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November 7, 2024

Mr. Chris Fellows  
Blue Eagle Metropolitan District No. 1  
9155 E. Nichols Avenue, Suite 360  
Centennial, CO 80012

Re: Blue Eagle Technology Park  
Traffic Impact Analysis  
Aurora, CO  
LSC #230650

Dear Mr. Fellows:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated traffic impact analysis for the proposed Blue Eagle Technology Park to address City and CDOT comments. As shown on Figure 1, the site is located south of E. 26<sup>th</sup> Avenue and east of Monaghan Road in Aurora, Colorado.

## **REPORT CONTENTS**

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts or the impacts from growth in background traffic.

## **LAND USE AND ACCESS**

The site is proposed to include 30.06 acres for commercial uses, 351.91 acres for industrial/warehouse uses, and 2.0 acres for a fire station. This report assumes Planning Area 1 will be developed with about 288,000 square feet of commercial floor space, Planning Areas 2, 3, and 4 will be developed with 4,269,000 square feet of floor space that will be used for a mix of warehouse logistics and data center uses and a fire station, and Planning Area 6 will be used for outdoor storage. Planning Area 5 is planned as open space. Figure 2a shows the proposed land use map. Access is proposed from multiple locations as shown in the circulation plan in Figure 2b. The existing at-grade rail road crossing just west of the Hayesmount Road alignment provides access to an existing home that will be removed - the existing access is not planned to be used as either a public or emergency access for the site.

## ROADWAY AND TRAFFIC CONDITIONS

### Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **E. 26<sup>th</sup> Avenue** is an east-west, two-lane paved road north of the proposed site. The posted speed limit is 45 mph. The City of Aurora NEATS reports shows E. 26<sup>th</sup> Avenue as a future four-lane Minor Arterial by 2040.
- **Monaghan Road** is a north-south, two-lane paved road west of the proposed site. The posted speed limit is 45 mph in the vicinity of the site. The City of Aurora NEATS report shows Monaghan Road as four-lane Major Arterial from E. Jewell Avenue to E. 26<sup>th</sup> Avenue and as a future four-lane Minor Arterial from E. 26<sup>th</sup> Avenue to E. 64<sup>th</sup> Avenue. The City of Aurora NEATS report shows a new grade-separated interchange at I-70 and Monaghan Road by 2040. This report assumes the north half of the grade-separated interchange at I-70 and Monaghan Road will **not** be constructed by the buildout year (2030) but will be in place by 2050.
- **Hayesmount Road** is a planned four-lane, minor arterial in the vicinity of the site between Monaghan Road and Hudson Road. The City of Aurora NEATS report shows Hayesmount Road extended north from E. Jewell Avenue across I-70 and over the U.P.R.R. railroad tracks as an overpass/flyover and extending north to E. 26<sup>th</sup> Avenue. Per discussion with City staff, the applicant has agreed to reserve an easement or the geometry for a future overpass/flyover, however, this report assumes the overpass will **not** be constructed by 2050. Per those same discussions with City staff the applicant will not be financially responsible for the overpass/flyover, beyond reservation of the geometry for same. See the Conclusions and Recommendation section later in this report for additional support for not including the overpass/flyover in the long term (2050) scenario.
- **Hudson Road** is a north-south, two-lane paved road east of the proposed site. The posted speed limit is 45 mph. The City of Aurora NEATS report shows future Hudson Road as a two-lane Minor Arterial.
- **Powhaton Road** is a north-south roadway west of the site without direct access to I-70. The City of Aurora NEATS reports shows Powhaton Road as a three-lane Major Arterial north of E. 26<sup>th</sup> Avenue and a two-lane Major Arterial south of E. 26<sup>th</sup> Avenue.
- **Piccadilly Road** is a north-south roadway west of the site. The City of Aurora NEATS report shows Piccadilly Road as a three-lane Major Arterial. The City of Aurora and CDOT are currently constructing a new interchange at I-70 and Picadilly Road.
- **Watkins Road** is a north-south, two-lane paved road east of the proposed site. The section of Watkins Road between E. Front Street South and E. Front Street North across the U.P.R.R. railroad tracks has not been constructed. This report assumes this section will not be constructed by 2030 but will be constructed by 2050. The NEATS report shows Watkins Road as a three-lane Major Arterial south of I-70 and a two-lane Minor Arterial north of I-70. The posted speed limit north of I-70 is 30 mph.

## Existing Traffic Conditions

Figure 3a shows the existing traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in June and August, 2023. Figure 3b shows the existing lane geometries, traffic controls, and posted speed limits in the vicinity of the site.

## Background Traffic

Figure 4a shows the estimated 2030 background traffic volumes. The 2030 background traffic volumes are based on the existing traffic volumes shown in Figure 3a with a three percent growth rate per year applied. The 2030 background traffic volumes assume Monaghan Road and Hayesmount Road have not been constructed between I-70 and E. 26<sup>th</sup> Avenue and Watkins Road has not been constructed north across the railroad tracks to E. 26<sup>th</sup> Avenue. Figure 4b shows the projected 2030 background lane geometry and traffic control.

Figure 5a shows the estimated 2050 background traffic based on the 2040 traffic volumes from the City of Aurora NEATS reports and the 2040 traffic volumes shown in the August 2018 *The Aurora Highlands Traffic Impact Analysis* by Felsburg Holt & Ullevig, the April 19, 2019 *TransPort Colorado Revised Traffic Impact Analysis* by Felsburg & Ullevig, and the June 2018 letter regarding the Monaghan Material Facility by David Evans and Associates, Inc. Key pages from these reports have been attached for reference. The 2050 background traffic volumes assume a full grade-separated interchange at I-70 and Monaghan Road and assume Watkins Road has been extended north across the railroad tracks to E. 26<sup>th</sup> Avenue. The 2050 background volumes assume that Hayesmount Road has **not** been constructed as an overpass across I-70 and the U.P.R.R. railroad tracks by 2050. Figure 5b shows the projected 2050 background lane geometry and traffic control.

## Existing and Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in Figures 3a, 4a, and 5a were analyzed as appropriate to determine the existing and projected 2030 and 2050 background levels of service using Synchro Version 11 which utilizes the *Highway Capacity Manual*, 6<sup>th</sup> Edition methodology. Table 1a shows the existing level of service results, Table 1b shows the projected 2030 background level of service results, and Table 1c shows the projected 2050 background level of service results. The level of service reports are attached.

1. **E. 26<sup>th</sup> Avenue/Monaghan Road:** All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours and are expected to do so through 2030. By 2050, this intersection is expected to be improved to provide two through lanes plus left- and right-turn lanes on each approach and

be converted to traffic signal control. As a signalized intersection it is expected to operate at an overall LOS “C” or better during both morning and afternoon peak-hours.

2. **E. 26<sup>th</sup> Avenue/West N/S Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
3. **E. 26<sup>th</sup> Avenue/West Right-In/Right-Out Access:** This intersection was analyzed only in the total traffic scenarios.
4. **E. 26<sup>th</sup> Avenue/Middle N/S Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
5. **E. 26<sup>th</sup> Avenue/East N/S Collector:** This intersection was analyzed only in the total traffic scenarios.
6. **E. 26<sup>th</sup> Avenue/Hayesmount Road:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
7. **E. 26<sup>th</sup> Avenue/Hayesmount Road:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
8. **E. 26<sup>th</sup> Avenue/Hudson Road:** All movements at this existing stop-sign controlled intersection, with stop control on the eastbound and westbound approaches, currently operate at LOS “B” or better and are expected to do so through 2030. By 2050 it was assumed that 26<sup>th</sup> Avenue would be widened to two through lanes in each direction and that at the time of the improvement stop-sign control would be switched to the northbound and southbound approaches. All movements are expected to operate at LOS “B” or better through 2050.
9. **Middle N/S Collector/Right-In/Right-Out Access:** This intersection was analyzed only in the total traffic scenarios.
10. **West N/S Collector/North E/W Collector:** This intersection was analyzed only in the total traffic scenarios.
11. **Middle N/S Collector/North E/W Collector:** This intersection was analyzed only in the total traffic scenarios.
12. **East N/S Collector/North E/W Collector:** This intersection was analyzed only in the total traffic scenarios.
13. **West N/S Collector/Middle E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
14. **Middle N/S Collector/Middle E/W Collector:** This intersection was analyzed only in the total traffic scenarios.

16. **South E/W Collector/Monaghan Road:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
17. **West N/S Collector/South E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
18. **Middle N/S Collector/South E/W Collector:** This intersection was analyzed only in the total traffic scenarios.
19. **Hayesmount Road/South E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
20. **Hudson Road/South E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
104. **E. Colfax Avenue (SH 36)/Hudson Road:** All movements at this stop-sign controlled intersection currently operate at LOS “B” or better during the peak hours and are expected to continue to do so through 2050.

## TRIP GENERATION

Table 2a shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from *Trip Generation*, 11<sup>th</sup> Edition, 2021 by the Institute of Transportation Engineers (ITE) for the proposed land use. The trip generation analysis assumes Planning Areas 2, 3, and 4 will be developed with a mix of 30% ITE Land Use 154 - High-Cube Transload and Short-Term Storage Warehouse, 30% ITE Land Use 155 - High Cube-Fulfillment Center Warehouse, 10% ITE Land Use 156 - High-Cube Parcel Hub Warehouse, and 30% ITE Land Use 160 - Data Center. Planning Area 6 is planned to be used for outdoor storage. ITE does not have trip generation rates for this use. The number of site-generated vehicles expected was based on a trip generation study of similar sites in El Paso and Arapahoe County, Colorado, conducted by LSC in October 2023. The details are attached.

The currently proposed land use is projected to generate about 19,026 vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 666 vehicles would enter and about 402 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:30 p.m., about 863 vehicles would enter and about 943 vehicles would exit the site. These estimates are expected to be reduced due to internal and passby trips as shown in Table 2a. Detailed internal and passby trip calculations are shown in Table 2b. The percentage of the trips generated by the industrial uses that were assumed to be internal to the site were estimated based on the reductions allowed by the Colorado Department of Transportation (CDOT) per the *State Highway Access Code*. The internal trips entering and exiting the commercial parcels were then matched with trips estimated to enter and exit the industrial parcels.

A significant percentage of site traffic is expected to be mid- to large-sized trucks. Table 2c shows the estimated number of truck trips estimated to be generated by the site.

**TRIP DISTRIBUTION**

Figure 6a shows the estimated directional distribution of the short-term and long-term site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use. The short-term analysis assumes the I-70/Aerotropolis interchange and the I-70/Picadilly Road interchange are in place by 2030 but the north half of I-70 and Monaghan Road is not in place. The short-term distribution also assumes Watkins Road has not been constructed north across the U.P.R.R. railroad tracks to complete the segment between I-70 and E. 26<sup>th</sup> Avenue. The short-term analysis assumes site trips will use the E. Colfax Avenue (US 36)/Hudson Road intersection to head to/from the east but not to the west due to the roadway network in place at the time.

The long-term distribution estimate assumes completion of the Monaghan Road interchange and the Watkins Road extension. Both distribution estimates assume a future potential Hayesmount Road flyover of I-70 and the U.P.R.R. railroad tracks will not be constructed by 2050.

Figures 6b through 6f show the directional distribution estimates of the turning movement at key off-site intersections for each of the proposed planning areas.

**TRIP ASSIGNMENT**

Figures 7a and 7b show the estimated 2030 short-term site-generated traffic volumes based on the directional distribution percentages (from Figures 6a through 6f) and the trip generation estimate (from Table 2a).

Figures 8a and 8b show the estimated 2050 long-term site-generated traffic volumes based on the directional distribution percentages (from Figures 6a through 6f) and the trip generation estimate (from Table 2a).

Figures 7a and 8a show the trip assignment for the study area intersections. Figures 7b and 8b show the trip assignment of intersections or interchanges in the CDOT system. The intersection of E. Colfax Avenue (US 36)/Hudson Road was included in capacity analyses but the various interchanges were not. This is because the ultimate design is not yet known for many of the locations and the site trips are expected to be a relatively small percentage of the overall interchange traffic volumes.

**TOTAL TRAFFIC**

Figure 9a shows the 2030 total traffic which is the sum of the 2030 background traffic volumes (from Figure 4a) and the 2030 short-term site-generated traffic volumes (from Figure 7a). Figure 9b shows the recommended 2030 lane geometry and traffic control.

Figure 10a shows the 2050 total traffic which is the sum of the 2050 background traffic volumes (from Figure 5a) and the 2050 long-term site-generated traffic volumes (from Figure 8a). Figure 10b shows the recommended 2050 lane geometry and traffic control.

## TRAFFIC SIGNAL WARRANT ANALYSIS

Tables 3 through 6 through show the projected traffic volumes compared to the traffic volume thresholds for Traffic Signal Warrant 1 (Eight-Hour) from the *Manual on Uniform Traffic Control Devices for Street and Highway* (MUTCD) at the following intersections:

- E. 26<sup>th</sup> Avenue/Monaghan Road (#1) - Table 3 - warranted with 2030 Total Traffic
- E. 26<sup>th</sup> Avenue/West N/S Collector (#2) - Table 4 - warranted with 2050 Total Traffic
- E. 26<sup>th</sup> Avenue/Middle N/S Collector (#4) - Table 5 - not warranted by 2050
- E. 26<sup>th</sup> Avenue/Hayesmount Road (#6)- Table 6 - not warranted by 2050

The findings of Tables 3 through 6 are summarized in Table 7.

Figures 11 through 14 show the projected traffic volumes compared to the traffic volume thresholds for Traffic Signal Warrant 2 (Four-Hour) for the same intersections.

The off-peak traffic volumes were based on the peak-hour volumes, 24-hour traffic counts conducted on E. 26<sup>th</sup> Avenue and on Monaghan Road by Counter Measures in August, 2023 and vehicle time-of-day distribution data published by the Institute of Transportation Engineers.

## PROJECTED LEVELS OF SERVICE

The intersections in Figures 9a and 10a were analyzed to determine the 2030 and 2050 total levels of service based on the lane geometry and traffic control shown in Figures 9b and 10b. Table 1b shows the level of service analysis results for 2030 and Table 1c shows the level of service results for 2050. The level of service reports are attached.

1. **E. 26<sup>th</sup> Avenue/Monaghan Road:** By 2030 the southbound left-turn movement is expected to operate at LOS “F” during the afternoon peak-hour if this intersection remains stop-sign controlled. If it is converted to traffic signal control by 2030 this intersection is expected to operate at an overall LOS “B” or better during the peak-hours. By 2050, this intersection is expected to be improved to provide two through lanes plus left- and right-turn lanes on each approach and be converted to traffic signal control. As a signalized intersection it is expected to operate at an overall LOS “C” or better during both morning and afternoon peak-hours.
2. **E. 26<sup>th</sup> Avenue/West N/S Collector:** The northbound left-turn movement at this future stop-sign controlled intersection is expected to operate at LOS “E” during the afternoon peak-hour based on the projected 2030 and 2050 total traffic volumes. As shown in Table 4 this intersection is not projected to meet the criteria for an Eight-Hour Vehicular Volume Traffic Signal Warrant, however, as shown in Figure 12 it may meet the criteria for a Four-Hour Vehicular Volume Traffic Signal Warrant by 2050.
3. **E. 26<sup>th</sup> Avenue/West Right-In/Right-Out Acces:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
4. **E. 26<sup>th</sup> Avenue/Middle N/S Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “D” or better through 2050.

5. **E. 26<sup>th</sup> Avenue/East N/S Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050. The analysis assumes this intersection will be restricted to right-in/right-out only.
6. **E. 26<sup>th</sup> Avenue/Hayesmount Road:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “C” or better through 2050.
7. **E. 26<sup>th</sup> Avenue/Hayesmount Road:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
8. **E. 26<sup>th</sup> Avenue/Hudson Road:** All movements at this intersection are estimated to operate at LOS “B” or better through 2030 assuming it remains stop-sign controlled with stop control on the eastbound and westbound legs. Note that the 2030 total traffic volumes assume Watkins Road has not been constructed across the U.P.R.R. railroad tracks to provide a continuous segment between I-70 and E. 26<sup>th</sup> Avenue. By 2050 it was assumed that Watkins Road would be completed between I-70 and E. 26<sup>th</sup> Avenue and that 26<sup>th</sup> Avenue would be widened to two through lanes in each direction and that at the time of the improvement stop-sign control would be switched to the northbound and southbound approaches. All movements are expected to operate at LOS “B” or better through 2050.
9. **Middle N/S Collector/Right-In/Right-Out Access:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
10. **West N/S Collector/North E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
11. **Middle N/S Collector/North E/W Collector:** All approaches at this future one-lane modern roundabout are expected to operate at LOS “A” through 2050.
12. **East N/S Collector/North E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
13. **West N/S Collector/Middle E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “A” through 2050.
14. **Middle N/S Collector/Middle E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
16. **South E/W Collector/Monaghan Road:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “C” or better through 2050.
17. **West N/S Collector/South E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “C” or better through 2040.
18. **Middle N/S Collector/South E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.



- 19. Hayesmount Road/South E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050 with no consideration of a potential Hayesmount Road “flyover” connection over I-70 and the U.P.R.R. railroad tracks.
- 20. Hudson Road/South E/W Collector:** All movements at this future stop-sign controlled intersection are expected to operate at LOS “B” or better through 2050.
- 104. E. Colfax Avenue (SH 36)/Hudson Road:** All movements at this stop-sign controlled intersection currently operate at LOS “B” or better during the peak hours and are expected to continue to do so through 2050.

## **95<sup>TH</sup> PERCENTILE QUEUE LENGTHS AND RECOMMENDED TURN LANES**

The estimated 2030 and 2050 95<sup>th</sup> percentile queue lengths for the intersections in the study area are shown in Table 8. Table 8 also shows the recommended turn lane lengths based on the NR-B classification criteria in the *CDOT State Highway Access Code* and the projected 95<sup>th</sup> percentile queue lengths.

## **RECOMMENDED IMPROVEMENTS**

Table 9 shows the recommended improvements by 2030 and 2050. The recommended turn lane lengths are based on the criteria contained in the *CDOT State Highway Access Code* for the NR-B classification, the projected total traffic volumes shown in Figures 9a and 10a, and the projected 95<sup>th</sup> percentile queue lengths shown in Table 8. A design speed of 45 mph was assumed for all Major and Minor Arterial roadways, a design speed of 35 mph was assumed for Collector roadways, and a design speed of 25 mph was assumed for all Local roadways. Table 9 includes the site’s percentage contribution to the 2050 total traffic for each recommended improvement.

The trip assignment shown in Figures 7b and 8b is the estimated impact to the various CDOT intersections or interchanges that exist or are planned in the area. These impacts are expected to be a relatively small percentage of the overall traffic expected at these locations.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Trip Generation**

1. The site is projected to generate about 19,026 vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak-hour, about 666 vehicles would enter and about 402 vehicles would exit the site. During the afternoon peak-hour, about 863 vehicles would enter and about 943 vehicles would exit the site. These estimates are expected to be reduced due to internal and passby trips as shown in Table 2b.

**Projected Levels of Service**

2. The future signalized intersection of Monaghan Road/E. 26<sup>th</sup> Avenue (#1) is expected to operate at an overall LOS “B” or better through 2050 with the recommended improvements.
3. All movements at the unsignalized intersections, except for the intersection of E. 26<sup>th</sup> Avenue/West (#2), are expected to operate at LOS “D” or better through 2050 with the recommended improvements. The northbound left-turn movement at the intersection of E. 26<sup>th</sup> Avenue/West (#2) is expected to operate at LOS “E” during the afternoon peak-hour through 2050 with the recommended improvements. As shown in Table 4 this intersection is not projected to meet the criteria for an Eight-Hour Vehicular Volume Traffic Signal Warrant, however, as shown in Figure 12 it is expected to meet the criteria for a Four-Hour Vehicular Volume Traffic Signal Warrant by 2050.

**Hayesmount/I-70 Overpass/Flyover**

4. The applicant has expressed their views, position and comments relating to the Hayesmount overpass/flyover mentioned in NEATS. As agreed in a meeting with the City of Aurora staff and the applicant on June 14, 2024 this traffic study assumes the flyover will **not** be in place by 2050.
5. The capacity analysis shows that the future roadway network will function adequately without the overpass/flyover.
6. It is expected that little to no truck traffic going to or originating from Blue Eagle would utilize the overpass/flyover, should it ever be constructed, as the area south of I-70 is primarily residential and does not significantly connect to the regional roadway network.
7. A small number of passenger vehicle trips could potentially use the overpass/flyover, should it ever be constructed, to travel between the site and the Sky Ranch residential subdivision in Arapahoe County, however, there are multiple other paths available to/from the site.

