Villas at Claremont Ranch
Traffic Impact Analysis

Prepared for:
Morley-Bentley Investments
20 Boulder Crescent, 1st Floor
Colorado Springs, CO 80903

Contact: Mr. Jim Morley

AUGUST 20, 2021

LSC Transportation Consultants
Project Manager: Jeffrey C. Hodsdon, P.E.

LSC #204130

CONTENTS

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August 20, 2021

Mr. Jim Morley
Morley-Bentley Investments
20 Boulder Crescent, 1st Floor
Colorado Springs, CO 80903

RE: Villas at Claremont Ranch
El Paso County, Colorado
Traffic Impact Analysis
LSC #204130

Dear Mr. Morley,

In response to your request, we have prepared this traffic impact analysis for the proposed Villas at Claremont Ranch. The proposed 83-dwelling unit townhome development is located northeast of the intersection of Marksheffel Road/Meadowbrook Parkway in El Paso County, Colorado. Two site access points to Meadowbrook Parkway are proposed at approximately 595 and 890 feet east of the intersection of Marksheffel Road/Meadowbrook Parkway (centerline distance between proposed accesses and Marksheffel Road). The proposed location and vicinity are shown in Figure 1.

Figure 1 missing in appendix

REPORT CONTENTS

The report contains the following:

- Existing street and traffic conditions in the vicinity of the site, including the intersection lane geometries, traffic controls, posted speed limits, functional classifications, intersection spacing and alignment, sight distances, etc.
- Existing peak-hour turning movement traffic counts and estimates of future background traffic volumes at the intersections of:
  - Marksheffel Road/Meadowbrook Parkway
  - Marksheffel Road/US Hwy 24
  - Meadowbrook Parkway/southern site access
  - Meadowbrook Parkway/northern site access
- Description of the proposed land use and access
- Estimates of the average weekday and peak-hour vehicle-trips to be generated by the site
- Assignment of projected peak-hour site-generated traffic volumes to the study area intersections, including the site access point intersections

- Projected total daily and peak-hour traffic volumes at the study-area intersections
- Intersection level of service analysis at the study-area intersections
- Queuing analysis at study intersections as necessary
- Evaluation of short- and long-term projected intersection volumes to determine potential requirements for any auxiliary right-/left-turn lanes at the proposed site access points based on the criteria in El Paso County's Engineering Criteria Manual (ECM). Also included are potential long-term lane requirements.
- Findings and recommendations for submittal to El Paso County

RECENT TRAFFIC STUDIES

The following traffic studies have been completed in the past few years in the vicinity of the site:

- Mountain View Academy, April 16, 2020
- Claremont Business Park, Filing 2, April 15, 2020
- The Sand Industrial, LSC, November 5, 2019
- Claremont Commercial Filing No. 2, LSC, April 15, 2020
- Meadowbrook Parkway, LSC, June 8, 2017
- Meadowbrook Crossing, LSC, May 5, 2017
- The Sands, LSC, May 17, 2016

All of these studies were considered when developing background traffic projections.

LAND USE AND ACCESS

Figure 2 missing in appendix

The Villas at Claremont Ranch is a proposed residential townhome development. Figure 2 shows the site plan for the development. Full-movement access is proposed at two proposed private street intersections with Meadowbrook Parkway, located approximately 595 and 890 feet east of the intersection of Marksheffel Road/Meadowbrook Parkway (between the centerline of proposed accesses and Marksheffel Road).

Adjacent and Nearby Future Development Parcels

Anticipated future land uses for adjacent and nearby development parcels have been identified and projected trip generation/future traffic volumes have been included in this report for these parcels. Claremont Commercial Subdivision Filing No. 2 is a resubmission of Tract C, Claremont Business Park Filing No. 2. This proposed 8-lot commercial/industrial development is located southwest of the intersection of Meadowbrook Parkway and Marksheffel Road. Also included in the short-term analysis are trips to be generated by Meadowbrook Crossing and Circle K development to the southwest. Long-term analysis also assumes commercial development southeast of Meadowbrook/Marksheffel, buildout of Claremont Business Park to the west of Marksheffel, and the Mountain View Academy charter school located to the east.

INTERSECTION SIGHT DISTANCE

The required access sight distance for the two site access points on Meadowbrook Parkway is calculated per Tables 2-33 and 2-35. The line-of-sight triangles need to allow for 250 feet of entering sight distance and 150 feet of sight distance along the roadway. The access points will meet the minimum sight distance provided landscaping, site improvements, etc. are kept out of the line-of-sight "triangles."

CURRENT ROADWAY AND TRAFFIC CONDITIONS

Study Area Roadway System

Major roadways in the vicinity of the site are summarized below:

US Highway 24 (US Hwy 24) is a state highway extending locally from the City of Colorado Springs to Peyton in a northeasterly direction and then continuing east. US Hwy 24 is classified as an Expressway by the Colorado Department of Transportation (CDOT) in the vicinity of the site and is shown as an Expressway on the El Paso County *Major Transportation Corridors Plan (MTCP)*. At this location, US Hwy 24 is a four-lane urban highway with a depressed median and a speed limit of 65 mph. The 2040 MTCP shows US Hwy 24 to be upgraded to a 6-lane Expressway in the long term. The intersection with Marksheffel Road is signalized.

Marksheffel Road is a Principal Arterial that extends north from the City of Fountain to Woodmen Road. It is currently a four-lane roadway with a posted speed limit of 50 mph adjacent to the study area. The intersection with Meadowbrook Parkway was recently signalized. Marksheffel Road is shown as a six-lane expressway in the *2016 Major Transportation Corridors Plan Update* (MTCP) for 2060 corridor preservation.

Meadowbrook Parkway is a paved, Urban Non-Residential Collector that extends through the Claremont Business Park from the US Hwy 24/SH 94 intersection to Marksheffel Road (generally parallel to US Hwy 24). Meadowbrook Parkway continues east from Marksheffel Road into Claremont Ranch. Adjacent to the site, the posted speed limit is 25 mph.

Access Management Plans

The 2006 US Highway 24 Access Control Plan indicates that the RI/RO at US Highway 24/Brookings Drive may be closed when Constitution/Banning Lewis Parkway/US Highway 24 interchange is constructed. The recent *US Highway 24 PEL study* recommended revisions indicate the access "*may be closed with highway and/or Constitution or Marksheffel intersection improvements.*"

The date of a possible future closure of this access is not known, but a future closure would have an effect on the local jurisdiction intersections - most notably, the intersection of Marksheffel/Meadowbrook. The analysis scenario in this report representing potential long-term

future closure indicates the possible need for an additional westbound-to-southbound left-turn lane. The intersection of Marksheffel/Meadowbrook was recently widened and improved by El Paso County. Notable improvements included widening for dual lefts, one through, and one right-turn lane eastbound. The westbound approach was also upgraded to improve lane alignment across the intersection with the new eastbound laneage. The westbound laneage includes a left-turn lane, a lane separator (aligning with the No. 1 left-turn lane on the west side of the intersection), one through lane, and a right-turn lane. The intersection was also signalized.

