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Big O Tires Traffic Impact Study (LSC #174890) January 9, 2018

Add "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.

Jeffrey C. Hodsdon, P.E., #31684

Date

Developer's Statement

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

Date



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January 9, 2018

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

RE: Big O Tires (Falcon)
El Paso County, Colorado
Traffic Impact Study
LSC #174890

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.

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, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Land use code 848 – Tire Store was categorized using the *Trip Generation Manual, 10th 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 ⁽¹⁾	Average Control Delay (seconds/vehicle) ⁽²⁾
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: *Transportation Research Circular 212*
(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 be converted from a full-movement, signalized intersection to a right-in/right-out (RI/RO) intersection in the future. Short-term simulations were based on the existing signal, while long-term analysis assumed RI/RO lane geometry.

Morning 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/Meridian Road

Overall, this intersection currently operates at LOS D 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.

During the long-term morning peak hour, the intersection of US 24/Meridian Road will be converted to a RI/RO intersection. 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 are projected to operate at LOS B or better for all short-term and long-term morning peak-hour traffic conditions upon site buildout.

Evening Peak Hour

A summary of current and projected 2040 background traffic conditions during the evening peak hour—both with and without considering site-generated traffic—are described below, by intersection. Detailed Synchro reports containing additional LOS results are attached.

US 24/Meridian Road

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.

During the long-term evening peak hour, the intersection of US 24/Meridian Road will be converted to a RI/RO intersection. 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 are projected to operate at LOS B or better for all short-term and long-term evening peak-hour traffic conditions upon site buildout.

Clarify this sentence. Westbound does not have a turn movement at the RI/RO intersection.

VEHICLE QUEUING ANALYSIS

A queuing analysis was performed for the westbound approach between the proposed site access and intersection of US 24/Meridian Road for the northwest-bound right-turn lane (long-term). Analyses have been run utilizing the projected existing plus site-generated and 2040 background plus site-generated traffic volumes. Detailed queuing reports are attached.

The distance along Meridian Road separating the proposed site access and US 24 is approximately 100 feet. Available stacking distance between these two intersections is projected to be sufficient during the long-term morning peak-hour background-plus-site scenario. Westbound right-turn exiting vehicles from the site are projected to be briefly blocked due to upstream queue approximately 1 percent of the time during the long-term evening peak hour.

Describe what's happening for the southbound left going into the side during the long-term evening peak hr.

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.
- All approaches at the proposed site access intersection are projected to operate at LOS B or better during all short- and long-term 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.

Identify the time line for construction of the site and the construction to convert the intersection into a RI/RO movement. Discuss what steps can be taken to mitigate the LOS F in the interim.

Contact/coordinate with John Andrews at EPC DPW (719-520-6842) for information regarding the Meridian Road Improvements.

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. This lane is currently about 400 feet plus a long taper. These lengths do not meet Colorado State Highway access code criteria. This is an existing deficiency and the site traffic is projected to increase the current right turning traffic by only 6.2 percent.

* * * * *

Does the planned reconfiguration of the intersection address the deficiency?
Contact John Andrews for a copy of the current design.

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

Sincerely,

1. State whether the access meets sight distance.

LSC TRANS

2. State what the current applicable Traffic Impact Fees are and what option the developer will be selecting for payment.

By _____

Jeffrey
Princip.

3. List all deviations that the applicant will be making. Per comments on the Grading and Erosion Control, the proposed driveway width is greater than the ECM criteria. The applicant shall revise or submit a deviation request.

JCH:JAB:bjwb

- Enclosures: Table 3
Figure 1 – Figure 7
Traffic Count Reports
Level of Service Reports

Table 3: Detailed Trip Generation Estimate

ITE		Trip Generation Rates ⁽¹⁾				Driveway Trips Generated							
Code	Description	Value	Units ⁽²⁾	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	28.52	1.74	0.98	1.71	2.27	185	11	6	11	15

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

(2) KSF = 1,000 square feet

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

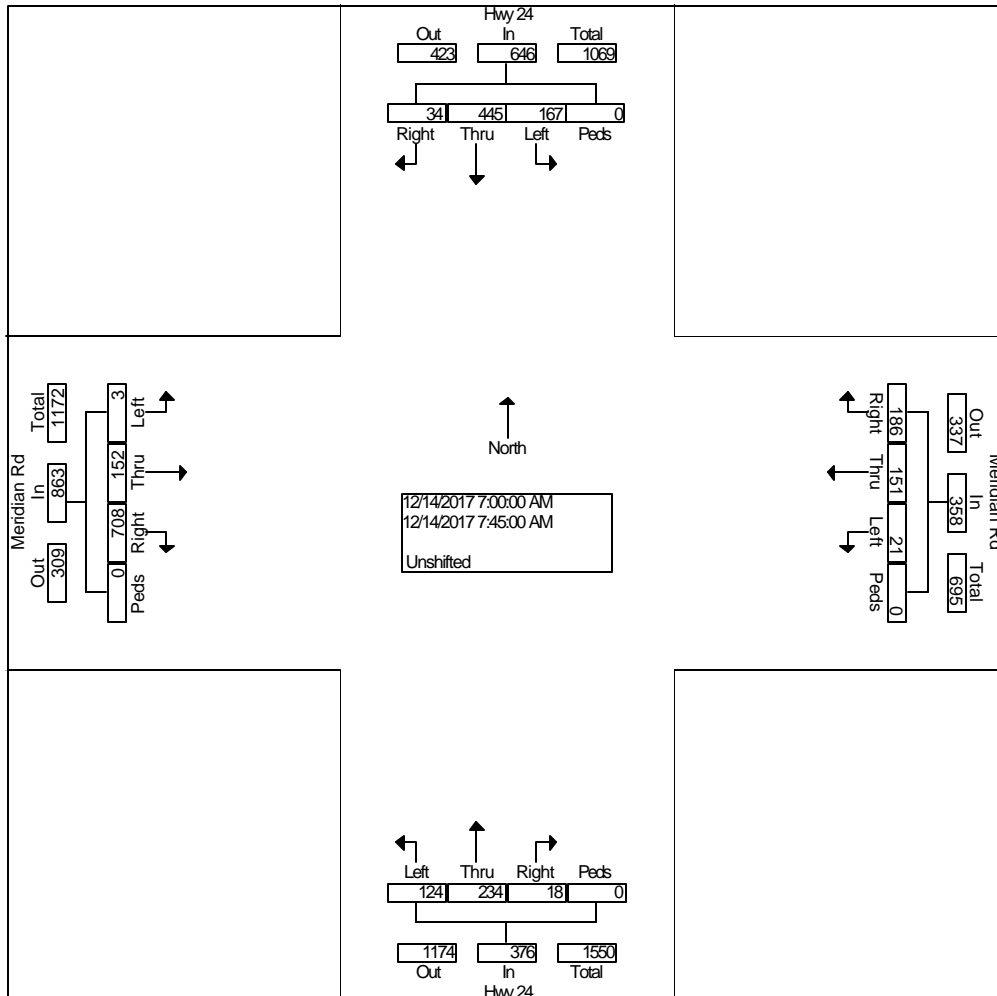
Groups Printed- Unshifted

Start Time	Hwy 24 From North				Meridian Rd From East				Hwy 24 From South				Meridian Rd From West				Int. Total
	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

Start Time	Hwy 24 From North					Meridian Rd From East					Hwy 24 From South					Meridian Rd From West					Int. 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	Rig ht	Thr u	Lef t	Pe ds	App. 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	
Percent	5.3	68.9	25.9	0.0		52.0	42.2	5.9	0.0		4.8	62.2	33.0	0.0		82.0	17.6	0.3	0.0			
07:15 Volume	15	10	51	0	171	59	36	3	0	98	1	50	39	0	90	20	9	40	2	0	251	610
Peak Factor																						
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	9	40	2	0	251	0.919
Peak Factor	0.94					0.91					0.81					0.86						



