



LSC TRANSPORTATION CONSULTANTS, INC.  
545 East Pikes Peak Avenue, Suite 210  
Colorado Springs, CO 80903  
(719) 633-2868  
FAX (719) 633-5430  
E-mail: [lsc@lsctrans.com](mailto:lsc@lsctrans.com)  
Website: <http://www.lsctrans.com>

Big O Tires  
Updated Traffic Impact Study  
(LSC #174890)  
April 20, 2018  
PCD File No. SF-18-003

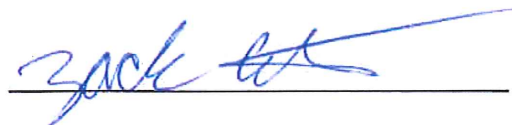
**Traffic Engineer's Statement**

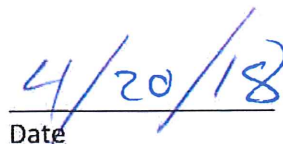
This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



**Developer's Statement**

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

  
\_\_\_\_\_

  
Date



**LSC TRANSPORTATION CONSULTANTS, INC.**  
**545 East Pikes Peak Avenue, Suite 210**  
**Colorado Springs, CO 80903**  
**(719) 633-2868**  
**FAX (719) 633-5430**  
**E-mail: [lsc@lsctrans.com](mailto:lsc@lsctrans.com)**  
**Website: <http://www.lsctrans.com>**

April 20, 2018

Mr. Zack Crabtree  
Project Manager  
Hammers Construction  
1411 Woosley Heights  
Colorado Springs, CO 80915

RE: Big O Tires (Falcon)  
El Paso County, Colorado  
Updated Traffic Impact Study  
LSC #174890  
PCD File No. SF-18-003

Dear Mr. Crabtree,

LSC Transportation Consultants, Inc. has prepared this traffic impact study for the proposed Big O Tires shop to be located southeast of the intersection of US Highway 24 (US 24) and "Old" Meridian Road in El Paso County, Colorado. Site access would be to Old Meridian Road, with no direct site access to/from US 24.

This report has been prepared for submittal to El Paso County, with anticipated review by the Colorado Department of Transportation (CDOT) following referral by the County.

## **REPORT CONTENTS**

The preparation of this report included the following:

- An inventory of existing road and traffic conditions near the intersection of US 24/Meridian Road adjacent to the site, including functional classification, traffic control, posted speed limits, intersection and access spacing, roadway and intersection alignments, auxiliary turn lanes and plans for roadway improvements and changes in the vicinity associated with the Meridian Road project.
- Weekday morning and late afternoon peak-hour turning movement traffic counts at the intersection of US 24/Meridian Road.
- CDOT annual average daily traffic volumes.

- Projections of long-term background traffic volumes on US 24 and adjacent to the proposed site access on Meridian Road.
- Proposed site land use and access location.
- Estimates of average weekday and peak-hour trip generation for the proposed Big O store.
- Estimated directional distribution of site-generated vehicle-trips at US 24/Meridian Road and south of the proposed site access on Meridian Road.
- Projected site-generated traffic volumes and resulting total traffic.
- Intersection level of service analysis.
- Auxiliary left-/right-turn lane needs analysis based on the projected volumes and criteria in the *Colorado State Highway Access Code*.
- Findings and recommendations.

## **LAND USE AND ACCESS**

The site is located southeast of the intersection of US 24/ Old Meridian Road in the Falcon area of unincorporated El Paso County, Colorado. Full-movement access to Meridian Road is proposed approximately 100 feet south of US 24. A vicinity map is attached in Figure 1, while the site plan for the tire shop is attached in Figure 2.

Currently, the intersection of US 24/Meridian Road is signalized. However, the signal will be removed and the minor street approaches will be converted to right-in-right-out (RI/RO) access in the short term. All site traffic and long-term analysis assumes this updated lane geometry.

## **CONSTRUCTION TIMELINES**

Improvements by El Paso County/PPRTA to the intersection of US 24/Meridian Road are anticipated to begin during October 2018, with construction complete by December 2019. Construction on Big O Tires is anticipated to begin in July 2018 and construction is anticipated to take four to five months. There will be multiple phases throughout the US 24/Meridian Road construction, the first of which will involve Old Meridian Road and the right-in/right-out intersection with US 24. El Paso County currently estimates that Old Meridian Road will be resurfaced by July 2019. However, work on US 24 extends into the final phase of the project, so there will be ongoing construction at the US 24/Meridian Road intersection until near the end of 2019. At this time, the new right-in/right-out access should be open (based on current phasing), but the travel lane may be reduced.

## **ROAD AND TRAFFIC CONDITIONS**

### **Area Roads and Streets**

Figure 1 shows the roads in the vicinity of the site. Major roads are identified below followed by a brief description of each:

**US Highway (US) 24** is a two-lane paved US Highway extending east/west across the state of Colorado. Locally, US 24 connects the City of Colorado Springs to Calhan and Limon to the east. In the future, US 24 in the Falcon area is planned to be widened to four lanes. The section of US 24 in the vicinity of the site is classified as an Expressway (EX) by the Colorado Department of Transportation (CDOT) and is shown as an Expressway on the El Paso County *Major Transportation Corridors Plan (MTCP)*.

**Meridian Road** is a two-lane or four-lane roadway extending north from Blaney Road to County Line Road. Meridian Road has a posted speed limits of 35 miles per hour (mph) south of US Highway 24. Meridian Road will be realigned to the west and the section adjacent to the site will be renamed. It has been commonly referred to as “Old” Meridian Road. The existing US 24/Meridian Road intersection will be converted to a right-in/right-out intersection in the future.

### **Traffic Volumes**

Turning movement traffic counts were conducted on Thursday, December 14, 2017 from 6:30 to 8:30 a.m. and on Thursday, November 9, 2017 from 4:00 to 6:00 p.m. at the intersection of US 24/Meridian Road, as shown in Figure 3. Raw count volume data sheets are attached for reference.

### **FUTURE TRAFFIC VOLUMES**

Estimated future traffic volumes, including projected background and site-generated volumes, are summarized by intersection in Figure 3 through Figure 7.

### **2040 Background (Long-Term) Traffic**

Figure 4 shows 2040 background/baseline through traffic volumes estimate on US 24, based on the CDOT 20-year growth factor. Future background volumes on Meridian Road at the projected site access are estimates by LSC based on the Meridian Road corridor study and projected future land uses adjacent to this site. These estimates could potentially be higher depending on the extent and trip generation intensity of other area future development in the vicinity of the site.

### **TRIP GENERATION**

Estimates of the vehicle-trips projected to be generated by the proposed site have been made using the nationally published trip generation rates from *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE). Land use code 848 – Tire Store was categorized using the *Trip Generation Manual, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE) and has been used to estimate the trip generation estimate for the site.

A detailed trip generation estimate for the development, including ITE rates for the proposed land use is presented in Table 3 (attached).

**Table 1: Estimated Site Vehicle-Trip Generation**

Analysis Period	Weekday		
	In	Out	Total
A.M. Peak Hour	11	6	17
P.M. Peak Hour	11	15	26
Daily 24-Hour	93	93	185

### **Driveway Trips**

During the morning peak hour, approximately 11 vehicles would enter and 6 vehicles would exit the site at the proposed access point. During the evening peak hour, approximately 11 vehicles would enter and 15 vehicles would exit the site.

## **TRIP DISTRIBUTION AND ASSIGNMENT**

### **Trip Directional Distribution**

An estimate of the directional distribution of site-generated vehicle-trips to the study area roads and intersections is a necessary component in determining the site's traffic impacts. Figure 5 shows the directional distribution estimate for the site-generated trips and the percentages of the site-generated vehicle-trips projected to be oriented to and from the site's major approaches. Additionally, Figure 5 shows the estimated directional distribution.

Estimated percentages have been based on the following factors: the site's proposed land use, the planned area roadway system following the Meridian Road project, the anticipated service area of the store, and the existing and projected peak-hour traffic volumes.

### **Site-Generated Traffic**

Site-generated traffic volumes at the proposed site accesses and the intersection of US 24/ Meridian Road have been calculated by applying the directional distribution percentages estimated by LSC (from Figure 5) to the trip generation estimates (from Table 3). Figure 6 shows the projected site-generated traffic volumes for the weekday morning and evening peak hours.

### **2040 Total Traffic (20-Year)**

Figure 7 shows the sum of 2040 background traffic volumes (from Figure 4) plus the site-generated traffic volumes (from Figure 6). Projected site-generated traffic is not included in the

2040 background traffic volumes. Total 2040 traffic volumes are calculated as the sum of 2040 background traffic volumes plus the site-generated traffic volumes. These total volumes represent the projected long-term total traffic including the site-generated traffic.

## LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 2 shows the level of service delay ranges for signalized and unsignalized intersections.

**Table 2: Intersection Levels of Service Delay Ranges**

Level of Service	Signalized Intersections		Unsignalized Intersections
	Average Control Delay (seconds/vehicle)	V/C <sup>(1)</sup>	Average Control Delay (seconds/vehicle) <sup>(2)</sup>
A	≤ 10.0	< 0.60	≤ 10.0
B	10.1 – 20.0	0.60 – 0.69	10.1 – 15.0
C	20.1 – 35.0	0.70 – 0.79	15.1 – 25.0
D	35.1 – 55.0	0.80 – 0.89	25.1 – 35.0
E	55.1 – 80.0	0.90 – 0.99	35.1 – 50.0
F	≥ 80.1	≥ 1.00	≥ 50.1
(1) Source: <i>Transportation Research Circular 212</i>			
(2) For unsignalized intersections, if V/C is > 1.00, then LOS is LOS F regardless of the projected average control delay per vehicle.			

