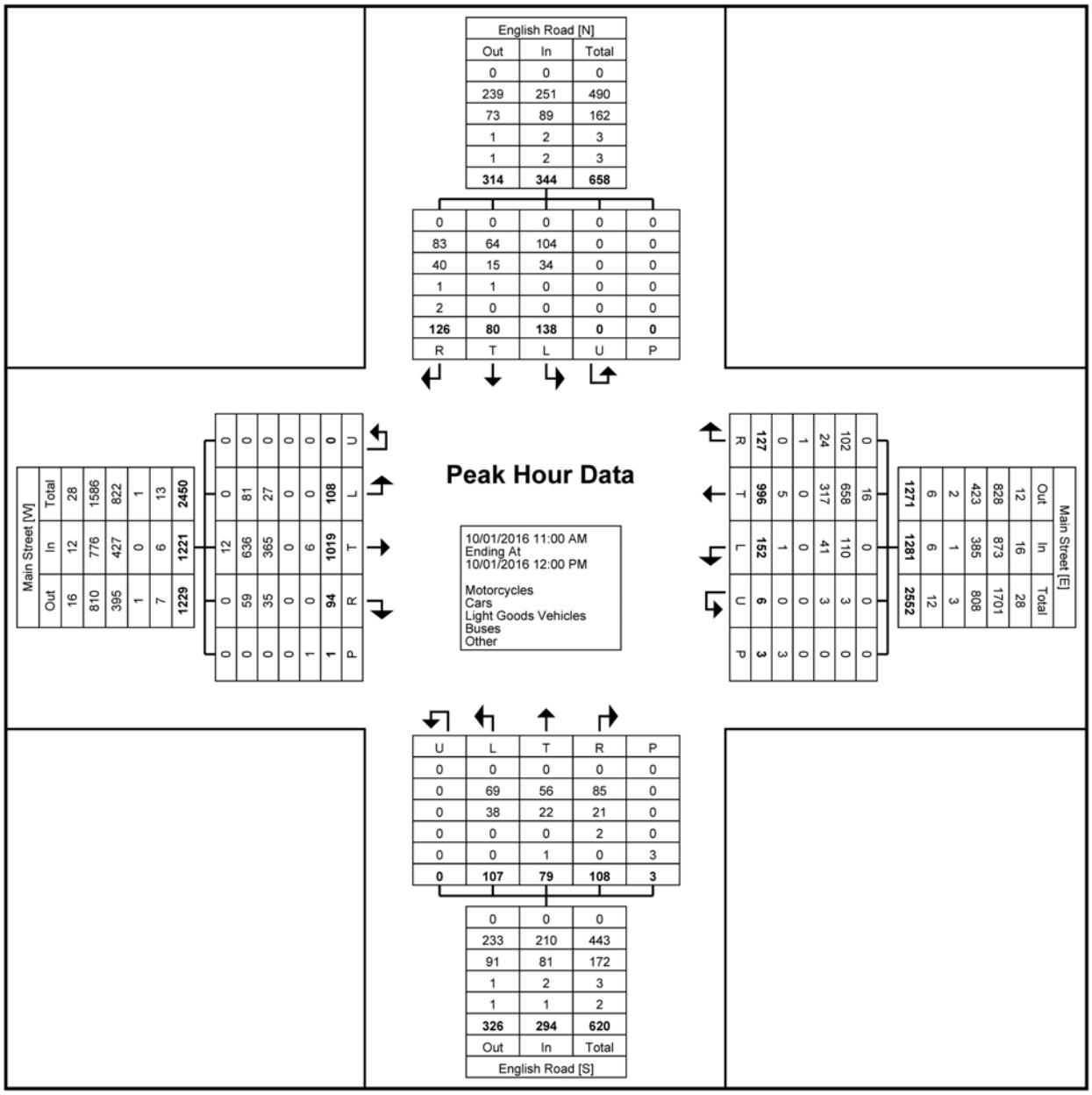
Turning Movement Peak Hour Data Plot (11:00 AM)

Figure 3. Friday Peak Hour Turning Movements



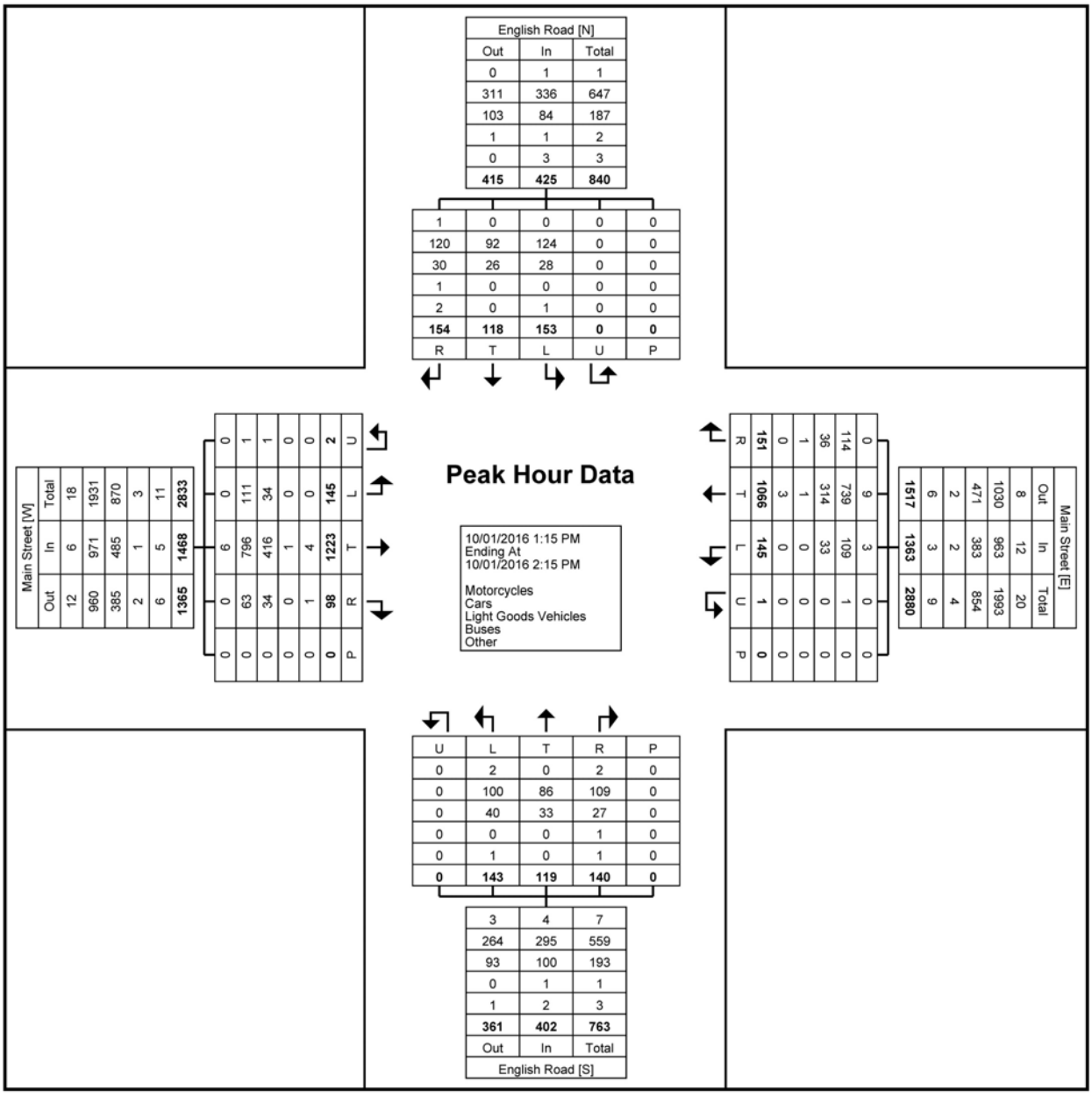
Turning Movement Peak Hour Data Plot (12:30 PM)

Figure 4. Saturday Peak Hour Turning Movements



Turning Movement Peak Hour Data Plot (11:00 AM)

Figure 5. Saturday Peak Hour Turning Movements



Turning Movement Peak Hour Data Plot (1:15 PM)

III. Findings and Countermeasures

Below is a list of the Issues and the countermeasures that were identified during the workshop held on October 11, 2016.

III.A Issues Identified

The following issues were identified by the RSA study team during the workshop:

1. Capacity / operations
2. Medians
3. Driveways
4. Pedestrian / ADA
5. Geometric / median nose
6. Vertical alignment in the north-south direction
7. Skewed alignment
8. Signing / striping / painting on noses at medians and driveway entrance
9. Lighting

These issues above were consolidated into five main categories:

1. **Medians, driveways, geometrics, vertical alignment**
2. **Striping and Signage**
3. **Pedestrian / ADA**
4. **Capacity / operations**
5. **Lighting**

III.B Countermeasures

Countermeasures were identified during the workshop for each issue "category" defined above, and are listed under the applicable category below:

1. **Medians, driveways, geometrics, vertical alignment**
    - Raise grades on English Road south of the intersection
    - Modify medians:
        - extend median nose at east intersection approach
        - shorten nose at west intersection approach and convert to double left turn
        - extend both noses at median break west of intersection
        - Close median break west of intersection
    - Reconfigure commercial driveway
2. **Striping and Signage**
    - Add signs to supplement painted markings. The following are recommended signs:

        - One sign in advance of northbound approach on English to indicate turn/through lanes
        - One sign in advance of southbound (SB) approach on English to indicate turn/through lanes
        - Two No U-Turn signs (both directions) at median break west of intersection
        - One No Left-Turn sign at driveway exit in NW quadrant of intersection
        - One advance sign for EB traffic to indicate median break is for access to the commercial area (blue/white sign)
        - One advance sign for EB traffic to indicate left turn for English is ahead.
        - Two signs for EB (one at median break, one at intersection) indicating Left Turn Only lane
        - One sign at beginning of EB acceleration lane (SE quadrant) to indicate Lane Ends / Merge Left
    - Add striping including turn arrows, crosswalks
    - Paint median and driveway curb noses with yellow reflective paint
3. **Pedestrian / ADA**
    - Pedestrian crossing timing
    - Meet ADA: ramps / width / detectable warnings
    - Raise grades on English Road south of intersection
4. **Capacity / operations**
    - Perform capacity analysis
    - Based on analysis, improve operations and queuing
5. **Lighting**
    - Add intersection lighting in addition to median lighting

III.C Discussion of Countermeasures Eliminated

Several of the countermeasures are considered functions of routine maintenance, and are therefore assumed to be budgeted and scheduled within the NMDOT District 5 budget for maintenance and operations. While this group of countermeasures are included as recommendations in this report (see Conclusions section), since they will not ultimately become a safety project they have been eliminated from further evaluation of countermeasures, including determination of project costs, for purposes of this RSA. These include the following countermeasures:

- Add striping including turn arrows, crosswalks (this work has been scheduled)
- Paint median and driveway curb noses with yellow reflective paint
- Pedestrian crossing timing
- Based on analysis, improve operations and queuing

A capacity analysis was performed as part of this RSA using peak hour traffic collected for this study. The traffic signals at this intersection use an adaptive timing scenario, which continually adjusts signal timing. Therefore, the analysis performed for this RSA only illustrates conditions based on the background timing settings, i.e., the starting point for which the system will make adjustments. Based on these assumptions, the analysis determined that for the peak hour (12:30-1:30 pm), the EB, NB and SB approaches are currently operating at a Level of Service (LOS) "D" which is acceptable. The westbound (WB) approach is operating at a LOS "E." The critical movement for this approach is the WB to SB left-turn which is at a LOS "F." The intersection overall is operating at a LOS "D." Signal timing changes for the intersection (assuming current geometric configuration) could potentially improve the LOS "F" for this this movement. Output from the capacity analysis is included in the Appendix.

III.D Final Countermeasures

The remaining countermeasures were consolidated into the following five countermeasures:

III.D.1. Raise Grades on English Road South of the Intersection

The existing grade of the south intersection approach falls as English Road goes south. This countermeasure would involve reconstructing the vertical alignment of the south approach to make it more level with NM 516. The redesign would improve the grade of the crosswalks on NM 516 to bring them into compliance with ADA. However, in order to "daylight" English Road to the south would require a long transition, thereby increasing the construction cost. ADA improvements on the south side of NM 516 are included in this countermeasure.

III.D.2. Modify Medians and Reconfigure Commercial Driveway

This includes the extension of three median noses and the reduction of one nose, as described above. The EB to NB movement would be changed to a dual left-turn. The commercial driveway on the north side of NM 516 would be reconfigured to restrict SB traffic from turning left onto EB NM 516. This item includes all required signing, as recommended above. Closing the median break is not included but could be considered as an additional countermeasure. A sketch of the proposed improvements is provided as Figure 6 on the following page.

III.D.3 Add Signs to Supplement Painted Markings

This countermeasure would add approximately 10 signs. The locations and types of signs are described above.