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

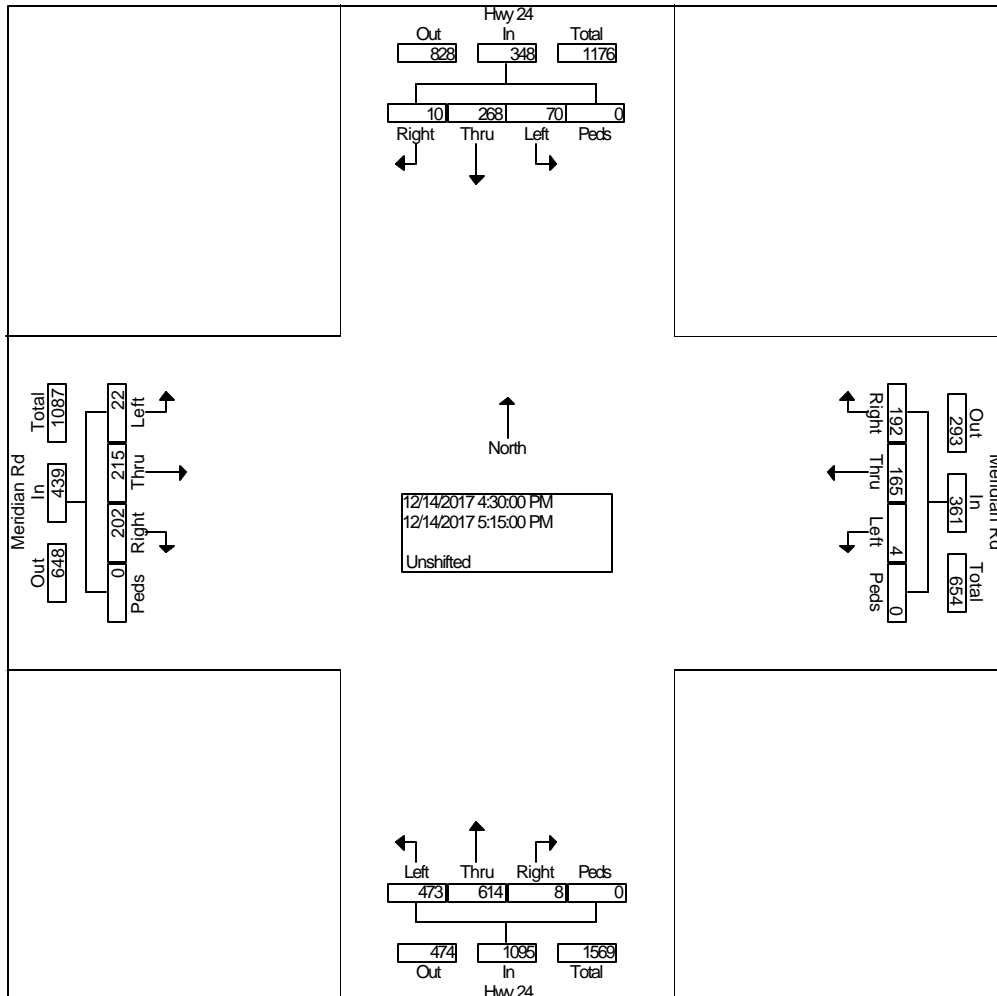
Groups Printed- Unshifted

Start Time	Hwy 24 From North				Meridian Rd From East				Hwy 24 From South				Meridian Rd From West				Int. Total
	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

Start Time	Hwy 24 From North					Meridian Rd From East					Hwy 24 From South					Meridian Rd From West					Int. 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	Rig ht	Thr u	Lef t	Pe ds	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	10	268	70	0	348	192	165	4	0	361	8	61	47	0	1095	20	21	22	0	439	2243
Percent	2.9	77.0	20.1	0.0		53.2	45.7	1.1	0.0		0.7	56.1	43.2	0.0		46.0	49.0	5.0	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																				
Volume	4	69	20	0	93	53	42	0	0	95	1	15	12	0	284	70	52	10	0	132	
Peak Factor					0.935					0.950					0.964					0.831	





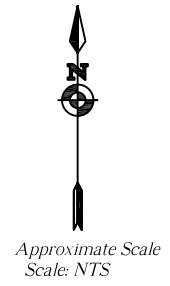
Approximate Scale
Scale: 1" = 600'

Figure 1
**Vicinity
Map**

Big O Tires (LSC #174890)

The maneuver is encroaching into the opposing traffic with no room to maneuver back into the correct lane.

Identify the design vehicle used and describe the findings and recommendations in the narrative section of the report.



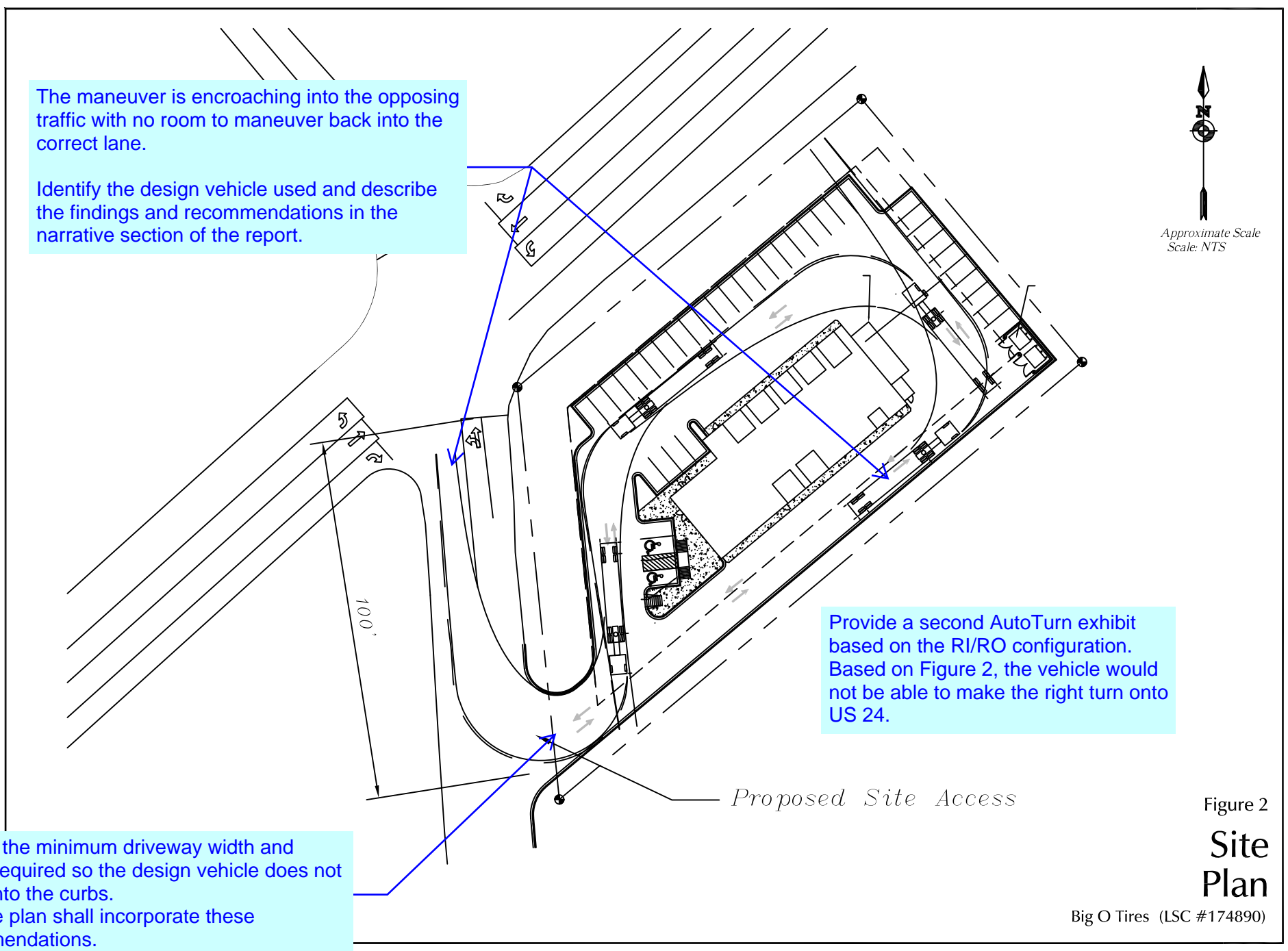
Provide a second AutoTurn exhibit based on the RI/RO configuration. Based on Figure 2, the vehicle would not be able to make the right turn onto US 24.