The proposed site access intersection on Meridian Road and the US 24/Meridian Road intersection have been analyzed to determine the projected control delay and corresponding levels of service and for the key turning movements. As the site access intersection will be stop sign-controlled (TWSC), SimTraffic methodology was used to calculate control delay for TWSC intersections.

As previously mentioned, the existing US 24/Meridian Road intersection will soon be converted from a full-movement, signalized intersection to a right-in/right-out (RI/RO) intersection. Short-term simulations were based on the existing signal, while long-term analysis assumed RI/RO lane geometry.

## Peak Hour

A summary of current and projected 2040 background traffic conditions during the morning peak hour—both with and without considering site-generated traffic—are described below, by

intersection. Detailed Synchro and SimTraffic reports containing additional LOS results are attached.

#### US 24/"Old" Meridian Road

The LOS for existing and existing -plus-site conditions has been provided for reference. However, construction will begin this year to convert this intersection to a right-in/right-out. Therefore, the current signalized LOS will no longer apply.

##### Morning Peak Hour

Overall, this intersection currently operates at LOS D overall during the short-term morning peak hour upon site buildout. Both the northbound and southbound shared left-through turning movements currently operate at LOS E or worse, while all other individual turning movements operate LOS D or better.

##### Afternoon Peak Hour

Overall, this intersection currently operates at LOS F during the short-term evening peak hour upon site buildout. Both the northbound and southbound shared left-through turning movements and the eastbound and westbound through turning movements currently operate at LOS F, while all other individual turning movements operate LOS D or better.

##### Long-Term Morning and Afternoon

Based on the 2040 analysis, the intersection of US 24/Meridian Road will be converted to a right-in/right-out intersection. During both long-term peak hours, both right-out, stop-controlled approaches on Meridian Road are projected to operate at LOS A during all long-term traffic scenarios.

#### Meridian Road/Site Access

All approaches at the site access intersection are projected to operate at LOS B or better for all short-term and long-term morning and evening peak-hour traffic conditions upon site buildout.

### **VEHICLE QUEUING ANALYSIS**

A queuing analysis was performed for the southbound approach at the Old Meridian Road/proposed site access intersection and the northbound approach at the intersection of US 24/Old Meridian Road during the long-term scenarios. Analyses have been run utilizing the projected 2040 background plus site-generated traffic volumes. Detailed queuing reports are attached. The distance in the northbound lane along Old Meridian Road between the proposed site access and US 24 is approximately 175 feet.

LSC's interpretation of the anticipated Old Meridian Road laneage south of US Highway 24 is shown in the attached exhibit. Based on the Meridian Road project plans, the section of Old Meridian Road just south of US Highway 24 would be two lanes, one in each direction, with paved shoulders. At the proposed site access and the gas station access on the west side of the street, although there will not be dedicated, striped auxiliary turn bays for these access points, there will be extra pavement width through this approximately 150-foot long stretch of Old Meridian Road. This extra width will allow through traffic to maneuver around vehicles turning left into the site.

### **Queuing Analysis Results**

The southbound queue on the approach to at the site access intersection on Old Meridian Road is not projected to back onto US Highway 24. The projected maximum queue is 42 feet during the 2040 morning and evening peak hours.

The northbound right-turn queue extending back from the right-turn-only northbound approach (following the Meridian Road project) to intersection of US 24/Meridian Road is not projected to block the proposed access point. As this approach is shown to be a free movement, no queue is projected in either the morning or evening peak hour for the northbound right-turn lane onto merging onto US 24.

### **AUTOTURN TRUCK TURNING ANALYSIS**

LSC has completed an analysis of truck turning movements at the site access point on Old Meridian Road. WB-50 and WB-62 trucks have been used in the analysis. The AutoTurn analysis exhibits are attached. The results show that the driveway can accommodate either multi-unit truck. However, given the skew angle of the proposed driveway, LSC recommends a sign be posted at the access directing exiting trucks to turn left instead of right. The exiting right turn cannot be made without using the entire roadway width including the southbound through lane.

### **ACCESS WIDTH**

Figure 2 shows the preliminary width dimensions of the site driveway. The ECM Section 2.4.1E(3) prescribes a maximum width of 40 feet. Based on perpendicular width dimension, the driveway width meets ECM criteria. The width dimension of the driveway parallel to and along the east side of Meridian Road is also shown. The latter width is due to the access skew, which results from a combination of the parcel dimensions and the need to maximize distance from the US 24/"Old" Meridian Road intersection.



Mr. Zack Crabtree  
Big O Tires (Falcon)

The applicant has submitted construction drawings with the final plat application. Therefore, submit a deviation request for the driveway width. Make sure to include Figure 2 and the two AutoTurn exhibit as attachments to the deviation request.

## ACCESS SIGHT DISTANCE

Figure 8 presents the sight distance analysis at the access point. The stopping sight distance and intersection sight distance have been calculated based on a 15-mph design speed for the turn from eastbound US 24 to southbound "Old" Meridian Road. Based on this analysis, the sight distance is acceptable.

## DEVIATIONS

Figure 2 shows the preliminary width dimensions of the site driveway. Based on perpendicular width dimension, the driveway width meets ECM criteria. Should the county require a deviation for the width of the driveway parallel to and along the east side of Meridian Road, LSC suggests this deviation be prepared with the **site development plan** as the current plan is preliminary. The latter width is due to the access skew, which results from a combination of the parcel dimensions and the need to maximize distance from the US 24"Old" Meridian Road intersection.

## FINDINGS AND CONCLUSIONS

### Trip Generation

- The site is projected to generate about 185 vehicle-trips on the average weekday.
- Approximately 11 vehicles would enter the site during the weekday morning peak hour, while 6 vehicles are projected to exit. During the weekday evening peak hour of adjacent street traffic, 11 vehicles would enter the site while 15 vehicles would exit.

### Level of Service

- Please refer to the Level of Service section above and to the attached SimTraffic reports for detailed LOS summaries at all signalized intersections adjacent to the site.
- All approaches at the proposed site access intersection with Meridian Road are projected to operate at LOS B or better during all short- and long-term scenarios during both the weekday morning and evening peak hour following the addition of this development.
- The intersection of US 24/Meridian Road, currently signalized, operates at LOS D during the morning peak hour and LOS F during the evening peak hour. During the long-term evening peak hour, after the intersection of US 24/Meridian Road is converted to a RI/RO intersection, both minor street right-turn-only approaches are projected to operate at LOS A.

State whether there's a need to mitigate in the interim condition given the timeline provided by DPW (pg 2).

### Vehicular Queuing

- Please refer to the Vehicular Queuing Analysis section above and to the attached SimTraffic reports for detailed queuing summaries at the intersection of US 24/Meridian Road and at the proposed site access on Meridian Road.

### Auxiliary Lanes

- Left-turning movements into the site from US 24 (southwest-bound) or exiting the site (northwest-bound) will **not** be permitted on Meridian Road as the intersection of US 24/Meridian Road will be converted to a RI/RO intersection.
- US Highway 24 is categorized as E-X: Expressway. According to the criteria contained in Section 3.7 (4(b)) in the Colorado State Highway Access Code, “a right-turn lane with deceleration and taper lengths” shall be provided (when allowed) for accesses on Expressways with a projected peak-hour ingress right-turning volume of greater than 10 vehicles per hour (vph). As shown in Figure 4, the projected eastbound right-turn ingress volume at the intersection of US 24/Meridian Road is 120 vehicles per hour during both the morning and evening peak hour, **before** accounting for additional site-generated traffic. The State Highway Access Code threshold is currently exceeded and is anticipated to continue to be exceeded in the future by background traffic alone. A right-turn deceleration lane currently exists on US Highway 24. It extends back to the gas station access and the taper is upstream of the gas station access.
- According to the criteria contained in Section 3.7 (4(c)) in the Colorado State Highway Access Code, “a right-turn lane with acceleration and taper lengths” shall be provided (when allowed) for accesses on Expressways with a projected peak-hour ingress right-turning volume of greater than 10 vehicles per hour (vph). As shown in Figure 4, the projected eastbound right-turn ingress volumes at the intersection of US 24/Meridian Road are 125 and 163 vehicles per hour during the morning and evening peak hour, respectively, **before** accounting for additional site-generated traffic. The State Highway Access Code threshold will be exceeded by background traffic alone. A right-turn acceleration lane currently exists on US Highway 24 and is currently about 540 feet plus a 450-foot-long taper. These lengths do not meet Colorado State Highway access code criteria. Based on the Meridian Road design plans, it does not appear that the right-turn acceleration lane will be lengthened. However, the Meridian Road design plans show a channelized “free” right turn, which effectively reduces the necessary speed change/acceleration distance. Note: The site traffic is projected to increase the current right turning traffic by only 6.2 percent.

### County Road Improvement Fee Program

This project will be required to participate in the County Road Improvement Fee Program. The applicant does not intend to join one of the PIDs, but rather pay the fee amount at the time of building permit. The fee would be \$4,572 per 1,000 square feet. Therefore, the total fee would be \$29,599.


← Include the recommendation directing trucks to turn left (pg 7).

Please contact me if you have any questions regarding this report.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By

  
Jeffrey C. Hodsdon, P.E., PTOE  
Principal

JCH:JAB:bjwb

Enclosures: Table 3  
Figures 1-8  
AutoTurn Exhibits  
Traffic Count Reports  
Level of Service Reports



Cash in lieu of curb & gutter and sidewalk improvements for the section of Meridian Road fronting the property is required per the attached email correspondence. Include a cost estimate for these improvements.

The email includes a Cost Estimate which identifies the unit cost to be used.