Planned CDOT and County Projects

Based on the US Hwy 24 PEL study, US Hwy 24 is planned to be widened to a six-lane roadway in the future. The timings of these improvements are not known. Both improvements have been included in the long-term analysis.

Existing Traffic Volumes

Turning movement counts were conducted on at the intersection of Marksheffel Road/ Meadowbrook Parkway at the following times:

- Tuesday, February 11, 2020 – 6:30 to 8:30 a.m.
- Tuesday, February 11, 2020 – 4:00 to 6:00 p.m.

Existing morning (7:00 a.m. - 8:00 a.m.) and evening (4:30 p.m. - 5:30 p.m.) weekday peak-hour traffic volumes at this intersection are shown in Figure 3. Raw count data are attached.

Existing Levels of Service

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 1 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 1: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections Average Control Delay (seconds per vehicle)	Unsignalized Intersections Average Control Delay (seconds per vehicle)[(1)]
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

The following existing intersections have been analyzed to determine existing, short-term, and long-term levels of service:

- Marksheffel/Meadowbrook
- US Highway 24/Marksheffel
- Meadowbrook/Greengate View (south access)
- Meadowbrook/Fieldside View (north access)

As shown in Figure 3, both existing signalized intersections currently operate at LOS D or better during the peak hours. Several movements at each intersection operate at LOS E, although all movements are still under capacity.

Figure 3 missing in appendix

Crash History

Three years of crash data were collected at the study intersections. The intersection of Meadowbrook Parkway/Marksheffel Road experienced nine crashes with two resulting in injuries. Of the nine crashes, 5 were broadside-type crashes between an eastbound left-turning vehicle and a southbound through vehicle. All of these crashes occurred prior to the signal installation. With the signal, the number of broadside crashes at this intersection should be reduced.

The intersection of US Hwy 24/Marksheffel Road had 43 crashes recorded during the study period with 13 crashes resulting in injuries. Of the 43 crashes, 12 were approach turn crashes between a westbound left-turning vehicle and an eastbound through vehicle. Six of these crashes resulted in injuries. All but one of the westbound left-approach turn crashes occurred in the afternoon evening period when there is a high volume of westbound left-turning vehicles against a high volume of eastbound through vehicles. Due to the projected increase in traffic volumes at this intersection, it is anticipated that these crashes will continue to occur if no countermeasures are taken. It is recommended that the westbound left-turn be converted to protected-only to reduce the approach turn crashes. The intersection of US Hwy 24/Marksheffel Road also had eight broadside crashes with no patterns and 13 rear-end crashes with no crash patterns.

PEDESTRIAN AND BICYCLE FACILITIES

Meadowbrook Parkway has sidewalks and the street width is sufficient to accommodate bicycles. There is a 12-foot paved concrete trail along the west side of Marksheffel Road extending north from just south of the bridge just north of Meadowbrook.

TRIP GENERATION

Estimates of the vehicle-trips projected to be generated by the 83-dwelling unit Villas at Claremont Ranch 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 ”210 – Multifamily Housing” 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.

Villas at Claremont Ranch is expected to generate about 608 vehicle-trips on the average weekday (one-half entering and one-half exiting in a 24-hour period). During the morning peak hour, 9 vehicles are projected to enter the site while 29 are projected to exit. Approximately 29 vehicles would enter and 17 vehicles would exit the site during the evening peak hour. The morning peak hour generally occurs for one hour between 6:30 and 8:30 a.m., and the afternoon peak hour occurs for one hour between 4:00 and 6:00 p.m. Table 2 shows a summary of the results of the trip generation estimate.

Table 2: Estimated Vehicle-Trip Generation

Analysis Period	In	Out	Total
Morning Peak Hour (vehicle trips/hour)	9	29	38
Evening Peak Hour (vehicle trips/hour)	29	17	46
Weekday (vehicle trips/day)	304	304	608
* Please refer to Table 5 (attached) for detailed trip generation table			

TRIP DISTRIBUTION AND ASSIGNMENT

Figure 4 missing in appendix

Distribution of the site-generated trips to the adjacent streets and key off-site intersections is a necessary step in the process of determining the site's traffic impacts. Figure 4 shows the directional distribution estimate for the site-generated trips. The distribution shown represents estimates of percentages of site-generated vehicle-trips oriented to and from the major roadway approaches. Estimates have been based on the following factors: the proposed new land use, the area roadway system serving the site, and the site's geographic location relative to the overall greater El Paso County/Colorado Springs area.

When the directional distribution percentages (from Figure 4) were applied to the trip generation estimates (from Table 2), the site-generated traffic volumes on the adjacent streets were determined. Figure 5 shows the projected site-generated traffic volumes.

PROJECTED FUTURE BASELINE ROADWAY NETWORK AND TRAFFIC VOLUMES

Background traffic is the traffic estimated to be on the adjacent roadways and at adjacent intersections without the proposed development's trip generation of site-generated traffic volumes. Background traffic includes the through traffic and the traffic generated by nearby developments, but assumes zero traffic generated by the site.

Short Term Traffic Volumes

Figure 6 shows the short-term background traffic volumes. The background volumes are estimates by LSC, based on the existing traffic volumes shown in Figure 3, with a yearly growth

Figure 6 missing in appendix

rate of two percent per year. In addition, planned developments that are anticipated to be constructed in the near future have been included in the background traffic, including the Claremont Business Park and Mountain View Academy.

Long Term Traf

Figure 8 missing in appendix

Figure 8 shows the projected 2040 background traffic volumes. The 2040 background traffic volumes are estimates by LSC, based on the Colorado Department of Transportation (CDOT) twenty-year growth factor (about one and a half percent per year) on US Hwy 24 adjacent to the site. The Pikes Peak Area Council of Governments (PPACCG) travel demand model was also used in projecting traffic volumes. Additionally, traffic generated by planned adjacent developments has been included.

The 2040 background traffic volumes assume that the right-in/right-out intersection of US Hwy 24/Brookings Drive has been closed. The traffic turning at the intersection was rerouted through the Claremont development.

US Hwy 24/Marksheffel

It is anticipated that US Hwy 24 will be widened from four through lanes to six through lanes in the long term. Additionally, once funding becomes available, the intersection of US Hwy 24/Marksheffel may be upgraded to a grade-separated interchange.

PROJECTED BASELINE PLUS SITE-GENERATED (TOTAL) TRAFFIC VOLUMES

Short-Term enerated Traffic Volumes

Figure 7 missing in appendix

Figure 7 shows the existing plus site traffic volumes, which are the sum of the site-generated traffic volumes (from Figure 5) and the short-term background weekday traffic volumes (from Figure 6).

2040 Background Plus Site-Generated Traffic Volumes

Figure 9 shows the year 2040 total weekday traffic volumes, which are the sum of the site-generated traffic volumes (from Figure 5) and the 2040 background traffic volumes (from Figure 8).