III.D.4 Meet ADA: Ramps / Width / Detectable Warnings

The NE quadrant of the intersection appears to meet ADA requirements, so this countermeasure would involve the other three quadrants. The ADA ramps at each corner would be modi-

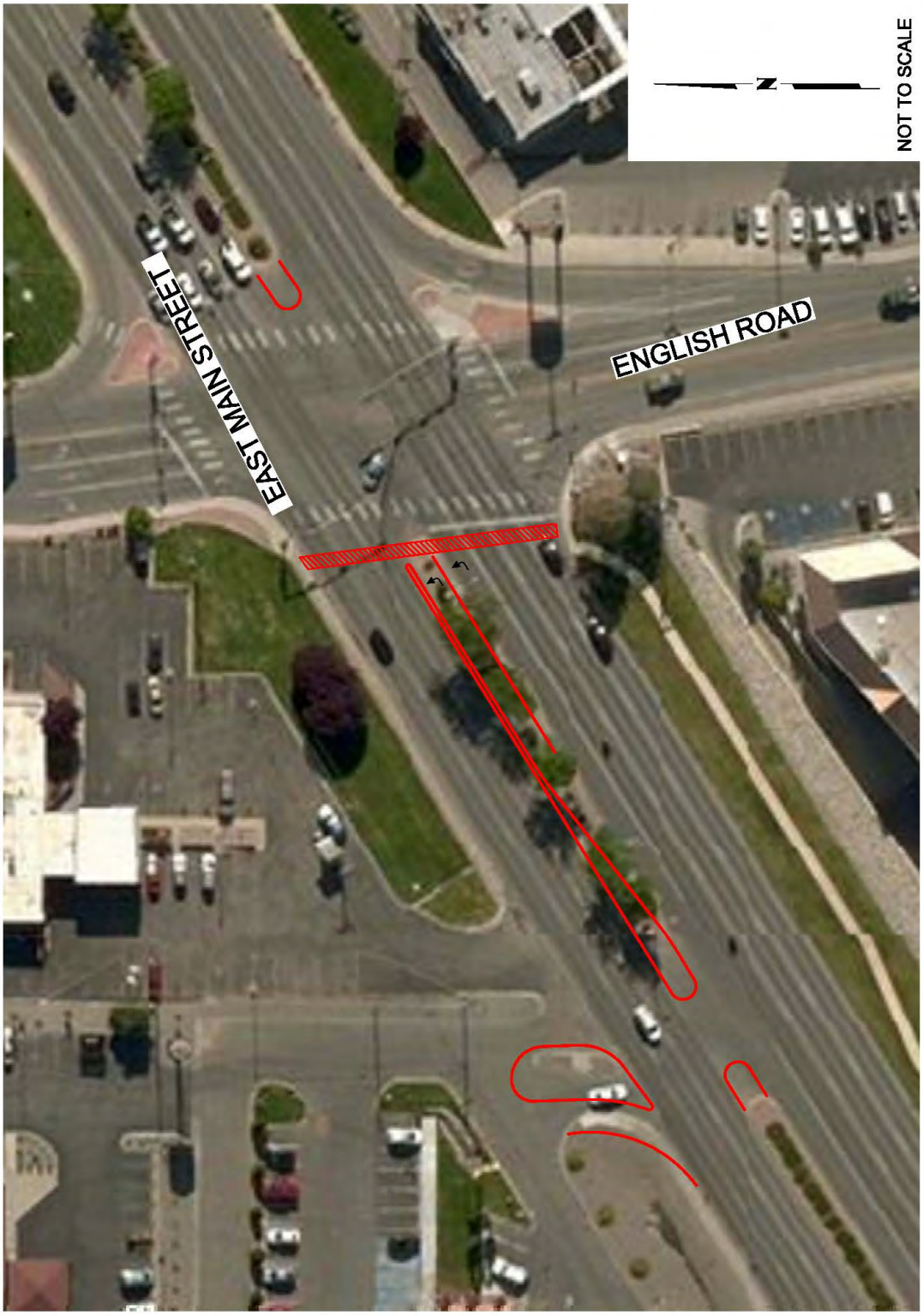


Figure 6. Proposed Median Improvements

fied including the addition of detectable warning surfaces, widening sidewalks, relocating the ramps as needed to meet slope requirements, and installation of signal push buttons for pedestrians at the NW and SW corners.

III.D.5 Add Intersection Lighting

Approximately four light standards would be added for this countermeasure.

III.E Conclusions

The countermeasures listed in Table 5 are recommended for programming into the process for implementation. Estimated costs are provided for each countermeasure for budget level plan-

Table 5. Summary of Countermeasures

Countermeasure	Planning Level Cost Estimate
1. Raise Grades on English Road South of the Intersection Includes reconstruction of approximately 400 feet of English Road south of NM 516. Does not include right-of-way or easement acquisition or utility adjustments.	$420,000 to $550,000
2. Modify Medians and Reconfigure Commercial Driveway Includes the following improvements: • extend median nose at east intersection approach • Add EB to NB dual left-turn • shorten nose at west intersection approach and convert to double left turn • extend both noses at median break west of intersection	$108,200 to $143,400
3. Add Signs to Supplement Pavement Markings Approximately 10 new signs.	$10,800 to $14,300
4. Meet ADA: Ramps / Width / Detectable Warnings The ramps at the NW, SW, and SE corners would be updated to meet ADA including detectable warning surfaces, wider sidewalks, relocating the ramps as needed to meet slope requirements, and installation of signal push buttons for pedestrians (NW and SW corners).	$69,300 to $91,900
5. Add Intersection Lighting Four intersection light standards with conduit, wiring, and other required items.	$64,400 to $85,300

ning. ***The costs include amounts for engineering design, construction administration, New Mexico gross receipts taxes, and contingencies.***

In addition to the countermeasures in Table 5, the following countermeasures are recommended for implementation by the appropriate agencies including the NMDOT:

- Add striping including turn arrows, crosswalks (this work has been scheduled)
- Paint median and driveway curb noses with yellow reflective paint
- Pedestrian crossing timing
- Revise signal timing to improve LOS for WB left-turn movement

OEI would like to thank the City of Farmington for providing meeting space.

IV. References

Highway Safety Manual, 1st Edition, American Association of State Highway and Transportation Officials, 2010

Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, 2009 Edition. American Association of State Highway and Transportation Officials

New Mexico Department of Transportation State Access Management Manual, 2001 Edition

New Mexico Department of Transportation Standard Drawings, http://www.dot.state.nm.us/en/Standards.html

New Mexico Highway Safety Improvement Program (HSIP) Road Safety Audit (RSA) Manual, New Mexico Department of Transportation, March 24, 2014

New Mexico Traffic Crash and DWI Statistics, University of New Mexico Geospatial and Population Studies, Traffic Research Unit, http://www.dgr.unm.edu/.

FHWA Road Safety Audit Guidelines, Publication No. FHWA-SA-06-06, U.S. Department of Transportation, Federal Highway Administration, 2006, Ward, Louisa, Project Manager

New Mexico Department of Transportation Statewide Transportation Improvement Plan (STIP) Amendment 3, U.S. Department of Transportation, Federal Highway Administration, July 16, 2016

U.S. New Mexico Federal Credit Union (NM S.R. 516 / Pinon Hills Blvd—Farmington, NM), Traffic Impact Study, Terry O. Brown, PE, Albuquerque, NM, July 28, 2014

V. Appendix

A. Meeting Notes & Sign in Sheets

B. 2010-2014 Accident Data

C. Aerial Photographs

D. Photographs

E. Traffic Data

F. Traffic Data Analysis

Appendix A—Meeting Notes

NMDOT Road Safety Audit (RSA)

NM 516 (MAIN STREET)/ENGLISH ROAD INTERSECTION

NMDOT CN 910011

Kick-Off Meeting, Thursday, September 8, 2016, 11:00 a.m.

A kick-off meeting was held for the Road Safety Audit (RSA) for NM 516 (Main Street)/English Road Intersection on Thursday, September 8, 2016 at 11:00 a.m. at the City of Farmington Office. The following individuals were in attendance:

Afshin Jian	NMDOT General Office
David Sypher	City of Farmington
Nica Westerling	City of Farmington
Charlie Trask	City of Farmington
Isaac Blue Eyes	City of Farmington
Carlos Ruiz	OCCAM
Dave Thompson	TEC

Everyone at the meeting introduced themselves. Carlos Ruiz discussed the agenda for the kick-off meeting. Mr. Ruiz explained what an RSA is and what the result will be when it is completed. A general overview of the project limits was discussed. The following are specific items that were brought up during the meeting:

- The HSIP Application was initiated so that the City could build double left turn lanes from eastbound Main Street to Northbound English Road.
- The intersection cross slope is greater than 5% so it does not meet ADA standards. South side of Main Street from the "Porkchop" to the crosswalk is not viable to use for handicap pedestrians.
- The stacking length of the existing turn lane is not long enough.
- Information that we will be obtaining include: Crash Data, As-builts, and Traffic Counts.
- Any traffic counts should be taken during the first weekend of the month as that is the busiest time.

- Charlie has traffic counts from 2014 that he will email to us.
- Charlie has more recent crash data for 2015 and the first 3 months of 2016 that he will email to us.
- Carlos suggested that we take new turning movements counts. It was agreed that these turning movements will be taken from 6 a.m. Friday, September 30th to 8 p.m. Saturday, October 1st.
- We will count bicycles, pedestrians, and animals.
- Charlie requested that a capacity analysis be completed and that we examine queuing in the turn bays.
- Nica and Charlie said that District 5 has several recent traffic studies in the area that were completed for new developments.
- The existing break in the median of the eastbound turn lane at the Main/English intersection provides access to commercial properties on the north side of Main. This could contribute to the queuing length in the turn lane.
- Other Stakeholders to invite to the workshop include: 1) NMDOT District 5; 2) Fire Station Representative; 3) Police Substation Representative; 4) City of Farmington Planning; and 5) MPO Representative.
- The workshop date and place is scheduled for Tuesday, October 11th at 8:00 a.m. at the City of Farmington.

NMDOT

ROAD SAFETY AUDIT
Main/English Intersection

KICK-OFF MEETING
September 8th, 2016

Occam Engineers Inc.

Name	Organization	e-mail	Phone #
Charlie Trask	COF Traffic	ctrask@fmtn.org	505-258-5537
Isaac Blue Eyes	COF Traffic	iblueeyes@fmtn.org	505 320 4624
Nicole Westerling	COF City Engineer	nwesterling@fmtn.org	505 599-1316
David Snyder	COF PWD	dsnyder@fmtn.org	599-1063
Afshin Jian	NMDOT	afshin.jian@state.nm.us	505 827-5490
Carlos Ruiz	OCCAM Engineering	cruiz@occam.pro	505-349-8451
Dave Thompson		tecnm@yahoo.com	505-271-2499

Appendix A—Meeting Notes

NMDOT Road Safety Audit (RSA)
NM 516 at English Road - MP 3.9
NMDOT CN 910011
Workshop Meeting and Site Visit
Tuesday, October 11, 2016, 8:00 a.m.

A workshop meeting and site visit was held for the Road Safety Audit (RSA) for NM 516 at the English Road intersection (MP 3.9) on Tuesday, October 11, 2016 from 8:00 a.m. – 11:30 a.m. at the City offices in Farmington, NM. The attached sign-in sheet provides a record of the individuals that were in attendance.

The study team met at the site and discussed potential issues at the intersection and approaches. The meeting followed at the City of Farmington offices. Carlos Ruiz (Occam) explained the purpose of an RSA and what the result will be when it is completed. He mentioned that the team will look at efficiency only to the extent that it will affect safety.

1. The following potential safety issues were raised:
    a. Capacity / operations (TBD if this is an issue based on LOS analysis)
    b. Medians – 4 issues:
    c. Driveways
    d. Pedestrian / ADA
    e. Geometric / median nose
    f. Vertical N-S
    g. Skewed alignment
    h. Signing / striping / painting on noses at medians and driveway entrance
    i. Lighting (there is corridor lighting but no intersection lighting)
2. The issues identified above were consolidated into groups as defined below, and countermeasures were suggested for each group:
    a. Group 1 – medians, driveways, geometrics, vertical alignment
        i. Raise grades on South English
        ii. Modify medians:
            1. extend median nose at east intersection approach
            2. shorten nose at west intersection approach and convert to double left turn
            3. extend both noses at median break west of intersection
        iii. Close median break west of intersection
        iv. Reconfigure commercial (urgent care, etc.) driveway
    b. Group 2 – signing, striping
        i. Add signs to supplement painted markings. The list below are examples:
            1. One sign in advance of NB approach on English to indicate turn/thru lanes
            2. One sign in advance of SB approach on English to indicate turn/thru lanes
            3. Two No U-Turn signs (both directions) at median break west of intersection

1

4. One No Left-Turn sign at driveway exit in NW quadrant of intersection
5. One advance sign for EB traffic to indicate median break is for access to the commercial area (blue/white sign)
6. One advance sign for EB traffic to indicate left turn for English is ahead.
7. Two signs for EB (one at median break, one at intersection) indicating Left Turn Only lane
8. One sign at beginning of EB acceleration lane (SE quadrant) to indicate Lane Ends / Merge Left

ii. Add striping including turn arrows, crosswalks
iii. Paint median and driveway curb noses with yellow reflective paint

c. Group 3 – Pedestrian / ADA
   i. Pedestrian crossing timing
   ii. Meet ADA: ramps / width / detectable warnings
   iii. Raise grades on South English
d. Group 4 – Capacity / operations
   i. Perform capacity analysis
   ii. Based on analysis improve operations and queuing
e. Group 5 – lighting
   i. Add intersection lighting in addition to median lighting

As part of the site visit and subsequent determination of issues and countermeasures, the following items were also discussed during the meeting:

- The missing pavement striping has already been scheduled.
- There are few bikes and only one bicycle related accident. There are no bike lanes on NM 516. The bike lanes on English begin / end several hundred feet away from the intersection. The traffic counts indicated very few bicycles. Bicycles do not appear to be an issue.
- There were 73 accidents at the intersection from 2010-2014. The accidents were spread more or less uniformly over that five-year period. Most accidents were drive error.
- There is corridor lighting in the median on NM 516, which may not be sufficient for the intersection. There are overhead power lines that might restrict the type of lighting that could be added.
- The ramp island in the NE quadrant appears to be ADA compliant; the other three corners do not appear to meet ADA. A potential countermeasure for the SW corner might be to move the crosswalk landing approximately 10-15 ft west, where there is a more gradual grade.

Carlos Ruiz stated that the issues and countermeasures would be included in a draft report that would be e-mailed to all persons in attendance at the meeting. We would need comments back within a week.