Update the Findings and conclusions accordingly.

**Table 3: Detailed Trip Generation Estimate**

ITE				Trip Generation Rates <sup>(1)</sup>					Driveway Trips Generated				
Code	Description	Value	Units <sup>(2)</sup>	Avg Weekday Traffic	A.M.		P.M.		Avg Weekday Traffic	A.M.		P.M.	
					In	Out	In	Out		In	Out	In	Out
848	Tire Store	6.474	KSF <sup>(2)</sup>	28.52	1.74	0.98	1.71	2.27	185	11	6	11	15

(1) Source: *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE)

(2) KSF = 1,000 square feet

**DON'T DELETE ANYTHING  
ON THIS PAGE**

**Figure 1: Vicinity Map**

**Figure 2: Site Plan**

**Figure 3: 2017 Existing Traffic**

**Figure 4: 2040 Background Traffic**

**Figure 5: Directional Distribution**

**Figure 6: Site-generated Traffic**

**Figure 7: 2040 Background + Site Traffic**



Approximate Scale  
Scale: 1" = 600'



Figure 1  
**Vicinity  
Map**

Big O Tires (Falcon) (LSC #174890)

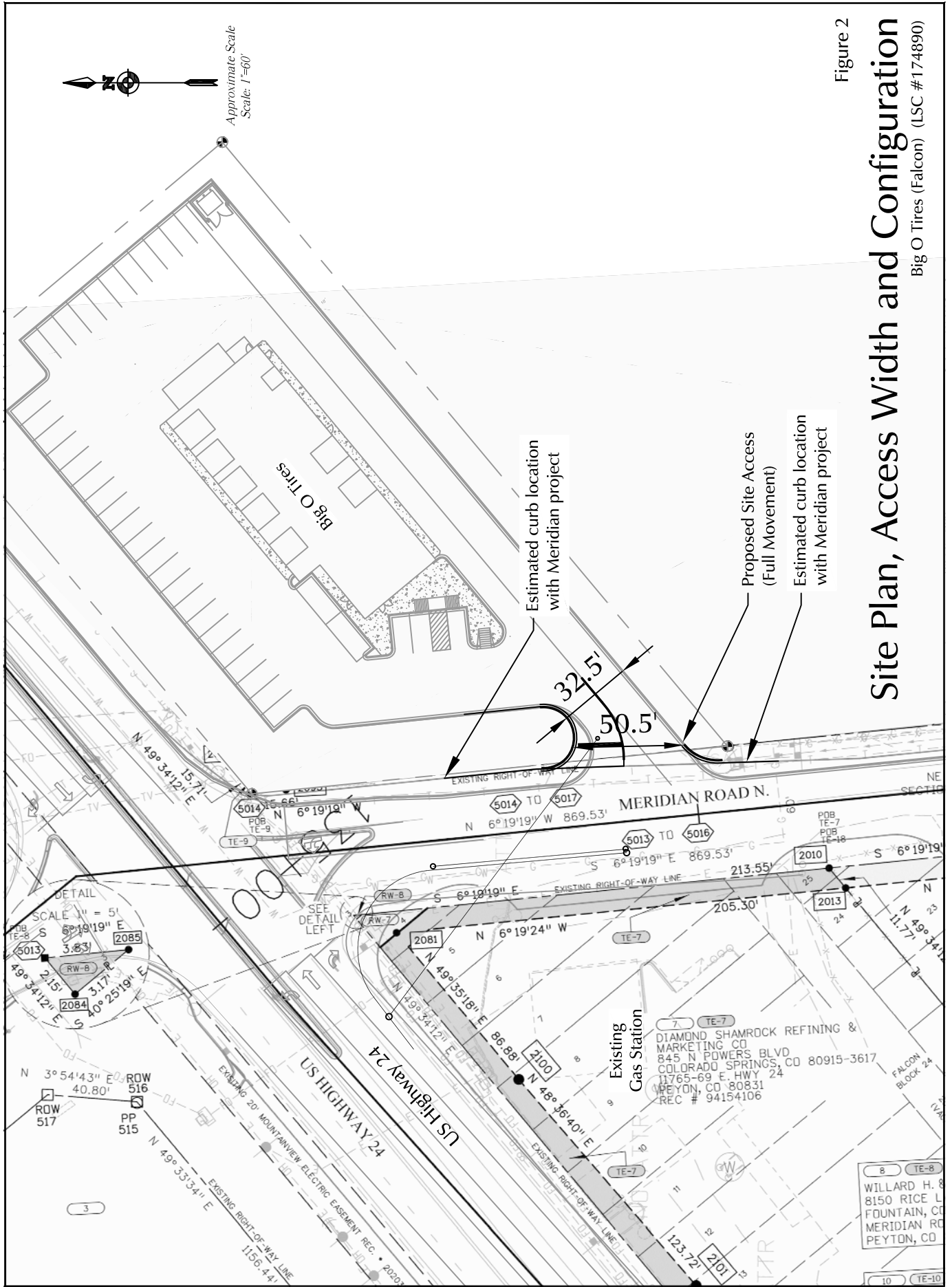


Figure 2

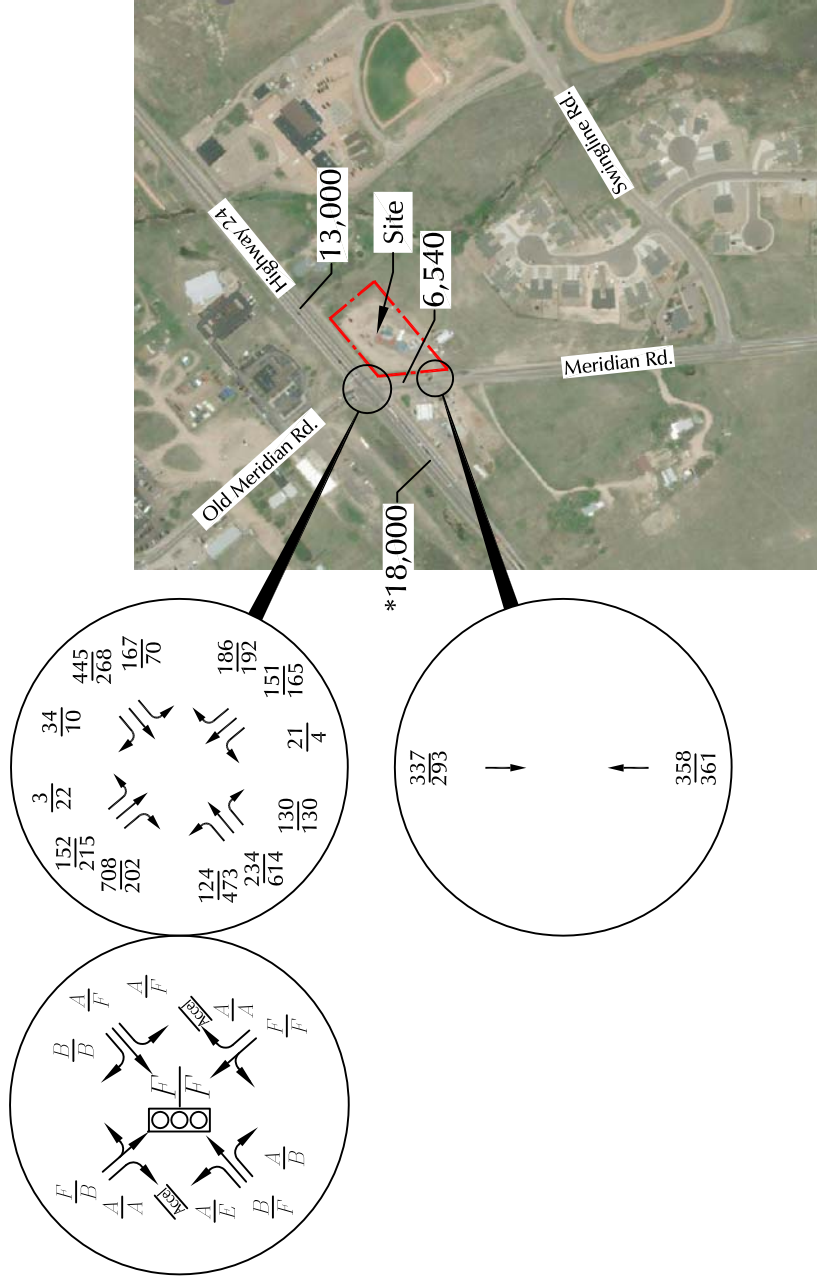
# Site Plan, Access Width and Configuration

Big O Tires (Falcon) (LSC #174890)





Approximate Scale  
Scale: 1" = 600'



# LEGEND:

 = Traffic Signal

XX = AM Weekday Peak-Hour Traffic (vehicles per hour)

XX = PM Weekday Peak-Hour Traffic (vehicles per hour)

$\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service

$\frac{C}{D}$  = PM Individual Movement Peak-Hour Level of Service

$\frac{A}{B}$  = AM Entire Intersection Peak-Hour Level of Service

$\frac{C}{D}$  = PM Entire Intersection Peak-Hour Level of Service

X,XXX = Average Weekday Traffic (vehicles per day) Estimated by LSC except \*CDOT AADT, 2016.