Figure 9 missing in appendix

INTERSECTION LEVELS OF SERVICE

The following intersections and access points were analyzed in Synchro and SimTraffic using procedures from the *Highway Capacity Manual, 2010 Edition*:

- Marksheffel Road/US Hwy 24
- Marksheffel Road/Meadowbrook Parkway
- Meadowbrook Parkway/Greengate View
- Meadowbrook Parkway/Fieldside View

Study area intersections have been analyzed to determine the projected levels of service and control delay for the key turning movements. As the site access intersection will be stop sign-controlled, volumes on the southbound (as well as northbound in the future) approach incur delay given the stop sign control. The eastbound (and westbound in the future) left turns also incur delay as motorists must yield to opposing through and right-turning traffic.

Marksheffel Road/Meadowbrook Parkway

Short-Term

Overall, the intersection of Marksheffel Road/Meadowbrook Parkway currently operates at and is projected to remain at LOS B during both peak hours, based on short-term and short-term background plus site-generated traffic conditions. All major and minor street left-turning movements are projected to operate at LOS E or better through the 20-year horizon, once all adjacent development projects have been completed.

Long-Term

Provide exhibit to scale showing how this can be done

Overall, this intersection is projected to operate at LOS C or better during the 2040 morning peak hour and evening peak hours, both before and after considering site-generated traffic. As in the short-term scenario, several movements are expected to operate at LOS E. In both the background and total traffic scenario, dual westbound left turn lanes are required along with three southbound through lanes. The dual westbound left-turn lanes are required due to the planned closure of the Brookings Drive/US Hwy 24 intersection. It is anticipated that much of the traffic that uses this intersection would reroute through the Claremont development and make a westbound left-turn at the intersection of Marksheffel Road/Meadowbrook Parkway.

Meadowbrook Parkway/Greengate View (South Site Access Point)

All major and minor street approaches and turn lanes are projected to operate at LOS C or better during both the short- and long-term scenarios.

Meadowbrook Parkway/Fieldside View (North Site Access Point)

All major and minor street approaches and turn lanes are projected to operate at LOS B or better during both the short- and long-term scenarios.

Marksheffel Road/US Hwy 24

Short-Term

Both with and without the site-generated traffic, the intersection of Marksheffel Road/US Hwy 24 is projected to operate at LOS E and LOS D overall during the morning and evening short-term peak hours, respectively. Multiple turn movements are anticipated to operate at LOS E or LOS F with some volumes exceeding the capacity for the movement. It should be noted that these issues are forecast to exist even without the site-generated traffic. Note: **CDOT has indicated "No CDOT Access Permit will be required as the development is off system and has no impacts to State Highway facilities**." In response to the El Paso County comment ***Address mitigation options in general***, for short-term mitigation for level of service, the following are ideas/possibilities for consideration for a future public project: a westbound dual left-turn lane as shown in the US Highway 24 PEL study. Also, there may be right-turn "treatments" that could be considered to potentially reduce southbound right-turn delay. Slopes on the north side of US Highway 24 appear difficult, but perhaps an eastbound partial CFI or indirect left-turn design could be investigated or widening of US Highway 24 to provide triple eastbound left-turn lanes.

Long-Term

The intersection of Marksheffel Road/US Hwy 24 is projected to operate at LOS F overall during the 2040 morning peak hour and evening peak hours, with and without considering site-generated traffic. This is expected to occur even with US Hwy 24 widened to 6-lanes. The volume of traffic at the intersections is very close to the available capacity in existing conditions. Traffic volume growth on US Hwy 24 and Marksheffel Road will cause the volumes to exceed capacity in the near future. These poor levels of service are expected to occur with or without the site-generated traffic. The long- term plan for mitigation in the US Highway 24 PEL study is for upgrade to six through lanes on US Highway 24 (at-grade intersection) then ultimately conversion to a grade-separated interchange.

VEHICLE QUEUING ANALYSIS

A queuing analysis was performed for the westbound approach at the intersection of Meadowbrook Road/Marksheffel Road and for the eastbound left turn at the west site access. Table 3 and Table 4 present the results of the analysis. These analyses have been run utilizing the projected existing plus site-generated and 2040 background plus site-generated traffic volumes. Queuing reports are attached.

Short-Term Background Plus Site-Generated

Table 3 summarizes queuing analysis results, assuming short-term total traffic volumes.

Table 3: Queuing Analysis Results (Short-Term Total Traffic Volumes)

Intersection	Lane	Storage Length (ft)	95th Percentile Queue (ft) AM	95th Percentile Queue (ft) PM
Marksheffel @ Meadowbrook	EBL (duals)	225'	40	130
	EB T	---	25	55
	EBR	390'	25	55
	WBL	375'	155	60
	WB T	---	40	30
	WBR	400 '	60	25
	SBL	375 '	475*	25
W Site Access	EBL	100’	25	25
* The SBL queue in the Synchro report reflects through traffic blockage of the entry to the SBL turn lane and not left-turn traffic overflowing into the adjacent through lane				

The southbound left-turn queue on Marksheffel Road approaching Meadowbrook Parkway is projected to be 25 feet long during the short-term evening peak hours, based on the projected short-term total traffic volumes. During the morning peak hour, the southbound through lane queue is longer than the left-turn auxiliary lane. As a result, the southbound through lane will occasionally block left-turning vehicles from getting into the left-turn lane. This is not a significant problem as the southbound left-turning traffic is relatively light and safety is not affected. The southbound left-turn auxiliary lane cannot be lengthened due to the existing bridge structure. In the future, El Paso County may decide to utilize the southbound Marksheffel width to implement three southbound through lanes at the Marksheffel/Meadowbrook intersection and potentially at intersections to the north as well.

The proposed westbound left-turn queue at Marksheffel/Meadowbrook is projected to be less than 200 feet. This available stacking distance would provide adequate storage capacity for projected volumes for the westbound approach, while the eastbound right-turn at the west site access is expected to have a queue of 25 feet or less.

left?

2040 Background Plus Site-Generated Condition

The table below shows the anticipated available left-turn stacking lengths and the available stacking distance between the two intersections for the westbound through lane. The latter distance is a function of the intersection spacing. These left-turn stacking lengths have been determined based on this queuing analysis and access spacing.

The long-term analysis assumes dual westbound left-turn lanes on the Meadowbrook Parkway westbound approach to Marksheffel Road and the addition of a third southbound through lane.

This needs to be provided on the PUD/SP plan

It is anticipated that additional right-of-way will be required for the widening of westbound Meadowbrook Parkway at Marksheffel Road.

Table 4: Queuing Analysis Results (2040 Background Plus Site-generated Traffic)

Intersection	Lane	Storage Length (ft)	95th Percentile Queue (ft) AM	95th Percentile Queue (ft) PM
Marksheffel @ Meadowbrook	EBL (duals)	225'	100	260
	EB T	---	25	65
	EBR	390'	25	70
	WBL (duals)	375'	230	130
	WB T	---	40	60
	WBR	400 '	65	25
	SBL	375 '	475*	140
W Site Access	EBL	100’	25	25
* The SBL queue in the Synchro report reflects through traffic blockage of the entry to the SBL turn lane and not left-turn traffic overflowing into the adjacent through lane				

The queuing analysis indicates the projected 95th percentile queue for the westbound left-turn movement on Meadowbrook at Marksheffel would reach a maximum length of 230 feet. The projected 95th percentile queue for the eastbound left-turn lane into the west site access on Meadowbrook Parkway is projected to reach a length of 25 feet.