**Conclusions**

8. This analysis finds the impact of the Blue Eagle Technology Park can be accommodated by the existing and proposed roadway network with implementation of the following recommendations.

**Recommendations**

9. The recommended improvements are shown in Figures 9b and 10b and Tables 8 and 9. Figure 9 provides the estimated site traffic percentage of the 2050 total traffic volume for each recommended improvement.
10. Over time, the applicant or its successors will construct all internal roadways and half of E. 26<sup>th</sup> Avenue, a four-lane minor arterial, that fronts the site as part of the development process. The timing of specific improvements will likely be determined with future compliance letters or filing specific traffic studies.

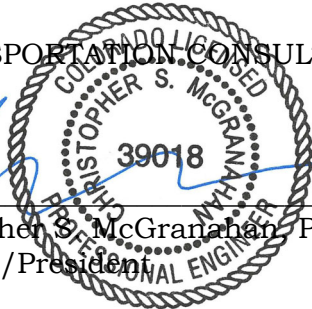
We trust our findings will assist you in gaining approval of the proposed Blue Eagle Technology Park. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By

  
\_\_\_\_\_  
Christopher S. McGranahan, PE  
Principal/President



CSM/wc

11-7-24

Enclosures: Tables 1 - 9  
Figures 1 - 14  
Traffic Count Reports  
Key Pages from Area Studies  
Level of Service Definitions  
Level of Service Reports  
Queuing Reports  
Appendix A: Trip Generation Rate Estimate

**Table 1a**  
**Intersection Levels of Service Analysis - Existing**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection Location	Traffic Control	Existing Traffic			
		Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay
1) <u>E. 26th Avenue/Monaghan Road</u>	TWSC				
NB Approach		B	10.3	A	0.0
EB Approach		A	7.6	A	7.3
WB Approach		A	0.0	A	0.0
SB Approach		B	11.4	A	9.7
8) <u>E. 26th Avenue/Hudson Road</u>	TWSC				
NB Approach		A	7.4	A	7.3
EB Approach		A	8.9	A	9.0
WB Approach		B	10.5	A	9.7
SB Approach		A	0.0	A	7.2
104) <u>E. Colfax Avenue (CO-36)/Hudson R</u>	TWSC				
NB Approach		B	11.0	A	9.3
EB Left/Through		A	7.6	A	7.4
WB Approach		A	7.6	A	7.4
SB Approach		B	11.0	B	10.3

**Table 1b (Page 1 of 2)**  
**Intersection Levels of Service Analysis - 2030**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection Location	Traffic Control	2030 Background Traffic				2030 Total Traffic			
		Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay
1) <u>E. 26th Avenue/Monaghan Road</u>	TWSC								
EB Approach		A	7.7	A	7.4	--	--	--	--
EB Left		--	--	--	--	A	8.7	A	9.5
WB Approach		A	0.0	A	0.0	--	--	--	--
SB Approach		B	11.6	B	10.4	--	--	--	--
SB Left		--	--	--	--	F	51.6	F	196.4
SB Right		--	--	--	--	B	10.1	B	13.4
	Traffic Signal								
EB Left		--	--	--	--	A	7.0	A	7.9
EB Through		--	--	--	--	A	5.8	A	6.3
EB Approach		--	--	--	--	A	6.0	A	6.4
WB Through		--	--	--	--	B	12.1	B	12.6
WB Right		--	--	--	--	B	10.6	A	9.3
WB Approach		--	--	--	--	B	11.6	B	11.6
SB Left		--	--	--	--	B	14.6	B	18.3
SB Right		--	--	--	--	B	11.4	B	14.8
SB Approach & Delay		--	--	--	--	B	14.1	B	17.3
Entire Intersection Delay (sec /veh)		--	--	--	--	9.5		11.1	
Entire Intersection LOS		--	--	--	--	A		B	
2) <u>E. 26th Avenue/West N/S Collector</u>	TWSC								
NB Left		--	--	--	--	C	15.6	E	49.7
NB Right		--	--	--	--	B	11.1	B	12.9
WB Left		--	--	--	--	A	9.0	A	9.4
3) <u>E. 26th Avenue/West RIRO Site Access</u>	TWSC								
NB Right		--	--	--	--	B	10.7	B	11.5
4) <u>E. 26th Avenue/Middle N/S Collector</u>	TWSC								
NB Left		--	--	--	--	B	14.4	D	33.9
NB Right		--	--	--	--	A	8.9	A	9.7
WB Left		--	--	--	--	A	8.6	A	8.9
5) <u>E. 26th Avenue/East N/S Collector</u>	TWSC								
NB Right		--	--	--	--	A	8.9	A	9.7
8) <u>E. 26th Avenue/Hudson Road</u>	TWSC								
NB Approach		A	7.4	A	7.3	--	--	--	--
NB Left		--	--	--	--	A	7.6	A	7.5
EB Approach		A	8.6	A	9.1	--	--	--	--
EB Left/Through		--	--	--	--	B	11.8	B	11.0
EB Right		--	--	--	--	A	8.8	A	9.4
WB Approach		B	10.7	A	9.8	B	12.5	B	11.2
SB Approach		A	7.3	A	0.0	--	--	--	--
SB Left		--	--	--	--	A	7.4	A	0.0
9) <u>Middle N/S Collector/P-1 RIRO Access</u>	TWSC								
EB Right		--	--	--	--	A	0.0	A	0.0
WB Right		--	--	--	--	A	9.8	B	12.7

**Table 1b (Page 2 of 2)**  
**Intersection Levels of Service Analysis - 2030**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection Location	Traffic Control	2030 Background Traffic				2030 Total Traffic			
		Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay
10) <u>West N/S Collector/North E/W Collector</u> WB Right	TWSC	--	--	--	--	A	9.1	A	9.9
11) <u>Middle N/S Collector/North E/W Collector</u> EB Approach	Roundabout	--	--	--	--	A	5.0	A	5.5
WB Approach		--	--	--	--	A	3.9	A	4.6
NB Approach		--	--	--	--	A	4.9	A	6.2
SB Approach		--	--	--	--	A	6.1	A	5.6
Entire Intersection Delay (sec /veh)		--	--	--	--	5.6		5.7	
Entire Intersection LOS		--	--	--	--	A		A	
12) <u>E. N/S Collector/N. E/W Collector</u> NB Left	TWSC	--	--	--	--	A	0.0	A	0.0
EB Approach		--	--	--	--	A	8.7	A	8.6
13) <u>West N/S Collector/Middle E/W Collector</u> WB Approach	TWSC	--	--	--	--	A	8.9	A	9.0
SB Left		--	--	--	--	A	7.6	A	7.5
14) <u>Middle N/S Collector/Middle E/W Collector</u> NB Left	TWSC	--	--	--	--	A	0.0	A	0.0
EB Approach		--	--	--	--	B	13.3	B	12.7
WB Approach		--	--	--	--	A	9.4	A	9.6
SB Left		--	--	--	--	A	7.7	A	7.8
17) <u>W. N/S Collector/S. E/W Collector</u> WB Left	TWSC	--	--	--	--	A	0.0	A	0.0
WB Right		--	--	--	--	A	8.8	A	8.8
SB Left		--	--	--	--	A	7.5	A	7.4
18) <u>Middle N/S Collector/South E/W Collector</u> NB Left	TWSC	--	--	--	--	A	0.0	A	0.0
NB Through/Right		--	--	--	--	B	11.1	B	11.4
EB Left		--	--	--	--	A	7.6	A	7.6
WB Left		--	--	--	--	A	0.0	A	0.0
SB Left		--	--	--	--	B	12.0	B	11.9
SB Through		--	--	--	--	B	11.1	B	10.7
SB Right		--	--	--	--	A	8.9	A	8.9
19) <u>Hayesmount Road/South E/W Collector</u> NB Approach	TWSC	--	--	--	--	A	9.5	A	9.5
104) <u>E. Colfax Avenue (CO-36)/Hudson Road</u> NB Approach	TWSC	B	11.2	A	9.4	B	11.6	A	9.5
EB Left/Through or Left		A	7.6	A	7.5	A	7.8	A	7.6
WB Approach		A	7.7	A	7.5	--	--	--	--
WB Left		--	--	--	--	A	7.7	A	7.5
SB Approach		B	11.3	B	10.5	B	11.8	B	11.3

**Table 1c (Page 1 of 3)**  
**Intersection Levels of Service Analysis - 2050**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection Location	Traffic Control	2050 Background Traffic				2050 Total Traffic			
		Level of Service AM	Movement Delay	Level of Service PM	Movement Delay	Level of Service AM	Movement Delay	Level of Service PM	Movement Delay
1) <u>E. 26th Avenue/Monaghan Road</u>	Traffic Signal								
EB Left		C	24.5	C	25.7	C	26.4	C	26.4
EB Through		C	24.2	C	30.3	C	25.0	C	32.4
EB Right		C	32.8	C	31.1	D	36.5	C	31.9
EB Approach & Delay		C	28.1	C	29.6	C	30.1	C	31.4
WB Left		C	25.0	C	26.1	C	24.4	C	28.6
WB Through		C	28.7	C	28.4	C	28.6	C	27.0
WB Right		C	30.5	C	30.4	C	30.8	C	30.7
WB Approach & Delay		C	28.8	C	28.4	C	28.7	C	28.8
NB Left		B	10.4	A	8.3	B	12.3	B	11.0
NB Through		B	12.5	B	11.7	B	14.9	B	15.9
NB Right		B	12.6	B	10.3	B	15.4	B	15.4
NB Approach & Delay		B	12.1	B	10.6	B	14.5	B	14.6
SB Left		B	10.2	A	8.8	B	11.9	B	12.9
SB Through		B	13.3	B	11.0	B	15.5	B	14.0
SB Right		B	12.3	B	12.6	B	13.7	B	15.7
SB Approach & Delay		B	12.7	B	10.8	B	14.6	B	14.0
Entire Intersection Delay (sec /veh)		20.9		16.3		22.1		20.0	
Entire Intersection LOS		C		B		C		C	
2) <u>E. 26th Avenue/West N/S Collector</u>	TWSC								
NB Left		B	12.5	B	14.0	C	16.3	E	42.8
NB Through/Right		A	0.0	A	0.0	A	9.6	B	10.7
EB Left		A	8.0	A	7.6	A	8.3	A	8.0
WB Left		A	0.0	A	0.0	A	0.0	A	0.0
SB Left		A	0.0	A	0.0	A	0.0	A	0.0
SB Through/Right		A	9.3	A	8.8	A	9.6	A	9.4
3) <u>E. 26th Avenue/West RIRO Site Access</u>	TWSC								
NB Right		--	--	--	--	A	9.5	B	10.3
4) <u>E. 26th Avenue/Middle N/S Collector</u>	TWSC								
NB Left		--	--	--	--	C	15.9	D	34.8
NB Through/Right		--	--	--	--	A	9.3	B	10.2
EB Left		A	8.0	A	7.6	A	8.2	A	7.6
WB Left		--	--	--	--	A	8.3	A	9.1
SB Left		B	12.2	B	11.5	C	15.2	C	15.8
SB Right or Through/Right		A	9.3	A	8.8	A	9.5	A	8.8
5) <u>E. 26th Avenue/East N/S Collector</u>	TWSC								
NB Right		--	--	--	--	A	9.2	A	9.9
6) <u>E. 26th Avenue/Hayesmount Road</u>	TWSC								
NB Left		B	12.2	B	13.8	B	13.7	C	16.5
NB Through/Right		A	0.0	B	14.1	B	13.9	C	15.3
EB Left		A	8.0	A	7.6	A	8.2	A	7.7
WB Left		A	0.0	A	0.0	A	7.9	A	8.4
SB Left		B	12.7	B	11.9	B	13.9	B	13.4
SB Through/Right		A	9.8	A	8.8	B	12.5	B	11.1

**Table 1c (Page 2 of 3)**  
**Intersection Levels of Service Analysis - 2050**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection Location	Traffic Control	2050 Background Traffic				2050 Total Traffic			
		Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay
7) <u>E. 26th Avenue/Future Collector</u>	TWSC								
NB Left		B	12.0	B	13.6	B	12.6	B	14.6
NB Through/Right		A	0.0	A	9.6	A	0.0	A	9.7
EB Left		A	7.9	A	7.5	A	8.2	A	7.6
WB Left		A	7.7	A	8.2	A	7.8	A	8.4
SB Left/Through or Left		B	12.5	B	11.6	B	13.2	B	12.3
SB Through/Right		A	9.2	A	8.7	A	9.5	A	8.9
8) <u>E. 26th Avenue/Hudson Road</u>	TWSC								
NB Left		B	12.2	B	12.2	B	13.2	B	13.4
NB Through/Right		B	11.5	B	12.0	B	12.2	B	13.0
EB Left		A	7.8	A	7.5	A	8.0	A	7.6
WB Left/Through or Left		A	7.6	A	8.1	A	7.8	A	8.3
SB Left/Through or Left		B	12.3	B	11.8	B	13.1	B	13.0
SB Through/Right		B	11.3	B	10.2	B	11.7	B	10.6
9) <u>Middle N/S Collector/P-1 RIRO Access</u>	TWSC								
EB Right		--	--	--	--	A	8.8	A	9.2
WB Right		--	--	--	--	A	8.7	A	9.7
10) <u>West N/S Collector/North E/W Collector</u>	TWSC								
WB Right		--	--	--	--	A	8.6	A	8.9
11) <u>Middle N/S Collector/North E/W Collector</u>	Roundabout								
EB Approach		--	--	--	--	A	3.3	A	4.3
WB Approach		--	--	--	--	A	3.3	A	3.8
NB Approach		--	--	--	--	A	3.4	A	4.0
SB Approach		--	--	--	--	A	3.6	A	4.1
Entire Intersection Delay (sec /veh)		--	--	--	--	3.5		4.1	
Entire Intersection LOS		--	--	--	--	A		A	
12) <u>E. N/S Collector/N. E/W Collector</u>	TWSC								
NB Left		--	--	--	--	A	0.0	A	0.0
EB Approach		--	--	--	--	A	8.6	A	8.6
13) <u>West N/S Collector/Middle E/W Collector</u>	TWSC								
NB Left		A	7.2	A	7.2	A	7.4	A	7.3
EB Approach		A	8.5	A	8.5	A	9.0	A	8.9
WB Approach		--	--	--	--	A	9.0	A	8.9
SB Left		--	--	--	--	A	7.4	A	7.3
14) <u>Middle N/S Collector/Middle E/W Collector</u>	TWSC								
NB Left		--	--	--	--	A	0.0	A	0.0
EB Approach		--	--	--	--	A	9.2	A	9.7
WB Approach		--	--	--	--	A	9.0	A	9.5
SB Left		--	--	--	--	A	7.4	A	7.4



**Table 1c (Page 3 of 3)**  
**Intersection Levels of Service Analysis - 2050**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection Location	Traffic Control	2050 Background Traffic				2050 Total Traffic			
		Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay	Level of Service AM	Move-ment Delay	Level of Service PM	Move-ment Delay
16) <u>Monaghan Road/South E/W Collector</u>	TWSC								
WB Left		A	9.0	A	9.0	C	15.0	C	21.3
WB Right		A	8.5	A	8.4	A	8.9	A	9.1
SB Left		A	7.4	A	7.3	A	8.9	A	8.5
17) <u>W. N/S Collector/S. E/W Collector</u>	TWSC								
NB Left		--	--	--	--	C	16.1	C	17.9
NB Through/Right		--	--	--	--	B	14.0	B	13.8
EB Left		A	7.2	A	7.2	A	7.8	A	8.0
WB Left		--	--	--	--	A	8.3	A	0.0
SB Left		A	0.0	A	0.0	B	14.7	C	15.2
SB Through		--	--	--	--	C	15.4	C	15.4
SB Right		A	8.4	A	8.4	A	9.4	B	10.1
18) <u>Middle N/S Collector/South E/W Collector</u>	TWSC								
NB Left		--	--	--	--	B	12.4	B	14.1
NB Through/Right		--	--	--	--	B	11.0	B	11.1
EB Left		--	--	--	--	A	7.6	A	7.6
WB Left		--	--	--	--	A	7.8	A	7.6
SB Left		--	--	--	--	B	12.0	B	12.3
SB Through		--	--	--	--	B	12.6	B	12.6
SB Right		--	--	--	--	A	9.0	A	9.4
19) <u>Hayesmount Road/South E/W Collector</u>	TWSC								
NB Left		--	--	--	--	B	10.1	B	10.0
NB Through/Right		--	--	--	--	A	9.7	A	9.6
EB Left		A	7.2	A	7.2	A	7.4	A	7.4
WB Left		--	--	--	--	A	7.6	A	7.5
SB Left		A	0.0	A	0.0	B	10.0	A	9.9
SB Through/Right		A	8.3	A	8.4	B	10.3	B	10.0
20) <u>Hudson Road/South E/W Collector</u>	TWSC								
NB Left		A	7.4	A	7.5	A	7.6	A	7.6
EB Left		A	0.0	A	0.0	B	10.9	B	10.3
EB Right		A	8.8	A	9.1	A	9.0	A	9.3
104) <u>E. Colfax Avenue (CO-36)/Hudson Road</u>	TWSC								
NB Approach		B	11.7	A	9.6	B	11.9	A	9.7
EB Left/Through or Left		A	7.6	A	7.5	A	7.7	A	7.5
WB Approach		A	7.8	A	7.5	--	--	--	--
WB Left		--	--	--	--	A	7.8	A	7.5
SB Approach		B	10.8	B	10.1	B	11.4	B	10.6

**Table 2a**  
**ESTIMATED TRAFFIC GENERATION**  
**Blue Eagle**  
**Aurora, CO**  
**LSC #230650; November, 2024**

Planning Area	Trip Generating Category	Area (Acres)	Floor Area Ratio	Quantity	Trip Generation Rates <sup>(1)</sup>					Vehicle - Trips Generated				
					Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM Peak-Hour In	PM Peak-Hour Out	Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM Peak-Hour In	PM Peak-Hour Out
1	Commercial <sup>(2)</sup>	30.06	0.22	288.0 KSF <sup>(3)</sup>	37.01	0.521	0.319	1.632	1.768	10,659	150	92	470	509
2	High-Cube Transload and Short-Term Storage Warehouse <sup>(4)</sup>	52.65	0.3	206.4 KSF	1.40	0.062	0.018	0.028	0.072	289	13	4	6	15
	High-Cube Fulfillment Center Warehouse - Non-Sort <sup>(5)</sup>			206.4 KSF	1.81	0.122	0.029	0.062	0.098	374	25	6	12	20
	High-Cube Parcel Hub Warehouse <sup>(6)</sup>			68.8 KSF	4.63	0.350	0.350	0.435	0.205	319	24	24	30	14
	Data Center <sup>(7)</sup>			206.4 KSF	0.99	0.061	0.050	0.027	0.063	204	12	11	6	13
3	High-Cube Transload and Short-Term Storage Warehouse <sup>(4)</sup>	28.57	0.3	111.9 KSF	1.40	0.062	0.018	0.028	0.072	157	7	2	3	8
	High-Cube Fulfillment Center Warehouse - Non-Sort <sup>(5)</sup>			111.9 KSF	1.81	0.122	0.029	0.062	0.098	203	14	3	7	11
	High-Cube Parcel Hub Warehouse <sup>(6)</sup>			37.3 KSF	4.63	0.350	0.350	0.435	0.205	173	13	13	16	8
	Data Center <sup>(7)</sup>			111.9 KSF	0.99	0.061	0.050	0.027	0.063	111	7	5	3	7
4	Fire Station <sup>(8)</sup>	2.00	- - -	10.0 KSF	4.80	0.341	0.139	0.139	0.341	48	3	1	1	4
	High-Cube Transload and Short-Term Storage Warehouse <sup>(4)</sup>	244.74	0.3	959.4 KSF	1.40	0.062	0.018	0.028	0.072	1,343	59	18	27	69
	High-Cube Fulfillment Center Warehouse - Non-Sort <sup>(5)</sup>			959.4 KSF	1.81	0.122	0.029	0.062	0.098	1,737	117	28	60	94
	High-Cube Parcel Hub Warehouse <sup>(6)</sup>			319.8 KSF	4.63	0.350	0.350	0.435	0.205	1,481	112	112	139	66
	Data Center <sup>(7)</sup>			959.4 KSF	0.99	0.061	0.050	0.027	0.063	950	58	48	26	60
6	Outdoor Storage <sup>(9)</sup>	25.95	- - -	25.95 Acres	37.68	2.020	1.330	2.190	1.740	978	52	35	57	45
<b>Total =</b>										<b>19,026</b>	<b>666</b>	<b>402</b>	<b>863</b>	<b>943</b>
<i>Internal Trips <sup>(10)</sup> =</i>										832	17	17	66	66
<i>Passby Trips <sup>(10)</sup> =</i>										2,970	33	33	132	132
<b>Primary Trips =</b>										<b>15,224</b>	<b>616</b>	<b>352</b>	<b>665</b>	<b>745</b>