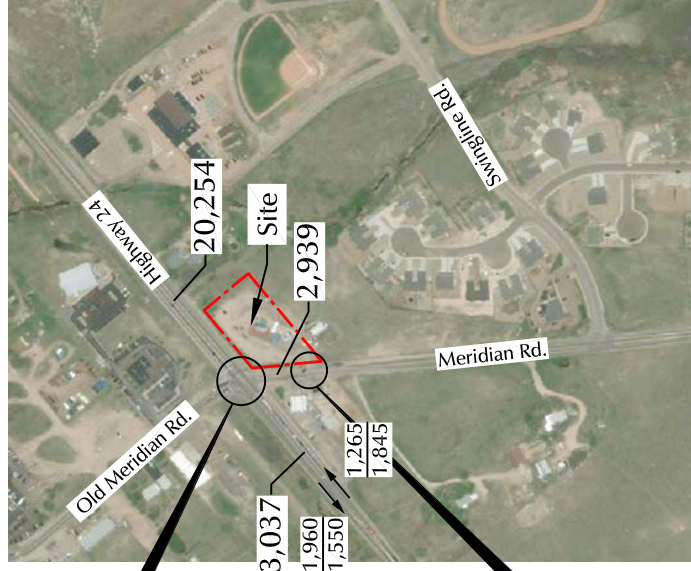
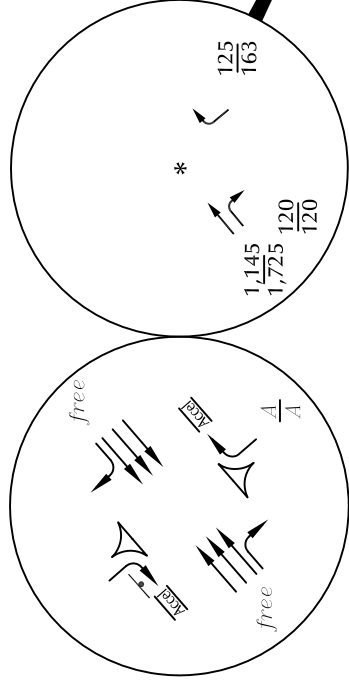
Figure 3

## Existing Traffic, Lane Geometry, Traffic Control and Level of Service

Big O Tires (Falcon) (LSC #174890)



\* Applicable intersection movement volumes for the south intersection leg are shown.



# LEGEND:

⊥ = Stop Sign

⊞ = Traffic Signal

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)

$\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (vehicles per hour)

$\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service

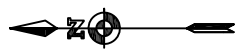
$\frac{A}{B}$  = PM Individual Movement Peak-Hour Level of Service

X,XXX = Average Weekday Traffic (vehicles per day)

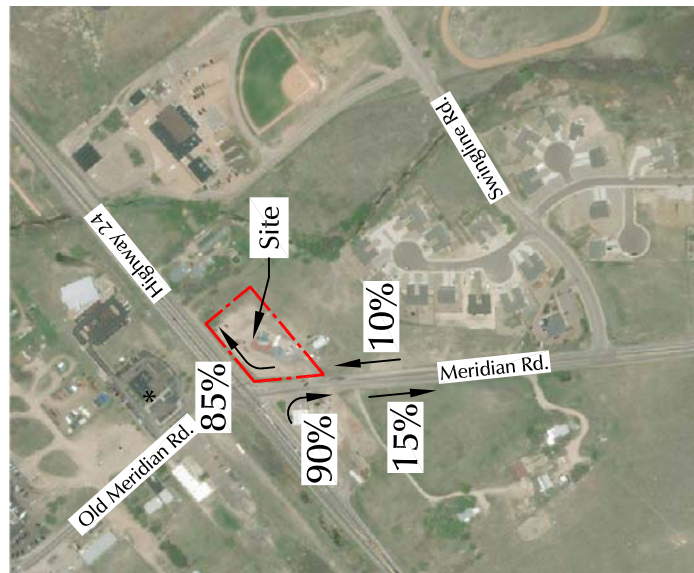
Figure 4

## Year 2040 Background Traffic, Lane Geometry, Traffic Control and Level of Service

Big O Tires (Falcon) (LSC #174890)



Approximate Scale  
Scale: 1" = 600'



\*Note= Assumes intersection of US 24/ Old Meridian Road converted to a right-in/right-out.

LEGEND:  
XX% = Percent Directional Distribution

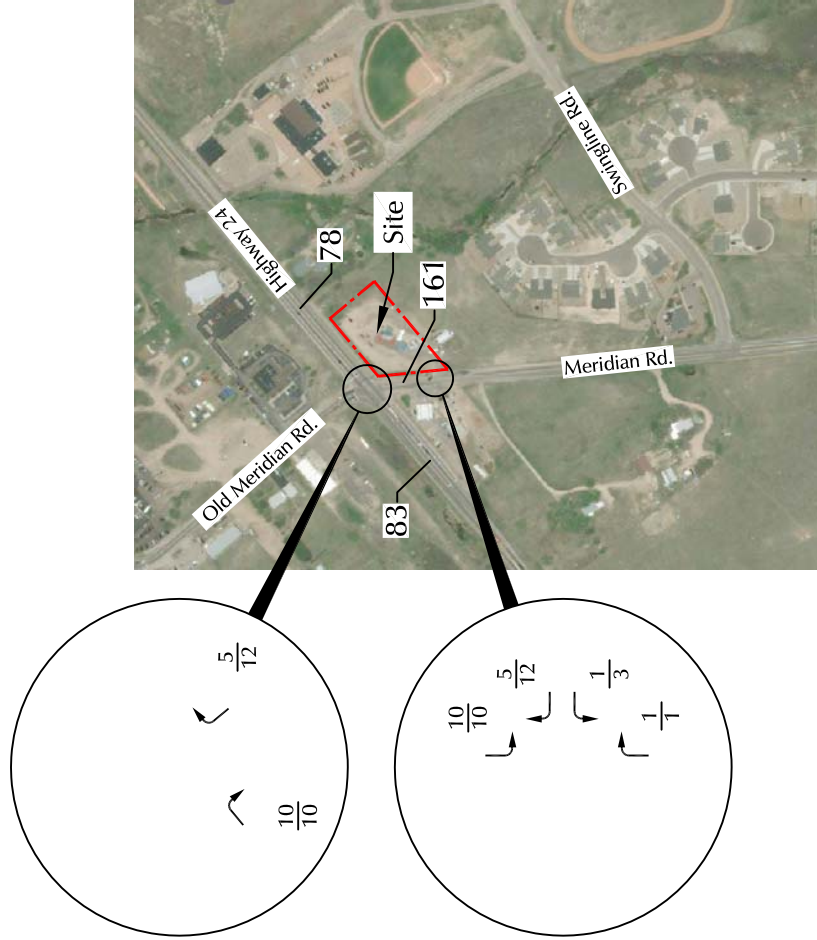
Figure 5

# Directional Distribution of Site-Generated Traffic

Big O Tires (Falcon) (LSC #174890)



Approximate Scale  
Scale: 1" = 600'



#### LEGEND:

XX = AM Weekday Peak-Hour Traffic (vehicles per hour)

XX = PM Weekday Peak-Hour Traffic (vehicles per hour)

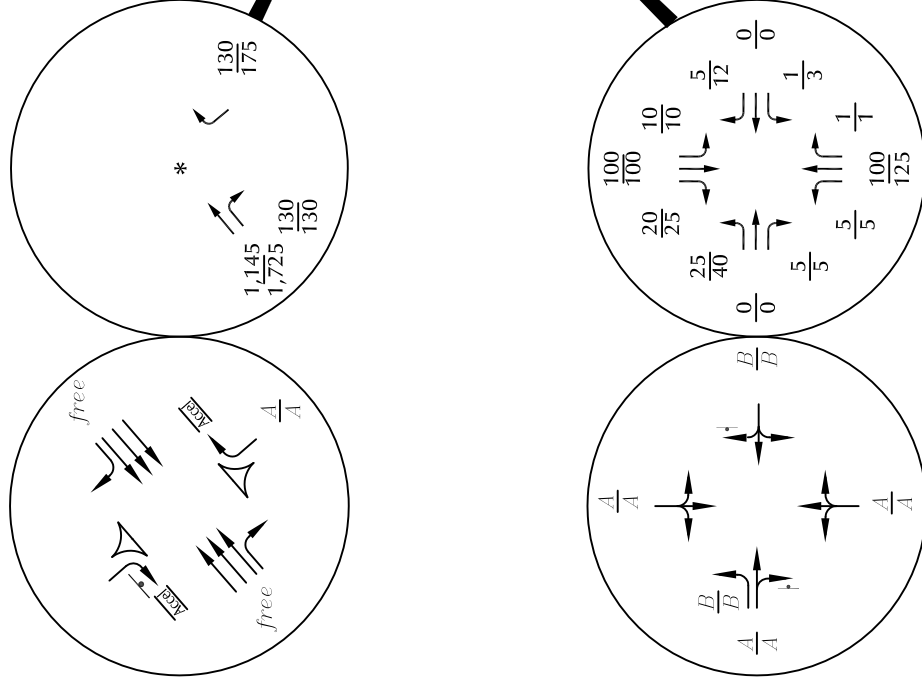
X,XXX = Average Weekday Traffic (vehicles per day) Estimated by LSC

Figure 6

## Assignment of Site-Generated Traffic

Big O Tires (Falcon) (LSC #174890)

\* Applicable intersection movement volumes for the south intersection leg are shown.