The projected southbound left-turn queue on Marksheffel Road approaching Meadowbrook Parkway is projected to be about 140 feet long during the 2040 evening peak hour. During the morning peak hour, the southbound through queue length is anticipated to be 475 feet, which would block the left-turning vehicles from getting into the turn lane. The full-width lane length not including taper is about 375 feet for the southbound left movement.

ECM ACCESS CRITERIA

The two site access points are planned to be private streets and as such, criteria in ECM section 2.4.1 applies. Corner clearance to intersections would be satisfied and the access points would be separated by a distance exceeding the sight distance requirement. The access points would have adequate intersection sight distance (provided landscaping, site improvements, etc. are kept out of the line of sight “triangles”).

PEDESTRIAN AND BICYCLE ACCOMMODATION

There are currently sidewalks along Marksheffel Road adjacent to the site. Additionally, sidewalks will be constructed on Meadowbrook Parkway adjacent to the site, which will connect to existing sidewalks to the east. There is a 12-foot-wide paved concrete trail along the west side of Marksheffel Road extending north from just south of the bridge just north of Meadowbrook.

There is connectivity to the future Rock Island Regional Trail through the neighborhood to the north. The US Highway 24 PEL Study shows a proposed multi-use path along the north side of the highway. Mountain Metro Transit does not currently provide service adjacent to this site. However, the nearest route runs along Peterson Road (north of Galley). This is reasonably accessible via bicycle and the transit busses are furnished with bicycle racks. Transit service may expand to the east as growth continues to the east.

COUNTY ROAD IMPROVEMENT FEE PROGRAM

Transportation Impact Fees

Per ECM Appendix B: *State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment*.

The applicant intends to join the 10 mil PID and pay the associated upfront fee amount at a rate of $1,458 per dwelling unit. The total upfront fee under this option would be $121,014 based on a planned 83 dwelling units.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

The site is projected to generate about 608 vehicle-trips on the average weekday, with about half entering and half exiting the site. Projected morning **peak-hour** trip generation for the site is 9 entering and 29 exiting trips. Projected evening **peak-hour** trip generation for the site is 29 entering and 17 exiting trips.

Level of Service Analysis

Please refer to the "Level of Service" section above for detailed intersection LOS analysis results:

- Marksheffel/Meadowbrook – With dual westbound left-turn lanes in the long-term, this intersection is projected to operate at LOS C or better during both peak hours. Some movements are anticipated to operate at LOS E.
- Marksheffel/US Hwy 24 – This intersection currently operates at LOS D during the peak hours, with many movements operating at LOS E. The intersection of Marksheffel Road/US Hwy 24 is projected to operate at LOS F overall during both the 2040 morning and afternoon peak hours, with and without considering site-generated traffic. High through volumes on US Hwy 24 and a high northeast-bound to north-bound left-turn volume (background traffic) are projected to result in LOS F overall operational performance during the 2040 evening peak hour.
- Meadowbrook/site accesses – all approaches and individual turning movements are projected to operate at satisfactory levels of service through 2040 at the site access points.

Traffic Control Recommendations – Site Access Points

Both site access points (Greengate View and Fieldside View) should be stop-sign-controlled for the southeast-bound (exiting the site) approaches. It is recommended that future access to the parcel south of Meadowbrook Parkway be aligned with Greengate View.

Queuing Analysis

A queuing analysis was performed for the Meadowbrook/Marksheffel intersection. Short-term and long-term scenario simulations indicate the queue would not exceed the stacking lengths between Marksheffel and the west site access, during the morning or evening peak hours.

Please refer to the Queuing Analysis section above for the complete queuing analysis and queue length results.

Auxiliary Turn Lane Recommendations

According to the El Paso County *Engineering Criteria Manual* (ECM), exclusive left-turn lanes shall be provided for any access on a Minor Arterial or Collector with a projected peak-hour ingress turning volume of 25 vehicles per hour (vph) or greater. Neither site access is anticipated to exceed this amount. However, to 1) define the laneage in the vicinity of the west access due to the proximity of the start of the westbound left-turn lane on the approach to Marksheffel and 2) to begin to get drivers accustomed to a painted left-turn median area between the two access points as this could potentially be needed for future commercial development on the south side of Meadowbrook it is recommended that a ~~westbound~~ left-turn lane be provided at both access points.

an eastbound?

Westbound right-turn deceleration lanes would not be needed at either of the two site access points.

Lane Configurations/Striping Recommendations

Provide exhibit

- Meadowbrook/site accesses:
  - LSC recommends restriping Meadowbrook adjacent to the site for 75- to 100-foot-long eastbound left-turn bay into the west access. A 75-foot-long reverse curve bay taper would precede this turn bay and this bay taper would be shared with the westbound left-turn bay extending back from the Meadowbrook/Marksheffel intersection (resulting in back-to-back turn bays). This left-turn bay would accommodate the projected queuing into the west site access.
  - The section between the access points should be striped for a 150-foot left-turn bay preceded by an approximately 75-foot-long bay taper. Striping transitions/redirect tapers would be needed east of the east site access to transition the new striping to the existing striping.

- Marksheffel/Meadowbrook intersection:
  - Westbound – A second westbound left-turn lane on Meadowbrook Parkway may need to be added with future development and the closure of US Hwy 24/Brookings Drive (dual westbound left-turn lanes).
  - This site should provide any necessary right-of-way to accommodate these future dual left-turn lanes. Also, any site improvements along the north side of Meadowbook should anticipate this potential future improvement to the extent possible to avoid the need for relocation if/when the north side curb line (or a portion of) is reconstructed in the future (if necessary). LSC has prepared a preliminary concept for potential future dual left-turn lanes and, based on that concept, it appears that much of the existing north-side curb could remain.

Please Provide exhibit

* * * * *

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

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By _____
Jeffrey C. Hodsdon, P.E.
Principal

CRG:JAB:jas

Enclosures: Table 5
Figure 1 – Figure 9
Traffic Count Reports
Level of Service Reports
Queuing Reports

Tables

TRANSPORTATION
CONSULTANTS, INC.

Table 5: Detailed Trip Generation Estimate

ITE		Value	Units [2]	Trip Generation Rates [1]					Total Trips Generated				
				Average	A.M.		P.M.		Average	A.M.		P.M.	
Code	Description			Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
210	Multi-Family Housing	83	DU	7.32	0.11	0.35	0.35	0.21	608	9	29	29	17

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

[2] DU = dwelling unit

Figures

Add back in missing and additional requested Figures

TRANSPORTATION CONSULTANTS, INC.

Traffic Counts

TRANSPORTATION
CONSULTANTS, INC.

LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Marksheffel Rd - Meadowbrook Pkwy AM
Site Code : 174080
Start Date : 2/11/2020
Page No : 1

Groups Printed- Unshifted

	Marksheffel Rd Southbound					Meadow Brook Pkwy Westbound					Marksheffel Rd Northbound					Meadow Brook Pkwy Eastbound					
Start Time	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Int. Total**
06:30 AM	1	345	24	0	370	14	3	5	0	22	3	93	2	0	98	7	0	3	0	10	500
06:45 AM	5	379	29	0	413	7	1	11	0	19	4	115	0	0	119	8	0	5	0	13	564
Total	6	724	53	0	783	21	4	16	0	41	7	208	2	0	217	15	0	8	0	23	1064
07:00 AM	2	432	34	0	468	21	4	18	0	43	5	149	1	0	155	5	0	4	0	9	675
07:15 AM	3	402	43	0	448	5	1	18	0	24	2	161	2	0	165	3	0	3	0	6	643
07:30 AM	3	304	41	0	348	13	7	22	0	42	7	153	3	0	163	10	0	2	0	12	565
07:45 AM	5	344	45	0	394	2	0	15	0	17	7	160	4	0	171	13	0	4	0	17	599
Total	13	1482	163	0	1658	41	12	73	0	126	21	623	10	0	654	31	0	13	0	44	2482
08:00 AM	8	327	35	0	370	7	0	7	0	14	4	141	2	1	148	13	0	9	0	22	554
08:15 AM	4	280	32	0	316	3	0	4	0	7	3	111	4	1	119	15	0	5	0	20	462
Grand Total	31	2813	283	0	3127	72	16	100	0	188	35	1083	18	2	1138	74	0	35	0	109	4562
Apprch %	1	90	9.1	0		38.3	8.5	53.2	0		3.1	95.2	1.6	0.2		67.9	0	32.1	0		
Total %	0.7	61.7	6.2	0	68.5	1.6	0.4	2.2	0	4.1	0.8	23.7	0.4	0	24.9	1.6	0	0.8	0	2.4	

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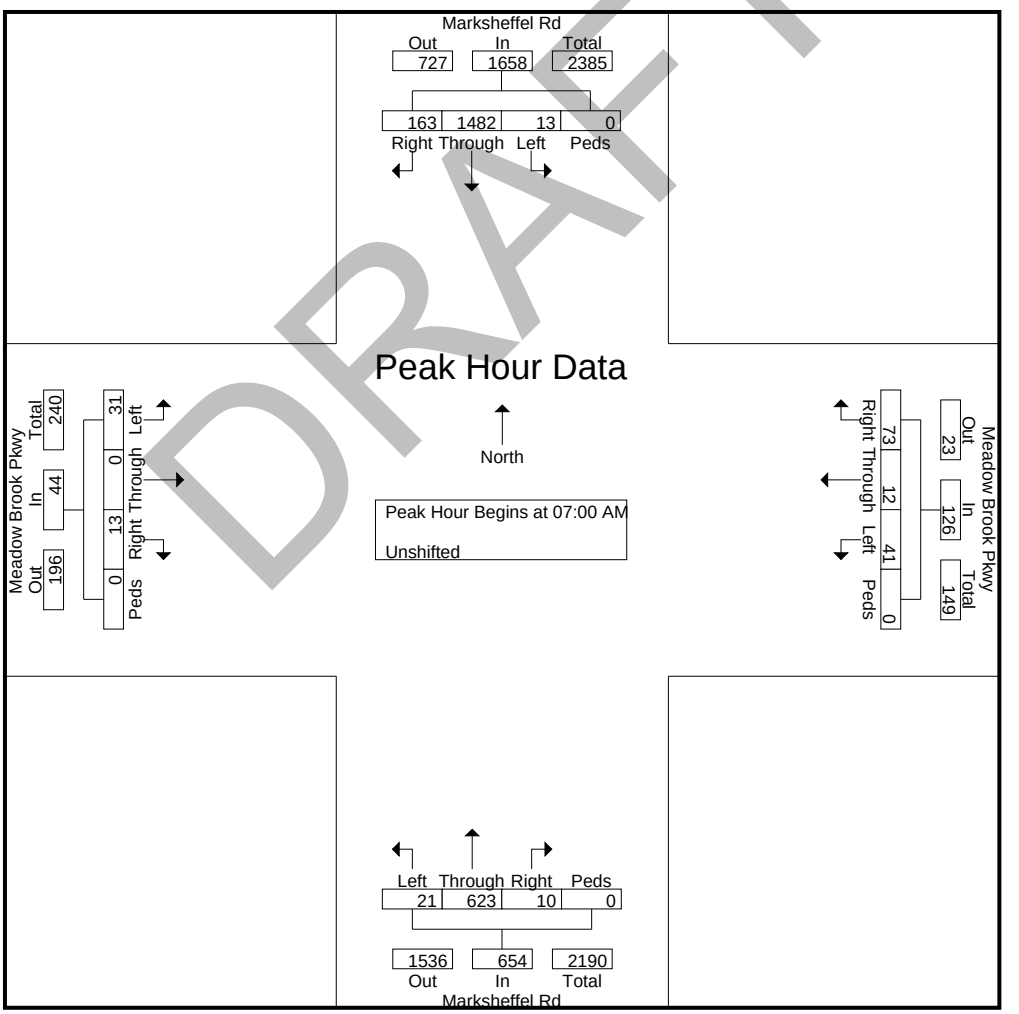
719-633-2868

File Name : Marksheffel Rd - Meadowbrook Pkwy AM
Site Code : 174080
Start Date : 2/11/2020
Page No : 2

	Marksheffel Rd Southbound					Meadow Brook Pkwy Westbound					Marksheffel Rd Northbound					Meadow Brook Pkwy Eastbound					
Start Time	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Int. Total**
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	2	**432**	34	0	**468**	**21**	4	18	0	**43**	5	149	1	0	155	5	0	**4**	0	9	**675**
7:15:00 AM	3	402	43	0	448	5	1	18	0	24	2	**161**	2	0	165	3	0	3	0	6	643
7:30:00 AM	3	304	41	0	348	13	**7**	**22**	0	42	**7**	153	3	0	163	10	0	2	0	12	565
7:45:00 AM	**5**	344	**45**	0	394	2	0	15	0	17	7	160	**4**	0	**171**	**13**	0	4	0	**17**	599
Total Volume	13	1482	163	0	1658	41	12	73	0	126	21	623	10	0	654	31	0	13	0	44	2482
% App. Total	0.8	89.4	9.8	0		32.5	9.5	57.9	0		3.2	95.3	1.5	0		70.5	0	29.5	0		
PHF	.650	.858	.906	.000	.886	.488	.429	.830	.000	.733	.750	.967	.625	.000	.956	.596	.000	.813	.000	.647	.919