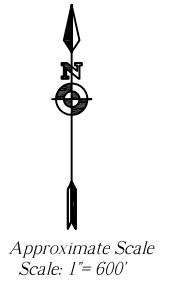
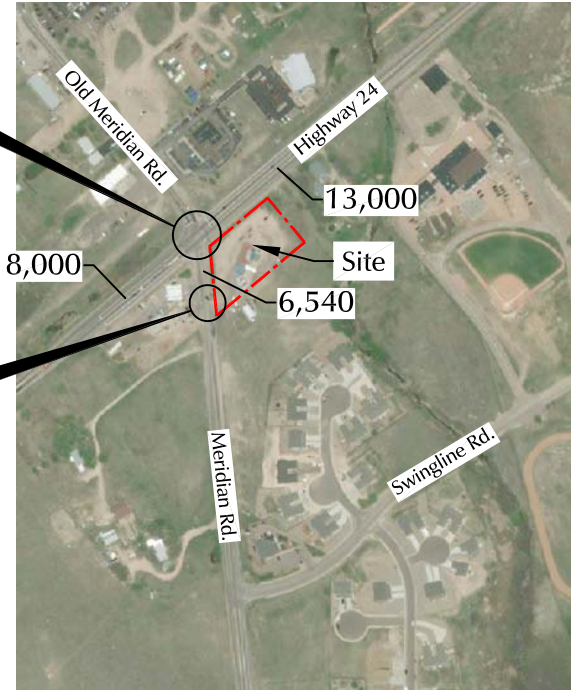
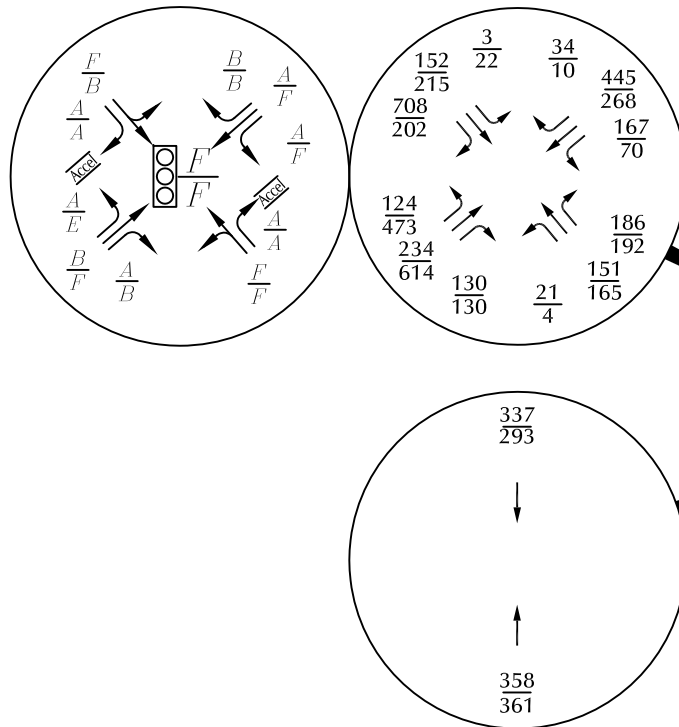
Proposed Site Access

Identify the minimum driveway width and radius required so the design vehicle does not track onto the curbs. The site plan shall incorporate these recommendations.

Figure 2
Site Plan

Big O Tires (LSC #174890)





LEGEND:

 = Traffic Signal

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

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

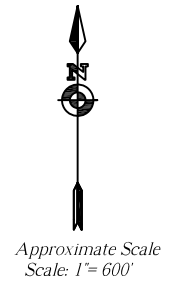
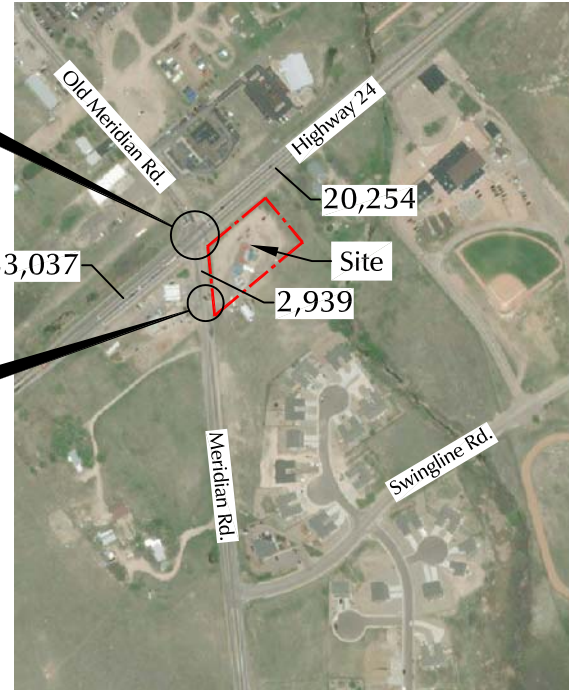
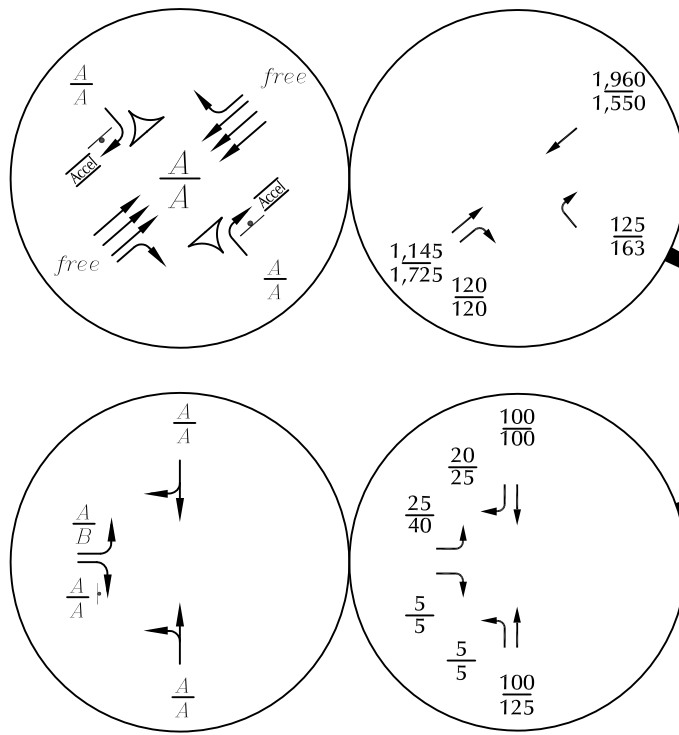
$\frac{C}{D}$ = $\frac{\text{AM Entire Intersection Peak-Hour Level of Service}}{\text{PM Entire Intersection Peak-Hour Level of Service}}$