Approximate Scale  
Scale: 1" = 600'

#### LEGEND:

⊥ = Stop Sign

$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)

$\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (vehicles per hour)

$\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service

$\frac{A}{B}$  = PM Individual Movement Peak-Hour Level of Service

X,XXX = Average Weekday Traffic (vehicles per day) Estimated by LSC

Figure 7

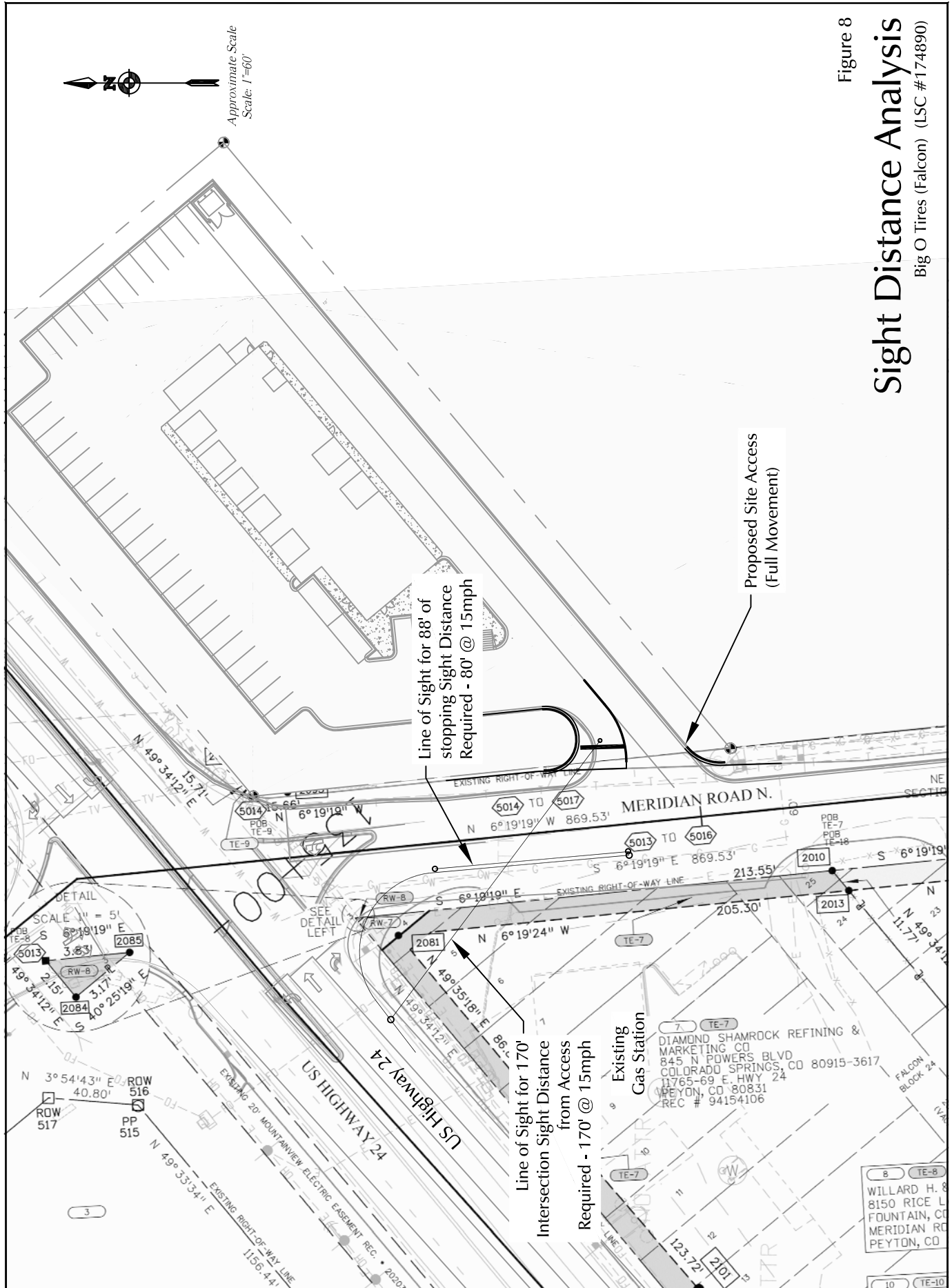
## Year 2040 Total Traffic, Lane Geometry, Traffic Control and Level of Service

Big O Tires (Falcon) (LSC #174890)

Figure 8

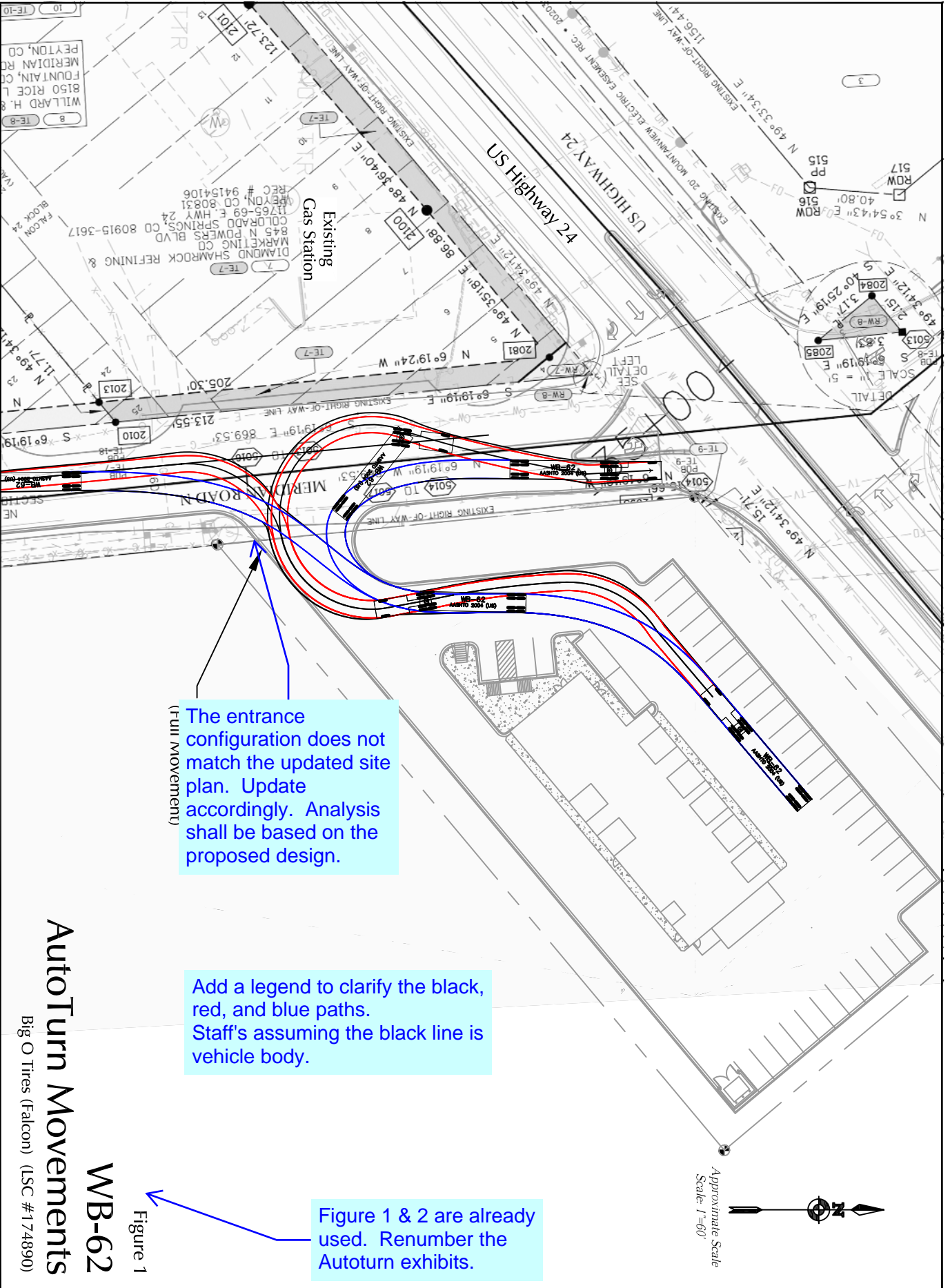
# Sight Distance Analysis

Big O Tires (Falcon) (LSC #174890)









The entrance configuration does not match the updated site plan. Update accordingly. Analysis shall be based on the proposed design.

Add a legend to clarify the black, red, and blue paths. Staff's assuming the black line is vehicle body.

Figure 1 & 2 are already used. Renumber the Autoturn exhibits.

Figure 1

# Auto Turn Movements

## WB-62

Big O Tires (Falcon) (LSC #174890)