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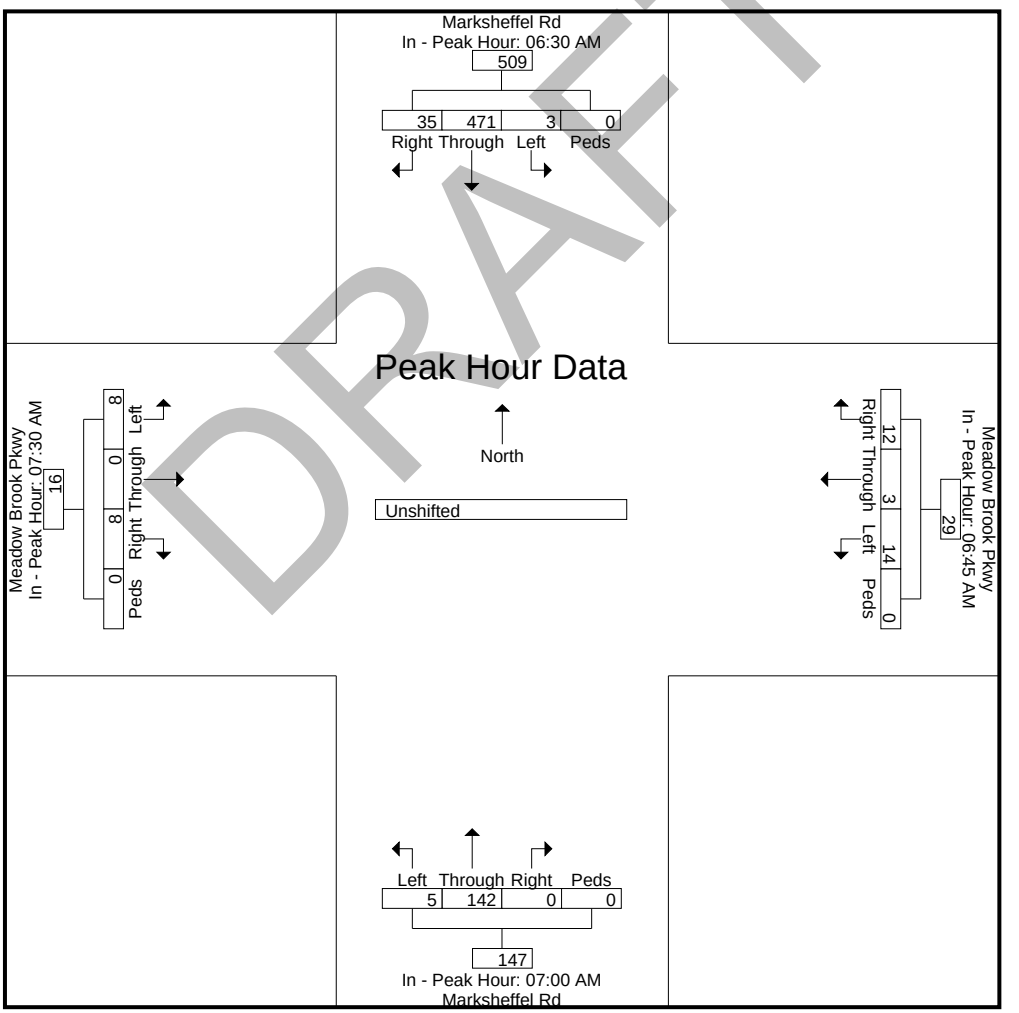
File Name : Marksheffel Rd - Meadowbrook Pkwy AM
Site Code : 174080
Start Date : 2/11/2020
Page No : 3

	Marksheffel Rd Southbound					Meadow Brook Pkwy Westbound					Marksheffel Rd Northbound					Meadow Brook Pkwy Eastbound					
Start Time	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Int. Total**
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	6:30:00 AM					6:45:00 AM					7:00:00 AM					7:30:00 AM					
+0 mins.	1	345	24	0	370	7	1	11	0	19	5	149	1	0	155	10	0	2	0	12	
+5 mins.	**5**	379	29	0	413	**21**	4	18	0	**43**	2	**161**	2	0	165	13	0	4	0	17	
+10 mins.	2	**432**	34	0	**468**	5	1	18	0	24	**7**	153	3	0	163	13	0	**9**	0	**22**	
+15 mins.	3	402	**43**	0	448	13	**7**	**22**	0	42	7	160	**4**	0	**171**	**15**	0	5	0	20	
Total Volume	11	1558	130	0	1699	46	13	69	0	128	21	623	10	0	654	51	0	20	0	71	
% App. Total	0.6	91.7	7.7	0		35.9	10.2	53.9	0		3.2	95.3	1.5	0		71.8	0	28.2	0		
PHF	.550	.902	.756	.000	.908	.548	.464	.784	.000	.744	.750	.967	.625	.000	.956	.850	.000	.556	.000	.807	



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719-633-2868

File Name : Marksheffel Rd - Meadowbrook Pkwy PM
Site Code : 174080
Start Date : 2/11/2020
Page No : 1

Groups Printed- Unshifted

	Marksheffel Rd Southbound					Meadow Brook Pkwy Westbound					Marksheffel Rd Northbound					Meadow Brook Pkwy Eastbound					
Start Time	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Int. Total**
04:00 PM	7	154	17	0	178	2	1	13	0	16	4	364	22	0	390	34	2	11	0	47	631
04:15 PM	15	157	16	1	189	6	3	6	0	15	4	381	16	0	401	19	1	5	0	25	630
04:30 PM	8	157	14	0	179	2	1	9	0	12	4	381	22	1	408	34	5	6	0	45	644
04:45 PM	9	172	19	0	200	4	2	6	0	12	1	380	14	0	395	35	4	1	0	40	647
Total	39	640	66	1	746	14	7	34	0	55	13	1506	74	1	1594	122	12	23	0	157	2552
05:00 PM	9	196	10	0	215	8	0	4	0	12	2	411	15	0	428	42	2	12	0	56	711
05:15 PM	8	165	21	0	194	2	1	8	0	11	8	375	14	0	397	32	8	7	0	47	649
05:30 PM	9	166	15	0	190	4	2	6	0	12	2	359	17	0	378	28	1	5	0	34	614
05:45 PM	14	148	13	0	175	1	2	8	0	11	6	255	14	0	275	16	4	7	0	27	488
Total	40	675	59	0	774	15	5	26	0	46	18	1400	60	0	1478	118	15	31	0	164	2462
Grand Total	79	1315	125	1	1520	29	12	60	0	101	31	2906	134	1	3072	240	27	54	0	321	5014
Apprch %	5.2	86.5	8.2	0.1		28.7	11.9	59.4	0		1	94.6	4.4	0		74.8	8.4	16.8	0		
Total %	1.6	26.2	2.5	0	30.3	0.6	0.2	1.2	0	2	0.6	58	2.7	0	61.3	4.8	0.5	1.1	0	6.4	