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

Figure 3

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

Big O Tires (LSC #174890)



LEGEND:

⊥ = Stop Sign

⊞ = Traffic Signal

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

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

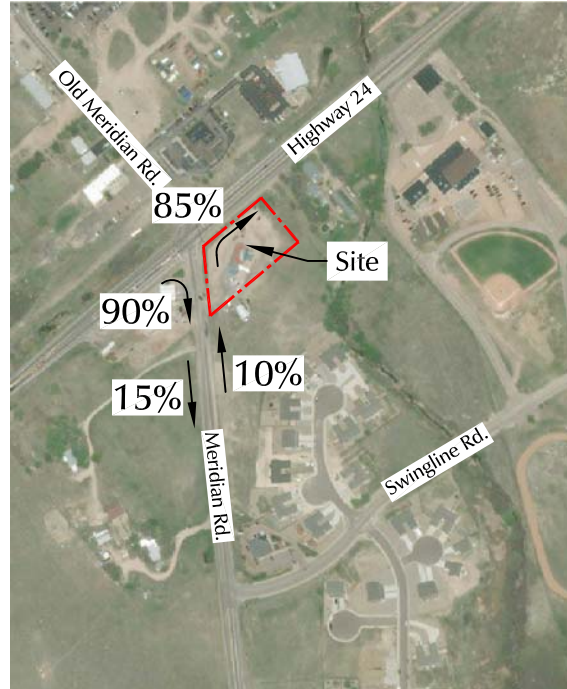
$\frac{C}{D}$ = $\frac{\text{AM Entire Intersection Peak-Hour Level of Service}}{\text{PM Entire Intersection Peak-Hour Level of Service}}$

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

Figure 4

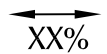
Year 2040 Background Traffic, Lane Geometry, Traffic Control and Level of Service

Big O Tires (LSC #174890)



Approximate Scale
Scale: 1" = 600'

LEGEND:

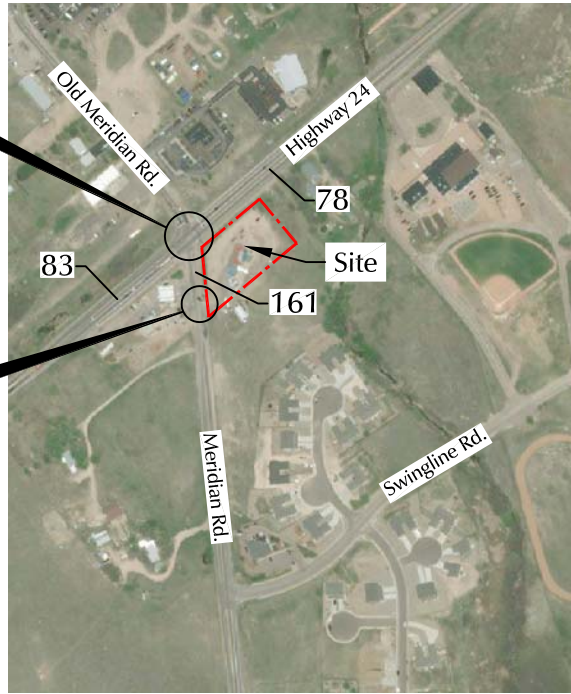
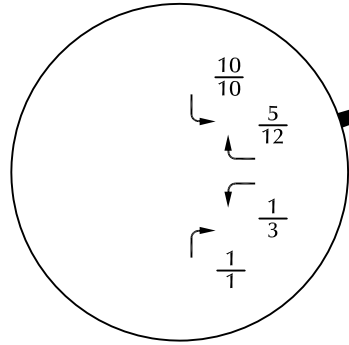
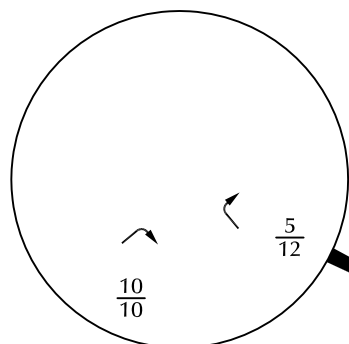


= Percent Directional Distribution

Figure 5

Directional Distribution of Site-Generated Traffic

Big O Tires (LSC #174890)

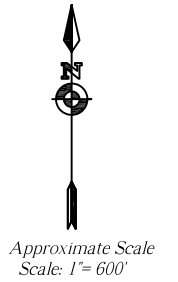
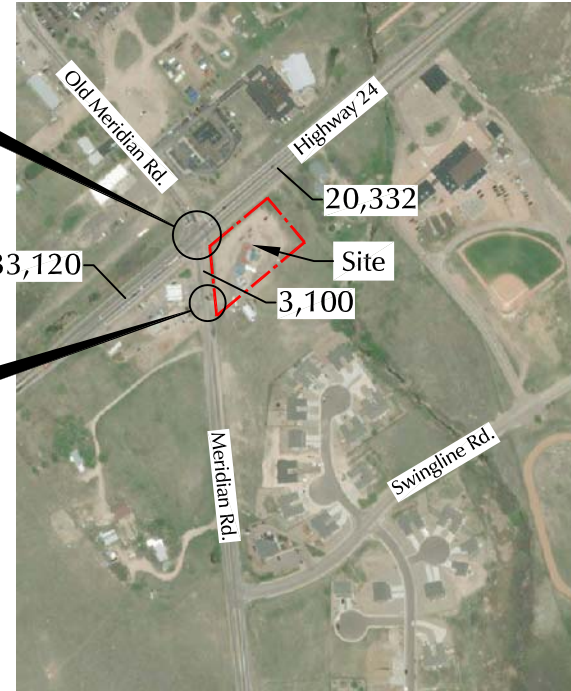
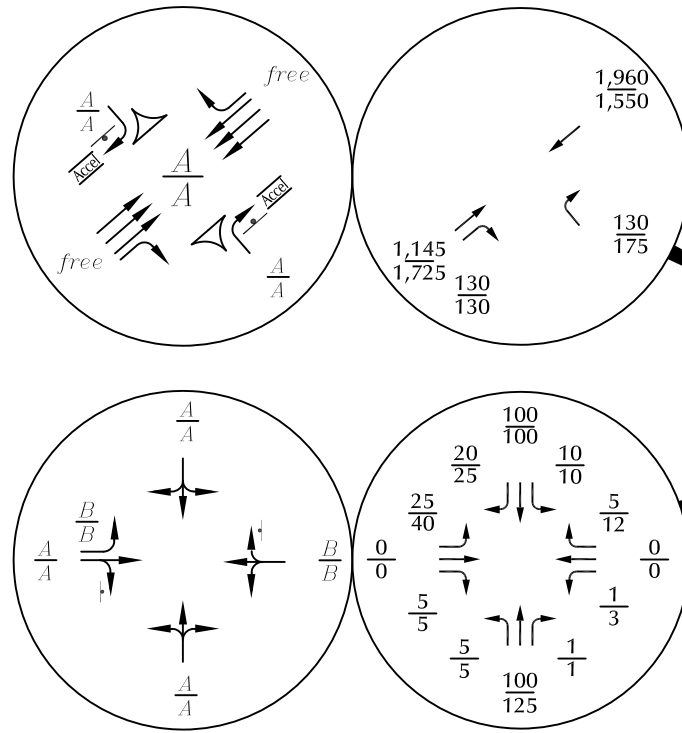