English/main St. Intersection RSA WORKSHOP
SIGN-IN SHEET

October 11th, 2016

NAME	ORGANIZATION	E-MAIL	PHONE No.
Art Garcia	Occam	agarcia@occam.pro	505-553-0606
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Charlie Trask	COF - Traffic	ctrask@Fmtn.org	505-258-3537

Appendix B—2010-2014 NMDOT Accident Data

CRASH DATE	TIME OF CRASH	DAY OF WEEK	MAJOR STREET	SECONDARY STREET	LANDMARK LOCATION	CRASH SEVERITY	CRASH CLASSIFICATION	CRASH ANALYSIS	HIGHEST CONTRIBUTING FACTOR IN CRASH	NUMBER OF VEHICLES ETC. INVOLVED	PEDESTRIAN INVOLVEMENT	MOTORCYCLE INVOLVEMENT	PEDALCYCLE INVOLVEMENT	LIGHTING	WEATHER	DIRECTION FROM INTERSECTION	DISTANCE FROM LANDMARK
2/2/2010	1510	Tuesday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
2/4/2010	1135	Thursday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Other Stopped	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	45
4/19/2010	1515	Monday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Non-Intersection - From Opposite Direction/Sideslip Collision	Improper Lane Change	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	300
5/15/2010	1503	Saturday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - One Stopped/Entering At Angle	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
5/25/2010	1638	Tuesday	MAIN ST (US 64	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
7/6/2010	1545	Tuesday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Rear End Collision	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
7/7/2010	1601	Wednesday	MAIN ST (US 550	ENGLISH RD		Injury Crash	Other Vehicle	Intersection - One Left Turn/Entering At Angle	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
7/14/2010	1146	Wednesday	MAIN ST			Injury Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
8/24/2010	1850	Tuesday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Non-Intersection - One Vehicle/Leave Driveway Access	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	0
10/12/2010	1314	Tuesday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
11/29/2010	2108	Monday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	0
12/6/2010	1635	Monday	MAIN ST (US 550	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Other Stopped	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	10
12/21/2010	1130	Tuesday	MAIN ST (US 64	E MAIN ST		Injury Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	150
12/22/2010	1636	Wednesday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Sideslip Collision	Disregarded Traffic Signal	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
1/1/2011	1240	Tuesday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
4/12/2011	1658	Tuesday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction/Sideslip Collision	Improper Lane Change	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
4/15/2011	1736	Friday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
4/25/2011	1618	Monday	MAIN ST (US 550	ENGLISH RD		Injury Crash	Other Vehicle	Intersection - From Same Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
5/6/2011	1056	Friday	MAIN ST (US 550	ENGLISH RD		Injury Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
10/1/2011	339	Saturday	MAIN ST	ENGLISH RD		Injury Crash	Overturn/Rollover	Overturn/Rollover - On The Road	Alcohol/Drug Involved	1	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	0.1
11/11/2011	1935	Friday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/One Stopped	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
11/28/2011	1846	Monday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	50
11/29/2011	1615	Tuesday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/One Stopped	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
12/3/2011	1813	Saturday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Sideslip Collision	Improper Lane Change	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
12/9/2011	1615	Friday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Sideslip Collision	Other Improper Driving	2	Not Involved	Not Involved	Involved	Dark-Lighted	Clear	Left Block	1000
12/9/2011	1854	Friday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - One Left Turn/Entering At Angle	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
12/16/2011	1624	Friday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	0
12/18/2011	1646	Sunday	MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	30
1/5/2012	746	Thursday	MAIN ST	ENGLISH RD		Injury Crash	Other Vehicle	Intersection - From Same Direction/Rear End Collision	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	30
1/30/2012	1735	Monday	MAIN ST	4500 ENGLISH RD	INTERSECTION	Injury Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Alcohol/Drug Involved	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	10
2/16/2012	1830	Thursday	EAST MAIN STREET	ENGLISH DRIVE	INTERSECTION	Injury Crash	Fixed Object	Fixed Object - Right Standard (Light Pole)	Alcohol/Drug Involved	1	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	200
4/5/2012	239	Thursday	MAIN STREET			Injury Crash	Fixed Object	Fixed Object - Right Standard (Light Pole)	Alcohol/Drug Involved	1	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	0.1
4/14/2012	1535	Saturday	MAIN STREET			Property Damage Only Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Other - No Driver Error	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	50
5/5/2012	832	Saturday	EAST MAIN STREET	ENGLISH ROAD		Property Damage Only Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	100
5/23/2012	1613	Wednesday	MAIN STREET			Property Damage Only Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
6/4/2012	630	Monday	EAST MAIN STREET			Property Damage Only Crash	Other Vehicle	Intersection - Both Going Straight/Entering At Angle	Disregarded Traffic Signal	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	50
6/4/2012	1334	Monday	E MAIN ST	ENGLISH		Injury Crash	Other Vehicle		Disregarded Traffic Signal	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
10/10/2012	1134	Wednesday	E MAIN ST	ENGLISH RD		Injury Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Avoid No Contact - Vehicle	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	10
11/2/2012	1610	Friday	EAST MAIN STREET			Injury Crash	Other Vehicle	Intersection - From Opposite Direction/Both Going Straight	Disregarded Traffic Signal	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	30
11/2/2012	1734	Friday	EAST MAIN STREET	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Speed Too Fast for Conditions	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
11/15/2012	1016	Thursday	E MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Rear End Collision	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
11/22/2012	1929	Thursday	MAIN ST	MAIN ST AND ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - One Left Turn/Entering At Angle	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	50
11/23/2012	1637	Friday	MAIN STREET	MAIN AND ENGLISH		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	50
12/1/2012	1312	Saturday	EAST MAIN STREET	ENGLISH ROAD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	25
12/3/2012	1515	Monday	E MAIN ST			Injury Crash	Other Vehicle		Disregarded Traffic Signal	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
12/31/2012	950	Monday	MAIN	ENGLISH		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Rear End Collision	Speed Too Fast for Conditions	2	Not Involved	Not Involved	Not Involved	Daylight	Snowing	Left Block	
1/28/2013	1536	Monday	MAIN ST.	ENGLISH		Injury Crash	Other Vehicle	Intersection - From Same Direction/Rear End Collision	Following Too Closely	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	30
1/29/2013	1732	Wednesday	E MAIN ST.	ENGLISH		Injury Crash	Other Vehicle	Intersection - From Opposite Direction	Other Improper Driving	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	15
4/9/2013	1410	Tuesday	4500 E MAIN ST.	ENGLISH RD.		Injury Crash	Pedestrian	Pedestrian Collision - Vehicle Turning Right	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	150
4/30/2013	1147	Tuesday	E MAIN ST			Injury Crash	Pedestrian	Pedestrian Collision - Vehicle Turning Left	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	999
5/1/2013	1145	Wednesday	MAIN STREET	N STREET AND ENGLISH ROAD		Property Damage Only Crash	Other Vehicle	Intersection - One Left Turn/Entering At Angle	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
6/11/2013	1910	Tuesday	EAST MAIN STREET	ENGLISH ROAD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
6/16/2013	1735	Sunday	E MAIN ST	ENGLISH RD.		Injury Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Make Improper Turn	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
8/18/2013	1921	Sunday	MAIN ST			Property Damage Only Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	9999
9/26/2013	1637	Thursday	E MAIN ST	ENGLISH		Injury Crash	Other Vehicle		Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	9999
10/18/2013	1723	Friday	MAIN ST	ENGLISH		Injury Crash	Other Vehicle		Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	9999
10/30/2013	1515	Wednesday	E MAIN ST	ENGLISH RD.		Injury Crash	Other Vehicle		Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	150
11/20/2013	1937	Wednesday	E MAIN ST	N. ENGLISH		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Improper Backing	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
11/22/2013	954	Friday	MAIN ST.	ENGLISH RD.		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Driving Too Fast for Conditions	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	10
12/2/2013	1417	Monday	4500 E. MAIN STREET			Injury Crash	Pedestrian	Pedestrian Collision - Vehicle Going Straight	Other - No Driver Error	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
12/11/2013	1607	Wednesday	E. MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	15
12/19/2013	2143	Thursday	E. MAIN ST	SKIE E MAIN ST		Injury Crash	Other Vehicle		Other Improper Driving	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	30
2/21/2014	1437	Friday	E MAIN ST			Injury Crash	Other Vehicle	Intersection - One Left Turn/Entering At Angle	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	200
3/12/2014	1232	Wednesday	E MAIN ST	ENGLISH		Injury Crash	Other Vehicle	Intersection - From Same Direction/Vehicle Backing	Improper Backing	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
4/23/2014	1011	Wednesday	EAST MAIN ST			Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	15
5/21/2014	1154	Thursday	E MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	10
7/2/2014	1630	Wednesday	E. MAIN ST	ENGLISH CT		Property Damage Only Crash	Other Vehicle	Non-Intersection - From Same Direction/Rear End Collision	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
8/6/2014	2137	Sunday	MAIN ST	N		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	
8/22/2014	1232	Friday	MAIN ST	ENGLISH AVE		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Improper Lane Change	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	10
9/5/2014	1446	Friday	MAIN ST			Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Driver Inattention	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	30
9/18/2014	1630	Thursday	E MAIN ST	ENGLISH RD		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	9999
10/9/2014	1129	Thursday	E MAIN ST	LB		Property Damage Only Crash	Other Vehicle	Intersection - From Same Direction/Both Going Straight	Improper Backing	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	30
10/29/2014	1615	Wednesday	EAST MAIN ST	ENGLISH RD		Injury Crash	Other Vehicle	Intersection - From Same Direction/Vehicle Backing	Other Improper Driving	2	Not Involved	Not Involved	Not Involved	Daylight	Clear	Left Block	9999
11/26/2014	1841	Saturday	E MAIN ST	ENGLISH RD		Injury Crash	Other Vehicle	Intersection - One Left Turn/Entering At Angle	Failed to Yield Right of Way	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Clear	Left Block	9999
12/16/2014	1717	Tuesday	MAIN	ENGLISH		Injury Crash	Other Vehicle	Intersection - From Opposite Direction/One Left Turn	Alcohol/Drug Involved	2	Not Involved	Not Involved	Not Involved	Dark-Lighted	Sleet	Left Block	

Appendix B—Farmington Traffic Engineering Department Accident Data

Caseid	Date	Time
2014-00068955	11/25/2014	4:23 PM
2014-00069788	11/29/2014	6:41 PM
2014-00073334	12/16/2014	5:17 PM
2014-00073920	12/19/2014	2:26 PM
2015-00010175	2/17/2015	4:45 PM
2015-00013830	3/6/2015	4:40 PM
2015-00014214	3/8/2015	4:18 PM
2015-00014671	3/10/2015	6:39 PM
2015-00014671	3/10/2015	6:39 PM
2015-00016241	3/17/2015	6:05 PM
2015-00026258	5/2/2015	7:33 PM
2015-00029770	5/19/2015	4:50 PM
2015-00031668	5/28/2015	8:51 AM
2015-00047959	8/5/2015	4:31 PM
2015-00060073	9/25/2015	12:53 PM
2015-00060603	9/27/2015	4:19 PM
2015-00067927	10/30/2015	7:05 PM
2015-00070715	11/13/2015	2:24 PM
2015-00072195	11/20/2015	2:54 PM
2015-00076310	12/10/2015	9:25 AM
2015-00078013	12/18/2015	2:21 PM
2016-00007562	2/6/2016	1:13 PM
2016-00010964	2/22/2016	4:08 PM

Appendix B—Farmington Police Department Accident Data

Incident Information

CALL DATE	INCIDENT NUMBER	STREET ADDRESS	CALL TIME	INCIDENT TYPE	NATURE OF CALL	CROSS STREET ADDRESS	DAY OF WEEK	Accident details
02/17/2015	20150001017	,,ENGLISH,RD, ,	16:45:54	Traffic Accident No Injury	APV/STILL IN ROADWAY	E,MAIN,ST,	Tuesday	Pulling out of Mall heading northbound on English front of V2 hit driver's side of V1 (Side swiped?)
03/08/2015	20150001421	,E,MAIN,ST,,	16:18:48	Traffic Accident w/Injury		,ENGLISH,RD ,	Sunday	V2 ran red light while on Main and crashed into passenger front of V1 while turning Southbound on English and V3 rear ended V1.
03/17/2015	20150001624	,,ENGLISH,RD, ,	18:05:49	Traffic Accident No Injury	IN THE ROAD/NO INJURIES/	E,MAIN,ST,	Tuesday	Rear ended at light of English and Main
05/02/2015	20150002625	,E,MAIN,ST,,	19:33:55	Traffic Accident No Injury	RP REQ TO REPORT HIT AND RUN	,ENGLISH,RD ,	Saturday	V1 stopped at light on English and was rear ended V2 (hit and run)
05/07/2015	20150002714	,E,MAIN,ST,,	7:01:19	Traffic Accident No Injury	RP RAN RED LIGHT	,ENGLISH,RD ,	Thursday	Side swiped V2 ran red light
06/16/2015	20150003590	,E,MAIN,ST,,	10:42:57	Traffic Accident No Injury	OCCURED 15 MINS AGO/ NO LONGER THERE	,ENGLISH,RD ,	Tuesday	No report taken. The incident was called into dispatch but nobody there when officers arrived
12/10/2015	20150007631	,,ENGLISH,RD, ,	9:25:05	Traffic Accident No Injury	NO INJ/RP WAS REAR ENDED	E,MAIN,ST,	Thursday	Rear ended at light of English and Main

Appendix B—Farmington Police Department Accident Data

04/15/2016	20160002198	„ENGLISH,RD, ,	13:42:25	Traffic Accident No Injury	APV/ NO CHEM/ NO HAZ	E,MAIN,ST,	Friday		Rear ended at light of English and Main V3 hit V2 and V2 hit V1 (V1 was stopped at light and V2, V3 were following to close)
05/05/2016	20160002644	„ENGLISH,RD, ,	11:53:39	Traffic Accident No Injury	APV/WHTIE FORD 4DR - LIFTED - 600TFD	E,MAIN,ST,	Thursday		No report found so either happened on private property or damage was less than 500.00 dollars so no report would be taken
06/01/2016	20160003268	„ENGLISH,RD, ,	15:22:24	Traffic Accident No Injury	NO INJ VEH ARE NOT IN THE ROADWAY	E,MAIN,ST,	Wednesday		No report found so either happened on private property or damage was less than 500.00 dollars so no report would be taken
Date - Call Close Date and Time	Time - Call Close Date and Time	Call Current Address	Call Current Address Cross Street Name	Call Type			Day of week		Accident descriptions
07/14/2016	20:26:39	E MAIN ST / ENGLISH RD	ENGLISH	Accident - No Injuries			Thursday		No report taken either happened on private property or damage was less than 500.00 so no report would be taken.
08/01/2016	14:20:20	ENGLISH RD / E MAIN ST	MAIN	Accident - W/Injurie s			Monday		Rear ended V3 hit V2 into V1 who was stopped at light on English and Main heading eastbound on Main.