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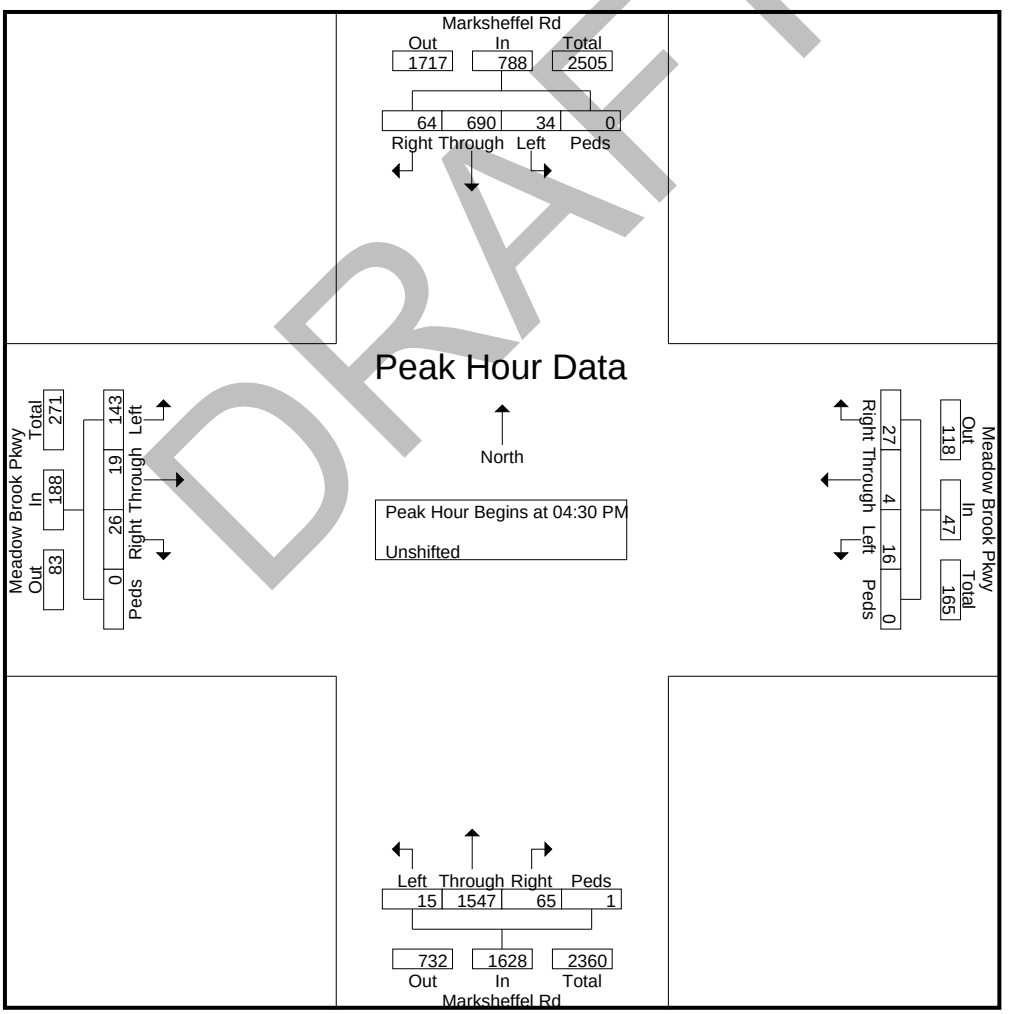
File Name : Marksheffel Rd - Meadowbrook Pkwy PM
Site Code : 174080
Start Date : 2/11/2020
Page No : 2

	Marksheffel Rd Southbound					Meadow Brook Pkwy Westbound					Marksheffel Rd Northbound					Meadow Brook Pkwy Eastbound					
Start Time	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	Int. Total
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:30:00 PM																					
4:30:00 PM	8	157	14	0	179	2	1	**9**	0	**12**	4	381	**22**	**1**	408	34	5	6	0	45	644
4:45:00 PM	**9**	172	19	0	200	4	**2**	6	0	12	1	380	14	0	395	35	4	1	0	40	647
5:00:00 PM	9	**196**	10	0	**215**	**8**	0	4	0	12	2	**411**	15	0	**428**	**42**	2	**12**	0	**56**	**711**
5:15:00 PM	8	165	**21**	0	194	2	1	8	0	11	**8**	375	14	0	397	32	**8**	7	0	47	649
Total Volume	34	690	64	0	788	16	4	27	0	47	15	1547	65	1	1628	143	19	26	0	188	2651
% App. Total	4.3	87.6	8.1	0		34	8.5	57.4	0		0.9	95	4	0.1		76.1	10.1	13.8	0		
PHF	.944	.880	.762	.000	.916	.500	.500	.750	.000	.979	.469	.941	.739	.250	.951	.851	.594	.542	.000	.839	.932



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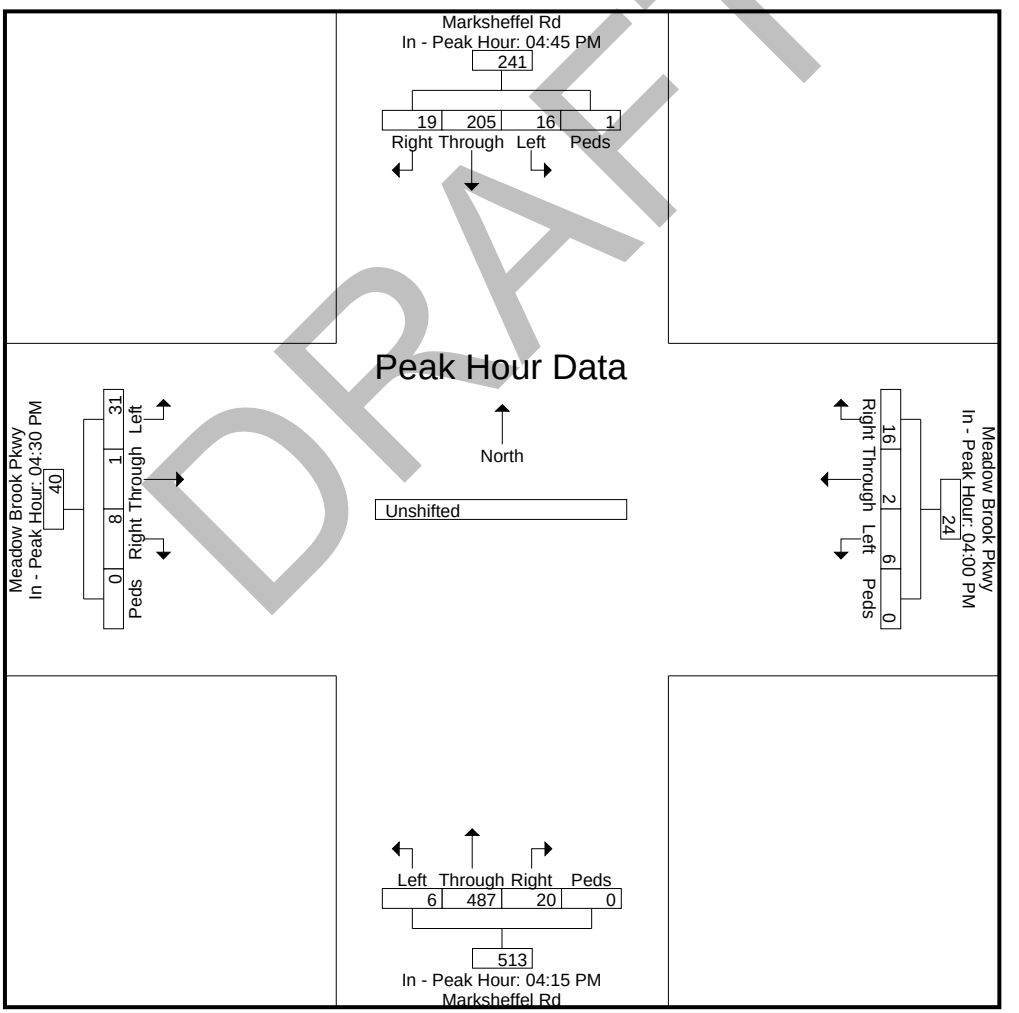
File Name : Marksheffel Rd - Meadowbrook Pkwy PM
Site Code : 174080
Start Date : 2/11/2020
Page No : 3