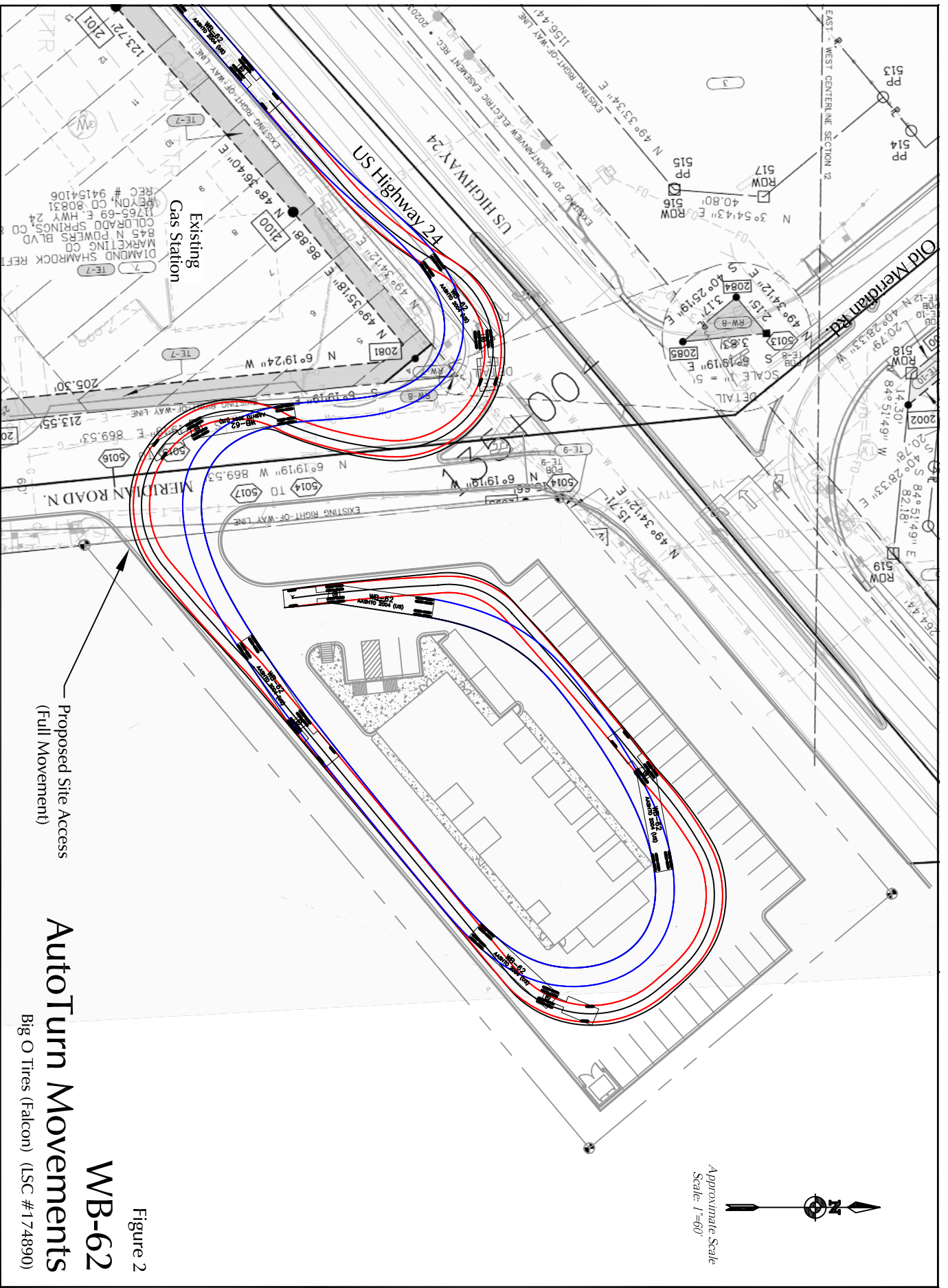


Figure 2

# WB-62

Auto Turn Movements

Big O Tires (Falcon) (LSC #174890)







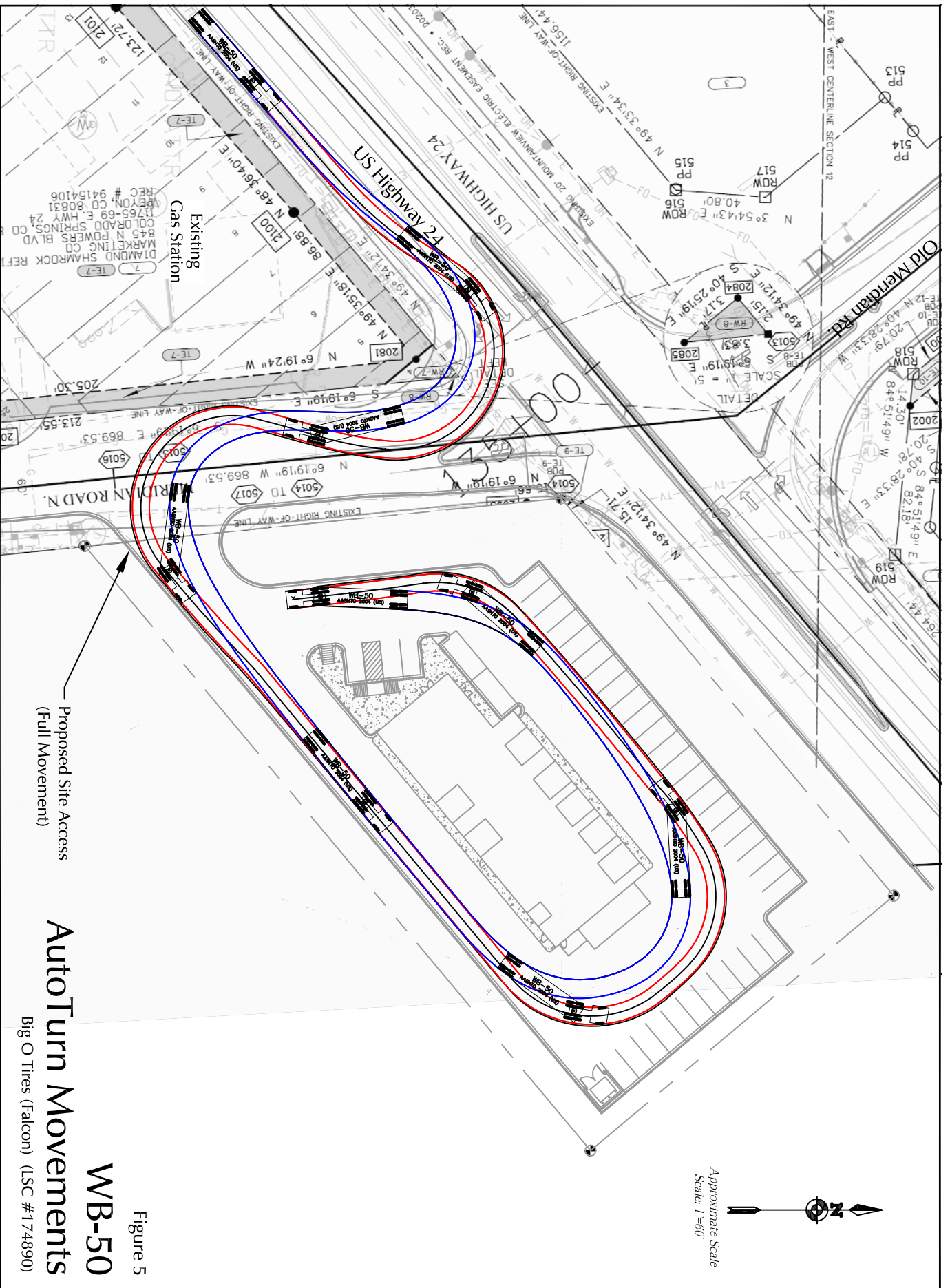


Figure 5

WB-50

Auto Turn Movements

Big O Tires (Falcon) (LSC #174890)