Approximate Scale
Scale: 1" = 600'

Figure 6
**Assignment of
 Site-Generated Traffic**
 Big O Tires (LSC #174890)

LEGEND:

- $\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
- X,XXX = Average Weekday Traffic (vehicles per day) Estimated by LSC



LEGEND:

⊥ = Stop Sign

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

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

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

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 (LSC #174890)

Lanes, Volumes, Timings
3: US 24 & Old Meridian Rd

2017 Existing
AM

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	124	234	130	167	445	34	21	151	186	3	152	708
Future Volume (vph)	124	234	130	167	445	34	21	151	186	3	152	708
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		75	550		450	600		500
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.983			0.987		0.950			0.950		
Satd. Flow (prot)	0	1831	1583	0	1839	1583	1770	1863	1583	1770	1863	1583
Flt Permitted		0.983			0.987		0.575			0.623		
Satd. Flow (perm)	0	1831	1583	0	1839	1583	1071	1863	1583	1160	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169			169			216			721
Link Speed (mph)		40			40			55				55
Link Distance (ft)		570			969			913				1102
Travel Time (s)		9.7			16.5			11.3				13.7
Peak Hour Factor	0.81	0.81	0.81	0.94	0.94	0.94	0.86	0.86	0.86	0.91	0.91	0.91
Adj. Flow (vph)	153	289	160	178	473	36	24	176	216	3	167	778
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	442	160	0	651	36	24	176	216	3	167	778
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)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			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	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	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	0
Detector 1 Size(ft)	20	6	20	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	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	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	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	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	Split	NA	Perm	Split	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases			2			6	4		4	8		8

Lanes, Volumes, Timings
3: US 24 & Old Meridian Rd

2017 Existing
AM



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	2	2	2	6	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	11.0	25.0	25.0	11.0	25.0	25.0
Total Split (s)	29.0	29.0	29.0	35.0	35.0	35.0	11.0	25.0	25.0	11.0	25.0	25.0
Total Split (%)	29.0%	29.0%	29.0%	35.0%	35.0%	35.0%	11.0%	25.0%	25.0%	11.0%	25.0%	25.0%
Maximum Green (s)	23.5	23.5	23.5	29.5	29.5	29.5	5.0	18.0	18.0	5.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0
Total Lost Time (s)		5.5	5.5		5.5	5.5	6.0	7.0	7.0	6.0	7.0	7.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	Max	Max	None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0		0	0
Act Effect Green (s)		23.7	23.7		29.7	29.7	18.9	17.0	17.0	17.8	15.0	15.0
Actuated g/C Ratio		0.26	0.26		0.33	0.33	0.21	0.19	0.19	0.20	0.17	0.17
v/c Ratio		0.92	0.30		1.08	0.06	0.09	0.50	0.46	0.01	0.54	0.90
Control Delay		61.7	6.1		91.8	0.2	26.8	38.6	8.2	25.3	42.4	19.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		61.7	6.1		91.8	0.2	26.8	38.6	8.2	25.3	42.4	19.8
LOS		E	A		F	A	C	D	A	C	D	B
Approach Delay		46.9			87.0			22.2			23.8	
Approach LOS		D			F			C			C	

Intersection Summary























Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	90.5
Natural Cycle:	115
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	45.1
Intersection LOS:	D
Intersection Capacity Utilization:	84.0%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 3: US 24 & Old Meridian Rd



Lanes, Volumes, Timings
3: US 24 & Old Meridian Rd

2017 Existing
AM

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	473	614	130	70	268	10	4	165	192	22	215	202
Future Volume (vph)	473	614	130	70	268	10	4	165	192	22	215	202
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		75	550		450	600		500
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Frt			0.850			0.850			0.850			0.850
Flt Protected		0.979			0.990		0.950			0.950		
Satd. Flow (prot)	0	1824	1583	0	1844	1583	1770	1863	1583	1770	1863	1583
Flt Permitted		0.979			0.990		0.466			0.514		
Satd. Flow (perm)	0	1824	1583	0	1844	1583	868	1863	1583	957	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169			169			223			222
Link Speed (mph)		40			40			55				55
Link Distance (ft)		570			969			913				1102
Travel Time (s)		9.7			16.5			11.3				13.7
Peak Hour Factor	0.81	0.81	0.81	0.94	0.94	0.94	0.86	0.86	0.86	0.91	0.91	0.91
Adj. Flow (vph)	584	758	160	74	285	11	5	192	223	24	236	222
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1342	160	0	359	11	5	192	223	24	236	222
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)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			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	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	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	0
Detector 1 Size(ft)	20	6	20	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	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	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	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	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	Split	NA	Perm	Split	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	2	2		6	6		7	4		3	8	
Permitted Phases			2			6	4		4	8		8

Lanes, Volumes, Timings
3: US 24 & Old Meridian Rd

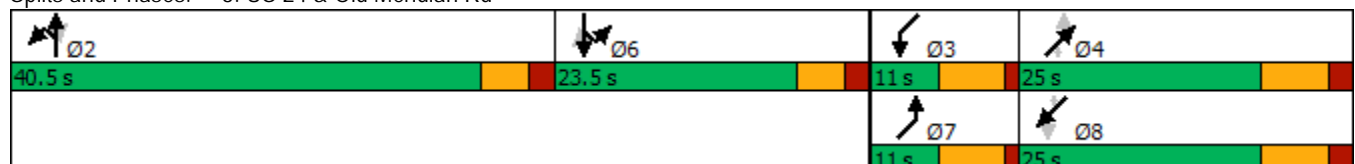
2017 Existing
AM

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	2	2	2	6	6	6	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	11.0	25.0	25.0	11.0	25.0	25.0
Total Split (s)	40.5	40.5	40.5	23.5	23.5	23.5	11.0	25.0	25.0	11.0	25.0	25.0
Total Split (%)	40.5%	40.5%	40.5%	23.5%	23.5%	23.5%	11.0%	25.0%	25.0%	11.0%	25.0%	25.0%
Maximum Green (s)	35.0	35.0	35.0	18.0	18.0	18.0	5.0	18.0	18.0	5.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	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	0.0
Total Lost Time (s)		5.5	5.5		5.5	5.5	6.0	7.0	7.0	6.0	7.0	7.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	Max	Max	None	None	None	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0		0	0		0	0
Act Effect Green (s)		35.3	35.3		18.1	18.1	18.1	15.3	15.3	19.2	17.3	17.3
Actuated g/C Ratio		0.39	0.39		0.20	0.20	0.20	0.17	0.17	0.21	0.19	0.19
v/c Ratio		1.90	0.22		0.98	0.02	0.02	0.61	0.49	0.10	0.67	0.46
Control Delay		430.8	4.1		80.7	0.1	25.5	45.0	9.2	26.9	44.5	8.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		430.8	4.1		80.7	0.1	25.5	45.0	9.2	26.9	44.5	8.2
LOS		F	A		F	A	C	D	A	C	D	A
Approach Delay		385.4			78.3			25.7			26.9	
Approach LOS		F			E			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	90.8
Natural Cycle:	145
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.90
Intersection Signal Delay:	227.7
Intersection LOS:	F
Intersection Capacity Utilization:	109.7%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 3: US 24 & Old Meridian Rd



1: Old Meridian Rd & Site Access Performance by movement Interval #1 7:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	4.2	0.1	0.0	0.0	0.3
Total Del/Veh (s)	5.5	2.3	3.8	1.0	0.1	0.0	1.4