Appendix B—Farmington Police Department Accident Data

08/11/2016	15:53:26	ENGLISH RD / E MAIN ST	Accident - No Injuries	Thursday	No report taken either happened on private property or damage was less than 500.00 so no report would be taken.

Appendix C—Aerial Photographs

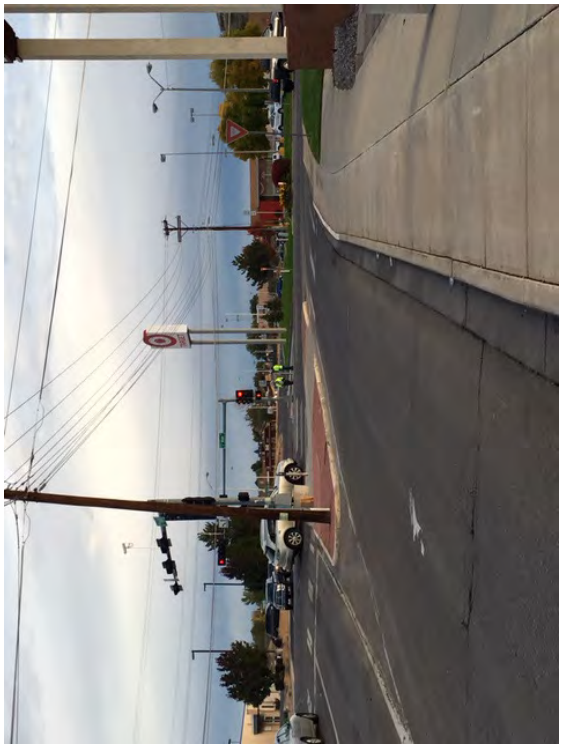
Appendix C—Aerial Photographs

Appendix C—Aerial Photographs

Appendix D—Photographs

Looking north on English Rd

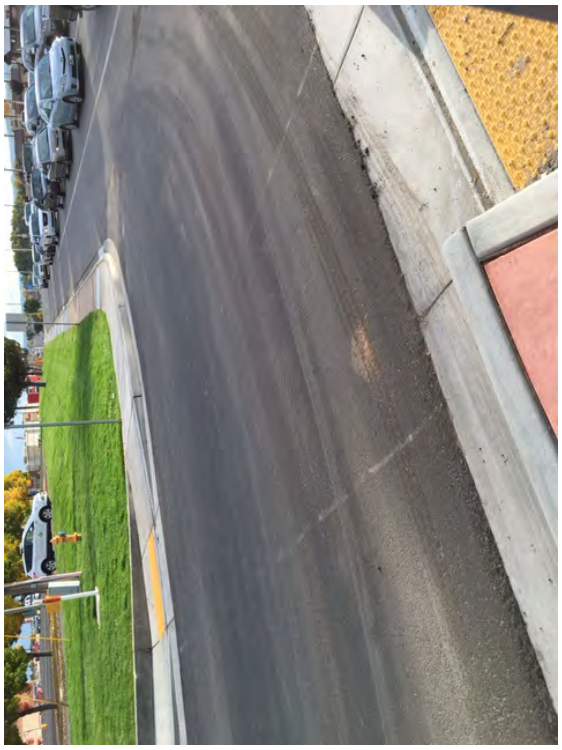
Driveways north side of NM 516



Looking north on English Rd

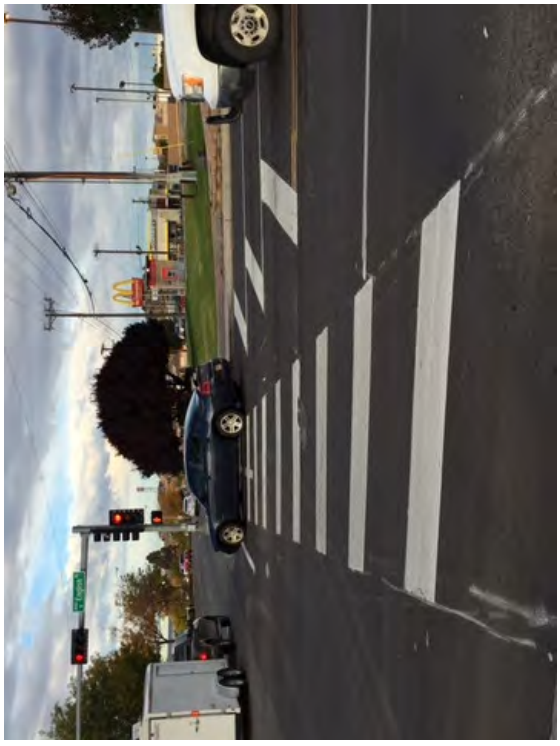
Ramp island in NE corner

Appendix D—Photographs

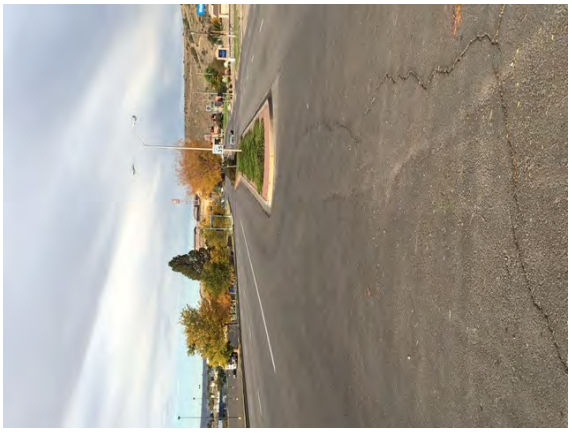


Northeast corner at turn lane

Looking north from southwest corner of intersection



Looking west from the northeast corner of intersection



Looking west on NM 516 at Median Break

New Mexico Department of Transportation

TIMS ROAD SEGMENTS BY POSTED ROUTE/POINT WITH AADT INFO

NM-ROUTES

As of : 6/8/2016

Route	Traffic Sec id	Begin Mont	End Mont	DIR	FCLS	County Name	AADT 2015	AADT 2014	AADT 2013	Year	METH	Terminus	%HC
NM-509-P	9361	0.000	36.500	B	MNCL	MCKINLEY	425	440	435	2012	L	JCT NM 605 NORTH OF GRANTS, NORTH TO END OF R	25
NM-511-P	9369	0.000	8.170	B	MJCL	SAN JUAN	506	523	538	2011	L	JCT US 64 (FAS1525), NORTH TO THE NEW MEXICO/	41
	24016	8.170	13.900	B			625	646	665	2011	L	JCT NM 173.	41
	9371	13.900	32.346	B			495	512	527	2012	L	JCT NM 539 AT NAVAJO DAM.	41
NM-512-P	9382	0.000	1.800	B	MNCL	RIO ARRIBA	435	450	445	2011	L	JCT.US64 EAST TO END OF ROUTE AT LOS BRAZOS.	36
	9383	1.800	7.700	B			475	492	487	2011	L	JCT.NM 573	36
NM-513-P	9384	0.000	0.700	B		TORRANCE	68	70	68	1996	L	JCT.US60 NORTH TO END OF ROUTE AT ABO MONUMEN	15
NM-514-P	25969	0.000	1.500	B		RIO ARRIBA	263	262	259	2015	C	JCT NM 112, NORTH TO JCT US 64 AT LOS OJOS, N	14
NM-515-P	9385	0.000	2.100	B		TAOS	85	88	87	2011	L	JCT.NM522 TO THE RED RIVER FISH HATCHERY.	41
NM-516-P	18438	0.000	0.614	B	PRAR	SAN JUAN	12,708	12,606	12,671	2009	L	FROM JCT US 64 IN FARMINGTON, NORTHEASTWARD T	11
	35134	0.614	0.802	B			22,328	22,149	22,263	2012	L	JCT SOUTHSIDE RIVER ROAD (FL5378).	11
	35136	0.802	1.799	B			20,455	20,561	18,381	2015	C	JCT MORNINGSTAR DRIVE.	11
NM-516-M	35136	1.715	1.799	B			20,455	20,561	18,381	2015			11
NM-516-P	23647	1.799	2.249	P			18,670	18,520	18,615	2012	L	JCT E. MAIN ST. (FL4357)--90 DEGREE RIGHT-TUR	11
NM-516-M	23647	1.799	2.249	M			18,543	18,394	18,488	2012			11
NM-516-P	5666	2.249	3.139	P			19,362	19,206	19,305	2012	L	JCT 20TH STREET (FL4385).	11
NM-516-M	5666	2.249	3.139	M			19,991	19,831	19,933	2012			11
NM-516-P	21314	3.139	3.323	P			18,104	17,958	18,049	2013	L	JCT 30TH STREET (FL4396).	11
NM-516-M	21314	3.139	3.323	M			17,138	17,001	17,089	2013			11
NM-516-P	35151	3.323	3.672	P			15,489	15,364	15,443	2012	L	JCT LARGO STREET (FL5390).	11
NM-516-M	35151	3.323	3.672	M			16,276	16,146	16,229	2012			11
NM-516-P	35155	3.672	3.857	P			8,835	8,764	8,806	2013	L	JCT SHOPPING CENTER ENTRANCE.	11
NM-516-M	35155	3.672	3.857	M			7,927	7,863	7,904	2013			11
NM-516-P	35157	3.857	4.496	P			12,417	12,317	12,380	2011	L	JCT ENGLISH ROAD (FL5392).	11
NM-516-M	35157	3.857	4.496	M			11,934	11,839	11,900	2011			11
NM-516-P	23441	4.496	5.395	P			14,380	13,699	13,770	2015	C	JCT PINON HILLS BOULEVARD (FL4356).	11
NM-516-M	23441	4.496	5.395	M			13,177	13,247	13,315	2015			11
NM-516-P	35159	5.395	8.140	P			10,605	10,520	10,574	2012	L	JCT COUNTRY CLUB DRIVE.	11
NM-516-M	35159	5.395	8.140	M			10,708	10,622	10,676	2012			11
NM-516-P	35159	8.140	8.393	P			10,605	10,520	10,574	2012	L	JCT COUNTY ROAD 3535.	11
NM-516-M	35159	8.140	8.393	M			10,708	10,622	10,676	2012			11
NM-516-P	23163	8.393	9.410	P			10,376	10,293	10,159	2014	L	JCT COUNTY ROAD 3500.	11
NM-516-M	23163	8.393	9.405	M			10,359	10,276	10,106	2014			11
	23163	9.405	9.959	B			20,735	20,569	20,265	2014			11

Appendix E—Traffic Data

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM217 /01 - Main & English
Counts
Site Code:
Start Date: 09/30/2016
Page No: 1