**Notes:**

- (1) Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition, 2021
- (2) ITE Land Use No. 820 - Shopping Center (>150 KSF)
- (3) KSF = 1,000 square feet
- (4) ITE Land Use No. 154 - High-Cube Transload and Short-Term Storage Warehouse
- (5) ITE Land Use No. 155 - High-Cube Fulfillment Center Warehouse - Non-Sort
- (6) ITE Land Use No. 156 - High-Cube Parcel Hub Warehouse
- (7) ITE Land Use No. 160 - Data Center
- (8) ITE Land Use No. 575 - Fire and Rescue Station - Weekday and morning peak hour trip generation rates are estimates by LSC
- (9) See Appendix A Trip Generation Rate Estimate Land Use: General Outdoor Storage and by LSC Transportation Consultants, November 2023
- (10) See Table 2b for internal and passby trip calculations

**Table 2b**  
**INTERNAL & PASSBY TRIP CALCULATIONS**  
**Blue Eagle**  
**Aurora, CO**  
**LSC #230650; November, 2024**

Trip Generating Category	Quantity	Raw ITE Trip Generation <sup>(1)</sup> (Individual Driveway Trips)						Percent Internal Trips <sup>(2)</sup>						Internal Trips				Percent Passby Trips <sup>(3)</sup>	Passby Trips				
		Average Weekday	AM Peak-Hour		PM Peak-Hour		Average Weekday	AM Peak-Hour		PM Peak-Hour		Average Weekday	AM Peak-Hour		PM Peak-Hour		Average Weekday		AM Peak-Hour		PM Peak-Hour		
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out		
Commercial	288.0 KSF <sup>(4)</sup>	10,659	150	92	470	509	4%	4%	12%	7%	6%	416	6	11	34	32	29%	2,970	33	33	132	132	
Fire Station	10.0 KSF	48	3	1	1	4	0%	0%	0%	0%	0%	0	0	0	0	0	0%	0	0	0	0	0	
Industrial Uses																							
High-Cube Transload and Short-Term Storage Warehouse	1277.7 KSF	1,789	79	24	36	92	5%	2.0%	2.0%	8.0%	8.0%	89	2	0	3	7	0%	0	0	0	0	0	
High-Cube Fulfillment Center Warehouse - Non-Sort	1277.7 KSF	2,314	156	37	79	125	5%	2.0%	2.0%	8.0%	8.0%	116	3	1	6	10	0%	0	0	0	0	0	
High-Cube Parcel Hub Warehouse	425.9 KSF	1,973	149	149	185	88	5%	2.0%	2.0%	8.0%	8.0%	99	3	3	15	7	0%	0	0	0	0	0	
Data Center	1277.7 KSF	1,265	77	64	35	80	5%	2.0%	2.0%	8.0%	8.0%	63	2	1	3	6	0%	0	0	0	0	0	
Outdoor Storage	25.95 Acres	978	52	35	57	45	5%	2.0%	2.0%	8.0%	8.0%	49	1	1	5	4	0%	0	0	0	0	0	
Total Industrial Uses =		8,319	513	309	392	430							416	11	6	32	34		0	0	0	0	0
Grand Total =		19,026	666	402	863	943							832	17	17	66	66		2,970	33	33	132	132

- (1) See Table 2a  
(2) Estimate by LSC based on CDOT allowance for mixed-use projects  
(3) Source: 2021 Pass-By Tables from the ITE TripGen Appendices  
(4) KSF = 1,000 square feet

**Table 3**  
**Eight Hour Vehicular Volume Signal Warrant Analysis**  
**Intersection #1 - E 26th Avenue/Monaghan Rd**  
**(See Figure 11)**  
**Blue Eagle Technology Center**  
**Aurora, CO**  
**LSC #230650; November, 2024**

**Warrant Analysis<sup>(1)</sup>**

Hour	Traffic Volumes (vehicles per hour)		Warrant 1: Eight Hour Vehicular Volume Evaluation					
			Warrant Thresholds				Warrant Threshold Met?	
	Major <sup>(2)</sup>	Minor North	Condition A (70%)		Condition B (70%)		North Leg	
			Major	Minor	Major	Minor	A	B

**2030 Background Traffic**

6-7 AM	186	29	420	140	630	70	No	No
7-8 AM	199	35	420	140	630	70	No	No
8-9 AM	161	28	420	140	630	70	No	No
9-10 AM	118	25	420	140	630	70	No	No
10-11 AM	159	29	420	140	630	70	No	No
11-12 PM	143	30	420	140	630	70	No	No
12-1 PM	76	35	420	140	630	70	No	No
1-2 PM	119	53	420	140	630	70	No	No
2-3 PM	136	75	420	140	630	70	No	No
3-4 PM	127	75	420	140	630	70	No	No
4-5 PM	152	95	420	140	630	70	No	No
5-6 PM	111	68	420	140	630	70	No	No
6-7 PM	77	42	420	140	630	70	No	No

**Numbers of Hours the Warrant Thresholds Are Met**  
**Warrant Met?**

<b>0</b>	<b>0</b>
<b>No</b>	

**2030 Total Traffic**

6-7 AM	855	146	420	140	630	70	Yes	Yes
7-8 AM	909	177	420	140	630	70	Yes	Yes
8-9 AM	734	144	420	140	630	70	Yes	Yes
9-10 AM	531	127	420	140	630	70	No	No
10-11 AM	722	148	420	140	630	70	Yes	Yes
11-12 PM	653	151	420	140	630	70	Yes	Yes
12-1 PM	711	92	420	140	630	70	No	Yes
1-2 PM	1133	139	420	140	630	70	No	Yes
2-3 PM	1175	196	420	140	630	70	Yes	Yes
3-4 PM	1071	194	420	140	630	70	Yes	Yes
4-5 PM	1242	248	420	140	630	70	Yes	Yes
5-6 PM	924	177	420	140	630	70	Yes	Yes
6-7 PM	672	110	420	140	630	70	No	Yes

**Numbers of Hours the Warrant Thresholds Are Met**  
**Warrant Met?**

<b>9</b>	<b>12</b>
<b>Yes</b>	

**Notes:**

- (1) Thresholds are based on 2 or more lanes on the major approach and 2 or more lanes on the minor approach with the 70% factor applied for a posted speed limit above 40 mph
- (2) The major street traffic includes all movements (left, through, and right)
- (3) The minor street traffic includes only the left-turn volume from the minor street

*Source: LSC Transportation Consultants, Inc.*

**Table 4**  
**Eight Hour Vehicular Volume Signal Warrant Analysis**  
**Intersection #2 - E 26th Avenue/West N/S Collector**  
**(See Figure 12)**  
**Blue Eagle Technology Center**  
**Aurora, CO**  
**LSC #230650; November, 2024**

**Warrant Analysis<sup>(1)</sup>**

Hour	Traffic Volumes (vehicles per hour)			Warrant 1: Eight Hour Vehicular Volume Evaluation							
				Warrant Thresholds				Warrant Threshold Met?			
	Major <sup>(2)</sup>	Minor 1 <sup>(3)</sup>	Minor 2 <sup>(3)</sup>	Condition A (70%)		Condition B (70%)		South Leg		North Leg	
		South Leg	North Leg	Major	Minor	Major	Minor	A	B	A	B

**2050 Total Traffic**

7-8 AM	758	38	3	420	140	630	70	No	No	No	No
8-9 AM	604	10	1	420	140	630	70	No	No	No	No
9-10 AM	423	16	1	420	140	630	70	No	No	No	No
10-11 AM	585	17	1	420	140	630	70	No	No	No	No
11-12 PM	517	20	2	420	140	630	70	No	No	No	No
12-1 PM	495	89	3	420	140	630	70	No	No	No	No
1-2 PM	769	59	2	420	140	630	70	No	No	No	No
2-3 PM	883	72	2	420	140	630	70	No	Yes	No	No
3-4 PM	832	93	3	420	140	630	70	No	Yes	No	No
4-5 PM	998	89	3	420	140	630	70	No	Yes	No	No
5-6 PM	749	136	4	420	140	630	70	No	Yes	No	No
6-7 PM	500	20	1	420	140	630	70	No	No	No	No

Numbers of Hours the Warrant Thresholds Are Met

0	4	0	0
---	---	---	---

Warrant Met?

No

**Notes:**

(1) Thresholds are based on 2 or more lanes on the major approach and 2 or more lanes on the minor approach with the 70% factor applied

(2) The major street traffic includes all movements (left, through, and right)

(3) The minor street traffic includes left, through, and half of right-turn volumes from the minor street

Source: LSC Transportation Consultants, Inc.

**Table 5**  
**Eight Hour Vehicular Volume Signal Warrant Analysis**  
**Intersection #4 - E 26th Avenue/Middle N/S Collector**  
**(See Figure 13)**  
**Blue Eagle Technology Center**  
**Aurora, CO**  
**LSC #230650; November, 2024**

**Warrant Analysis<sup>(1)</sup>**

Hour	Traffic Volumes (vehicles per hour)			Warrant 1: Eight Hour Vehicular Volume Evaluation							
				Warrant Thresholds				Warrant Threshold Met?			
	Major <sup>(2)</sup>	Minor 1 <sup>(3)</sup> South Leg	Minor 2 <sup>(3)</sup> North Leg	Condition A (70%)		Condition B (70%)		South Leg		North Leg	
				Major	Minor	Major	Minor	A	B	A	B

**2050 Total Traffic**

6-7 AM	588	16	2	420	140	630	70	No	No	No	No
7-8 AM	678	52	6	420	140	630	70	No	No	No	No
8-9 AM	522	14	2	420	140	630	70	No	No	No	No
9-10 AM	353	23	3	420	140	630	70	No	No	No	No
10-11 AM	487	25	3	420	140	630	70	No	No	No	No
11-12 PM	422	27	3	420	140	630	70	No	No	No	No
12-1 PM	375	140	5	420	140	630	70	No	No	No	No
1-2 PM	510	94	4	420	140	630	70	No	No	No	No
2-3 PM	572	114	4	420	140	630	70	No	No	No	No
3-4 PM	533	147	5	420	140	630	70	Yes	No	No	No
4-5 PM	606	140	5	420	140	630	70	No	No	No	No
5-6 PM	639	216	8	420	140	630	70	Yes	Yes	No	No
6-7 PM	289	31	1	420	140	630	70	No	No	No	No

**Numbers of Hours the Warrant Thresholds Are Met**

**Warrant Met?**

<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>No</b>			

**Notes:**

- (1) Thresholds are based on 2 or more lanes on the major approach and 2 or more lanes on the minor approach with the 70% factor applied f
- (2) The major street traffic includes all movements (left, through, and right)
- (3) The minor street traffic includes left, through, and half of right-turn volumes from the minor street

*Source: LSC Transportation Consultants, Inc.*

**Table 6**  
**Eight Hour Vehicular Volume Signal Warrant Analysis**  
**Intersection #6 - E 26th Avenue/Hayesmount Road**  
**(See Figure 14)**  
**Blue Eagle Technology Center**  
**Aurora, CO**  
**LSC #230650; November, 2024**

**Warrant Analysis<sup>(1)</sup>**

Hour	Traffic Volumes (vehicles per hour)			Warrant 1: Eight Hour Vehicular Volume Evaluation							
				Warrant Thresholds				Warrant Threshold Met?			
				Condition A (70%)		Condition B (70%)		South Leg		North Leg	
	Major <sup>(2)</sup>	Minor 1 <sup>(3)</sup> South Leg	Minor 2 <sup>(3)</sup> North Leg	Major	Minor	Major	Minor	A	B	A	B

**2050 Total Traffic**

6-7 AM	549	7	8	420	140	630	70	No	No	No	No
7-8 AM	587	22	23	420	140	630	70	No	No	No	No
8-9 AM	465	7	7	420	140	630	70	No	No	No	No
9-10 AM	309	10	11	420	140	630	70	No	No	No	No
10-11 AM	441	11	11	420	140	630	70	No	No	No	No
11-12 PM	379	12	12	420	140	630	70	No	No	No	No
12-1 PM	319	18	15	420	140	630	70	No	No	No	No
1-2 PM	485	13	10	420	140	630	70	No	No	No	No
2-3 PM	564	15	13	420	140	630	70	No	No	No	No
3-4 PM	533	19	15	420	140	630	70	No	No	No	No
4-5 PM	638	18	15	420	140	630	70	No	No	No	No
5-6 PM	502	28	23	420	140	630	70	No	No	No	No
6-7 PM	313	4	3	420	140	630	70	No	No	No	No
7-8 PM	206	0	0	420	140	630	70	No	No	No	No

**Numbers of Hours the Warrant Thresholds Are Met**

<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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**Warrant Met?**

**No**

**Notes:**

- (1) Thresholds are based on 2 or more lanes on the major approach and 2 or more lanes on the minor approach with the 70% factor applied for a posted speed limit above 40 mph
- (2) The major street traffic includes all movements (left, through, and right)
- (3) The minor street traffic includes left, through, and half of right-turn volumes from the minor street

*Source: LSC Transportation Consultants, Inc.*

**Table 7**  
**Traffic Signal Warrant Summary**  
**Blue Eagle Technology Center**  
**Aurora, CO**  
**LSC #230650; November, 2024**

<u>Intersection No. &amp; Location</u>	<u>Intersection Specific Table/Figure</u>	<u>Scenario Where Traffic Signal Warrant(s) Are Projected To Be Met</u>
1) E. 26th Avenue/Monaghan Road	Table 3/Figure 11	2030 Total
2) E. 26th Avenue/West N/S Collector	Table 4/Figure 12	2050 Total
4) E. 26th Avenue/Middle N/S Collector	Table 5/Figure 13	Not Expected to Be Met by 2050
6) E. 26th Avenue/Hayesmount Road	Table 6/Figure 14	Not Expected to Be Met by 2050



**Table 8 (Page 1 of 3)**  
**95th Percentile Queue Lengths <sup>(1)</sup>**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection No. & Location	Assumed Posted Speed Limit (mph)	Proposed Lane Lengths (feet)	95th Percentile		95th Percentile	
			Queue Length		Queue Length	
			2030 Total		2050 Total	
			AM Peak (feet)	PM Peak (feet)	AM Peak (feet)	PM Peak (feet)
<hr/>						
1) <u>E. 26th Avenue/Monaghan Road</u>						
EB Left	45	275	37	19	145	53
EB Through	45	---	148	221	71	105
EB Right	45	275	---	---	62	16
WB Left	45	275	---	---	48	120
WB Through	45	---	146	339	85	59
WB Right	45	275	33	37	42	48
NB Left	45	275	---	---	38	106
NB Through	45	---	---	---	62	149
NB Right	45	275	---	---	18	38
SB Left	45	275	115	202	59	117
SB Through	45	---	---	---	120	66
SB Right	45	275	18	37	0	39
2) <u>E. 26th Avenue/West N/S Collector</u>						
NB Left	35	200	30	188	<25	90
NB Through/Right	35	---	<25	<25	<25	<25
EB Left	45	275	---	---	<25	<25
EB Right	45	275	<25	<25	<25	<25
WB Left	45	275	<25	<25	<25	<25
SB Left	35	200	---	---	<25	<25
SB Through/Right	35	---	---	---	<25	<25
3) <u>E. 26th Avenue/West RIRO Site Access</u>						
EB Right	45	275	---	---	<25	<25
NB Right	35	---	<25	<25	<25	<25
4) <u>E. 26th Avenue/Middle N/S Collector</u>						
NB Left	35	200	40	195	<25	95
NB Through/Right	35	---	<25	<25	<25	<25
EB Left	45	275	---	---	<25	<25
EB Right	45	275	<25	<25	<25	<25
WB Left	45	275	<25	<25	<25	<25
SB Left	35	200	---	---	<25	<25
SB Through/Right	35	---	---	---	<25	<25
5) <u>E. 26th Avenue/East N/S Collector</u>						
EB Right	45	275	<25	<25	<25	<25
NB Right	35	---	<25	<25	<25	<25
6) <u>E. 26th Avenue/Hayesmount Road</u>						
NB Left	35	200	---	---	<25	<25
NB Through/Right	35	---	---	---	<25	<25
EB Left	45	275	---	---	<25	<25
WB Left	45	275	---	---	<25	<25
SB Left	35	200	---	---	<25	<25
SB Through/Right	35	---	---	---	<25	<25

(1) The queue lengths for the unsignalized intersections are from the Capacity Analysis Worksheets included in the report appendix.

**Table 8 (Page 2 of 3)**  
**95th Percentile Queue Lengths <sup>(1)</sup>**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection No. & Location	Assumed Posted Speed Limit (mph)	Proposed Lane Lengths (feet)	95th Percentile		95th Percentile	
			Queue Length		Queue Length	
			2030 Total		2050 Total	
			AM Peak (feet)	PM Peak (feet)	AM Peak (feet)	PM Peak (feet)
<hr/>						
7) <u>E. 26th Avenue/Future Collector</u>						
NB Left	35	200	---	---	<25	<25
NB Through/Right	35	---	---	---	<25	<25
EB Left	45	275	---	---	<25	<25
WB Left	45	275	---	---	<25	<25
SB Left	35	200	---	---	<25	<25
SB Through/Right	35	---	---	---	<25	<25
8) <u>E. 26th Avenue/Hudson Road</u>						
NB Left	45	275	<25	<25	<25	<25
NB Through/Right	45	---	<25	<25	<25	<25
EB Left	45	275	<25	<25	<25	<25
EB Right	45	275	<25	<25	<25	<25
WB Left	45	275	<25	<25	<25	<25
SB Left	45	275	<25	<25	<25	<25
SB Through/Right	45	---	<25	<25	<25	<25
9) <u>Middle N/S Collector/P-1 RIRO Access</u>						
NB Right	35	200	<25	<25	<25	<25
EB Right	25	---	<25	<25	<25	<25
WB Right	25	---	<25	<25	<25	<25
SB Right	35	200	<25	<25	<25	<25
10) <u>West N/S Collector/North E/W Collector</u>						
NB Right	35	200	<25	<25	<25	<25
WB Right	35	---	<25	<25	<25	<25
11) <u>Middle N/S Collector/North E/W Collector</u>						
EB Approach	35	---	<25	25	<25	<25
WB Approach	35	---	<25	<25	<25	<25
NB Approach	35	---	25	25	<25	<25
SB Approach	35	---	25	25	<25	25
12) <u>E. N/S Collector/N. E/W Collector</u>						
NB Left	35	200	<25	<25	<25	<25
EB Approach	35	---	<25	<25	<25	<25
SB Right	35	200	<25	<25	<25	<25
13) <u>West N/S Collector/Middle E/W Collector</u>						
NB Left	35	200	---	---	<25	<25
EB Approach	35	---	---	---	<25	<25
WB Approach	35	---	<25	<25	<25	<25
SB Left	35	200	<25	<25	<25	<25
14) <u>Middle N/S Collector/Middle E/W Collector</u>						
NB Left	35	200	<25	<25	<25	<25
EB Approach	35	---	<25	<25	<25	<25
WB Approach	35	---	<25	<25	<25	<25
SB Left	35	200	<25	<25	<25	<25

(1) The queue lengths for the unsignalized intersections are from the Capacity Analysis Worksheets included in the report appendix.