# Traffic Count Reports

---





Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 24 - Meridian Rd AM

Site Code : 00174890

Start Date : 12/14/2017

Page No : 1

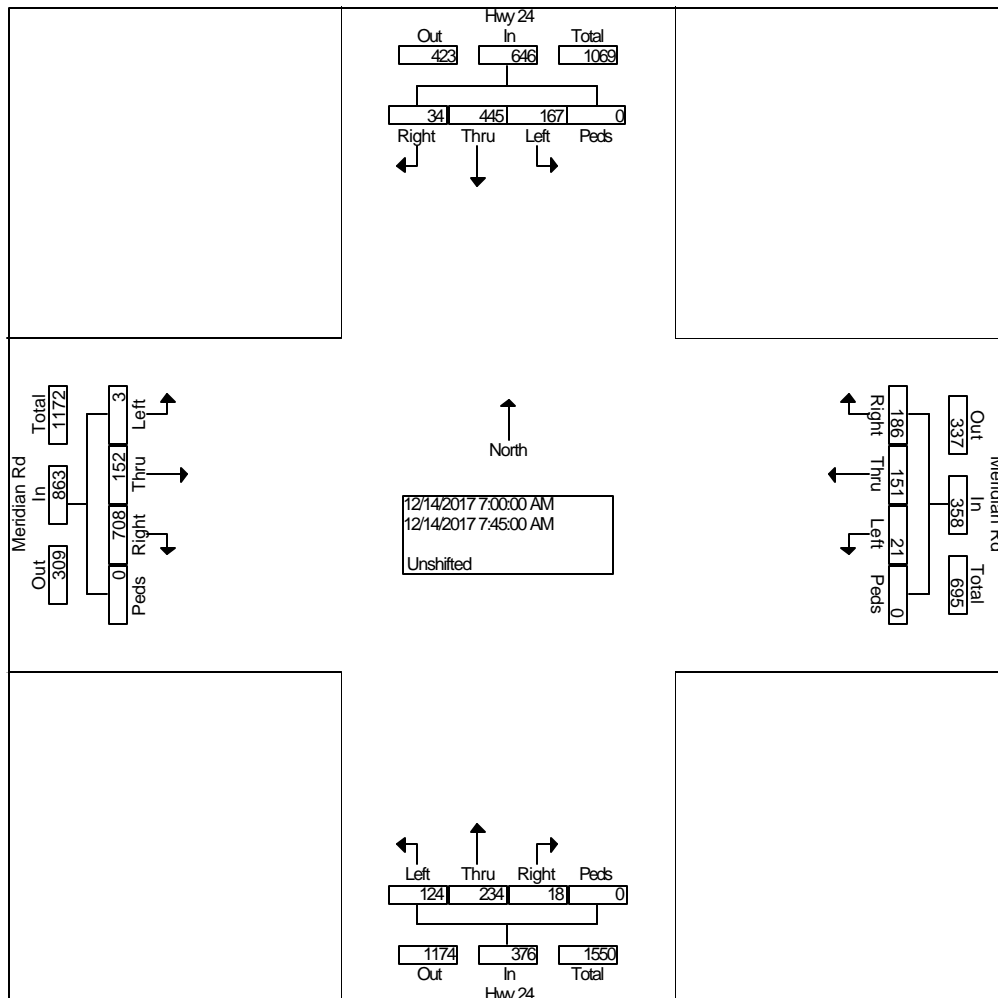
Groups Printed- Unshifted

	Hwy 24 From North				Meridian Rd From East				Hwy 24 From South				Meridian Rd From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	2	175	19	0	40	21	2	0	1	58	15	0	142	16	0	0	491
06:45 AM	6	119	34	0	34	19	1	0	4	50	28	0	171	29	1	0	496
Total	8	294	53	0	74	40	3	0	5	108	43	0	313	45	1	0	987
07:00 AM	13	96	39	0	43	30	8	0	2	41	30	0	217	29	1	0	549
07:15 AM	15	105	51	0	59	36	3	0	1	50	39	0	209	40	2	0	610
07:30 AM	4	117	37	0	45	42	5	0	7	66	24	0	175	45	0	0	567
07:45 AM	2	127	40	0	39	43	5	0	8	77	31	0	107	38	0	0	517
Total	34	445	167	0	186	151	21	0	18	234	124	0	708	152	3	0	2243
08:00 AM	4	102	26	0	33	34	2	0	2	52	39	0	84	47	3	0	428
08:15 AM	1	111	22	0	57	39	3	0	3	61	31	0	86	44	0	0	458
Grand Total	47	952	268	0	350	264	29	0	28	455	237	0	1191	288	7	0	4116
Apprch %	3.7	75.1	21.2	0.0	54.4	41.1	4.5	0.0	3.9	63.2	32.9	0.0	80.1	19.4	0.5	0.0	
Total %	1.1	23.1	6.5	0.0	8.5	6.4	0.7	0.0	0.7	11.1	5.8	0.0	28.9	7.0	0.2	0.0	

# Counts by LSC

File Name : Hwy 24 - Meridian Rd AM  
 Site Code : 00174890  
 Start Date : 12/14/2017  
 Page No : 2

	Hwy 24 From North					Meridian Rd From East					Hwy 24 From South					Meridian Rd From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	34	44	16	0	646	18	15	21	0	358	18	23	12	0	376	70	15	3	0	863	2243
		5	7			6	1					4	4			8	2				
Percent	5.3	68.	25.	0.0		52.	42.	5.9	0.0		4.8	62.	33.	0.0		82.	17.	0.3	0.0		
		9	9			0	2					2	0			0	6				
07:15		10														20					
Volume	15	5	51	0	171	59	36	3	0	98	1	50	39	0	90	9	40	2	0	251	610
Peak																					
Factor																					0.919
High Int.	07:15 AM					07:15 AM					07:45 AM					07:15 AM					
Volume	15	10	51	0	171	59	36	3	0	98	8	77	31	0	116	20	40	2	0	251	
		5														9					
Peak																					
Factor					0.94					0.91					0.81					0.86	
					4					3					0					0	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 24 - Meridian Rd PM

Site Code : 00174890

Start Date : 12/14/2017

Page No : 1

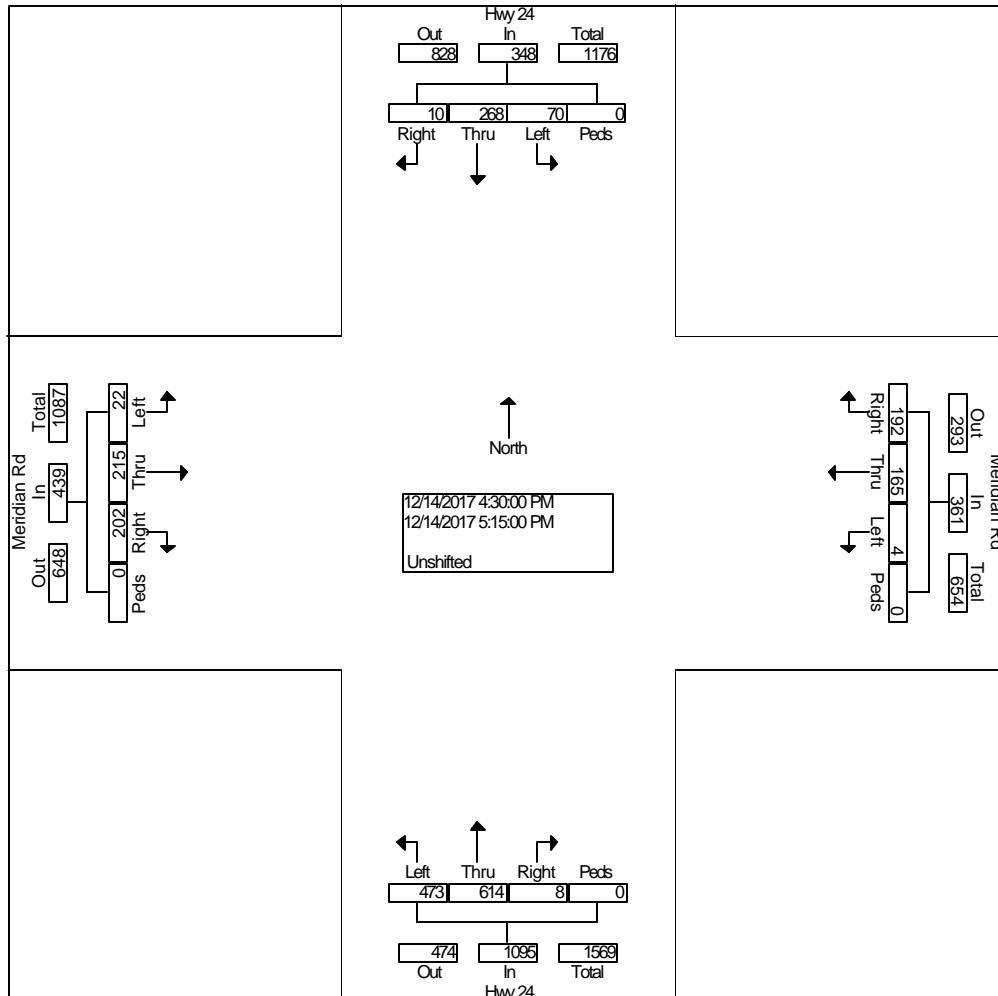
Groups Printed- Unshifted

	Hwy 24 From North				Meridian Rd From East				Hwy 24 From South				Meridian Rd From West				Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	3	55	14	0	34	46	1	0	1	147	105	0	49	46	5	0	506
04:15 PM	3	59	15	0	35	47	2	0	1	144	109	0	50	48	7	0	520
04:30 PM	4	69	20	0	47	36	1	0	3	156	121	0	48	56	4	0	565
04:45 PM	1	58	21	0	53	42	0	0	2	147	104	0	48	49	6	0	531
Total	11	241	70	0	169	171	4	0	7	594	439	0	195	199	22	0	2122
05:00 PM	4	67	14	0	40	52	2	0	2	154	122	0	70	52	10	0	589
05:15 PM	1	74	15	0	52	35	1	0	1	157	126	0	36	58	2	0	558
05:30 PM	2	81	21	0	30	31	3	0	0	165	98	0	46	54	6	0	537
05:45 PM	2	79	19	0	29	33	2	0	1	159	96	0	44	53	4	0	521
Total	9	301	69	0	151	151	8	0	4	635	442	0	196	217	22	0	2205
Grand Total	20	542	139	0	320	322	12	0	11	1229	881	0	391	416	44	0	4327
Apprch %	2.9	77.3	19.8	0.0	48.9	49.2	1.8	0.0	0.5	57.9	41.5	0.0	45.9	48.9	5.2	0.0	
Total %	0.5	12.5	3.2	0.0	7.4	7.4	0.3	0.0	0.3	28.4	20.4	0.0	9.0	9.6	1.0	0.0	

# Counts by LSC

File Name : Hwy 24 - Meridian Rd PM  
 Site Code : 00174890  
 Start Date : 12/14/2017  
 Page No : 2

	Hwy 24 From North					Meridian Rd From East					Hwy 24 From South					Meridian Rd From West					
Start Time	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Rig ht	Thr u	Lef t	Pe ds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	10	26	70	0	348	19	16	4	0	361	8	61	47	0	1095	20	21	22	0	439	2243
		8				2	5					4	3			2	5				
Percent	2.9	77.	20.	0.0		53.	45.	1.1	0.0		0.7	56.	43.	0.0		46.	49.	5.0	0.0		
		0	1			2	7					1	2			0	0				
05:00																					
Volume	4	67	14	0	85	40	52	2	0	94	2	15	12	0	278	70	52	10	0	132	589
Peak																					
Factor																					0.952
High Int.	04:30 PM					04:45 PM					05:15 PM					05:00 PM					
Volume	4	69	20	0	93	53	42	0	0	95	1	15	12	0	284	70	52	10	0	132	
												7	6								
Peak																					
Factor	0.93					0.95					0.96					0.83					1
	5					0					4										





# Level of Service Reports

---



**34: US 24 & Old Meridian Rd Performance by movement Interval #1 4:30**

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.3	0.2	0.0	0.1
Total Del/Veh (s)	0.6	1.8	1.6	1.0	1.4

**34: US 24 & Old Meridian Rd Performance by movement Interval #2 4:45**

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.1	1.6	1.0	1.0

**34: US 24 & Old Meridian Rd Performance by movement Interval #3 5:00**

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.0	0.1
Total Del/Veh (s)	0.0	0.5	1.6	2.2	1.1	1.3

**34: US 24 & Old Meridian Rd Performance by movement Interval #4 5:15**

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.6	1.5	2.0	1.0	1.3

**34: US 24 & Old Meridian Rd Performance by movement Entire Run**

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.5	1.9	1.0	1.3

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #1**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #2**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #3**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #4**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, All Intervals**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