Turning Movement Data

Start Time	English Road Southbound						Main Street Westbound						English Road Northbound						Main Street Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
6:00 AM	3	0	2	0	0	5	1	69	2	0	0	72	3	1	4	0	0	8	0	49	1	0	0	50	135
6:15 AM	7	3	2	0	0	12	1	111	3	0	0	115	1	2	3	0	0	6	1	67	6	0	0	74	207
6:30 AM	14	5	8	0	0	27	3	144	1	0	0	148	2	7	3	0	0	12	0	78	0	0	1	79	266
6:45 AM	14	8	2	0	0	24	4	154	7	0	0	165	3	4	8	0	0	15	2	103	11	0	0	116	320
Hourly Total	38	16	14	0	0	68	9	478	13	0	0	500	6	14	18	0	0	41	3	297	18	0	1	318	827
7:00 AM	7	7	9	0	0	23	6	164	9	0	0	179	6	10	7	0	0	23	5	78	4	0	0	87	312
7:15 AM	15	3	4	0	0	22	10	212	3	0	0	225	3	8	10	0	0	21	3	109	6	0	0	118	386
7:30 AM	24	8	7	0	0	39	11	246	9	1	0	266	5	25	7	0	0	37	3	135	51	0	0	189	531
7:45 AM	47	17	23	0	0	87	17	301	12	0	0	330	12	22	11	0	0	45	4	159	48	0	0	251	713
Hourly Total	93	35	43	0	0	171	44	922	33	1	0	1000	26	65	35	0	0	126	15	521	109	0	0	645	1942
8:00 AM	37	18	12	0	0	67	11	307	17	2	0	337	8	13	8	0	0	29	5	159	11	0	0	185	618
8:15 AM	24	14	14	0	0	52	16	224	8	1	0	249	4	8	7	0	0	19	11	159	15	0	0	184	504
8:30 AM	16	11	21	0	0	48	15	195	11	2	0	223	12	8	9	0	0	29	10	141	11	0	0	162	462
8:45 AM	21	13	20	0	0	54	22	217	18	1	0	258	2	13	8	0	0	23	6	156	10	0	0	174	509
Hourly Total	98	56	67	0	0	221	64	943	54	6	0	1067	26	42	32	0	0	100	34	624	47	0	0	705	2093
9:00 AM	21	9	20	0	0	50	18	170	16	0	0	204	8	8	15	0	2	31	12	175	13	0	0	200	485
9:15 AM	14	15	16	0	0	44	29	204	23	0	0	256	19	9	14	0	0	42	2	155	16	0	0	173	515
9:30 AM	18	21	22	0	0	61	17	226	11	0	1	254	15	6	13	0	0	34	17	213	15	0	0	245	594
9:45 AM	17	21	23	0	0	61	23	230	23	1	0	285	17	15	16	0	0	48	17	177	18	0	0	212	606
Hourly Total	70	66	80	0	0	216	87	830	73	1	1	999	59	38	58	0	3	155	48	720	62	0	0	830	2300
10:00 AM	21	20	20	0	0	61	25	207	29	1	0	262	11	9	15	0	0	35	11	203	23	0	0	237	895
10:15 AM	17	22	25	0	0	64	26	203	29	0	1	318	15	14	19	0	0	48	22	216	19	0	0	257	687
10:30 AM	24	19	27	0	0	70	34	254	23	0	0	311	21	19	28	0	0	68	24	224	25	0	0	273	722
10:45 AM	31	31	33	0	0	95	24	241	25	0	0	290	18	14	25	0	0	57	25	244	23	0	0	302	744
Hourly Total	93	92	105	0	0	290	109	905	106	1	1	1181	65	56	87	0	0	208	92	887	90	0	0	1069	2748
11:00 AM	22	23	35	0	1	80	25	251	25	0	0	301	18	23	29	0	0	70	28	252	30	0	1	310	761
11:15 AM	37	27	49	0	1	113	26	274	24	1	0	324	24	22	30	0	1	76	26	278	30	0	1	336	849
11:30 AM	28	26	50	0	0	106	31	263	27	2	0	323	17	23	39	0	0	79	21	277	26	0	0	324	832
11:45 AM	47	28	35	0	1	110	34	288	27	1	1	350	26	30	27	0	0	83	28	244	25	0	1	297	842
Hourly Total	134	106	169	0	3	409	115	1076	103	4	1	1298	87	98	125	0	1	310	105	1051	101	0	3	1267	3284
12:00 PM	34	33	43	0	0	110	24	290	42	5	0	361	30	22	20	0	0	72	37	310	23	1	1	371	914
12:15 PM	34	24	45	0	0	103	35	261	39	2	0	337	26	24	41	0	0	91	32	300	30	0	0	362	893
12:30 PM	34	24	49	0	0	107	41	300	40	2	0	383	34	29	39	0	0	102	21	319	21	1	0	362	954
12:45 PM	47	31	60	0	1	138	39	302	34	5	2	379	35	35	45	0	0	115	26	331	36	0	0	393	1025
Hourly Total	149	112	197	0	1	458	139	1153	155	14	2	1460	125	110	145	0	0	380	116	1260	100	2	1	1478	3776
1:00 PM	37	31	51	0	0	119	32	262	37	3	0	354	23	40	33	0	0	96	33	303	34	0	0	370	939
1:15 PM	36	28	52	0	0	116	45	277	34	3	0	359	36	27	41	0	0	104	28	317	33	0	0	378	957

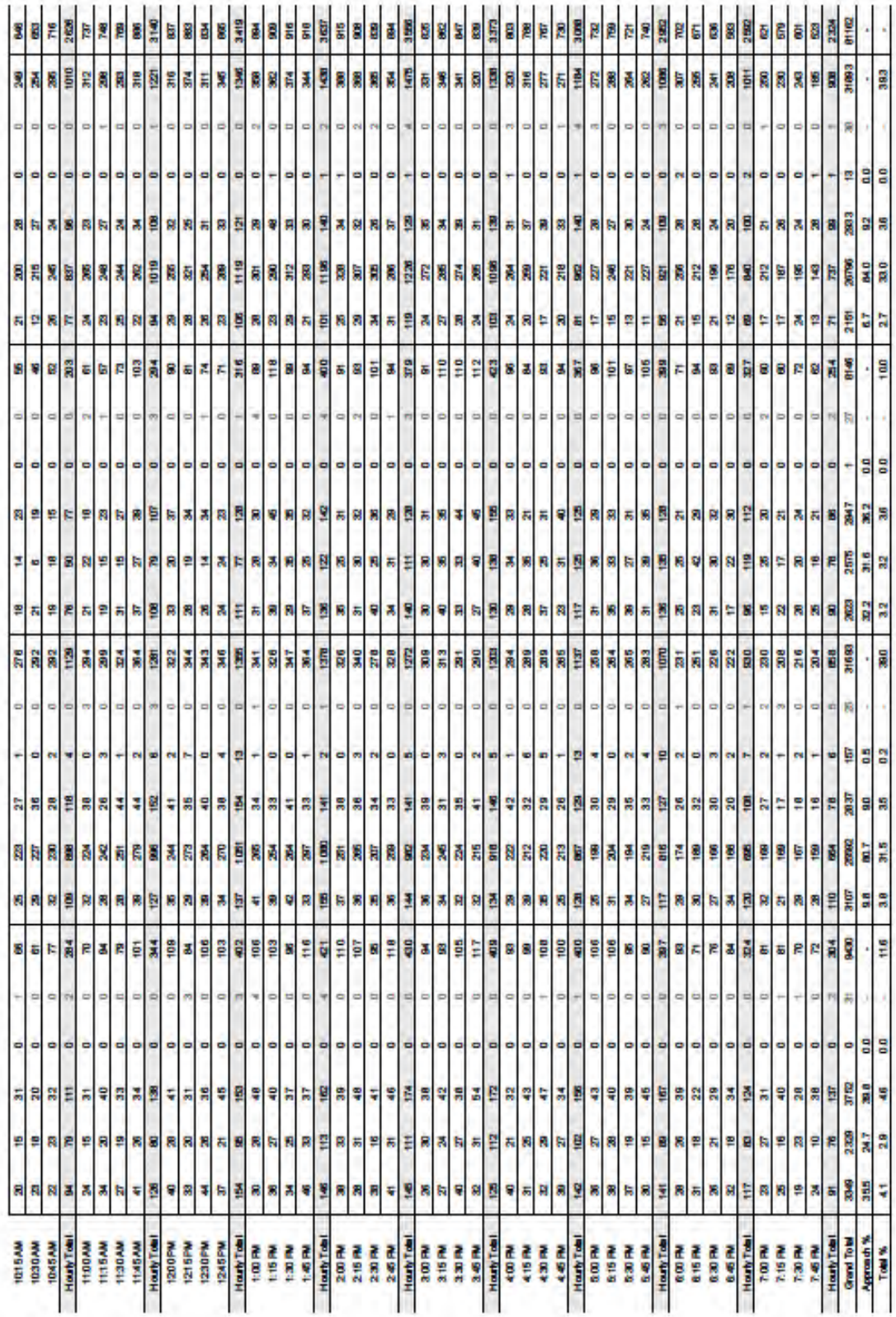
Appendix E—Traffic Data

1:30 PM	34	17	43	0	1	94	39	297	31	4	0	361	27	32	39	0	0	97	44	297	33	0	0	374	928
1:45 PM	35	25	42	0	0	102	32	256	33	2	0	323	61	29	26	0	0	116	26	339	27	0	0	361	902
Hourly Total	142	101	166	0	1	431	140	1102	135	12	0	1367	137	139	149	0	0	413	131	1235	127	0	0	1483	3724
2:00 PM	34	16	41	0	1	91	28	248	32	1	3	309	28	34	39	0	0	101	28	296	27	0	0	351	852
2:15 PM	34	22	46	0	1	102	40	267	32	1	0	330	32	35	36	0	1	103	14	283	28	0	2	325	860
2:30 PM	42	15	31	0	0	88	36	262	24	2	0	314	36	23	34	0	0	95	20	316	37	1	0	374	872
2:45 PM	31	25	40	0	0	96	37	257	29	1	0	324	23	28	35	0	0	86	29	279	29	0	0	337	843
Hourly Total	141	78	158	0	2	378	141	1014	117	5	3	1277	121	120	144	0	1	385	91	1174	121	1	2	1387	3427
3:00 PM	35	13	36	0	0	84	27	247	26	0	0	300	31	32	27	0	0	90	11	297	40	0	1	357	831
3:15 PM	63	26	46	0	0	156	24	254	22	2	0	302	29	33	30	0	0	92	23	324	40	0	0	387	936
3:30 PM	39	35	36	0	0	110	32	286	32	0	0	350	17	31	25	0	0	73	24	295	23	0	0	342	875
3:45 PM	31	29	42	0	0	102	34	286	41	0	0	361	22	24	20	0	0	66	20	308	32	0	0	360	889
Hourly Total	168	103	160	0	0	454	117	1073	121	2	0	1313	99	120	102	0	0	321	78	1224	144	0	1	1446	3534
4:00 PM	34	26	43	0	0	103	31	280	29	0	0	340	35	37	34	0	0	106	27	296	27	1	4	351	918
4:15 PM	31	26	48	0	0	105	34	260	33	1	0	318	30	26	32	0	0	88	29	327	33	0	1	389	911
4:30 PM	35	27	52	0	0	114	34	245	29	2	0	310	25	33	31	0	0	89	22	327	44	0	1	393	906
4:45 PM	27	30	44	0	0	101	37	285	36	1	0	339	32	26	26	0	0	84	28	353	26	0	1	387	911
Hourly Total	127	109	187	0	0	423	136	1068	127	4	0	1325	131	124	123	0	0	378	106	1303	130	1	7	1520	3646
5:00 PM	34	24	47	0	1	105	28	278	23	0	0	329	46	27	43	0	0	116	25	324	36	0	0	385	935
5:15 PM	31	25	47	0	0	103	31	267	33	1	0	332	30	20	23	0	0	73	25	323	40	0	0	388	896
5:30 PM	38	25	38	0	0	101	27	229	25	1	1	282	30	32	46	0	0	108	18	325	36	0	0	379	870
5:45 PM	40	28	44	0	0	112	38	231	31	1	0	301	25	31	38	0	0	94	15	306	32	0	0	353	860
Hourly Total	143	102	176	0	1	421	124	995	112	3	1	1234	131	110	150	0	0	391	83	1278	144	0	0	1505	3561
6:00 PM	53	25	49	0	0	127	32	227	33	6	0	298	31	35	36	0	0	102	24	286	31	0	0	341	868
6:15 PM	38	23	37	0	0	98	34	222	30	2	0	288	27	25	42	0	0	94	14	269	40	0	0	313	783
6:30 PM	36	27	41	0	0	104	29	234	26	0	0	273	17	24	21	0	0	62	11	237	23	0	0	271	710
6:45 PM	28	24	31	0	0	83	38	215	26	1	0	280	30	28	23	0	0	81	17	244	25	0	0	286	730
Hourly Total	155	99	158	0	0	412	127	898	115	9	0	1139	105	112	122	0	0	339	66	1036	119	0	0	1211	3101
7:00 PM	24	25	34	0	0	83	31	188	24	2	0	245	17	30	26	0	0	73	18	210	24	0	0	252	653
7:15 PM	24	22	36	0	0	82	24	204	19	0	0	247	26	29	29	0	0	86	17	192	23	0	0	232	647
7:30 PM	24	16	34	0	0	74	25	152	21	0	0	198	16	23	29	0	0	70	15	213	29	0	0	257	699
7:45 PM	30	16	32	0	0	78	29	148	10	1	0	188	12	24	27	0	0	63	15	198	20	0	0	233	562
Hourly Total	102	79	136	0	0	317	109	692	74	3	0	878	75	106	111	0	0	292	65	813	96	0	0	974	2,461
8:00 PM	45	16	24	0	0	85	26	129	11	0	0	166	17	25	20	0	0	62	16	182	29	0	0	227	540
8:15 PM	29	22	32	0	0	82	19	127	11	5	0	162	22	21	29	0	1	72	15	166	10	0	0	191	507
8:30 PM	23	14	29	0	0	66	21	119	13	2	0	155	22	25	28	0	0	75	11	154	21	0	0	186	482
8:45 PM	26	9	20	0	0	55	19	105	16	1	0	141	11	19	15	0	0	45	16	140	27	1	0	184	425
Hourly Total	122	61	105	0	0	288	85	480	51	8	0	624	72	90	92	0	1	254	58	642	87	1	0	788	1,954
9:00 PM	6	10	26	0	0	42	17	111	3	0	0	131	26	21	20	0	0	67	5	160	15	0	1	180	420
9:15 PM	9	7	12	0	0	28	18	81	7	1	0	107	21	27	21	0	0	69	13	132	15	0	0	160	364
9:30 PM	10	5	20	0	0	35	17	96	5	0	0	118	16	20	20	0	0	56	4	105	8	0	0	117	326
9:45 PM	13	3	12	0	0	28	12	79	5	1	0	97	6	8	9	0	0	24	1	107	8	0	0	116	295
Hourly Total	38	25	70	0	0	133	64	367	20	2	0	453	69	77	70	0	0	216	23	504	46	0	1	573	1,375
10:00 PM	9	6	13	0	0	28	8	67	4	0	0	79	5	4	13	0	0	22	9	92	10	0	0	111	240
10:15 PM	4	5	7	0	0	16	5	58	3	0	0	66	6	7	8	0	0	21	3	85	8	0	0	96	199
10:30 PM	10	2	7	0	0	19	3	49	4	0	0	56	2	6	11	0	0	19	8	74	7	0	0	89	182
10:45 PM	3	2	6	0	0	11	4	34	1	0	0	39	5	0	12	0	0	17	3	53	6	0	0	62	129
Hourly Total	26	15	33	0	0	74	20	207	12	0	0	239	18	17	44	0	0	79	23	304	31	0	0	358	750
11:00 PM	3	1	4	0	0	8	3	49	0	0	0	52	7	4	6	0	0	17	2	53	3	0	0	58	135
11:15 PM	3	10	10	0	0	23	4	31	2	0	0	37	5	5	4	0	3	14	3	40	5	0	0	48	122
11:30 PM	4	2	3	0	0	9	2	25	1	0	0	28	0	4	4	0	0	8	4	48	2	0	3	55	100
11:45 PM	2	1	2	0	0	5	4	29	1	0	0	34	2	1	2	0	0	5	1	42	2	1	0	46	90