**Table 8 (Page 3 of 3)**  
**95th Percentile Queue Lengths <sup>(1)</sup>**  
**Blue Eagle Technology Center**  
**Aurora, Colorado**  
**LSC #230650; November, 2024**

Intersection No. & Location	Assumed Posted Speed Limit (mph)	Proposed Lane Lengths (feet)	95th Percentile Queue Length		95th Percentile Queue Length	
			2030 Total		2050 Total	
			AM Peak (feet)	PM Peak (feet)	AM Peak (feet)	PM Peak (feet)
<hr/>						
16) <u>Monaghan Road/South E/W Collector</u>						
NB Right	45	275	---	---	<25	<25
WB Left	35	200	---	---	43	103
WB Right	35	---	---	---	<25	<25
SB Left	45	275	---	---	<25	<25
17) <u>W. N/S Collector/S. E/W Collector</u>						
NB Left	35	200	---	---	<25	<25
NB Through/Right	35	---	<25	<25	<25	<25
EB Left	35	200	---	---	<25	<25
EB Right	35	200	---	---	<25	<25
WB Left	35	200	<25	<25	<25	<25
SB Left	35	200	<25	<25	<25	<25
SB Through	35	---	---	---	<25	<25
SB Right	35	200	---	---	<25	<25
18) <u>Middle N/S Collector/South E/W Collector</u>						
NB Left	35	200	<25	<25	<25	<25
NB Through/Right	35	---	<25	<25	<25	<25
EB Left	35	200	<25	<25	<25	<25
EB Right	35	200	<25	<25	<25	<25
WB Left	35	200	<25	<25	<25	<25
SB Left	35	200	<25	<25	<25	<25
SB Through	35	---	<25	<25	<25	<25
SB Right	35	200	<25	<25	<25	<25
19) <u>Hayesmount Road/South E/W Collector</u>						
NB Left	35	200	<25	<25	<25	<25
NB Through/Right	35	---	<25	<25	<25	<25
EB Left	35	200	---	---	<25	<25
EB Right	35	200	<25	<25	<25	<25
WB Left	35	200	<25	<25	<25	<25
SB Left	35	200	---	---	<25	<25
SB Through/Right	35	---	---	---	<25	<25
20) <u>Hudson Road/South E/W Collector</u>						
NB Left	45	275	---	---	<25	<25
EB Left	35	200	---	---	<25	<25
104) <u>E. Colfax Avenue (CO-36)/Hudson Road</u>						
NB Approach	45	---	<25	<25	<25	<25
EB Left	55	405	<25	<25	<25	<25
WB Left	55	405	<25	<25	<25	<25
WB Right	55	378	<25	<25	<25	<25
SB Approach	45	---	<25	28	<25	<25

(1) The queue lengths for the unsignalized intersections are from the Capacity Analysis Worksheets included in the report appendix.

Table 9 (Page 1 of 3)  
Recommended Improvements to Public Street Network  
Blue Eagle Technology Center  
Aurora, CO  
LSC #230650; November, 2024

Inter- section No.	Intersection Location	Recommended Improvements by 2030 <sup>(1)</sup>	Responsibility	Percent Impact Due to Blue Eagle <sup>(2)</sup>	Recommended Improvements by 2050 <sup>(1)</sup>	Responsibility	Percent Impact Due to Blue Eagle <sup>(2)</sup>
E. 26th Avenue & Monaghan Road		Provide two eastbound lanes on 26th Avenue adjacent to the site	Applicant	- - -	Widen to two through lanes in each direction	Others	- - -
Hayesmount Road corridor through the site		Reserve right-of-way for potential future flyover of I-70 and railroad through the site	Applicant	- - -			
#1	E. 26th Avenue/Monaghan Road	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	- - -	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	- - -
		WB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	37.9%	WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	49.9%
		SB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	33.8%	NB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	- - -
		Convert to traffic signal control when warranted	Applicant/Others	22%	NB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	52.5%
					SB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	- - -
#2	E. 26th Avenue/West N/S Collector	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	- - -	SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others	- - -
		WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	- - -	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others <sup>(3)</sup>	- - -
		NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	- - -			
#3	E. 26th Avenue/ West Right-in/Right-out Site Access	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	- - -			
#4	E. 26th Avenue/Middle N/S Collector	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	- - -	SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others	- - -
		WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	- - -	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others <sup>(3)</sup>	- - -
		NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	- - -			
#5	E. 26th Avenue/East N/S Collector	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	- - -			
#6	E. 26th Avenue/Hayesmount Road				EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	- - -
					WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	- - -
					NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others	- - -
					SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others	- - -

(1) A transition taper of 13.5:1 was used for Major and Minor Arterials based on a posted speed limit of 45 mph (160 feet). An appropriate redirect taper for 45 mph is 45:1  
A transition taper of 10:1 was used for all Collectors based on a posted speed limit of 35 mph (120 feet). An appropriate redirect taper for 35 mph is 20:1  
(2) The percent impact due to Blue Eagle is the average of the 2050 morning peak hour site-generated traffic volumes divided by the 2050 total traffic volume and the 2050 afternoon peak hour site-generated traffic volumes divided by the 2050 total traffic volume  
(3) The easbound left-turn lane will not be required until the parcels north of E. 26th Avenue are developed, however, the applicant will be required to construct the entire south side of E. 26th Avenue along the site frontage including the eastbound left-turn lane

Table 9 (Page 2 of 3)  
Recommended Improvements to Public Street Network  
Blue Eagle Technology Center  
Aurora, CO  
LSC #230650; November, 2024

Inter-section No.	Intersection Location	Recommended Improvements by 2030 <sup>(1)</sup>		Percent Impact Due to Blue Eagle <sup>(2)</sup>	Recommended Improvements by 2050 <sup>(1)</sup>	Responsibility	Percent Impact Due to Blue Eagle <sup>(2)</sup>
#7	E. 26th Avenue/Future Collector				EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	---
					WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	---
					NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others	---
					SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others	---
#8	E. 26th Avenue/Hudson Road	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	See Note 3	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	---
		NB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others		WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	---
		SB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others		Potential traffic signal control if warrants are met	Applicant/Others	10.1%
#9	Middle N/S Collector/ Right-in/Right-out Access	NB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
		SB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
#10	West N/S Collector/ Right-in/Right-out Access	NB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
#11	Middle N/S Collector/ North E/W Collector	Construct as modern one-lane roundabout	Applicant	---			
#12	East N/S Collector/ North E/W Collector	NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
		SB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
#13	West N/S Collector/ Middle E/W Collector	SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
		NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others	---			
#14	Middle N/S Collector/Middle E/W Collector	NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
		SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---			
#16	Monaghan Road/South E/W Collector				NB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	95.65%
					SB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	98.05%
					WB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant/Others	95.65%

(1) A transition taper of 13.5:1 was used for Major and Minor Arterials based on a posted speed limit of 45 mph (160 feet). An appropriate redirect taper for 45 mph is 45:1  
A transition taper of 10:1 was used for all Collectors based on a posted speed limit of 35 mph (120 feet). An appropriate redirect taper for 35 mph is 20:1  
(2) The percent impact due to Blue Eagle is the average of the 2050 morning peak hour site-generated traffic volumes divided by the 2050 total traffic volume and the 2050 afternoon peak hour site-generated traffic volumes divided by the 2050 total traffic volume  
(3) Blue Eagle is not expcted to add traffic to the northbound left-turn and eastbound right-turn movements in the long-term, however, this may be different in the short-term with limited connectivity in place

Table 9 (Page 3 of 3)  
Recommended Improvements to Public Street Network  
Blue Eagle Technology Center  
Aurora, CO  
LSC #230650; November, 2024

Inter- section No.	Intersection Location	Percent Impact Due to Blue Eagle <sup>(2)</sup>			Percent Impact Due to Blue Eagle <sup>(2)</sup>	
		Recommended Improvements by 2040 <sup>(1)</sup>			Responsibility	
#17	Middle N/S Collector/ South E/W Collector	SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---	NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant
		WB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---	SB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant
					EB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant
					EB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant
#18	Middle N/S Collector/ South E/W Collector	NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		SB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		EB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		EB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		WB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
#19	Hudson Road/South E/W Collector	NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		EB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		EB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
		WB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant	---		
#20	Hudson Road/South E/W Collector				NB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
					EB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others
#104	E. Colfax Avenue (SH 36)/ Hudson Road <sup>(3)</sup>	EB LT - construct lane - 1 @ 405 feet and 222-foot transition taper	Others	0%		
		WB LT - construct lane - 1 @ 405 feet and 222-foot transition taper	Others	0%		
		WB RT - construct lane - 1 @ 378 feet and 222-foot transition taper	Applicant/Others	62%		

(1) A transition taper of 13.5:1 was used for Major and Minor Arterials based on a posted speed limit of 45 mph (160 feet). An appropriate redirect taper for 45 mph is 45:1  
A transition taper of 10:1 was used for all Collectors based on a posted speed limit of 35 mph (120 feet). An appropriate redirect taper for 35 mph is 20:1  
(2) The percent impact due to Blue Eagle is the average of the 2050 morning peak hour site-generated traffic volumes divided by the 2050 total traffic volume and the 2050 afternoon peak hour site-generated traffic volumes divided by the 2050 total traffic volume  
(3) Based on Section 3.5 (5) a southbound left-turn lane would not be required on Hudson Road approaching E. Colfax Avenue (SH 36) as the opposing traffic is predicted to be below 100 DHV.



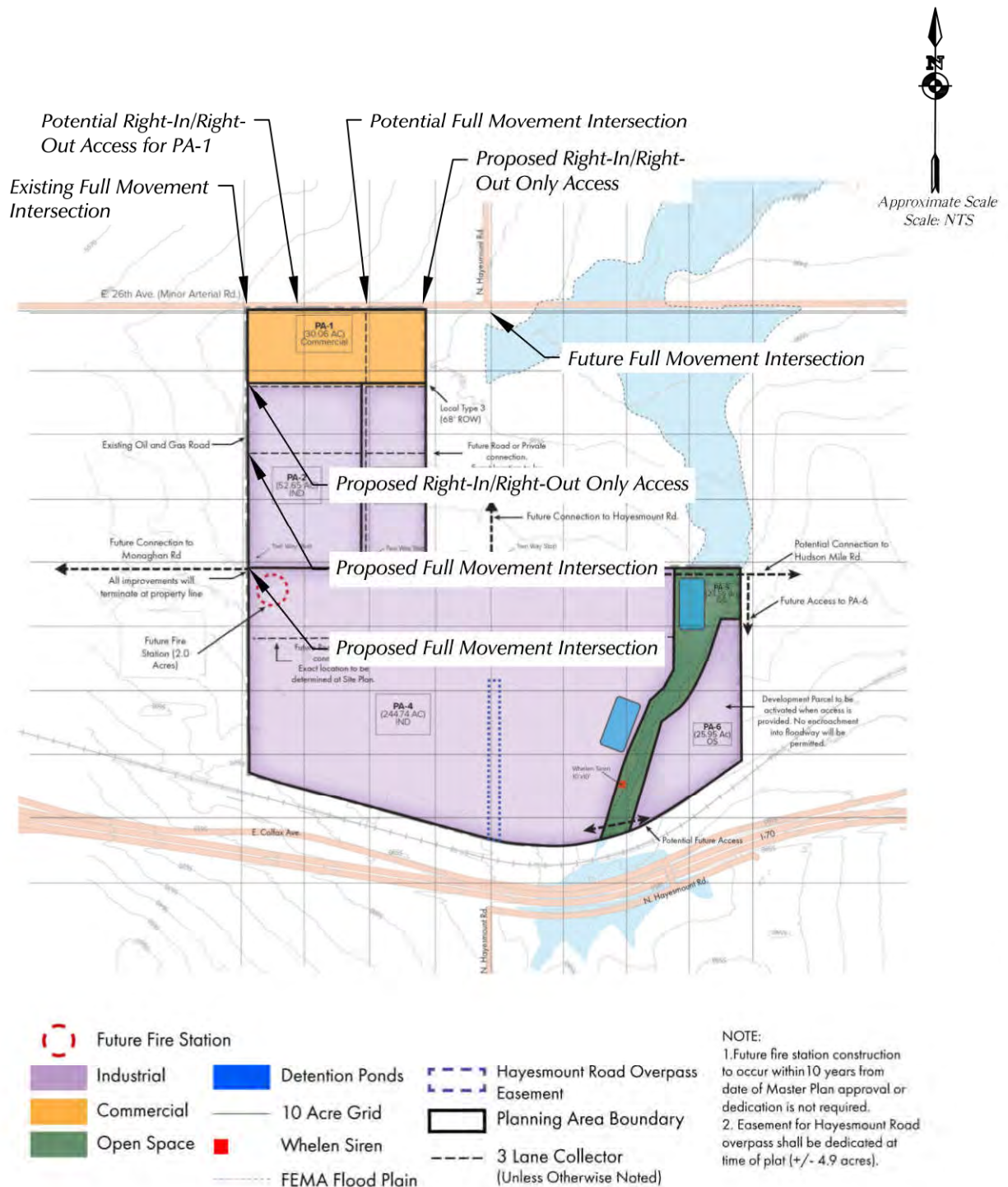


Figure 1

# Vicinity Map

Blue Eagle Technology Park (LSC #230650)





The existing at grade railroad crossing just west of the Hayesmount Road alignment provides access to an existing house that will be removed - the existing access is not planned to be used as either a public or emergency access for the site.

Figure 2a

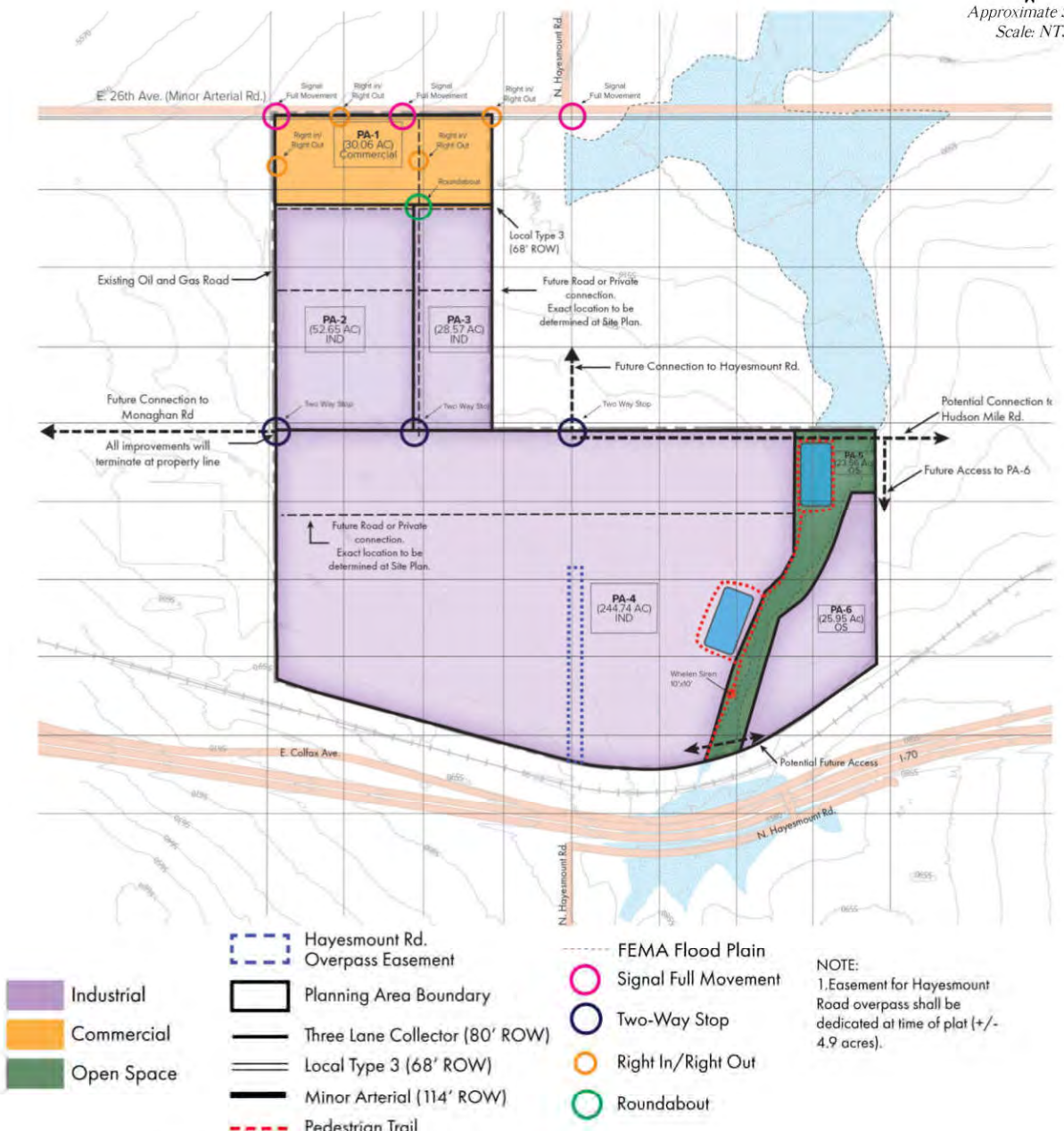
## Site Plan

Blue Eagle Technology Park (LSC #230650)