34: US 24 & Old Meridian Rd Performance by movement Interval #1 4:30

---

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.3	0.2	0.0	0.1
Total Del/Veh (s)	0.5	1.6	1.5	1.0	1.3

---

34: US 24 & Old Meridian Rd Performance by movement Interval #2 4:45

---

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.4	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.3	1.4	1.2	1.2

---

34: US 24 & Old Meridian Rd Performance by movement Interval #3 5:00

---

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.0	0.1
Total Del/Veh (s)	0.0	0.5	1.6	2.3	1.1	1.3

---

34: US 24 & Old Meridian Rd Performance by movement Interval #4 5:15

---

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.6	1.5	2.0	1.0	1.3

---

34: US 24 & Old Meridian Rd Performance by movement Entire Run

---

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.3	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.5	1.9	1.1	1.3

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #1**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #2**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #3**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #4**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, All Intervals**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

**1: Old Meridian Rd & Site Access Performance by movement Interval #1 4:30**

Movement	EBL	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.1
Total Del/Veh (s)	7.9	11.5	0.7	1.6	1.3	1.7	1.5	2.4

**1: Old Meridian Rd & Site Access Performance by movement Interval #2 4:45**

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.8	0.2	0.0	0.0	0.3
Total Del/Veh (s)	4.5	3.0	1.0	1.4	1.7	1.6	2.2

**1: Old Meridian Rd & Site Access Performance by movement Interval #3 5:00**

Movement	EBL	EBR	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	0.1	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	3.8	1.5	4.1	7.1	1.8	1.7	1.7	1.5	2.1

**1: Old Meridian Rd & Site Access Performance by movement Interval #4 5:15**

Movement	EBL	EBR	WBR	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	2.8	0.1	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.1	3.3	4.3	1.5	1.2	1.7	1.3	2.2

**1: Old Meridian Rd & Site Access Performance by movement Entire Run**

Movement	EBL	EBR	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	3.8	0.1	0.2	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	5.5	3.1	5.8	3.3	1.6	1.4	1.7	1.5	2.3

**34: US 24 & Old Meridian Rd Performance by movement Interval #1 4:30**

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.2	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.8	1.9	1.0	1.4

**34: US 24 & Old Meridian Rd Performance by movement Interval #2 4:45**

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.4	1.7	1.0	1.2

**34: US 24 & Old Meridian Rd Performance by movement Interval #3 5:00**

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.3	0.0	0.1
Total Del/Veh (s)	0.5	1.5	2.0	1.0	1.3



---

34: US 24 & Old Meridian Rd Performance by movement Interval #4 5:15

---

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.6	1.5	1.8	1.0	1.3

---

34: US 24 & Old Meridian Rd Performance by movement Entire Run

---

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.6	1.9	1.0	1.3

---

Total Zone Performance By Interval

---

Interval Start	4:30	4:45	5:00	5:15	All
Denied Del/Veh (s)	0.3	0.3	0.2	0.2	0.3
Total Del/Veh (s)	5.8	5.3	5.2	5.5	5.7

**Intersection: 1: Old Meridian Rd & Site Access, Interval #1**

Movement	EB	WB	SB
Directions Served	LT	LTR	R
Maximum Queue (ft)	53	50	42
Average Queue (ft)	20	0	12
95th Queue (ft)	41	0	42
Link Distance (ft)	182	181	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

**Intersection: 1: Old Meridian Rd & Site Access, Interval #2**

Movement	EB	EB	SB
Directions Served	LT	R	R
Maximum Queue (ft)	29	26	27
Average Queue (ft)	20	8	11
95th Queue (ft)	42	27	33
Link Distance (ft)	182		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	25
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

**Intersection: 1: Old Meridian Rd & Site Access, Interval #3**

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	R
Maximum Queue (ft)	29	24	30	48	42
Average Queue (ft)	16	3	11	7	18
95th Queue (ft)	39	18	33	34	45
Link Distance (ft)	182		181	804	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		75			25
Storage Blk Time (%)					0
Queuing Penalty (veh)					0

**Intersection: 1: Old Meridian Rd & Site Access, Interval #4**

Movement	EB	EB	WB	SB
Directions Served	LT	R	LTR	R
Maximum Queue (ft)	50	26	30	27
Average Queue (ft)	31	4	9	11
95th Queue (ft)	44	19	31	32
Link Distance (ft)	182		181	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		75		25
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

**Intersection: 1: Old Meridian Rd & Site Access, All Intervals**

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	R
Maximum Queue (ft)	53	26	50	48	42
Average Queue (ft)	22	4	5	2	13
95th Queue (ft)	44	19	23	16	39
Link Distance (ft)	182		181	804	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		75			25
Storage Blk Time (%)					0
Queuing Penalty (veh)					0

**Intersection: 34: US 24 & Old Meridian Rd, Interval #1**

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #2**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #3**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #4**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

Intersection: 34: US 24 & Old Meridian Rd, All Intervals

---

## Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

Zone Summary

---

Zone wide Queuing Penalty, Interval #1: 0

Zone wide Queuing Penalty, Interval #2: 0

Zone wide Queuing Penalty, Interval #3: 0

Zone wide Queuing Penalty, Interval #4: 0

Zone wide Queuing Penalty, All Intervals: 0

**1: Old Meridian Rd & Site Access Performance by movement Interval #1 4:30**

Movement	EBL	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.1
Total Del/Veh (s)	7.9	11.5	0.7	1.6	1.3	1.7	1.5	2.4

**1: Old Meridian Rd & Site Access Performance by movement Interval #2 4:45**

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.8	0.2	0.0	0.0	0.3
Total Del/Veh (s)	4.5	3.0	1.0	1.4	1.7	1.6	2.2

**1: Old Meridian Rd & Site Access Performance by movement Interval #3 5:00**

Movement	EBL	EBR	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	0.1	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	3.8	1.5	4.1	7.1	1.8	1.7	1.7	1.5	2.1

**1: Old Meridian Rd & Site Access Performance by movement Interval #4 5:15**

Movement	EBL	EBR	WBR	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	2.8	0.1	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.1	3.3	4.3	1.5	1.2	1.7	1.3	2.2

**1: Old Meridian Rd & Site Access Performance by movement Entire Run**

Movement	EBL	EBR	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	3.8	0.1	0.2	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	5.5	3.1	5.8	3.3	1.6	1.4	1.7	1.5	2.3

**34: US 24 & Old Meridian Rd Performance by movement Interval #1 4:30**

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.2	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.8	1.9	1.0	1.4

**34: US 24 & Old Meridian Rd Performance by movement Interval #2 4:45**

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.4	1.7	1.0	1.2

**34: US 24 & Old Meridian Rd Performance by movement Interval #3 5:00**

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.3	0.0	0.1
Total Del/Veh (s)	0.5	1.5	2.0	1.0	1.3

---

34: US 24 & Old Meridian Rd Performance by movement Interval #4 5:15

---

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.6	1.5	1.8	1.0	1.3

---

34: US 24 & Old Meridian Rd Performance by movement Entire Run

---

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	0.0	0.6	1.6	1.9	1.0	1.3

---

Total Zone Performance By Interval

---

Interval Start	4:30	4:45	5:00	5:15	All
Denied Del/Veh (s)		0.3	0.3	0.2	0.3
Total Del/Veh (s)		5.8	5.3	5.2	5.7

**Intersection: 1: Old Meridian Rd & Site Access, Interval #1**

Movement	EB	WB	SB
Directions Served	LT	LTR	R
Maximum Queue (ft)	53	50	42
Average Queue (ft)	20	0	12
95th Queue (ft)	41	0	42
Link Distance (ft)	182	181	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			25
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

**Intersection: 1: Old Meridian Rd & Site Access, Interval #2**

Movement	EB	EB	SB
Directions Served	LT	R	R
Maximum Queue (ft)	29	26	27
Average Queue (ft)	20	8	11
95th Queue (ft)	42	27	33
Link Distance (ft)	182		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	25
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

**Intersection: 1: Old Meridian Rd & Site Access, Interval #3**

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	R
Maximum Queue (ft)	29	24	30	48	42
Average Queue (ft)	16	3	11	7	18
95th Queue (ft)	39	18	33	34	45
Link Distance (ft)	182		181	804	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		75			25
Storage Blk Time (%)					0
Queuing Penalty (veh)					0



**Intersection: 1: Old Meridian Rd & Site Access, Interval #4**

Movement	EB	EB	WB	SB
Directions Served	LT	R	LTR	R
Maximum Queue (ft)	50	26	30	27
Average Queue (ft)	31	4	9	11
95th Queue (ft)	44	19	31	32
Link Distance (ft)	182		181	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		75		25
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

**Intersection: 1: Old Meridian Rd & Site Access, All Intervals**

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	R
Maximum Queue (ft)	53	26	50	48	42
Average Queue (ft)	22	4	5	2	13
95th Queue (ft)	44	19	23	16	39
Link Distance (ft)	182		181	804	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		75			25
Storage Blk Time (%)					0
Queuing Penalty (veh)					0

**Intersection: 34: US 24 & Old Meridian Rd, Interval #1**

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #2**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #3**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

**Intersection: 34: US 24 & Old Meridian Rd, Interval #4**

---

**Movement**

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

Intersection: 34: US 24 & Old Meridian Rd, All Intervals

---

## Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

---

Zone Summary

---

Zone wide Queuing Penalty, Interval #1: 0

Zone wide Queuing Penalty, Interval #2: 0

Zone wide Queuing Penalty, Interval #3: 0

Zone wide Queuing Penalty, Interval #4: 0

Zone wide Queuing Penalty, All Intervals: 0