1: Old Meridian Rd & Site Access Performance by movement Interval #2 7:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	4.2	0.2	0.0	0.0	0.3
Total Del/Veh (s)	7.0	2.9	0.6	1.6	0.0	0.1	1.4

1: Old Meridian Rd & Site Access Performance by movement Interval #3 7:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.9	0.2	0.0	0.0	0.2
Total Del/Veh (s)	3.8	2.4	0.6	1.4	0.1	0.2	1.0

1: Old Meridian Rd & Site Access Performance by movement Interval #4 7:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	4.2	0.1	0.0	0.0	0.3
Total Del/Veh (s)	4.1	2.7	0.6	1.1	0.1	0.0	0.9

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	3.6	0.1	0.0	0.0	0.3
Total Del/Veh (s)	5.3	2.5	1.1	1.3	0.1	0.1	1.1

34: US 24 & Old Meridian Rd Performance by movement Interval #1 7:00

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.1	0.2	0.0	0.1
Total Del/Veh (s)	1.1	2.4	1.5	2.8	2.5

34: US 24 & Old Meridian Rd Performance by movement Interval #2 7:15

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.1	0.0	0.1
Total Del/Veh (s)	1.1	2.0	0.7	1.7	1.8

34: US 24 & Old Meridian Rd Performance by movement Interval #3 7:30

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	1.0	2.8	1.2	3.4	3.0

34: US 24 & Old Meridian Rd Performance by movement Interval #4 7:45

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	1.1	2.4	1.3	3.6	2.9

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

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.2	0.2	0.0	0.1
Total Del/Veh (s)	1.1	2.4	1.2	2.9	2.6

Total Zone Performance By Interval

Interval Start	7:00	7:15	7:30	7:45	All
Denied Del/Veh (s)		0.3	0.2	0.2	0.2
Total Del/Veh (s)		9.1	6.1	8.8	8.6

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

Movement	EB	EB	NB
Directions Served	LT	R	L
Maximum Queue (ft)	50	29	23
Average Queue (ft)	26	8	3
95th Queue (ft)	49	30	16
Link Distance (ft)	181		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	75
Storage Blk Time (%)			
Queuing Penalty (veh)			

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

Movement	EB	EB
Directions Served	LT	R
Maximum Queue (ft)	27	29
Average Queue (ft)	15	4
95th Queue (ft)	34	21
Link Distance (ft)	181	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		75
Storage Blk Time (%)		
Queuing Penalty (veh)		

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

Movement	EB	EB
Directions Served	LT	R
Maximum Queue (ft)	28	30
Average Queue (ft)	8	8
95th Queue (ft)	28	31
Link Distance (ft)	181	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		75
Storage Blk Time (%)		
Queuing Penalty (veh)		

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

Movement	EB	EB
Directions Served	LT	R
Maximum Queue (ft)	27	30
Average Queue (ft)	15	8
95th Queue (ft)	37	30
Link Distance (ft)	181	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	75	
Storage Blk Time (%)		
Queuing Penalty (veh)		

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

Movement	EB	EB	NB
Directions Served	LT	R	L
Maximum Queue (ft)	50	30	23
Average Queue (ft)	16	7	1
95th Queue (ft)	40	28	8
Link Distance (ft)	181		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	75	75	
Storage Blk Time (%)			
Queuing Penalty (veh)			

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

Movement	NW	NE	NE	NE	SW	SW	
Directions Served	R	T	T	R	T	T	
Maximum Queue (ft)	32	32	19	51	65	71	
Average Queue (ft)	12	15	5	10	27	31	
95th Queue (ft)	25	33	17	40	70	81	
Link Distance (ft)	27					622	622
Upstream Blk Time (%)	0						
Queuing Penalty (veh)	1						
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	9	33	42	22	28	29
Average Queue (ft)	8	9	11	6	7	4
95th Queue (ft)	10	27	41	22	27	21
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	9	53	46	26	106	110
Average Queue (ft)	8	19	14	13	52	46
95th Queue (ft)	10	51	40	31	121	103
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	SW	SW
Directions Served	R	T	R	T	T
Maximum Queue (ft)	24	33	27	71	94
Average Queue (ft)	11	12	10	41	43
95th Queue (ft)	20	28	28	80	97
Link Distance (ft)	27			622	622
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	32	53	46	51	106	110
Average Queue (ft)	9	14	8	10	32	31
95th Queue (ft)	18	36	30	31	85	86
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty, Interval #1: 1
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	EBR	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.3	0.0	0.0	0.2
Total Del/Veh (s)	9.9	2.9	2.9	0.2	0.1	2.7

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

Movement	EBL	EBR	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	0.0	0.0	0.2
Total Del/Veh (s)	4.3	2.6	2.2	0.1	0.1	1.5

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

Movement	EBL	EBR	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	0.1	0.0	0.1
Total Del/Veh (s)	8.2	2.7	1.7	0.1	0.2	1.5

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

Movement	EBL	EBR	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.4	0.6	0.1	0.0	0.0	0.1
Total Del/Veh (s)	13.2	2.9	2.7	0.1	0.1	3.4

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

Movement	EBL	EBR	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	3.5	0.2	0.0	0.0	0.2
Total Del/Veh (s)	9.2	2.7	2.4	0.1	0.1	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	0.2	0.1	0.0	0.1
Total Del/Veh (s)	1.7	1.4	3.2	0.9	2.8	2.8

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

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.3	0.2	0.0	0.1
Total Del/Veh (s)	1.4	3.3	1.1	2.0	2.6

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	0.2	0.0	0.1
Total Del/Veh (s)	0.0	1.2	3.5	0.8	3.0	3.1

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

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)	0.4	1.4	3.3	1.2	2.4	2.7

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)	1.1	1.4	3.4	1.0	2.6	2.9

Total Zone Performance By Interval

Interval Start	4:30	4:45	5:00	5:15	All	
Denied Del/Veh (s)		0.3	0.3	0.3	0.2	0.3
Total Del/Veh (s)		8.6	7.8	8.7	9.1	9.0

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

Movement	EB	EB	NB
Directions Served	LT	R	TR
Maximum Queue (ft)	75	30	25
Average Queue (ft)	35	4	10
95th Queue (ft)	74	22	30
Link Distance (ft)	181		803
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

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

Movement	EB	EB	NB
Directions Served	LT	R	TR
Maximum Queue (ft)	48	30	24
Average Queue (ft)	29	8	3
95th Queue (ft)	42	30	18
Link Distance (ft)	181		803
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	
Storage Blk Time (%)			
Queuing Penalty (veh)			

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

Movement	EB	EB	NB
Directions Served	LT	R	TR
Maximum Queue (ft)	27	30	24
Average Queue (ft)	15	4	3
95th Queue (ft)	37	22	18
Link Distance (ft)	181		803
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	
Storage Blk Time (%)			
Queuing Penalty (veh)			

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

Movement	EB	EB	NB
Directions Served	LT	R	TR
Maximum Queue (ft)	51	30	24
Average Queue (ft)	26	4	10
95th Queue (ft)	49	22	30
Link Distance (ft)	181		803
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	
Storage Blk Time (%)			
Queuing Penalty (veh)			