Approximate Scale  
Scale: NTS

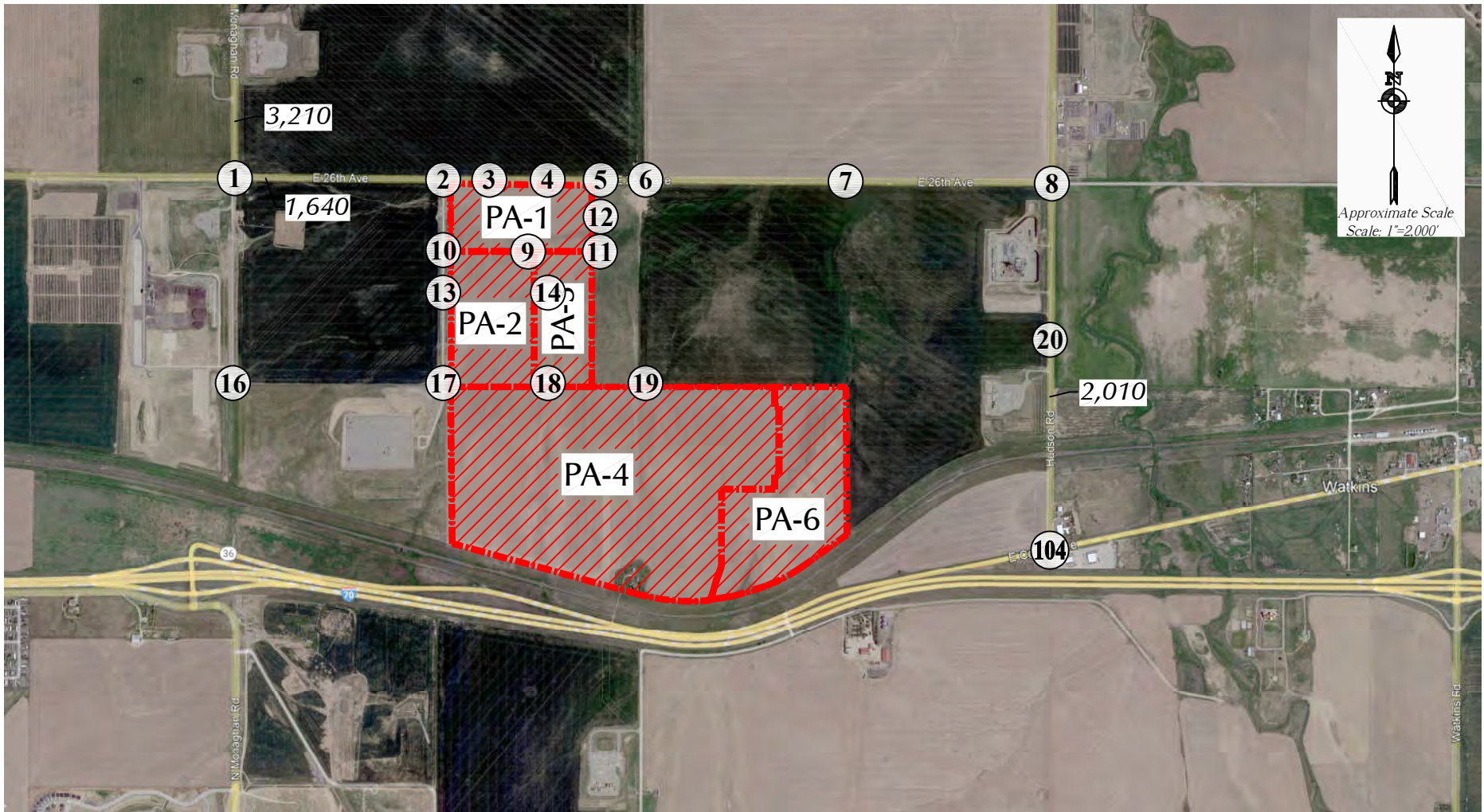
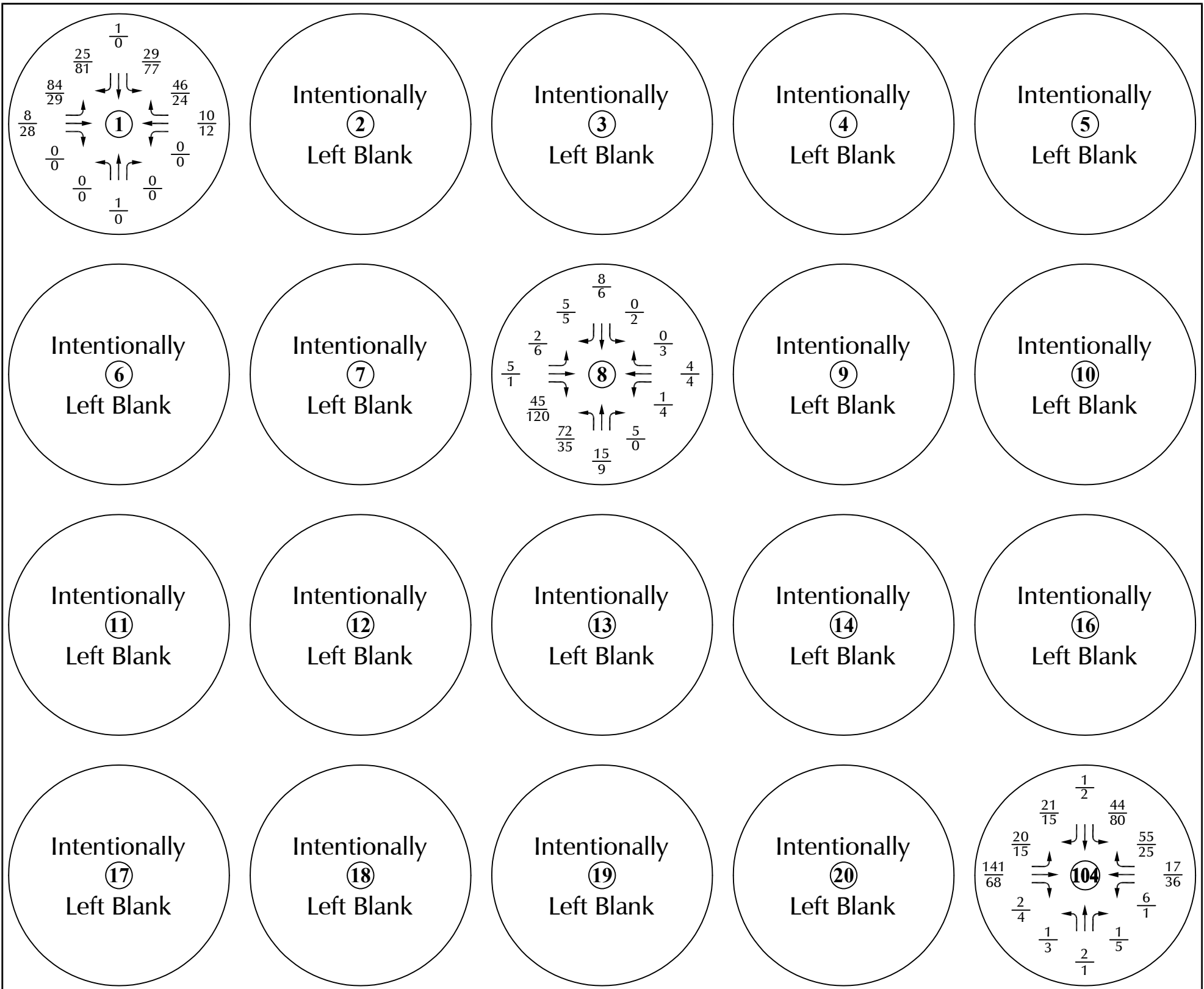


The existing at grade railroad crossing just west of the Hayesmount Road alignment provides access to an existing house that will be removed - the existing access is not planned to be used as either a public or emergency access for the site.

Figure 2b

## Circulation Plan

Blue Eagle Technology Park (LSC #230650)

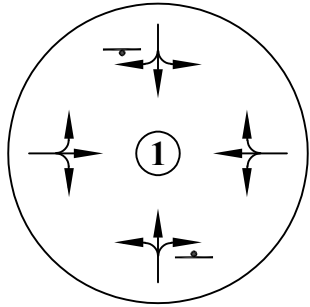


LEGEND:

$\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

Figure 3a  
**Existing  
 Traffic**



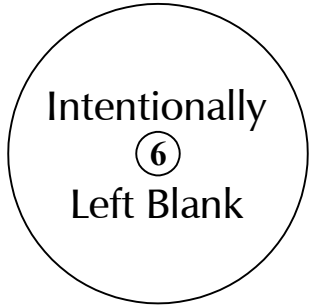


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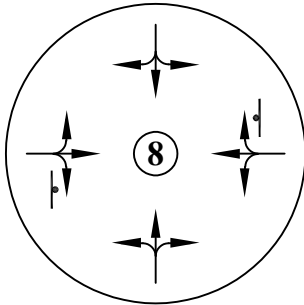
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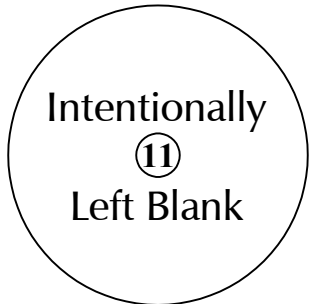


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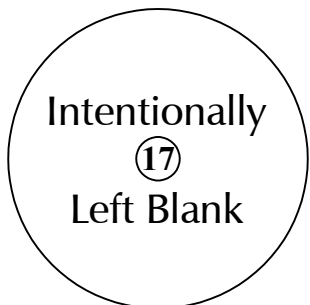


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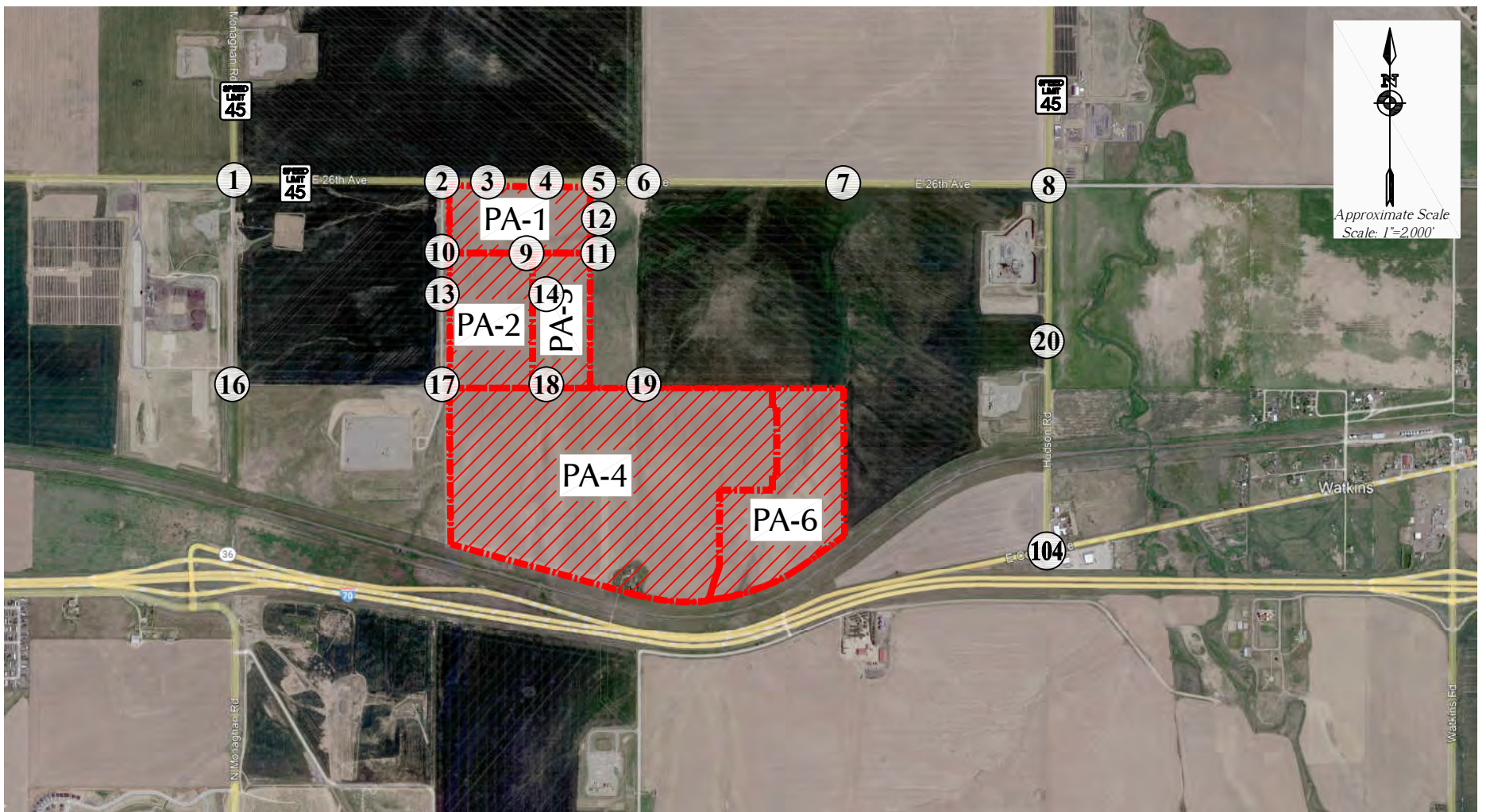
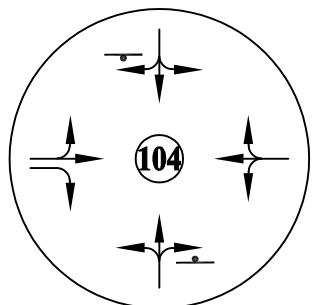
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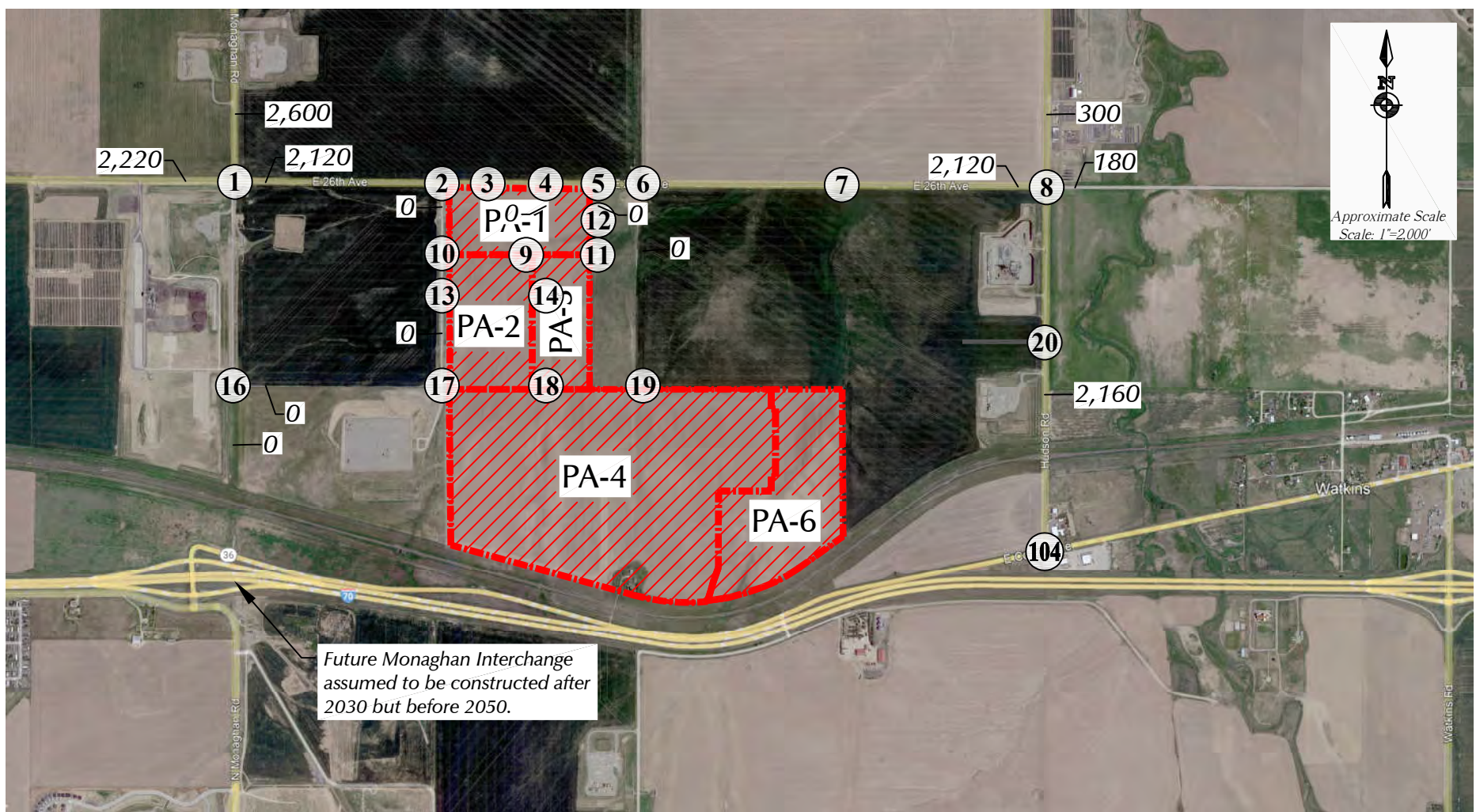
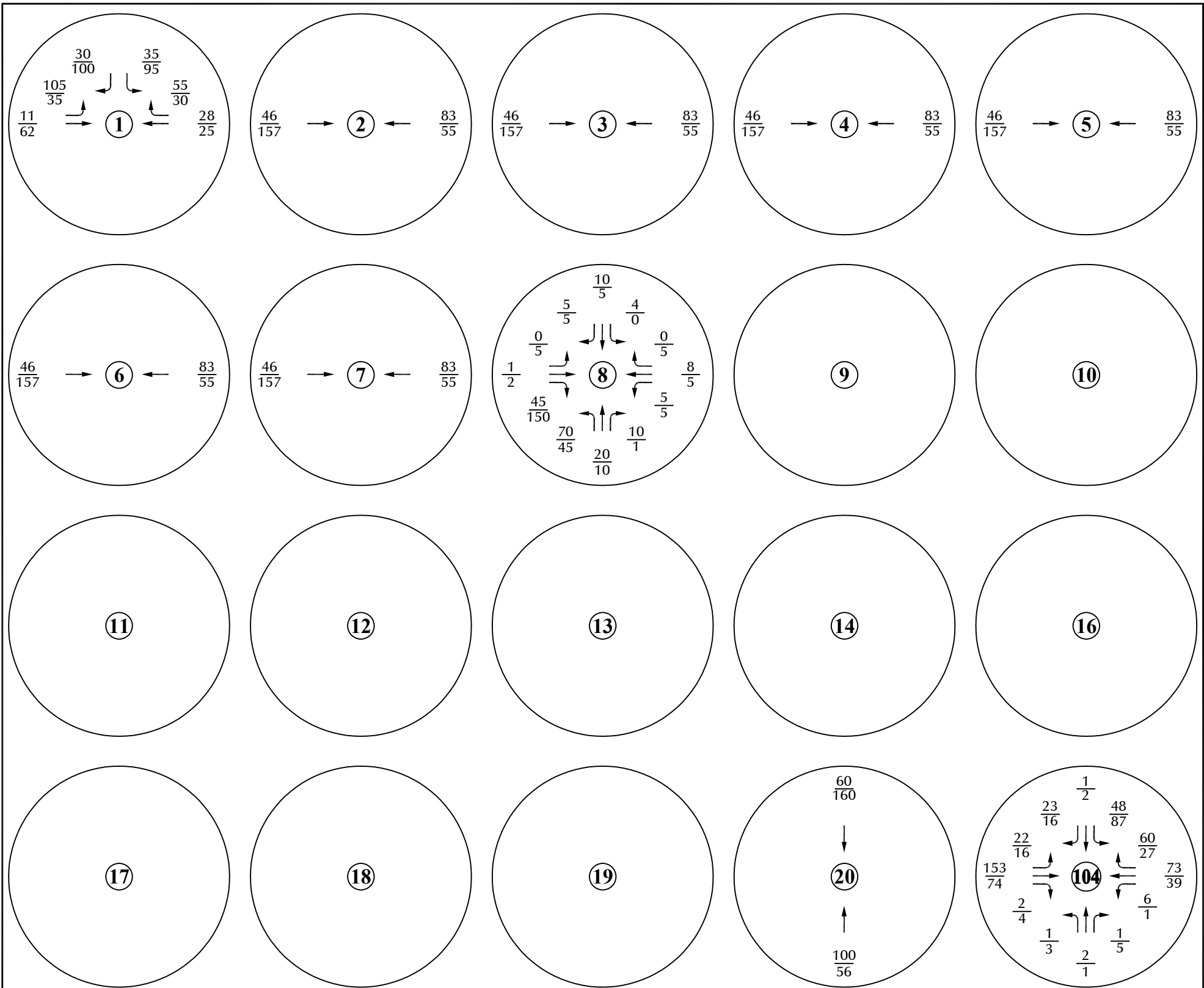


LEGEND:

-  = Stop Sign
-  = Traffic Signal
-  = Speed Limit







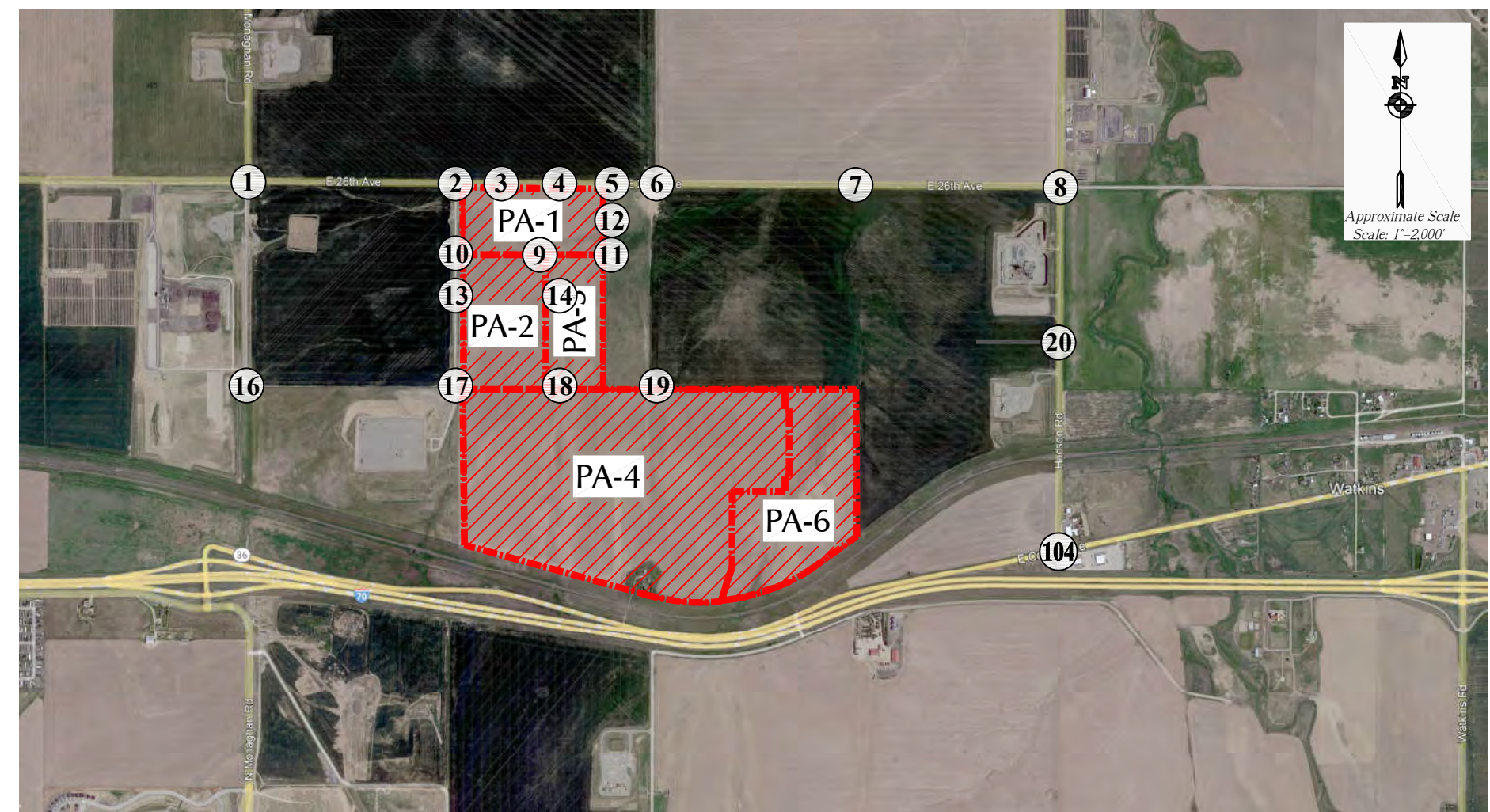
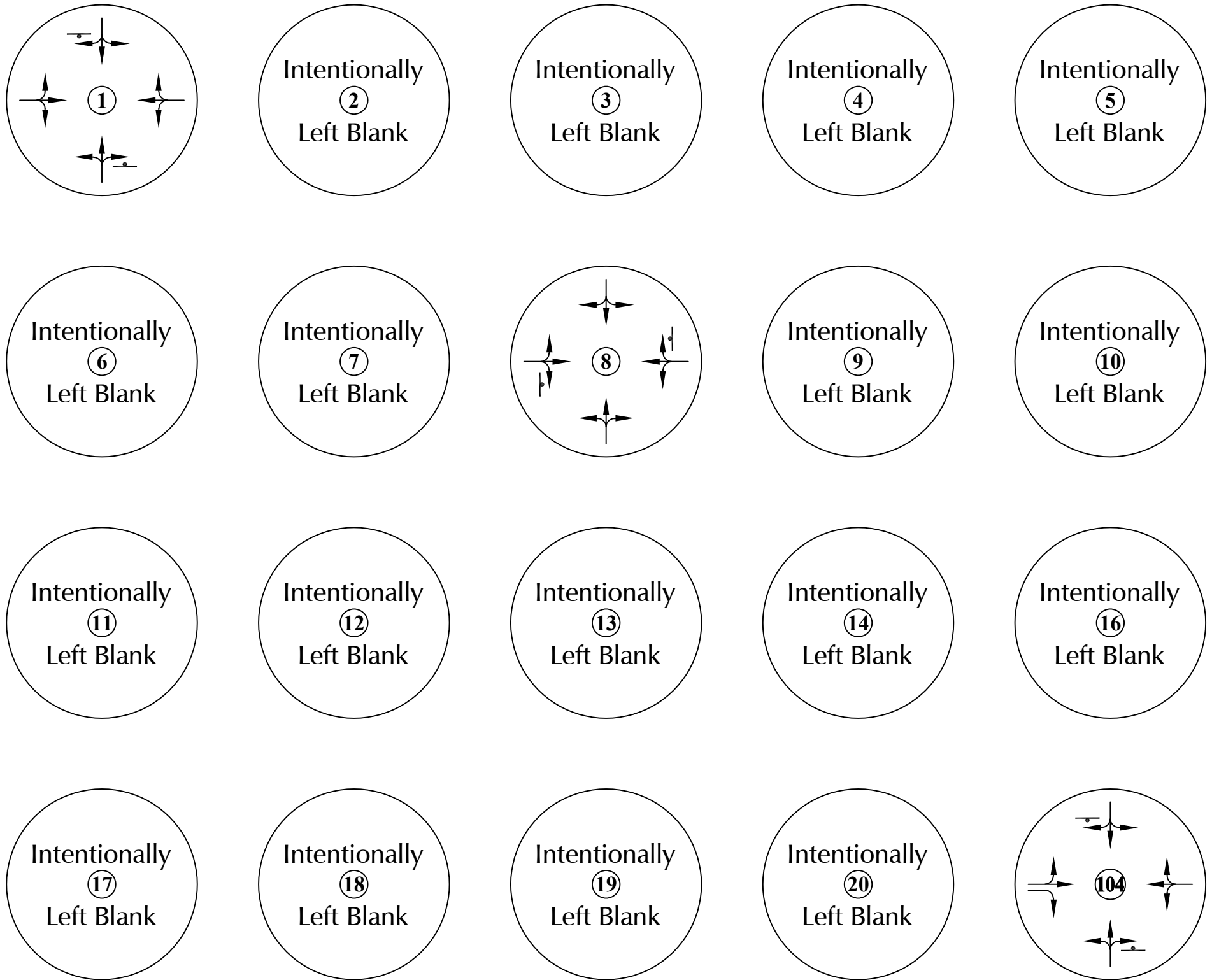
LEGEND:

$\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

Figure 4a  
**Year 2030**  
**Background Traffic**  
 Blue Eagle Technology Park (LSC #230650)









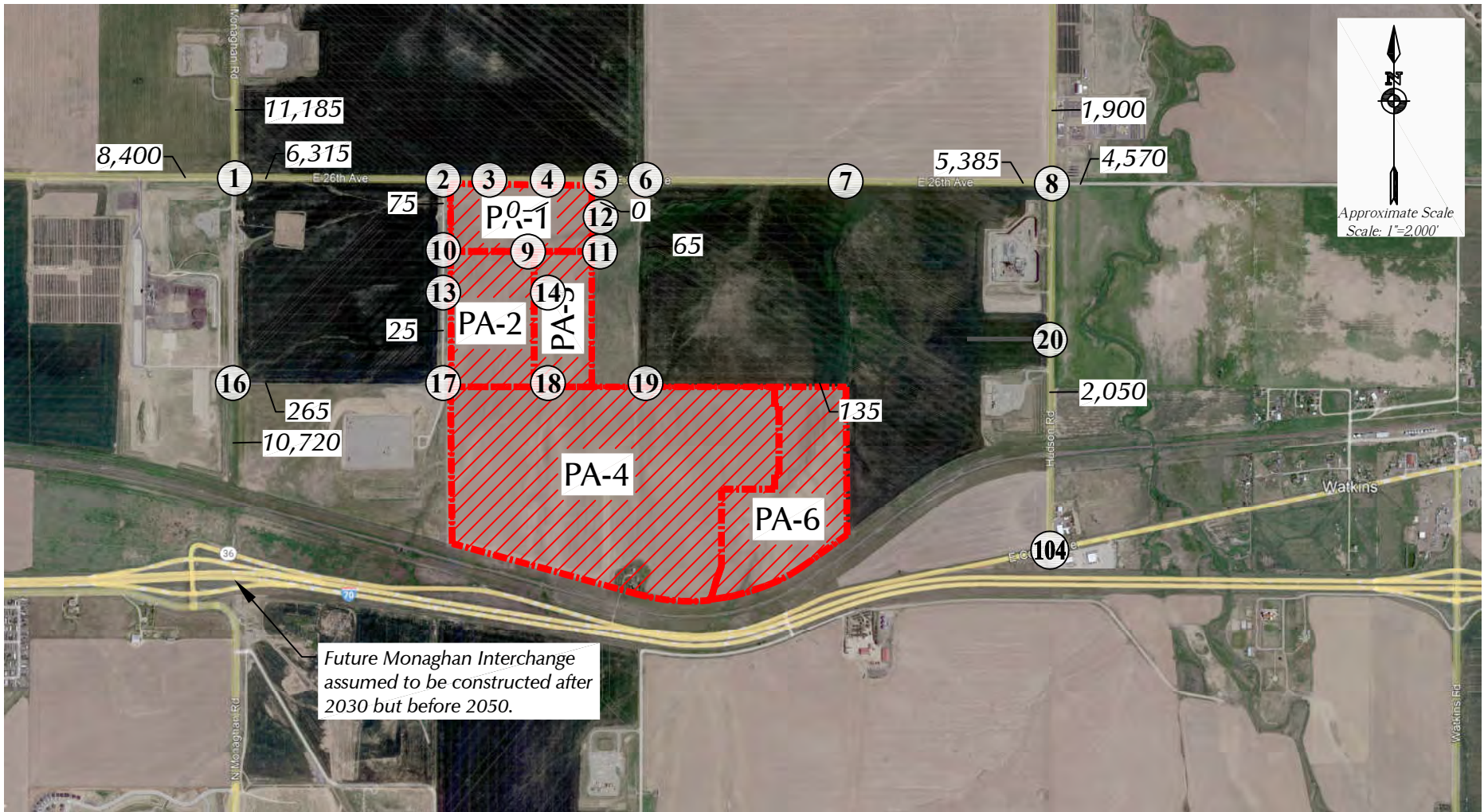
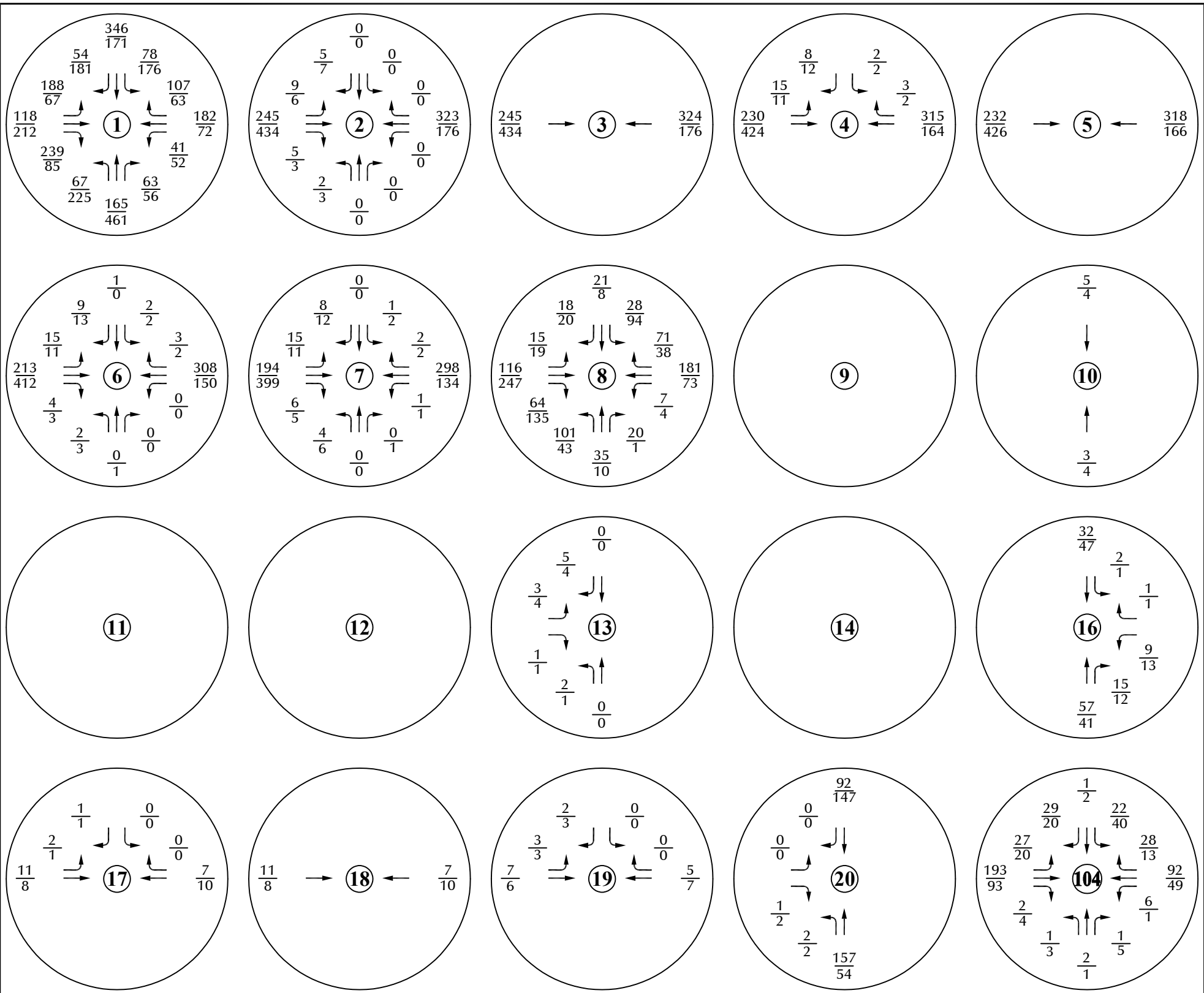
LEGEND:  
 = Stop Sign  
 = Traffic Signal

Figure 4b  
**Year 2030 Background  
 Lane Geometry and Traffic Control**  
 Blue Eagle Technology Park (LSC #230650)





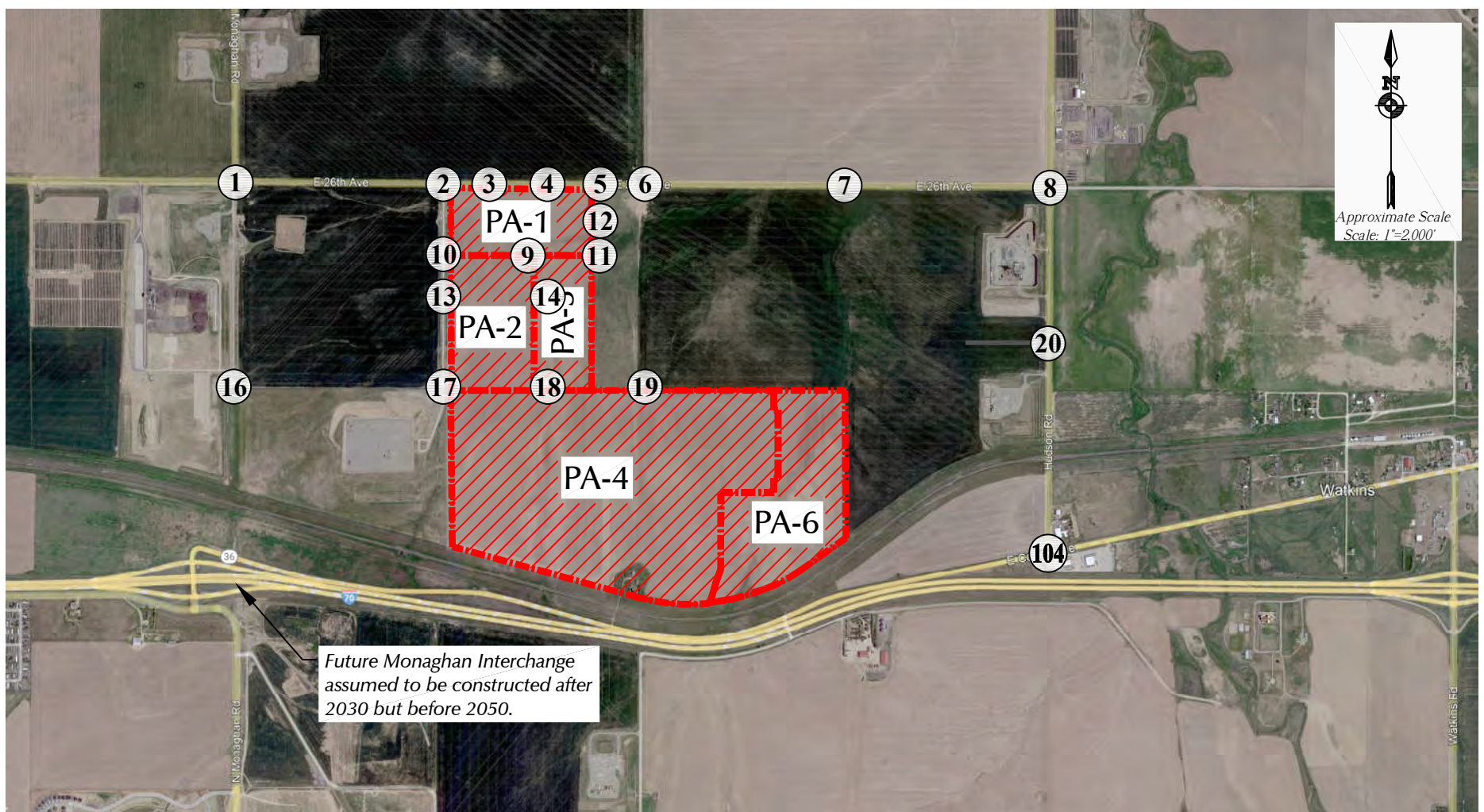
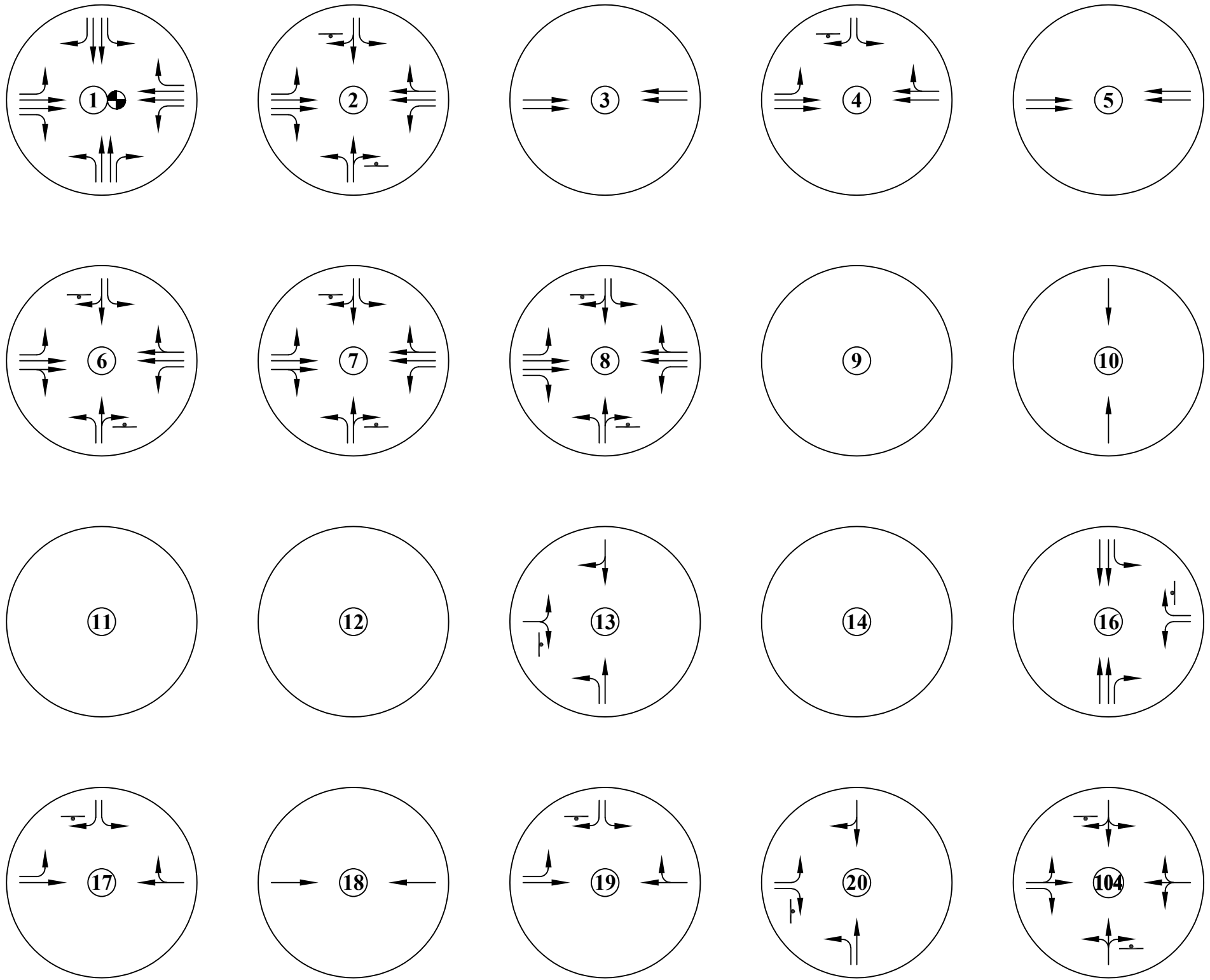


LEGEND:

$\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

Figure 5a  
**Year 2050**  
**Background Traffic**  
 Blue Eagle Technology Park (LSC #230650)