Appendix E—Traffic Data

Hourly Total	12	14	19	0	2	45	13	134	4	0	0	151	14	14	16	0	6	44	10	194	12	1	4	307	447
12:00 AM	1	2	1	0	1	4	1	26	3	1	1	31	2	2	3	0	0	7	3	42	1	0	0	46	83
12:15 AM	0	0	1	0	0	1	1	22	0	0	0	23	1	0	1	0	0	2	3	31	0	0	0	34	60
12:30 AM	1	0	0	0	2	1	0	17	0	0	0	17	0	1	1	0	0	2	0	25	1	0	0	26	46
12:45 AM	2	0	1	0	2	3	0	19	0	0	0	19	0	0	0	0	0	0	1	15	1	0	0	17	39
Hourly Total	4	2	3	0	5	9	2	84	3	1	1	90	3	3	5	0	0	11	7	113	3	0	0	123	228
1:00 AM	0	2	1	0	0	3	0	16	0	0	0	16	0	0	2	0	0	2	4	15	2	0	0	21	42
1:15 AM	1	0	1	0	0	2	1	15	0	0	0	16	0	0	2	0	0	2	1	13	2	0	0	16	36
1:30 AM	0	0	1	0	0	1	0	7	0	0	0	7	0	0	0	0	0	0	0	19	0	0	0	19	27
1:45 AM	1	0	0	0	0	1	1	11	0	0	0	12	0	1	0	0	0	1	1	18	1	0	0	20	34
Hourly Total	2	2	3	0	0	7	2	49	0	0	0	51	0	1	4	0	0	5	6	65	5	0	0	76	139
2:00 AM	0	0	1	0	0	1	0	11	0	0	0	11	0	2	1	0	0	3	0	12	1	0	0	13	28
2:15 AM	1	0	1	0	0	2	0	14	1	0	0	15	0	0	1	0	0	1	0	11	1	0	0	12	30
2:30 AM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	1	0	1	1	8	3	0	0	13	18
2:45 AM	0	0	1	0	0	1	1	8	0	0	0	9	0	0	0	0	0	0	1	6	0	0	0	7	17
Hourly Total	1	0	3	0	0	4	1	37	1	0	0	39	0	2	2	1	0	5	2	38	5	0	0	45	93
3:00 AM	1	1	0	0	0	2	0	4	0	0	0	4	0	1	1	0	0	2	1	7	1	0	0	9	17
3:15 AM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	8	0	0	0	8	12
3:30 AM	0	0	2	0	0	2	0	6	0	0	0	6	0	0	1	0	0	1	0	10	1	0	0	11	20
3:45 AM	1	0	0	0	0	1	0	14	0	0	0	14	0	0	0	0	0	0	0	8	2	0	0	10	25
Hourly Total	2	1	2	0	0	5	0	28	0	0	0	28	0	1	2	0	0	3	1	33	4	0	0	38	74
4:00 AM	0	0	0	0	1	0	0	5	0	0	0	5	0	0	3	0	0	3	0	7	1	0	0	8	16
4:15 AM	0	0	0	0	0	0	0	13	0	0	0	13	2	1	1	0	0	4	0	7	1	0	0	8	25
4:30 AM	2	0	0	0	0	2	0	20	0	0	0	20	0	0	0	0	0	0	0	11	2	0	0	13	35
4:45 AM	5	2	2	0	0	9	0	21	0	0	0	21	0	0	1	0	0	1	0	12	1	0	0	13	44
Hourly Total	7	2	2	0	1	11	0	59	0	0	0	59	2	1	5	0	0	8	0	37	5	0	0	42	120
5:00 AM	2	0	0	0	0	2	1	20	0	0	0	21	0	4	0	0	0	4	1	14	3	0	0	18	45
5:15 AM	0	0	4	0	0	4	3	21	0	0	0	24	1	0	1	0	0	2	0	17	1	0	0	18	48
5:30 AM	2	1	1	0	0	4	2	24	0	0	0	26	1	1	2	0	0	4	2	20	0	0	0	22	56
5:45 AM	3	3	1	0	0	7	2	40	2	1	0	45	2	4	5	0	0	11	2	31	2	0	0	35	90
Hourly Total	7	4	6	0	0	17	8	105	2	1	0	116	4	9	8	0	0	21	5	82	6	0	0	93	247
6:00 AM	2	1	0	0	0	3	2	27	0	1	0	30	0	1	1	0	0	2	2	26	3	0	0	31	66
6:15 AM	2	0	2	0	0	4	0	45	3	0	0	48	4	2	4	0	0	10	1	23	3	0	0	27	89
6:30 AM	0	2	3	0	1	5	0	62	0	0	0	62	1	3	1	0	0	5	1	41	8	0	0	50	123
6:45 AM	11	3	6	0	0	20	7	67	0	0	0	74	2	4	1	0	0	7	4	35	9	0	0	48	149
Hourly Total	15	6	11	0	1	32	10	201	3	1	0	221	7	10	7	0	0	24	8	125	23	0	0	156	433
7:00 AM	6	2	6	0	0	14	10	65	1	0	0	76	4	1	2	0	0	7	2	56	1	0	0	59	156
7:15 AM	10	6	2	0	0	18	4	68	2	1	0	75	4	3	4	0	0	11	0	65	2	0	0	67	171
7:30 AM	5	3	3	0	0	11	5	98	2	0	0	105	4	6	2	0	0	12	4	65	7	0	0	76	204
7:45 AM	13	5	10	0	0	27	9	110	5	0	0	124	3	5	5	0	0	13	7	68	3	0	0	68	262
Hourly Total	33	16	21	0	0	70	28	341	10	1	0	380	15	15	13	0	0	43	13	274	13	0	0	300	793
8:00 AM	8	6	10	0	1	24	8	140	3	0	1	151	12	4	12	0	0	28	7	90	2	0	1	99	302
8:15 AM	10	4	5	0	0	19	7	126	7	1	0	141	2	7	6	0	0	15	7	126	10	0	0	143	318
8:30 AM	15	6	15	0	0	36	8	150	11	0	0	169	6	4	7	0	0	19	9	97	9	0	0	115	339
8:45 AM	16	10	14	0	0	40	13	172	8	0	1	193	5	8	7	0	1	19	6	114	10	0	0	130	386
Hourly Total	49	26	44	0	1	119	36	588	29	1	2	654	27	21	32	0	1	80	29	427	30	0	1	486	1,348
9:00 AM	18	7	11	0	0	36	27	106	15	1	0	209	8	7	17	0	1	33	10	126	15	0	0	153	430
9:15 AM	16	13	27	0	0	56	19	169	22	2	0	212	15	11	13	0	1	39	11	171	9	0	0	191	498
9:30 AM	20	15	21	0	1	57	17	218	19	2	0	256	18	4	16	0	0	38	17	159	13	1	0	190	541
9:45 AM	23	24	36	0	0	83	20	195	14	1	0	230	15	15	13	0	0	43	16	164	26	0	0	210	566
Hourly Total	77	60	95	0	1	232	83	748	70	6	0	907	56	37	59	0	2	152	56	622	63	1	0	744	2,035
10:00 AM	29	23	29	0	1	80	23	218	27	1	0	269	19	12	20	0	0	60	16	177	17	0	0	212	611