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

Movement	EB	EB	NB
Directions Served	LT	R	TR
Maximum Queue (ft)	75	30	25
Average Queue (ft)	26	5	7
95th Queue (ft)	55	24	25
Link Distance (ft)	181		803
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	46	80	40	49	71	77
Average Queue (ft)	14	17	8	11	21	29
95th Queue (ft)	35	60	32	41	66	85
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	9	34	63	21	50	29
Average Queue (ft)	8	11	8	6	18	7
95th Queue (ft)	10	35	32	22	52	27
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	9	66	39	23	94	54
Average Queue (ft)	8	19	5	9	30	22
95th Queue (ft)	9	48	20	27	91	58
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	27	57	43	27	96	95
Average Queue (ft)	11	20	15	10	21	26
95th Queue (ft)	22	52	46	29	75	78
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	46	80	63	49	96	95
Average Queue (ft)	10	17	9	9	23	21
95th Queue (ft)	23	50	34	31	73	66
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty, Interval #1: 1
Zone wide Queuing Penalty, Interval #2: 1
Zone wide Queuing Penalty, Interval #3: 1
Zone wide Queuing Penalty, Interval #4: 1
Zone wide Queuing Penalty, All Intervals: 1

1: Old Meridian Rd & Site Access Performance by movement Interval #1 7:00

Movement	EBL	EBR	WBL	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	4.2	4.2	0.2	0.0	0.0	0.0	0.4
Total Del/Veh (s)	8.7	2.6	3.8	19.8	1.2	1.4	0.6	0.1	0.0	1.9

1: Old Meridian Rd & Site Access Performance by movement Interval #2 7:15

Movement	EBL	EBR	WBR	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	4.2	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	7.5	2.6	8.5	0.5	0.0	0.1	0.0	1.1

1: Old Meridian Rd & Site Access Performance by movement Interval #3 7:30

Movement	EBL	WBR	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	0.0	0.0	0.0	0.5
Total Del/Veh (s)	8.6	4.5	1.2	0.1	0.1	0.1	1.8

1: Old Meridian Rd & Site Access Performance by movement Interval #4 7:45

Movement	EBL	EBR	WBL	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	3.7	0.1	4.2	4.2	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	12.5	3.5	3.6	2.8	2.5	2.2	1.8	0.1	0.0	2.6

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

Movement	EBL	EBR	WBL	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	4.1	0.1	4.2	4.2	0.1	0.0	0.0	0.0	0.4
Total Del/Veh (s)	9.8	2.9	3.7	8.5	1.9	1.4	0.6	0.1	0.0	1.9

34: US 24 & Old Meridian Rd Performance by movement Interval #1 7:00

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.1
Total Del/Veh (s)	0.1	1.1	2.5	0.8	2.8	2.5

34: US 24 & Old Meridian Rd Performance by movement Interval #2 7:15

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	0.0	0.1
Total Del/Veh (s)	0.3	1.1	2.1	0.5	1.6	1.7

34: US 24 & Old Meridian Rd Performance by movement Interval #3 7:30

Movement	NWT	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0	0.1
Total Del/Veh (s)	0.4	1.3	3.0	1.6	4.4	3.6

34: US 24 & Old Meridian Rd Performance by movement Interval #4 7:45

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)	0.3	1.3	1.6	0.1	3.6	2.5

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)	0.2	1.2	2.3	0.7	3.1	2.6

Total Zone Performance By Interval

Interval Start	7:00	7:15	7:30	7:45	All
Denied Del/Veh (s)		0.3	0.2	0.3	0.3
Total Del/Veh (s)		8.1	5.8	11.3	8.7

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

Movement	EB	EB	WB	WB	NB
Directions Served	LT	R	LT	R	TR
Maximum Queue (ft)	27	30	30	52	22
Average Queue (ft)	13	8	4	12	3
95th Queue (ft)	34	30	21	44	16
Link Distance (ft)	181		175		803
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		75		75	
Storage Blk Time (%)					
Queuing Penalty (veh)					

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

Movement	EB	EB	WB
Directions Served	LT	R	R
Maximum Queue (ft)	46	29	30
Average Queue (ft)	18	8	13
95th Queue (ft)	46	29	37
Link Distance (ft)	181		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	75
Storage Blk Time (%)			
Queuing Penalty (veh)			

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

Movement	EB	WB
Directions Served	LT	R
Maximum Queue (ft)	45	30
Average Queue (ft)	22	21
95th Queue (ft)	47	42
Link Distance (ft)	181	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		75
Storage Blk Time (%)		
Queuing Penalty (veh)		

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

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	R	LT	R	TR	LTR
Maximum Queue (ft)	46	30	29	30	24	21
Average Queue (ft)	21	8	4	4	8	3
95th Queue (ft)	46	29	21	21	25	15
Link Distance (ft)	181		175		803	27
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)		75		75		
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	R	LT	R	TR	LTR
Maximum Queue (ft)	46	30	30	52	24	21
Average Queue (ft)	19	6	2	12	3	1
95th Queue (ft)	44	25	14	39	15	7
Link Distance (ft)	181		175		803	27
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)		75		75		
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	9	53	19	27	69	72
Average Queue (ft)	8	13	8	10	31	22
95th Queue (ft)	11	47	23	28	76	67
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW
Directions Served	R	T	T	R	T
Maximum Queue (ft)	27	78	40	27	47
Average Queue (ft)	10	16	11	7	14
95th Queue (ft)	22	62	34	25	43
Link Distance (ft)	27				622
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	9	33	40	22	147	113
Average Queue (ft)	7	17	8	12	59	41
95th Queue (ft)	11	41	32	30	138	108
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	SW	SW
Directions Served	R	T	T	T
Maximum Queue (ft)	9	9	50	52
Average Queue (ft)	8	1	29	30
95th Queue (ft)	11	7	63	65
Link Distance (ft)	27		622	622
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	27	78	40	27	147	113
Average Queue (ft)	8	12	7	7	33	23
95th Queue (ft)	15	44	26	24	91	74
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
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: 1
Zone wide Queuing Penalty, All Intervals: 0

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

Movement	EBL	EBR	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	4.2	4.2	0.2	0.0	0.0	0.0	0.4
Total Del/Veh (s)	20.5	2.9	13.3	2.4	4.1	1.1	0.1	0.0	5.6

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

Movement	EBL	EBR	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	4.2	4.2	0.2	0.0	0.0	0.0	0.4
Total Del/Veh (s)	10.2	2.9	8.2	2.8	2.4	0.1	0.2	0.1	2.7

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

Movement	EBL	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	4.2	0.1	0.1	0.0	0.0	0.0	0.4
Total Del/Veh (s)	11.9	6.6	9.4	4.1	1.5	0.0	0.0	0.2	0.1	2.7

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

Movement	EBL	EBR	WBL	WBR	NBT	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	4.2	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	10.0	3.3	3.7	2.9	2.0	0.1	0.2	0.2	1.8

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

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	4.2	0.1	4.2	4.2	0.2	0.1	0.0	0.0	0.0	0.4
Total Del/Veh (s)	14.1	3.9	6.6	7.6	2.6	2.6	0.0	0.5	0.2	0.1	3.2

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)	0.1	1.6	2.8	0.7	2.8	2.6

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

Movement	NWR	NET	NER	SWT	All
Denied Del/Veh (s)	0.0	0.3	0.3	0.0	0.2
Total Del/Veh (s)	1.4	4.0	2.2	2.4	3.1

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	0.2	0.0	0.1
Total Del/Veh (s)	0.0	1.4	3.5	1.0	2.3	2.8

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	0.3	0.2	0.0	0.1
Total Del/Veh (s)	1.3	3.4	2.7	2.1	2.8

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	0.3	0.2	0.0	0.1
Total Del/Veh (s)	0.0	1.4	3.5	1.8	2.4	2.9

Total Zone Performance By Interval

Interval Start	4:30	4:45	5:00	5:15	All
Denied Del/Veh (s)		0.3	0.3	0.3	0.3
Total Del/Veh (s)		8.5	9.5	8.9	9.3