	Marksheffel Rd Southbound					Meadow Brook Pkwy Westbound					Marksheffel Rd Northbound					Meadow Brook Pkwy Eastbound					
Start Time	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	Int. Total
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	4:45:00 PM					4:00:00 PM					4:15:00 PM					4:30:00 PM					
+0 mins.	**9**	172	19	0	200	2	1	**13**	0	**16**	**4**	381	16	0	401	34	5	6	0	45	
+5 mins.	9	**196**	10	0	**215**	**6**	**3**	6	0	15	4	381	**22**	**1**	408	35	4	1	0	40	
+10 mins.	8	165	**21**	0	194	2	1	9	0	12	1	380	14	0	395	**42**	2	**12**	0	**56**	
+15 mins.	9	166	15	0	190	4	2	6	0	12	2	**411**	15	0	**428**	32	**8**	7	0	47	
Total Volume	35	699	65	0	799	14	7	34	0	55	11	1553	67	1	1632	143	19	26	0	188	
% App. Total	4.4	87.5	8.1	0		25.5	12.7	61.8	0		0.7	95.2	4.1	0.1		76.1	10.1	13.8	0		
PHF	.972	.892	.774	.000	.929	.583	.583	.654	.000	.859	.688	.945	.761	.250	.953	.851	.594	.542	.000	.839	



QUALITY COUNTS REPORT
====================

Intersectio	Marksheffel Rc Hwy 24		Lane Configuration:										
City/State:	Colorado Sprin CO			SIGNAL	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		
QCJobNo:	15171515				R	T	T	L					SIGNAL
ClientID:			EBLane7									R	WBLane1
Date:	1/28/2020		EBLane6									T	WBLane2
Comments:			EBLane5	L								T	WBLane3
Latitude/Lc	38.85214378	-104.682	EBLane4	L								L	WBLane4
PEAK HOUI	7:00 AM		EBLane3	T									WBLane5
PEAK HOUI	8:00 AM		EBLane2	T									WBLane6
PEAK 15-M	7:15 AM		EBLane1	R									WBLane7
PEAK 15-M	7:30 AM		SIGNAL					L	T	T	R		
PHF	0.91				NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	SIGNAL	

PEAK-HOUR VOLUMES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
	1	428	73	3	975	657	305	340	2	285	1225	15	502	1635	647	1525	748	1262	416	1883

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	0	2.8	4.1	66.7	2.3	3.8	8.9	11.8	0	1.1	3	13.3	3	3	10.4	2.8	5.5	2	10.8	3.3
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossw	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicles	0	444	92	0	0	0	1020	748	0	0	324	360	4	0	0	292	1420	8	0	0	4712
Heavy Truc	0	8	0			0	24	36			20	40	0			8	24	0			160
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Tota
7:00 AM	1	103	19	0		1	286	190	0		75	96	0	0		87	312	4	0		1174	
7:15 AM	0	111	23	0		0	255	187	0		81	90	1	0		73	355	2	0		1178	
7:30 AM	0	111	14	0		1	240	151	0		78	77	0	0		58	281	5	0		1016	
7:45 AM	0	103	17	0		1	194	129	0		71	77	1	0		67	277	4	0		941	4309
8:00 AM	0	70	6	0		0	162	165	0		57	94	1	0		57	222	3	1		838	3973
8:15 AM	2	75	12	0		2	135	130	0		43	75	0	0		32	193	2	1		702	3497
8:30 AM	0	80	11	0		0	100	130	0		51	83	1	0		30	191	4	0		681	3162
8:45 AM	3	47	7	0		1	104	91	0		50	64	2	0		17	144	4	0		534	2755

QUALITY COUNTS REPORT
====================

Intersection	Marksheffe Hwy 24	
City/State:	Colorado S CO	
QCJobNo:	15171516	
ClientID:		
Date:	1/28/2020	
Comments:		
Latitude/Lo	38.85214	-104.682
PEAK HOUR	3:00 PM	
PEAK HOUR	4:00 PM	
PEAK 15-M	3:45 PM	
PEAK 15-M	4:00 PM	
PHF	0.85	

Lane Configuration:

	SIGNAL	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		
		R	T	T	L					SIGNAL
EBLane7									R	WBLane1
EBLane6									T	WBLane2
EBLane5	L								T	WBLane3
EBLane4	L								L	WBLane4
EBLane3	T									WBLane5
EBLane2	T									WBLane6
EBLane1	R									WBLane7
SIGNAL					L	T	T	R		
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	SIGNAL	

PEAK-HOUR VOLUMES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
	13	736	156	8	343	312	487	707	4	78	361	8	905	663	1198	447	1228	425	871	689

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	0	1.4	5.8	0	3.5	16	7	6.5	0	3.8	8.9	25	2.1	9.4	6.7	8.3	3.7	3.5	6.3	11.9
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossw	South	North	West	East
	1	1	1	1

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicles	20	864	176	0	0	8	396	392	0	0	592	824	4	0	0	84	424	4	0	0	3788
Heavy Truc	0	12	12			0	20	68			32	32	0			0	52	0			228
Buses																					
Pedestrians		4					4					4					4				16
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Tota
2:00 PM	1	59	18	0		1	54	45	0		53	117	0	0		18	77	4	0		447	
2:15 PM	1	118	22	0		3	66	73	0		76	111	0	0		25	87	3	0		585	
2:30 PM	1	98	25	0		1	65	68	0		65	124	0	0		15	83	1	0		546	
2:45 PM	1	119	18	0		0	74	76	0		92	147	2	0		19	89	2	0		639	2217
3:00 PM	1	128	31	0		1	71	73	0		111	155	1	3		18	77	2	0		672	2442
3:15 PM	2	177	38	0		3	81	73	0		120	160	1	0		17	97	2	0		771	2628
3:30 PM	5	215	43	0		2	92	68	0		105	186	1	0		22	81	3	0		823	2905
3:45 PM	5	216	44	0		2	99	98	0		148	206	1	0		21	106	1	0		947	3213

Levels of Service

Add back in missing LOS Reports

TRANSPORTATION
CONSULTANTS, INC.

Queuing Reports

Add back in missing queuing reports

TRANSPORTATION CONSULTANTS, INC.