Appendix E—Traffic Data

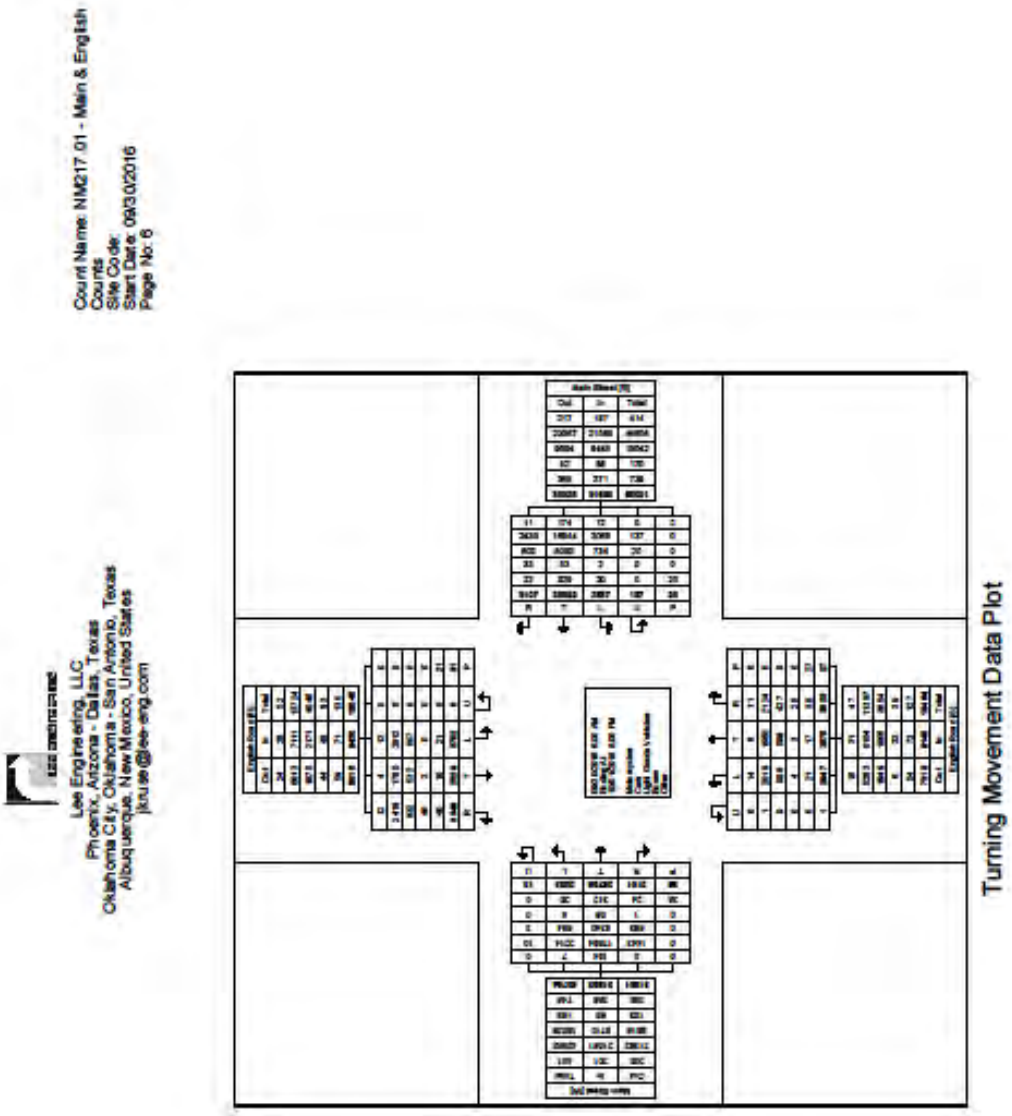


10:15 AM	30	15	31	0	1	66	25	223	27	1	0	278	18	14	23	0	0	55	21	200	28	0	0	249	648
10:30 AM	23	18	20	0	0	61	29	227	36	0	0	292	21	6	19	0	0	46	12	215	27	0	0	254	653
10:45 AM	22	23	32	0	0	77	32	230	28	2	0	292	19	18	15	0	0	52	26	245	24	0	0	295	716
Hourly Total	94	79	111	0	2	284	109	880	118	4	0	1129	76	50	77	0	0	203	77	887	96	0	0	1010	2626
11:00 AM	24	15	31	0	0	70	32	224	38	0	3	294	21	22	18	0	2	61	24	265	23	0	0	312	737
11:15 AM	34	20	40	0	0	94	28	242	26	3	0	299	19	15	23	0	1	57	23	248	27	0	1	299	749
11:30 AM	27	19	33	0	0	79	28	251	44	1	0	324	31	15	27	0	0	73	25	244	24	0	0	293	769
11:45 AM	41	26	34	0	0	101	36	279	44	2	0	364	37	27	28	0	0	103	22	262	34	0	0	318	886
Hourly Total	126	80	138	0	0	344	127	996	152	6	3	1281	108	79	107	0	3	294	94	1019	108	0	1	1221	3140
12:00 PM	40	26	41	0	0	106	35	244	41	2	0	322	33	20	37	0	0	90	29	255	32	0	0	316	837
12:15 PM	33	20	31	0	3	84	29	273	35	7	0	344	28	19	34	0	0	81	28	321	25	0	0	374	883
12:30 PM	44	26	36	0	0	106	38	264	40	0	0	343	26	14	34	0	1	74	26	254	31	0	0	311	834
12:45 PM	37	21	45	0	0	103	34	270	38	4	0	346	24	24	23	0	0	71	23	289	33	0	0	345	865
Hourly Total	154	93	153	0	3	402	137	1051	154	13	0	1355	111	77	128	0	1	316	105	1119	121	0	0	1345	3419
1:00 PM	30	20	40	0	4	106	41	265	34	1	1	341	31	26	30	0	4	89	26	301	29	0	2	358	894
1:15 PM	36	27	40	0	0	103	39	254	33	0	0	326	39	34	45	0	0	118	23	290	49	1	0	362	909
1:30 PM	34	25	37	0	0	96	42	264	41	0	0	347	29	35	35	0	0	99	29	312	33	0	0	374	916
1:45 PM	46	33	37	0	0	116	33	267	33	1	0	364	37	25	32	0	0	94	21	283	30	0	0	344	918
Hourly Total	146	113	162	0	4	421	155	1050	141	2	1	1370	136	122	142	0	4	400	101	1186	140	1	2	1438	3637
2:00 PM	30	33	39	0	0	110	37	261	38	0	0	336	35	26	31	0	0	91	25	328	34	1	0	388	915
2:15 PM	28	31	48	0	0	107	36	265	36	3	0	340	31	30	32	0	2	93	29	307	32	0	2	368	908
2:30 PM	30	16	41	0	0	95	35	207	34	2	0	278	40	25	36	0	0	101	34	335	26	0	2	395	859
2:45 PM	41	31	46	0	0	118	36	269	33	0	0	338	34	31	29	0	1	94	31	286	37	0	0	354	884
Hourly Total	129	111	174	0	0	430	144	982	141	5	0	1272	140	111	128	0	3	379	119	1256	129	1	4	1475	3566
3:00 PM	26	30	38	0	0	94	36	234	39	0	0	309	30	30	31	0	0	91	24	272	35	0	0	331	825
3:15 PM	27	24	42	0	0	93	34	245	31	3	0	313	40	35	35	0	0	110	27	285	34	0	0	346	862
3:30 PM	43	27	36	0	0	105	32	224	35	0	0	291	33	33	44	0	0	110	28	274	39	0	0	341	847
3:45 PM	32	31	54	0	0	117	32	215	41	2	0	290	27	40	45	0	0	112	24	285	31	0	0	320	839
Hourly Total	128	112	172	0	0	409	134	918	146	5	0	1203	130	138	155	0	0	423	103	1096	139	0	0	1338	3373
4:00 PM	40	21	32	0	0	93	29	222	42	1	0	294	29	34	33	0	0	96	24	264	31	1	3	323	803
4:15 PM	31	25	43	0	0	99	39	212	32	6	0	289	26	35	21	0	0	84	30	259	37	0	0	316	788
4:30 PM	32	29	47	0	1	108	35	230	29	5	0	299	37	25	31	0	0	93	17	221	39	0	0	277	767
4:45 PM	39	27	34	0	0	100	25	213	26	1	0	265	23	31	40	0	0	94	30	218	33	0	1	271	730
Hourly Total	142	102	156	0	1	400	128	867	129	13	0	1137	117	125	125	0	0	367	81	962	140	1	4	1184	3088
5:00 PM	36	27	43	0	0	106	35	199	30	4	0	268	31	36	29	0	0	96	17	227	28	0	3	272	732
5:15 PM	38	28	40	0	0	106	31	204	29	0	0	264	35	33	33	0	0	101	15	246	27	0	0	288	759
5:30 PM	37	19	39	0	0	95	34	194	35	2	0	265	39	27	31	0	0	97	13	221	30	0	0	264	721
5:45 PM	30	15	45	0	0	90	27	219	33	4	0	283	31	39	35	0	0	105	11	227	24	0	0	262	740
Hourly Total	141	89	167	0	0	397	127	816	127	10	0	1070	136	135	128	0	0	399	56	921	109	0	3	1086	2952
6:00 PM	28	26	39	0	0	93	29	174	26	2	1	231	25	25	21	0	0	71	21	256	28	2	0	307	702
6:15 PM	31	18	22	0	0	71	30	189	32	0	0	251	23	42	29	0	0	94	15	212	28	0	0	255	671
6:30 PM	26	21	29	0	0	76	27	166	30	3	0	226	31	30	32	0	0	93	21	196	24	0	0	241	636
6:45 PM	32	18	34	0	0	84	34	186	20	2	0	222	17	22	30	0	0	69	12	176	20	0	0	208	583
Hourly Total	117	83	124	0	0	324	120	695	108	7	1	930	96	119	112	0	0	327	69	840	100	2	0	1011	2592
7:00 PM	23	27	31	0	0	81	32	168	27	2	2	230	15	26	20	0	2	60	17	212	21	0	1	250	621
7:15 PM	25	16	40	0	1	81	21	169	17	1	3	211	22	17	21	0	0	60	17	187	26	0	0	230	579
7:30 PM	19	23	28	0	1	70	29	167	18	2	0	216	28	20	24	0	0	72	24	196	24	0	0	243	601
7:45 PM	24	10	38	0	0	72	28	159	16	1	0	204	25	16	21	0	0	62	13	143	28	1	0	185	523
Hourly Total	91	76	137	0	2	304	110	664	78	6	5	858	90	79	86	0	2	254	71	737	99	1	1	908	2324
Grand Total	3049	2329	3702	0	31	9430	3107	25992	2837	157	25	31648	2623	2575	2947	1	27	8146	2161	26796	2933	13	30	31993	81162
Approach %	32.3	24.7	39.3	0.0	-	-	9.8	82.1	9.0	0.5	-	-	32.2	31.6	36.2	0.0	-	-	6.7	84.0	9.2	0.0	-	-	-
Total %	4.1	2.9	4.6	0.0	-	11.6	3.8	31.5	3.5	0.2	-	39.0	3.2	3.2	3.6	0.0	-	10.0	2.7	33.0	3.6	0.0	-	39.3	-

Appendix E—Traffic Data

Motorcycles	12	4	12	0	-	28	11	174	12	0	-	197	11	8	14	0	-	31	0	194	7	0	-	201	457
% Motorcycles	0.4	0.2	0.3	-	-	0.3	0.4	0.7	0.4	0.0	-	0.6	0.4	0.2	0.5	0.0	-	0.4	0.0	0.7	0.2	0.0	-	0.6	0.6
Cars	2419	1780	2912	0	-	7111	2439	16944	2069	137	-	21589	2124	1960	2019	1	-	6104	1443	17894	2214	10	-	21561	50365
% Cars	72.2	76.4	77.6	-	-	75.4	78.6	66.2	72.9	67.3	-	68.1	61.0	76.1	68.5	10.0	-	74.9	67.1	66.8	76.5	76.9	-	67.6	69.4
Light Goods Vehicles	832	532	807	0	-	2171	652	8182	734	30	-	9448	427	595	669	0	-	1925	683	6340	684	3	-	9710	23234
% Light Goods Vehicles	24.8	22.8	21.5	-	-	23.0	19.4	31.6	25.9	12.7	-	29.8	16.3	22.9	30.2	0.0	-	23.4	31.8	31.1	23.3	23.1	-	30.4	28.8
Buses	49	3	0	0	-	49	39	53	2	0	-	80	26	3	4	0	-	33	1	56	6	0	-	65	235
% Buses	1.4	0.1	0.0	-	-	0.6	1.1	0.2	0.1	0.0	-	0.3	1.0	0.1	0.1	0.0	-	0.4	0.0	0.2	0.3	0.0	-	0.2	0.3
Single-Unit Trucks	20	9	14	0	-	43	16	229	19	0	-	267	33	16	15	0	-	64	11	229	11	0	-	245	619
% Single-Unit Trucks	0.6	0.4	0.4	-	-	0.6	0.5	0.9	0.7	0.0	-	0.8	1.3	0.6	0.5	0.0	-	0.8	0.5	0.8	0.4	0.0	-	0.8	0.8
Articulated Trucks	19	1	7	0	-	27	6	97	1	0	-	104	1	1	6	0	-	8	12	89	9	0	-	110	249
% Articulated Trucks	0.6	0.0	0.2	-	-	0.3	0.2	0.4	0.0	0.0	-	0.3	0.0	0.0	0.2	0.0	-	0.1	0.6	0.3	0.3	0.0	-	0.3	0.3
Bicycles on Road	1	0	0	0	-	1	0	0	0	0	-	0	1	0	0	0	-	1	1	0	0	0	-	1	3
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	"	"	"	"	2	"	"	"	"	"	0	"	"	"	"	"	2	"	"	"	"	"	2	"	"
% Bicycles on Crosswalk	"	"	"	"	6.5	"	"	"	"	"	0.0	"	"	"	"	"	7.4	"	"	"	"	"	5.3	"	"
Pedestrians	"	"	"	"	29	"	"	"	"	"	25	"	"	"	"	"	25	"	"	"	"	"	36	"	"
% Pedestrians	"	"	"	"	93.5	"	"	"	"	"	100.0	"	"	"	"	"	92.6	"	"	"	"	"	94.7	"	"

Appendix E—Traffic Data



Appendix E—Traffic Data

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM217.01 - Main & English
Counts
Site Code:
Start Date: 09/30/2016
Page No: 7

Turning Movement Peak Hour Data (11:00 AM)

Start Time	English Road Southbound						Main Street Westbound						English Road Northbound						Main Street Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	22	23	35	0	1	80	25	251	25	0	0	301	18	23	29	0	0	70	28	262	20	0	1	310	761
11:15 AM	37	27	49	0	1	113	25	274	24	1	0	324	24	22	30	0	1	76	28	270	30	0	1	329	842
11:30 AM	28	28	50	0	0	106	31	263	27	2	0	323	17	23	39	0	0	79	21	277	26	0	0	324	832
11:45 AM	47	28	35	0	1	110	34	288	27	1	1	350	28	30	27	0	0	85	28	244	25	0	1	297	842
Total	134	106	169	0	3	409	115	1076	103	4	1	1296	87	98	125	0	1	310	105	1061	101	0	3	1267	3384
Approach %	32.8	25.9	41.3	0.0	-	-	8.9	82.9	7.9	0.3	-	-	28.1	31.6	40.3	0.0	-	-	8.3	83.7	8.0	0.0	-	-	-
Total %	4.1	3.2	5.1	0.0	-	12.5	3.5	32.6	3.1	0.1	-	39.8	2.6	3.0	3.8	0.0	-	9.4	3.2	32.3	3.1	0.0	-	38.6	-
PHF	0.713	0.946	0.845	0.000	-	0.905	0.846	0.884	0.964	0.500	-	0.927	0.777	0.817	0.801	0.000	-	0.912	0.938	0.964	0.842	0.000	-	0.943	0.967
Motorcycles	0	1	0	0	-	1	1	3	1	0	-	5	1	0	1	0	-	2	0	4	1	0	-	5	13
% Motorcycles	0.0	0.9	0.0	-	-	0.2	0.9	0.3	1.0	0.0	-	0.4	1.1	0.0	0.8	-	-	0.6	0.0	0.4	1.0	-	-	0.4	0.4
Cars	95	83	119	0	-	297	80	899	81	3	-	820	82	89	82	0	-	212	70	847	78	0	-	795	2124
% Cars	70.9	78.3	70.4	-	-	72.6	78.3	81.9	80.2	75.0	-	63.2	71.3	69.4	65.6	-	-	68.4	66.7	81.0	77.2	-	-	62.7	64.7
Light Goods Vehicles	34	21	48	0	-	103	22	391	41	1	-	445	19	30	41	0	-	90	33	398	20	0	-	441	1079
% Light Goods Vehicles	25.4	19.8	28.4	-	-	25.2	19.1	36.4	39.8	25.0	-	34.3	21.8	30.6	32.8	-	-	28.0	31.4	38.6	19.8	-	-	34.8	32.9
Buses	1	0	0	0	-	1	1	12	0	0	-	13	2	0	0	0	-	2	0	3	0	0	-	3	19
% Buses	0.7	0.0	0.0	-	-	0.2	0.9	1.1	0.0	0.0	-	1.0	2.3	0.0	0.0	-	-	0.6	0.0	0.3	0.0	-	-	0.2	0.6
Single-Unit Trucks	2	1	2	0	-	5	1	12	0	0	-	13	3	0	1	0	-	4	0	14	1	0	-	16	37
% Single-Unit Trucks	1.5	0.9	1.2	-	-	1.2	0.9	1.1	0.0	0.0	-	1.0	3.4	0.0	0.8	-	-	1.3	0.0	1.3	1.0	-	-	1.2	1.1
Articulated Trucks	2	0	0	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	2	5	1	0	-	8	12
% Articulated Trucks	1.5	0.0	0.0	-	-	0.5	0.0	0.2	0.0	0.0	-	0.2	0.0	0.0	0.0	-	-	0.0	1.9	0.5	1.0	-	-	0.6	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Appendix E—Traffic Data

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM217 01 - Main & English
Counts
Site Code:
Start Date: 09/30/2016
Page No: 9

Turning Movement Peak Hour Data (12:30 PM)

Start Time	English Road Southbound						Main Street Westbound						English Road Northbound						Main Street Eastbound					
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
12:30 PM	34	24	49	0	0	107	41	300	40	2	0	383	34	29	39	0	0	102	21	319	21	1	0	362	954
12:45 PM	47	31	60	0	1	138	38	302	34	5	2	379	35	35	45	0	0	115	26	331	36	0	0	393	1025
1:00 PM	37	31	51	0	0	119	32	282	37	3	0	354	23	40	33	0	0	96	33	303	34	0	0	370	939
1:15 PM	36	28	52	0	0	116	45	277	34	3	0	359	36	27	41	0	0	104	28	317	33	0	0	378	957
Total	154	114	212	0	1	480	156	1161	145	13	2	1475	128	131	158	0	0	417	108	1270	124	1	0	1503	3875
Approach %	32.1	23.8	44.2	0.0	-	-	10.6	78.7	9.8	0.9	-	-	30.7	31.4	37.9	0.0	-	-	7.2	84.5	8.3	0.1	-	-	-
Total %	4.0	2.9	5.5	0.0	-	12.4	4.0	30.0	3.7	0.3	-	38.1	3.3	3.4	4.1	0.0	-	10.8	2.8	32.8	3.2	0.0	-	38.8	-
PHF	0.819	0.919	0.883	0.000	-	0.870	0.867	0.961	0.906	0.650	-	0.963	0.869	0.819	0.878	0.000	-	0.907	0.818	0.959	0.861	0.250	-	0.956	0.945
Motorcycles	1	0	0	0	-	1	0	8	0	0	-	8	0	0	0	0	-	0	0	6	0	0	-	6	15
% Motorcycles	0.6	0.0	0.0	-	-	0.2	0.0	0.7	0.0	0.0	-	0.5	0.0	0.0	0.0	-	-	0.0	0.0	0.5	0.0	0.0	-	0.4	0.4
Cars	103	84	168	0	-	355	117	780	102	9	-	918	112	103	121	0	-	336	78	826	91	0	-	995	2674
% Cars	66.9	73.7	79.2	-	-	74.0	75.0	67.5	70.3	69.2	-	67.0	87.5	78.6	76.6	-	-	80.6	72.2	65.0	73.4	0.0	-	66.2	69.0
Light Goods Vehicles	46	29	42	0	-	117	35	376	41	4	-	456	13	28	35	0	-	76	30	417	31	1	-	479	1128
% Light Goods Vehicles	29.9	25.4	19.8	-	-	24.4	22.4	32.4	28.3	30.8	-	30.9	10.2	21.4	22.2	-	-	18.2	27.8	32.8	25.0	100.0	-	31.9	29.1
Buses	1	0	0	0	-	1	2	1	0	0	-	3	0	0	1	0	-	1	0	2	0	0	-	2	7
% Buses	0.6	0.0	0.0	-	-	0.2	1.3	0.1	0.0	0.0	-	0.2	0.0	0.0	0.6	-	-	0.2	0.0	0.2	0.0	0.0	-	0.1	0.2
Single-Unit Trucks	1	1	2	0	-	4	2	12	2	0	-	16	2	0	0	0	-	2	0	12	2	0	-	14	36
% Single-Unit Trucks	0.6	0.9	0.9	-	-	0.8	1.3	1.0	1.4	0.0	-	1.1	1.6	0.0	0.0	-	-	0.5	0.0	0.9	1.6	0.0	-	0.9	0.9
Articulated Trucks	2	0	0	0	-	2	0	4	0	0	-	4	0	0	1	0	-	1	0	7	0	0	-	7	14
% Articulated Trucks	1.3	0.0	0.0	-	-	0.4	0.0	0.3	0.0	0.0	-	0.3	0.0	0.0	0.8	-	-	0.2	0.0	0.6	0.0	0.0	-	0.5	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.8	0.0	0.0	-	-	0.2	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix E—Traffic Data