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

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	R	TR	LTR
Maximum Queue (ft)	75	30	52	64	20
Average Queue (ft)	28	4	12	16	3
95th Queue (ft)	78	22	44	52	14
Link Distance (ft)	181			803	27
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		75	75		
Storage Blk Time (%)	1			0	
Queuing Penalty (veh)	0			0	

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

Movement	EB	EB	WB	NB
Directions Served	LT	R	R	TR
Maximum Queue (ft)	49	30	30	24
Average Queue (ft)	22	4	19	7
95th Queue (ft)	49	22	40	24
Link Distance (ft)	181			803
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		75	75	
Storage Blk Time (%)				
Queuing Penalty (veh)				

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

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	R	LT	R	TR	LTR
Maximum Queue (ft)	45	29	30	30	24	21
Average Queue (ft)	28	4	4	17	7	3
95th Queue (ft)	51	21	21	41	25	15
Link Distance (ft)	181		175		803	27
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)		75		75		
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	EB	EB	WB	WB	NB
Directions Served	LT	R	LT	R	TR
Maximum Queue (ft)	46	27	29	30	24
Average Queue (ft)	23	4	4	4	7
95th Queue (ft)	38	20	21	21	24
Link Distance (ft)	181		175		803
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		75		75	
Storage Blk Time (%)					
Queuing Penalty (veh)					

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

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	R	LT	R	TR	LTR
Maximum Queue (ft)	75	30	30	52	64	21
Average Queue (ft)	25	4	2	13	9	1
95th Queue (ft)	57	21	14	39	34	10
Link Distance (ft)	181		175		803	27
Upstream Blk Time (%)						0
Queuing Penalty (veh)						0
Storage Bay Dist (ft)		75		75		
Storage Blk Time (%)	0				0	
Queuing Penalty (veh)	0				0	

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	56	55	19	21	94	73
Average Queue (ft)	15	17	5	6	36	28
95th Queue (ft)	43	48	20	22	105	82
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	9	76	19	68	50	75
Average Queue (ft)	9	30	13	20	18	31
95th Queue (ft)	9	74	26	58	55	78
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	27	57	56	27	51	51
Average Queue (ft)	13	21	10	13	22	11
95th Queue (ft)	28	54	43	32	50	42
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	2					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	24	35	40	68	48	55
Average Queue (ft)	11	14	6	19	11	12
95th Queue (ft)	20	36	29	62	40	45
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

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

Movement	NW	NE	NE	NE	SW	SW
Directions Served	R	T	T	R	T	T
Maximum Queue (ft)	56	76	56	68	94	75
Average Queue (ft)	12	21	9	15	22	20
95th Queue (ft)	29	55	31	47	68	65
Link Distance (ft)	27				622	622
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty, Interval #1: 2
Zone wide Queuing Penalty, Interval #2: 1
Zone wide Queuing Penalty, Interval #3: 2
Zone wide Queuing Penalty, Interval #4: 1
Zone wide Queuing Penalty, All Intervals: 1

Markup Summary

dsdlaforce (9)

Impact Study
SC #174890
January 9, 2018

Add "PCD File No. SF-18-003"

were prepared under my responsible charge and
attest with the standard of care, said report was
prepared by the County for traffic reports.

Subject: Text Box
Page Label: 1
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdlaforce
Date: 2/21/2018 12:02:09 PM
Color: ■

Add "PCD File No. SF-18-003"

At hour, the intersection of US 26/Meridian Road will be
left-right turn, with controlled access on Meridian Road
left of long term traffic corridor.
Check the western Westbound drive on
the proposed left turn movement at the R/O
intersection.
of the westbound approach between the proposed one access
to Road for the westbound left turn lane (long term) to
a proposed right turn lane (long term) and 2000 background
Detailed grading reports are attached.
Regarding the proposed left access and US 26 is approximately
.....

Subject: Callout
Page Label: 7
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Status:
Checkmark: Unchecked
Author: dsdlaforce
Date: 2/21/2018 10:15:11 AM
Color: ■

Clarify this sentence. Westbound does not have a
turn movement at the R/O intersection.

A proposed left turn movement at the intersection between the proposed
and movement of US 26/Meridian Road for the westbound left turn lane
is proposed on the westbound approach on Meridian Road left of long term
traffic corridor.
The proposed left turn movement at the intersection between the proposed
and movement of US 26/Meridian Road for the westbound left turn lane
is proposed on the westbound approach on Meridian Road left of long term
traffic corridor.
Check the proposed left turn movement at the R/O
intersection.
.....

Subject: Callout
Page Label: 7
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Checkmark: Unchecked
Author: dsdlaforce
Date: 2/21/2018 10:19:11 AM
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Describe what's happening for the southbound left
going into the side during the long-term evening
peak hr.

Identify the time line for construction of the site and
the construction to convert the intersection into a
R/O movement. Discuss what steps can be
taken to mitigate the LOS F in the interim.
Check the proposed left turn movement at the R/O
intersection.
.....

Subject: Callout
Page Label: 8
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdlaforce
Date: 2/21/2018 12:01:42 PM
Color: ■

Contact/coordinate with John Andrews at EPC
DPW (719-520-6842) for information regarding the
Meridian Road Improvements.

Does the planned reconfiguration of the
intersection address the deficiency?
Contact John Andrews for a copy of the current
design.
Check the proposed left turn movement at the R/O
intersection.
.....

Subject: Callout
Page Label: 9
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Status:
Checkmark: Unchecked
Author: dsdlaforce
Date: 2/21/2018 10:57:42 AM
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Does the planned reconfiguration of the
intersection address the deficiency?
Contact John Andrews for a copy of the current
design.

1. State whether the access meets sight distance.
2. State what the current applicable Traffic Impact
Fees are and what option the developer will be
selecting for payment.
3. List all deviations that the applicant will be
making. Per comments on the Grading and
Erosion Control, the proposed driveway width is
greater than the ECM criteria. The applicant shall
revise or submit a deviation request.
Check the proposed left turn movement at the R/O
intersection.
.....

Subject: Text Box
Page Label: 9
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Status:
Checkmark: Unchecked
Author: dsdlaforce
Date: 2/21/2018 12:00:54 PM
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1. State whether the access meets sight distance.
2. State what the current applicable Traffic Impact Fees are and what option the developer will be selecting for payment.
3. List all deviations that the applicant will be making. Per comments on the Grading and Erosion Control, the proposed driveway width is greater than the ECM criteria. The applicant shall revise or submit a deviation request.



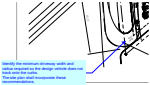
Provide a second AutoTurn exhibit based on the RI/RO configuration. Based on Figure 2, the vehicle would not be able to make the right turn onto US 24.

opposed Site Access

Fig. 2

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Author: dsdlaforce
Date: 2/21/2018 10:51:56 AM
Color: ■

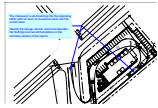
Provide a second AutoTurn exhibit based on the RI/RO configuration. Based on Figure 2, the vehicle would not be able to make the right turn onto US 24.



Identify the minimum driveway width and radius required so the design vehicle does not track onto the curbs. The site plan shall incorporate these recommendations.

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Author: dsdlaforce
Date: 2/21/2018 10:41:19 AM
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Identify the minimum driveway width and radius required so the design vehicle does not track onto the curbs. The site plan shall incorporate these recommendations.



The maneuver is encroaching into the opposing traffic with no room to maneuver back into the correct lane.

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Date: 2/21/2018 10:38:35 AM
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The maneuver is encroaching into the opposing traffic with no room to maneuver back into the correct lane.

Identify the design vehicle used and describe the findings and recommendations in the narrative section of the report.