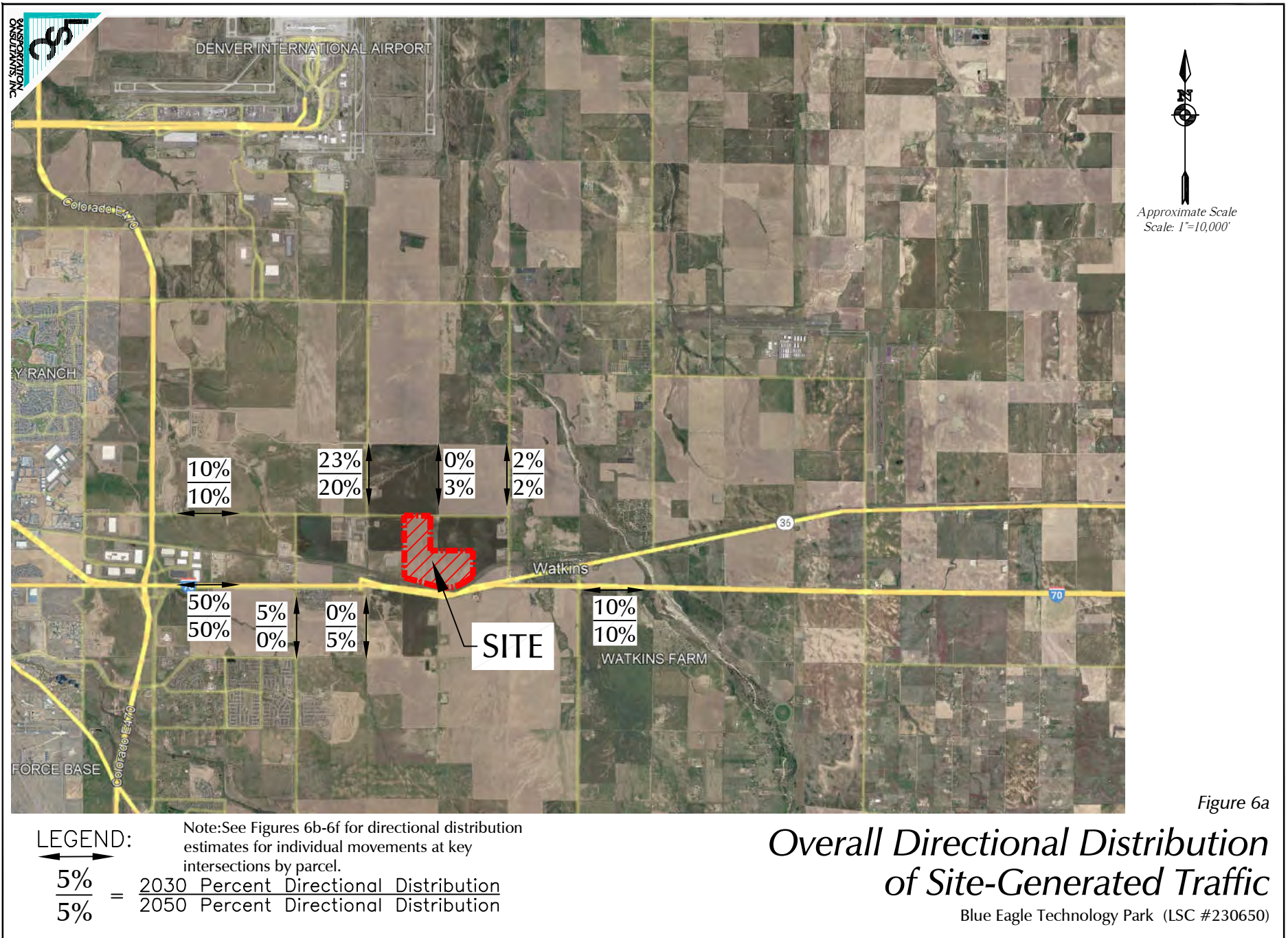
LEGEND:

- = Stop Sign
- ⊙ = Traffic Signal
- ⊙RA = Modern Roundabout

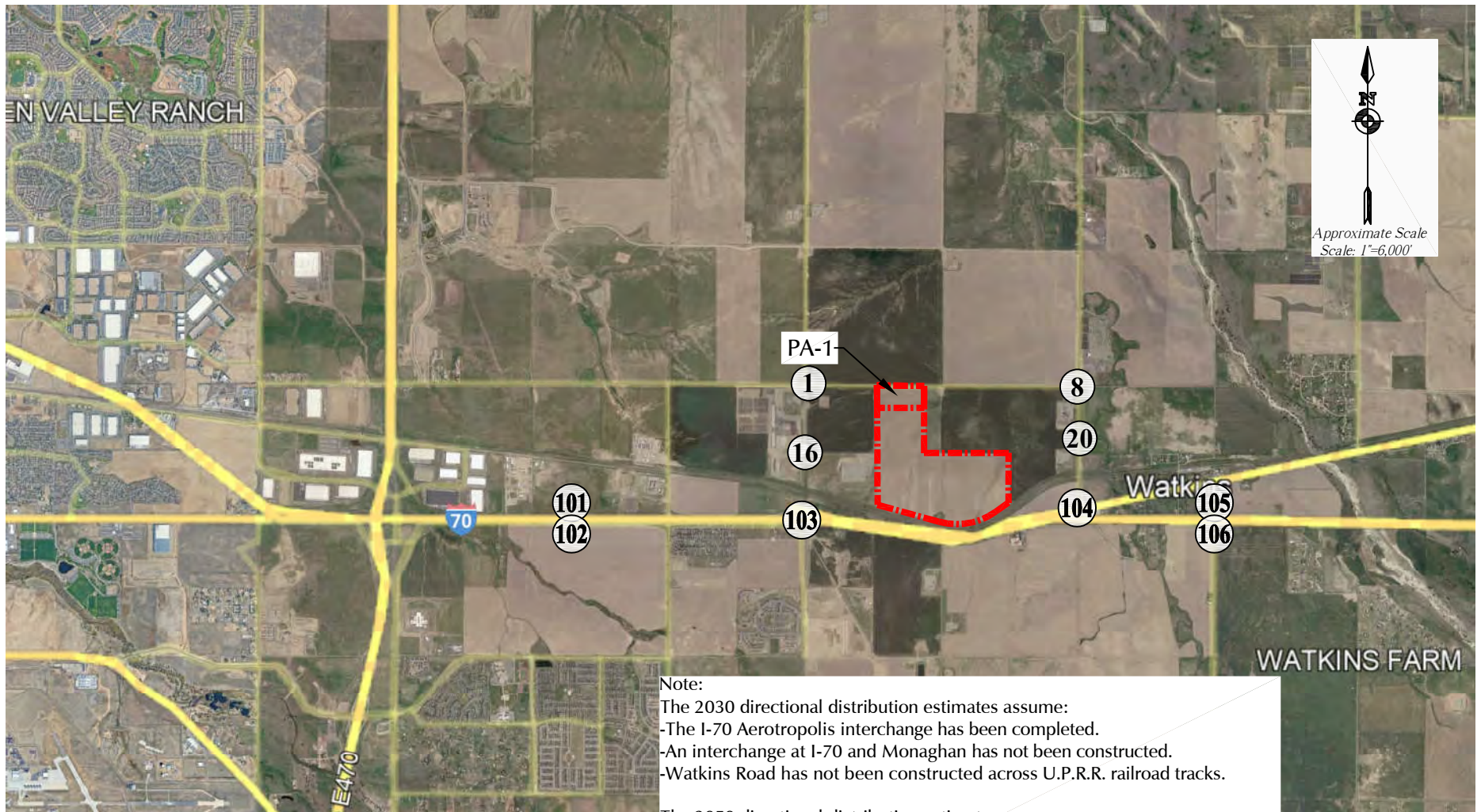
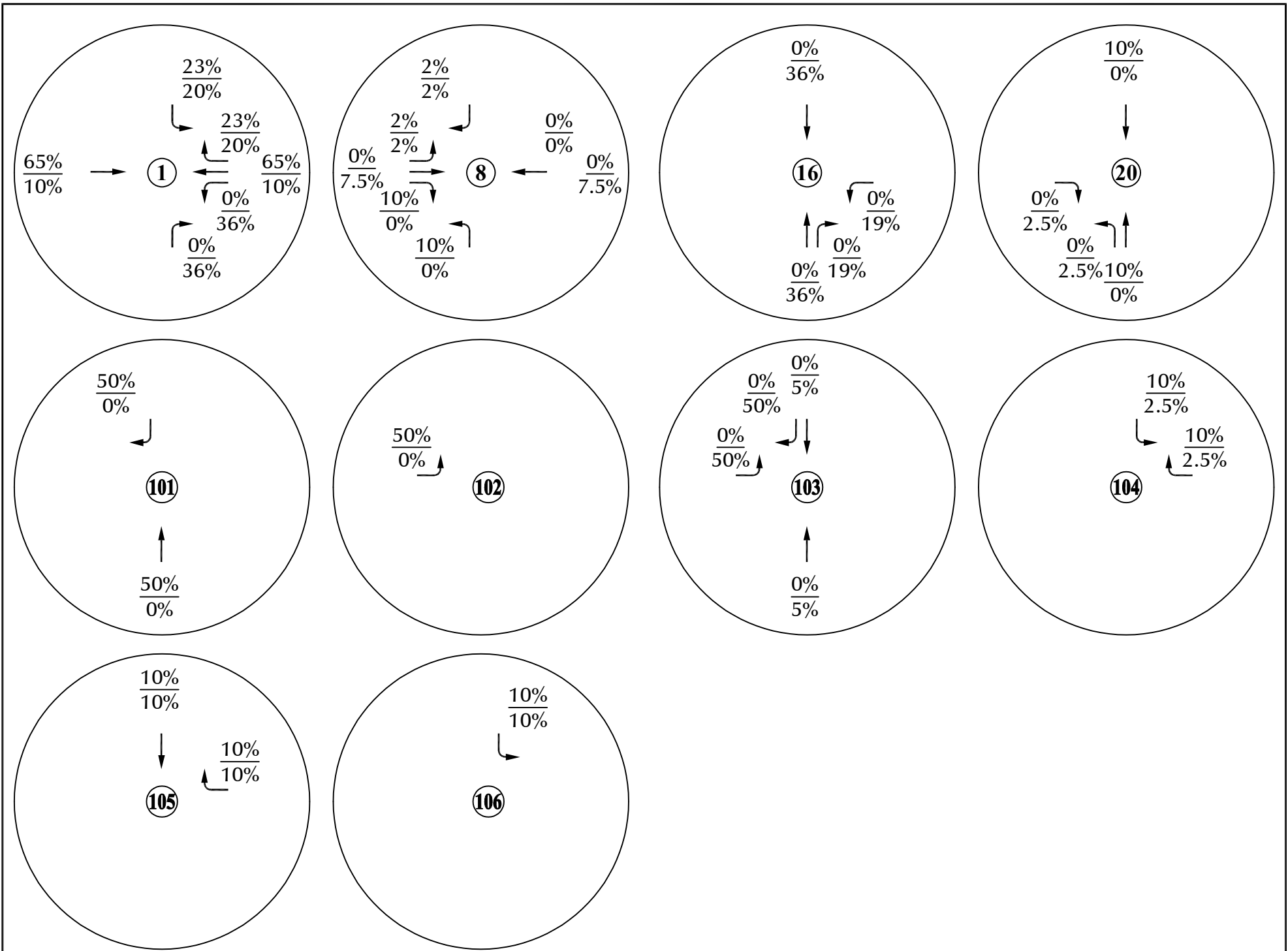


Figure 5b  
**Year 2050 Background  
 Lane Geometry and Traffic Control**  
 Blue Eagle Technology Park (LSC #230650)









LEGEND:

$\frac{5\%}{5\%}$  =  $\frac{2030 \text{ Percent Directional Distribution}}{2050 \text{ Percent Directional Distribution}}$

See the attached pages showing the known interchange plans. As a final design has not been selected for the Monaghan Intersection the site-generated traffic volumes are shown as if this intersection were an at-grade intersection.

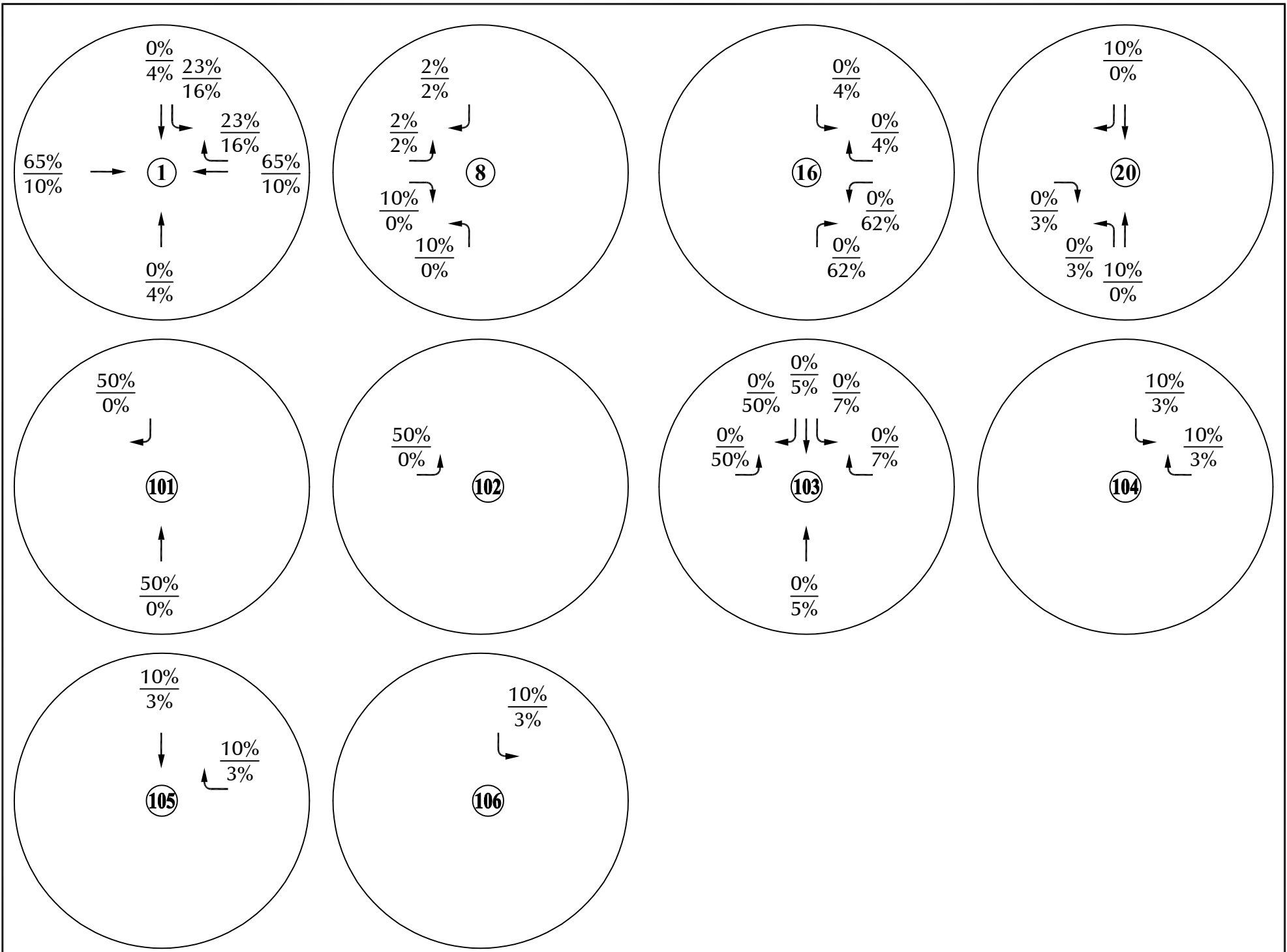
Figure 6b

# Directional Distribution of PA-1 Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)







LEGEND:

$$\frac{5\%}{5\%} = \frac{2030 \text{ Percent Directional Distribution}}{2050 \text{ Percent Directional Distribution}}$$

See the attached pages showing the known interchange plans. As a final design has not been selected for the Monaghan Intersection the site-generated traffic volumes are shown as if this intersection were an at-grade intersection.

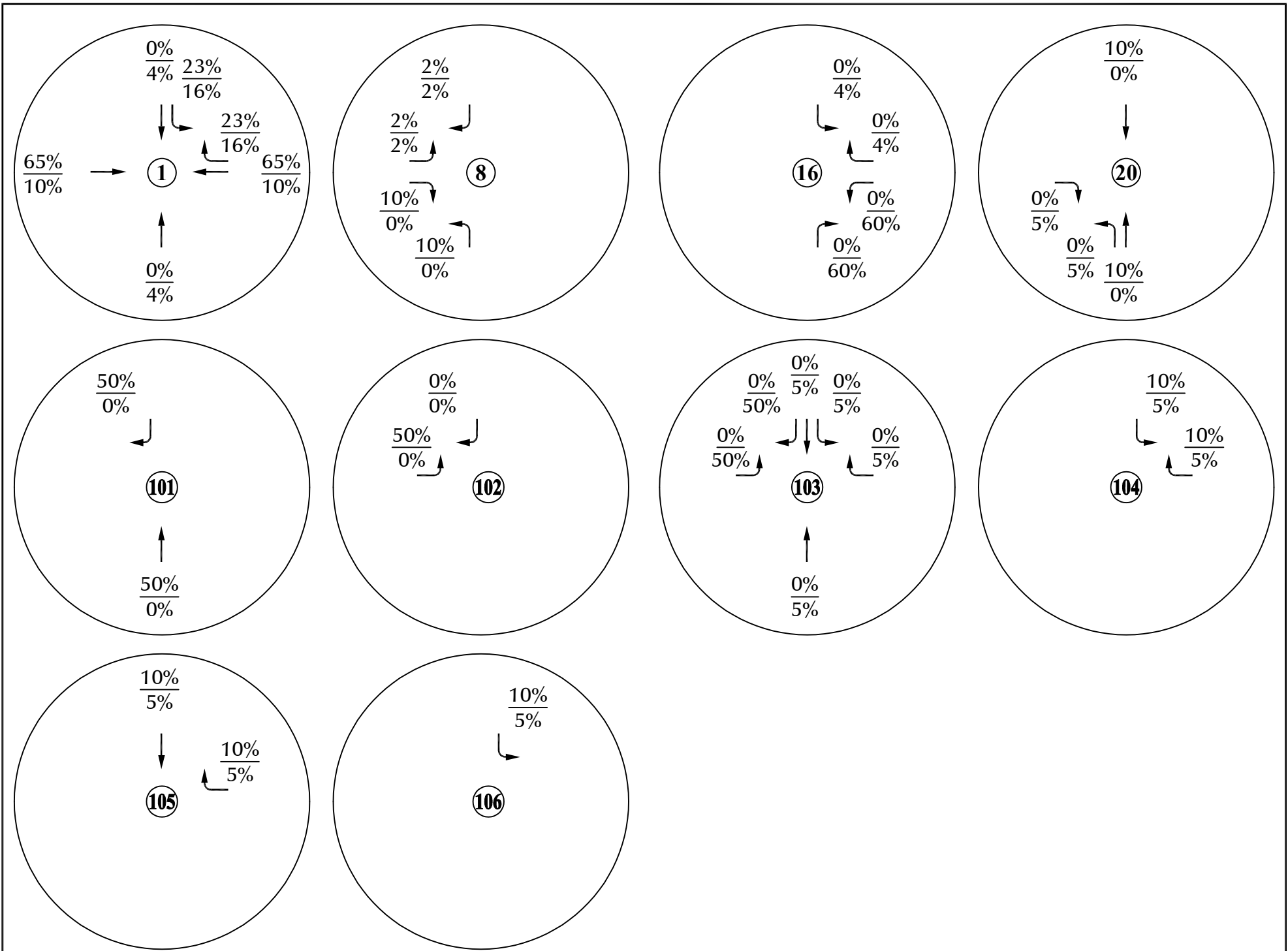
Figure 6c

# Directional Distribution of PA-2 Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)







LEGEND:

$$\frac{5\%}{5\%} = \frac{2030 \text{ Percent Directional Distribution}}{2050 \text{ Percent Directional Distribution}}$$

Note:  
 The 2030 directional distribution estimates assume:  
 -The I-70 Aerotropolis interchange has been completed.  
 -An interchange at I-70 and Monaghan has not been constructed.  
 -Watkins Road has not been constructed across U.P.R.R. railroad tracks.