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM217.01 - Main & English
Counts
Site Code:
Start Date: 09/30/2016
Page No: 11

Turning Movement Peak Hour Data (11:00 AM)

Start Time	English Road Southbound						Main Street Westbound						English Road Northbound						Main Street Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	24	16	31	0	0	70	32	224	38	0	3	294	21	22	18	0	2	61	24	265	23	0	0	312	737
11:15 AM	34	20	40	0	0	94	28	242	26	3	0	299	19	15	23	0	1	57	23	248	27	0	1	299	749
11:30 AM	27	19	33	0	0	79	28	251	44	1	0	324	31	15	27	0	0	73	25	244	24	0	0	293	769
11:45 AM	41	26	34	0	0	101	39	279	44	2	0	364	37	27	39	0	0	103	22	262	34	0	0	318	886
Total	126	80	138	0	0	344	127	996	152	6	3	1281	108	79	107	0	3	294	94	1019	108	0	1	1221	3140
Approach %	36.6	23.3	40.1	0.0	-	-	9.9	77.8	11.9	0.5	-	-	36.7	26.9	36.4	0.0	-	-	7.7	83.5	8.8	0.0	-	-	-
Total %	4.0	2.5	4.4	0.0	-	11.0	4.0	31.7	4.8	0.2	-	40.8	3.4	2.5	3.4	0.0	-	9.4	3.0	32.5	3.4	0.0	-	38.9	-
PHF	0.768	0.769	0.863	0.000	-	0.851	0.814	0.892	0.864	0.500	-	0.880	0.730	0.731	0.698	0.000	-	0.714	0.940	0.961	0.794	0.000	-	0.960	0.886
Motorcycles	0	0	0	0	-	0	0	16	0	0	-	16	0	0	0	0	-	0	0	12	0	0	-	12	28
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	1.6	0.0	0.0	-	1.2	0.0	0.0	0.0	-	-	0.0	0.0	1.2	0.0	-	-	1.0	0.9
Cars	63	64	104	0	-	251	102	699	110	3	-	873	85	56	69	0	-	210	59	636	81	0	-	776	2110
% Cars	65.9	80.0	75.4	-	-	73.0	80.3	69.1	72.4	50.0	-	68.1	78.7	70.9	64.5	-	-	71.4	62.8	62.4	75.0	-	-	63.6	67.2
Light Goods Vehicles	40	16	34	0	-	89	24	317	41	3	-	385	21	22	38	0	-	81	36	395	27	0	-	427	982
% Light Goods Vehicles	31.7	19.8	24.6	-	-	25.9	18.9	31.8	27.0	50.0	-	30.1	19.4	27.8	35.5	-	-	27.6	37.2	38.8	25.0	-	-	35.0	31.3
Buses	1	1	0	0	-	2	1	0	0	0	-	1	2	0	0	0	-	2	0	0	0	0	-	0	5
% Buses	0.8	1.3	0.0	-	-	0.6	0.8	0.0	0.0	0.0	-	0.1	1.9	0.0	0.0	-	-	0.7	0.0	0.0	0.0	-	-	0.0	0.2
Single-Unit Trucks	1	0	0	0	-	1	0	5	1	0	-	6	0	1	0	0	-	1	0	5	0	0	-	5	13
% Single-Unit Trucks	0.8	0.0	0.0	-	-	0.3	0.0	0.5	0.7	0.0	-	0.5	0.0	1.3	0.0	-	-	0.3	0.0	0.5	0.0	-	-	0.4	0.4
Articulated Trucks	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	2
% Articulated Trucks	0.8	0.0	0.0	-	-	0.3	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM217 01 - Main & English
Counts
Site Code:
Start Date: 09/30/2016
Page No: 13

Turning Movement Peak Hour Data (1:15 PM)

Start Time	English Road Southbound						Main Street Westbound						English Road Northbound						Main Street Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
1:15 PM	36	27	40	0	0	103	39	254	33	0	0	326	39	34	45	0	0	118	23	290	48	1	0	362	909
1:30 PM	34	25	37	0	0	96	42	264	41	0	0	347	29	35	35	0	0	99	29	312	33	0	0	374	916
1:45 PM	46	33	37	0	0	116	33	297	33	1	0	364	37	25	32	0	0	94	21	299	30	0	0	344	918
2:00 PM	38	33	39	0	0	110	37	251	38	0	0	326	35	25	31	0	0	91	25	328	34	1	0	388	915
Total	154	118	153	0	0	425	151	1066	145	1	0	1363	140	119	143	0	0	402	98	1229	145	2	0	1468	3658
Approach %	36.2	27.8	36.0	0.0	-	-	11.1	78.2	10.6	0.1	-	-	34.8	29.6	35.6	0.0	-	-	6.7	83.7	9.9	0.1	-	-	-
Total %	4.2	3.2	4.2	0.0	-	11.6	4.1	29.1	4.0	0.0	-	37.3	3.8	3.3	3.9	0.0	-	11.0	2.7	33.4	4.0	0.1	-	40.1	-
PHF	0.837	0.894	0.956	0.000	-	0.916	0.869	0.897	0.884	0.250	-	0.936	0.897	0.850	0.794	0.000	-	0.852	0.845	0.932	0.755	0.500	-	0.946	0.996
Motorcycles	1	0	0	0	-	1	0	9	3	0	-	12	2	0	2	0	-	4	0	6	0	0	-	6	23
% Motorcycles	0.6	0.0	0.0	-	-	0.2	0.0	0.8	2.1	0.0	-	0.9	1.4	0.0	1.4	-	-	1.0	0.0	0.5	0.0	0.0	-	0.4	0.6
Cars	120	92	124	0	-	336	114	739	109	1	-	963	109	86	100	0	-	295	63	796	111	1	-	971	2565
% Cars	77.9	78.0	81.0	-	-	79.1	75.5	69.3	75.2	100.0	-	70.7	77.9	72.3	69.9	-	-	73.4	64.3	65.1	76.6	50.0	-	66.1	70.1
Light Goods Vehicles	30	26	28	0	-	84	36	314	33	0	-	383	27	33	40	0	-	100	34	416	34	1	-	485	1052
% Light Goods Vehicles	19.5	22.0	18.3	-	-	19.8	23.8	29.5	22.8	0.0	-	28.1	19.3	27.7	28.0	-	-	24.9	34.7	34.0	23.4	50.0	-	33.0	28.8
Buses	1	0	0	0	-	1	1	1	0	0	-	2	1	0	0	0	-	1	0	1	0	0	-	1	5
% Buses	0.6	0.0	0.0	-	-	0.2	0.7	0.1	0.0	0.0	-	0.1	0.7	0.0	0.0	-	-	0.2	0.0	0.1	0.0	0.0	-	0.1	0.1
Single-Unit Trucks	1	0	0	0	-	1	0	3	0	0	-	3	1	0	1	0	-	2	1	4	0	0	-	5	11
% Single-Unit Trucks	0.6	0.0	0.0	-	-	0.2	0.0	0.3	0.0	0.0	-	0.2	0.7	0.0	0.7	-	-	0.5	1.0	0.3	0.0	0.0	-	0.3	0.3
Articulated Trucks	1	0	1	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	0.6	0.0	0.7	-	-	0.5	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix F—Traffic Data Analysis

Appendix F—Traffic Data Analysis

HCM 2010 Signalized Intersection Summary
3: English Rd & E Main St - Max 2 10/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	124	1270	108	145	1161	156	158	131	128	212	114	154
Number	1	6	16	5	2	12	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1881	1881	1881	1881	1881	1881	1881
Adj Flow Rate, veh/h	135	1380	117	158	1262	0	172	142	0	230	124	167
Adj No. of Lanes	1	3	0	1	3	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	328	1789	152	142	2622	816	309	200	170	314	233	198
Arrive On Green	0.06	0.37	0.37	0.20	0.51	0.00	0.10	0.11	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1792	4824	409	358	5136	1599	1792	1881	1599	1792	1881	1599
Grp Volume(v), veh/h	135	979	518	158	1262	0	172	142	0	230	124	167
Grp Sat Flow(s),veh/h/ln	1792	1712	1809	358	1712	1599	1792	1881	1599	1792	1881	1599
Q Serve(g_s), s	5.5	29.9	29.9	24.0	18.9	0.0	10.0	8.7	0.0	13.6	7.3	12.1
Cycle Q Clear(g_c), s	5.5	29.9	29.9	24.0	18.9	0.0	10.0	8.7	0.0	13.6	7.3	12.1
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	1270	671	142	2622	816	309	200	170	314	233	198
V/C Ratio(X)	0.41	0.77	0.77	1.12	0.48	0.00	0.56	0.71	0.00	0.73	0.53	0.84
Avail Cap(c_a), veh/h	578	1270	671	142	2622	816	340	460	391	314	460	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	32.9	32.9	29.2	18.8	0.0	41.4	51.2	0.0	41.3	48.8	50.9
Incr Delay (d2), s/veh	0.3	4.6	8.4	110.2	0.6	0.0	0.7	1.7	0.0	7.5	0.7	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	15.0	16.5	4.3	9.0	0.0	5.0	4.6	0.0	7.3	3.9	5.6
LnGrp Delay(d),s/veh	20.9	37.5	41.3	139.4	19.5	0.0	42.0	53.0	0.0	48.8	49.5	54.6
LnGrp LOS	C	D	D	F	B		D	D		D	D	D
Approach Vol, veh/h		1632			1420			314			521	
Approach Delay, s/veh		37.3			32.8			47.0			50.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	66.6	18.0	20.7	30.0	50.0	20.0	18.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	24.0	44.0	14.0	29.0	24.0	44.0	14.0	29.0
Max Q Clear Time (g_c+I1), s	7.5	20.9	12.0	14.1	26.0	31.9	15.6	10.7
Green Ext Time (p_c), s	0.0	9.2	0.0	0.5	0.0	6.7	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

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Appendix F—Traffic Data Analysis

Lanes, Volumes, Timings (ICU)
3: English Rd & E Main St - Max 2

10/28/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	124	1270	108	145	1161	156	158	131	128	212	114	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	165		825	125		125	75		75
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	20			65			75			100		
Lane Util. Factor	1.00	0.91	0.91	*0.20	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	5074	0	357	5136	1599	1787	1881	1599	1787	1881	1599
Flt Permitted	0.209			0.080			0.673			0.445		
Satd. Flow (perm)	393	5074	0	30	5136	1599	1266	1881	1599	837	1881	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				170			170			167
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		949			1206			517			599	
Travel Time (s)		18.5			23.5			11.8			13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	135	1380	117	158	1262	170	172	142	139	230	124	167
Shared Lane Traffic (%)												
Lane Group Flow (vph)	135	1497	0	158	1262	170	172	142	139	230	124	167
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		28			28			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		30			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		Free	8		Free	4		4

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Lanes, Volumes, Timings (ICU)
3: English Rd & E Main St - Max 2

10/28/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	1	6		5	2		3	8		7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	25.0		11.0	25.0		11.0	25.0		11.0	25.0	25.0
Total Split (s)	30.0	50.0		30.0	50.0		20.0	35.0		20.0	35.0	35.0
Total Split (%)	22.2%	37.0%		22.2%	37.0%		14.8%	25.9%		14.8%	25.9%	25.9%
Maximum Green (s)	24.0	44.0		24.0	44.0		14.0	29.0		14.0	29.0	29.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Recall Mode	None	Max		None	Max		None	None		None	None	None
Walk Time (s)		4.0			4.0			4.0			4.0	4.0
Flash Dont Walk (s)		15.0			15.0			15.0			15.0	15.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	52.6	44.1		74.1	59.6	117.7	24.0	12.3	117.7	27.1	13.9	13.9
Actuated g/C Ratio	0.45	0.37		0.63	0.51	1.00	0.20	0.10	1.00	0.23	0.12	0.12
v/c Ratio	0.49	0.79		1.86	0.49	0.11	0.56	0.72	0.09	0.77	0.56	0.50
Control Delay	18.5	36.5		451.0	20.9	0.1	42.2	72.1	0.1	54.5	59.7	12.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	36.5		451.0	20.9	0.1	42.2	72.1	0.1	54.5	59.7	12.6
LOS	B	D		F	C	A	D	E	A	D	E	B
Approach Delay		35.1			61.4			38.7			42.3	
Approach LOS		D			E			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 117.7			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.86			
Intersection Signal Delay: 46.3		Intersection LOS: D	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: English Rd & E Main St

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