The 2050 directional distribution estimates assume:  
 -The I-70 Aerotropolis interchange has been completed.  
 -An interchange at I-70 and Monaghan has been constructed.  
 -Watkins Road has been constructed across U.P.R.R. railroad tracks.

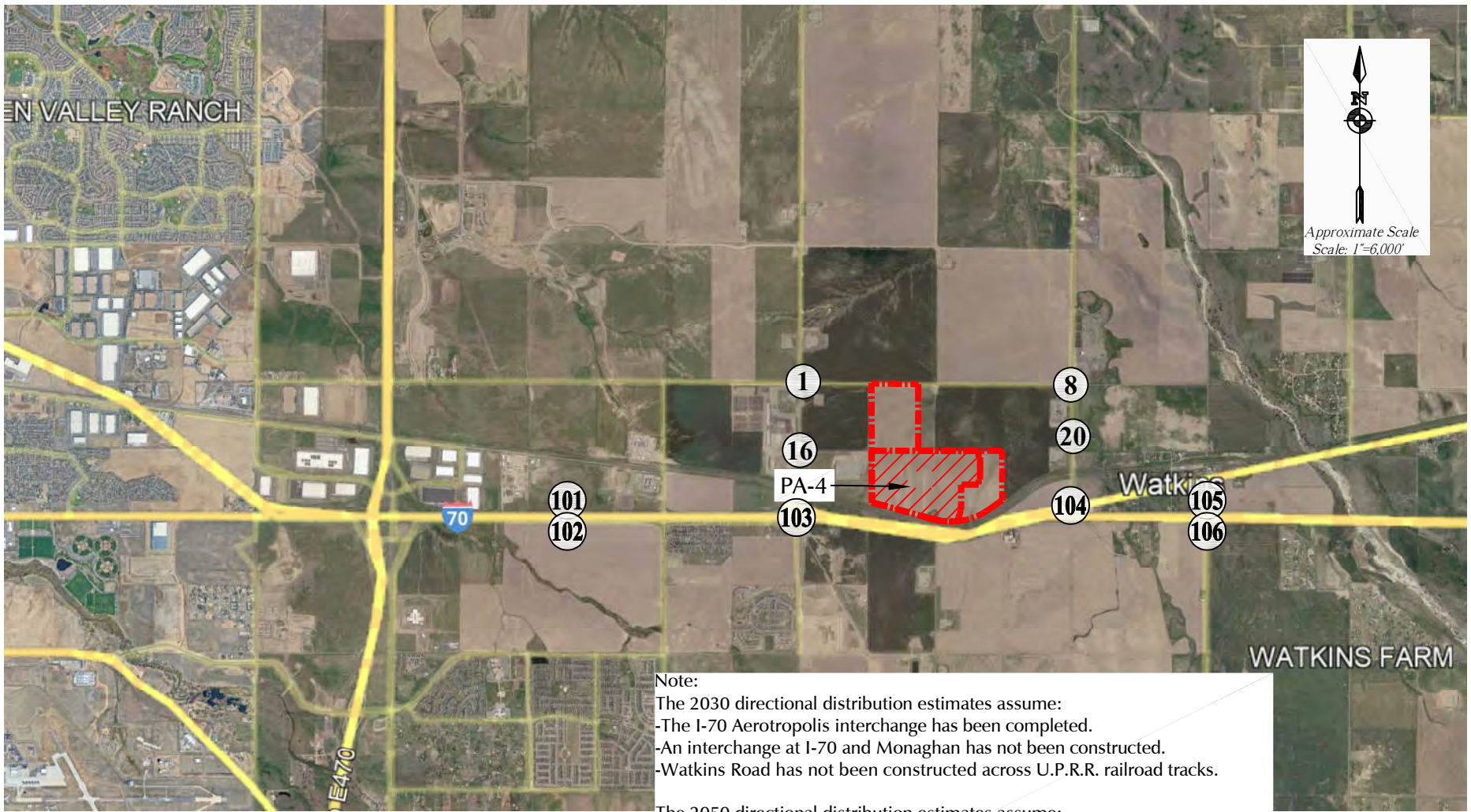
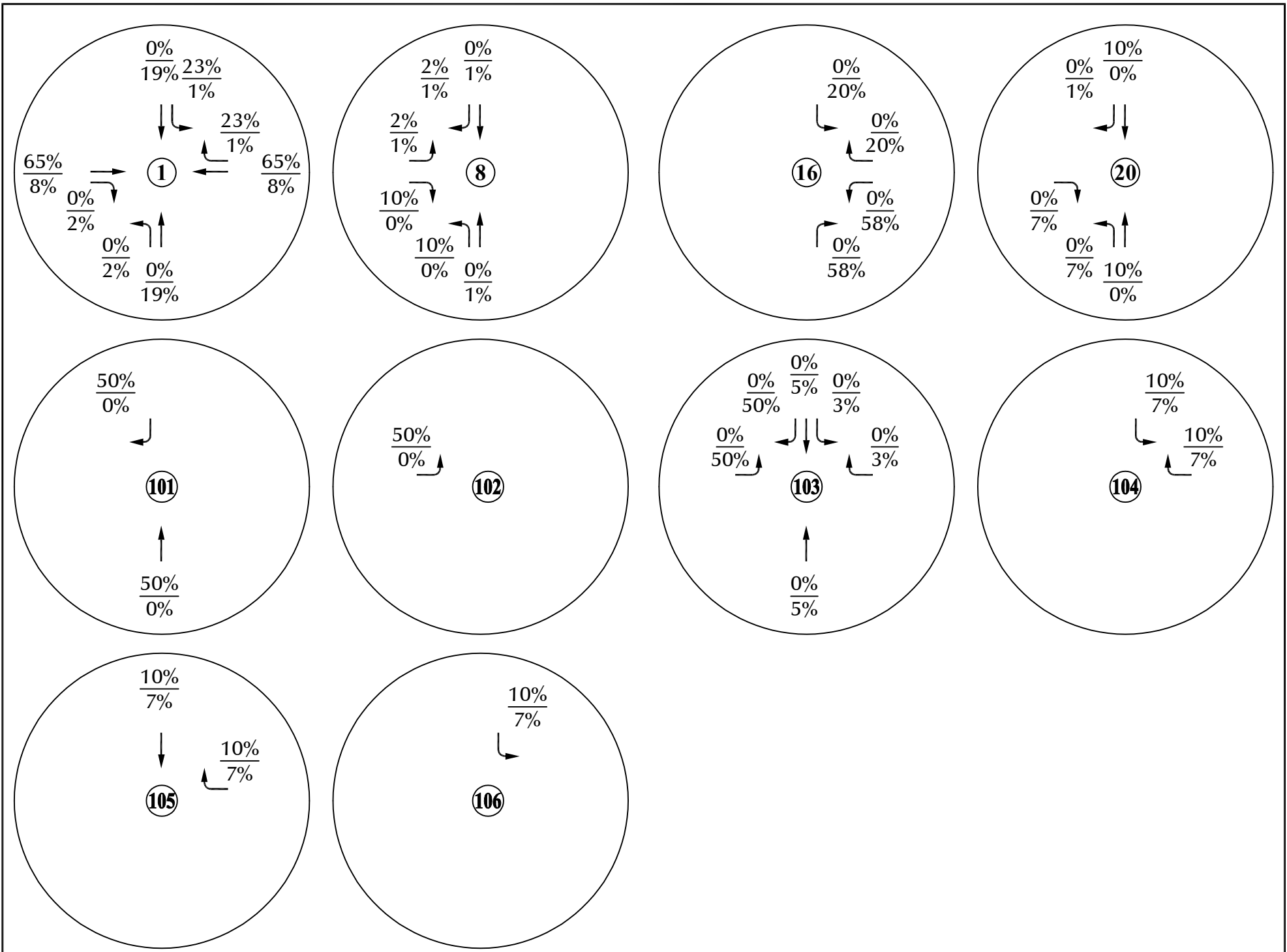
See the attached pages showing the known interchange plans. As a final design has not been selected for the Monaghan Intersection the site-generated traffic volumes are shown as if this intersection were an at-grade intersection.

Figure 6d

# Directional Distribution of PA-3 Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)





LEGEND:

$\frac{5\%}{5\%}$  =  $\frac{2030 \text{ Percent Directional Distribution}}{2050 \text{ Percent Directional Distribution}}$

See the attached pages showing the known interchange plans. As a final design has not been selected for the Monaghan Intersection the site-generated traffic volumes are shown as if this intersection were an at-grade intersection.

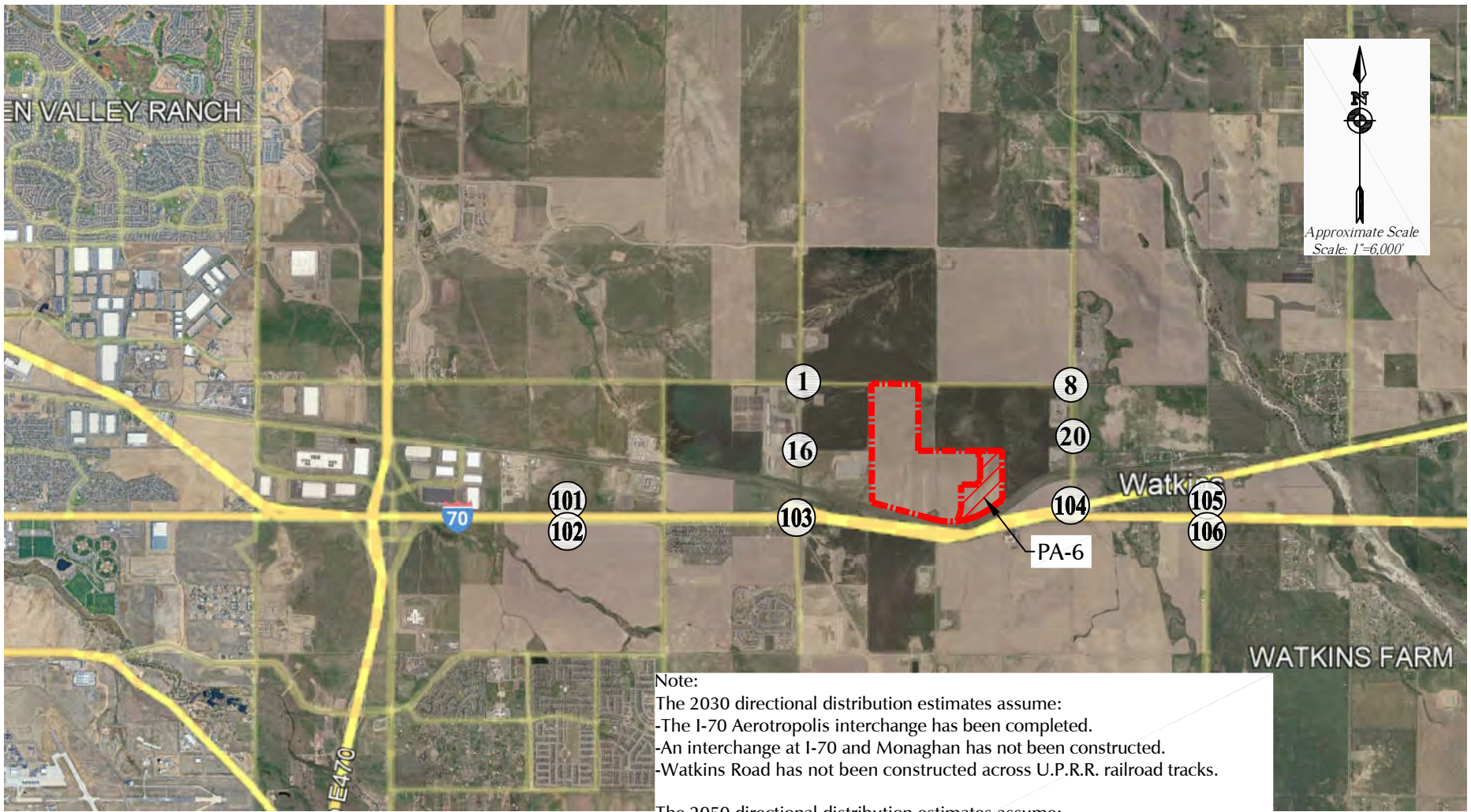
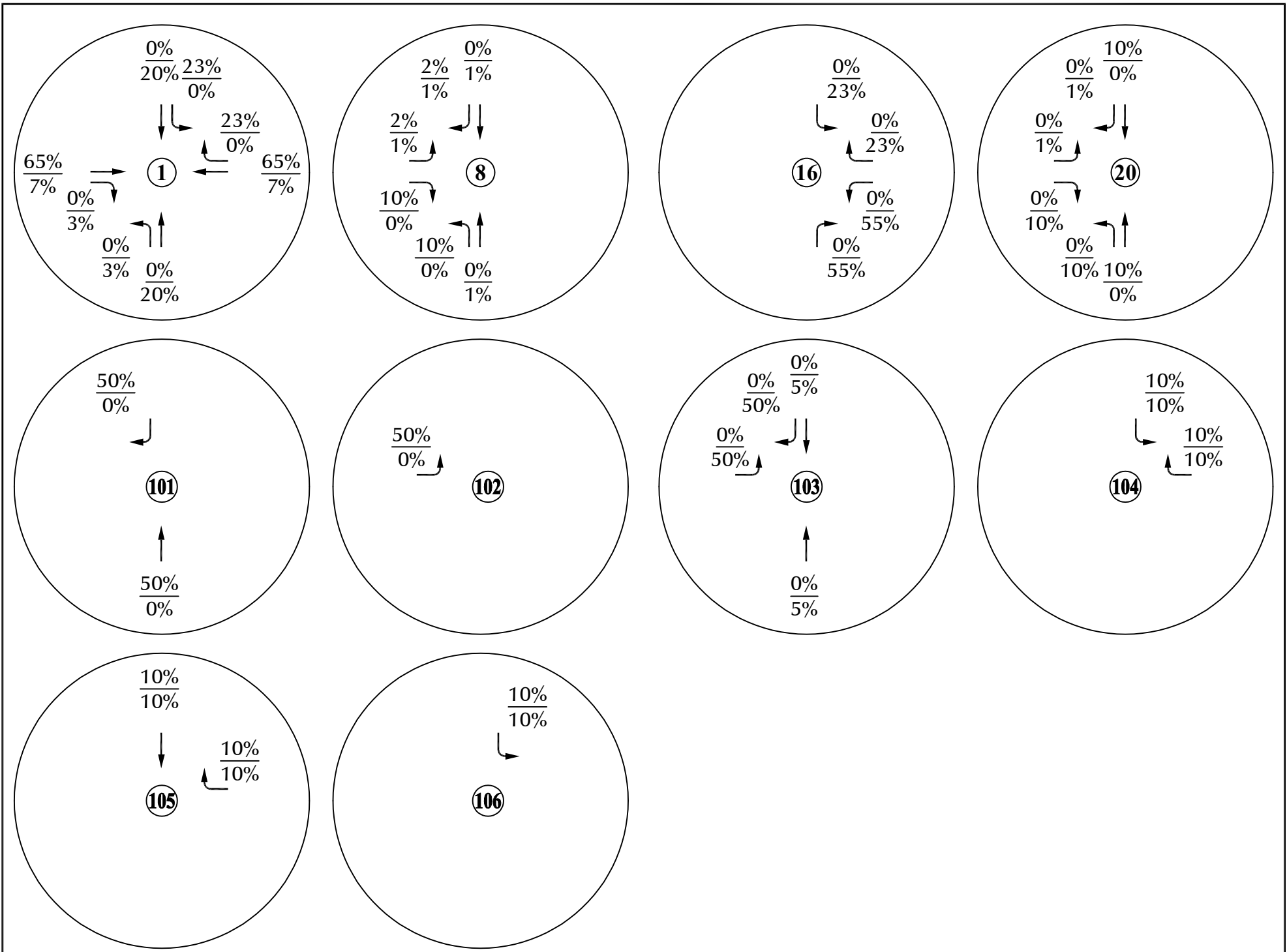
Figure 6e

# *Directional Distribution of PA-4 Site-Generated Traffic*

Blue Eagle Technology Park (LSC #230650)







LEGEND:

$\frac{5\%}{5\%}$  =  $\frac{2030 \text{ Percent Directional Distribution}}{2050 \text{ Percent Directional Distribution}}$

See the attached pages showing the known interchange plans. As a final design has not been selected for the Monaghan Intersection the site-generated traffic volumes are shown as if this intersection were an at-grade intersection.

Figure 6f

# *Directional Distribution of PA-6 Site-Generated Traffic*

Blue Eagle Technology Park (LSC #230650)





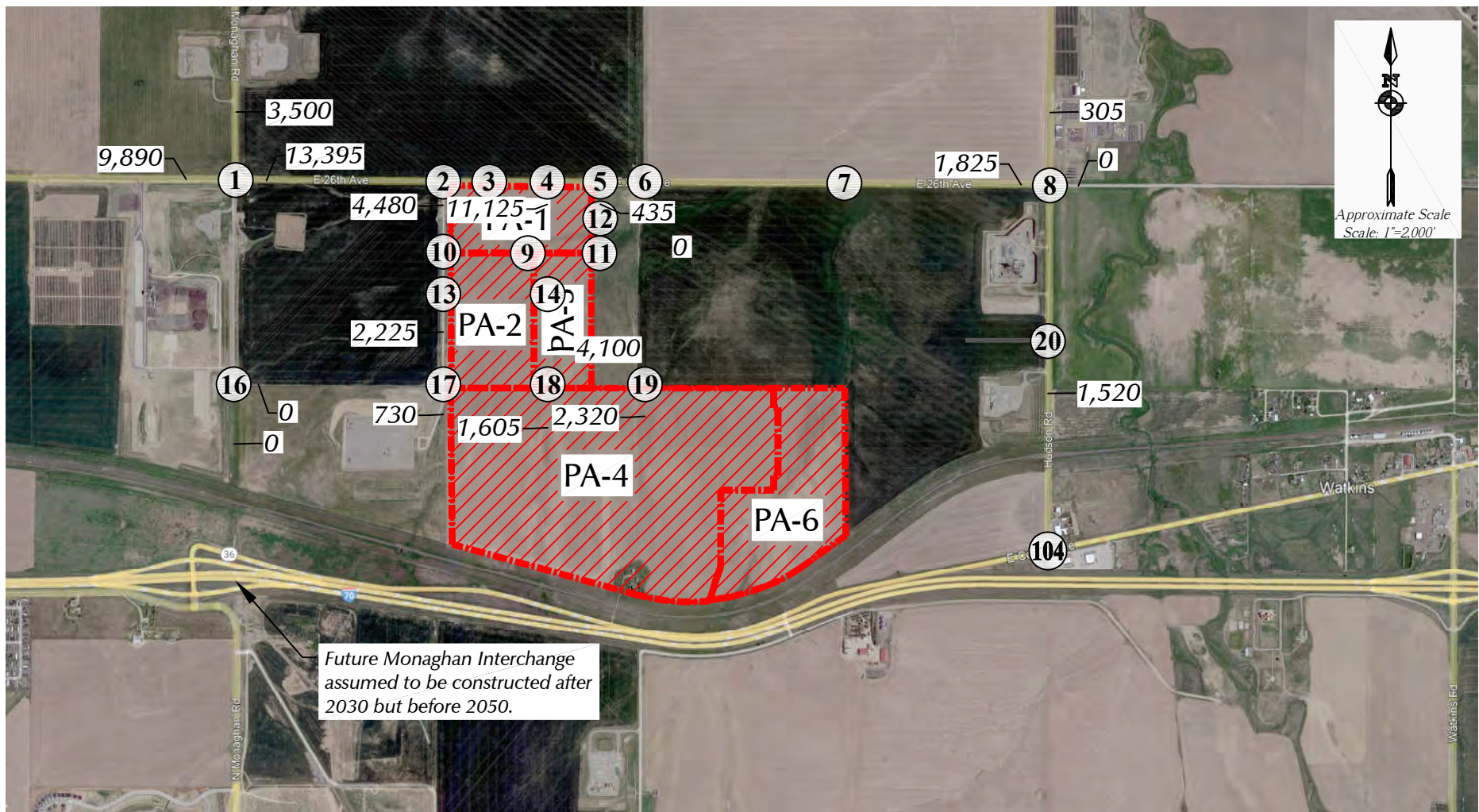
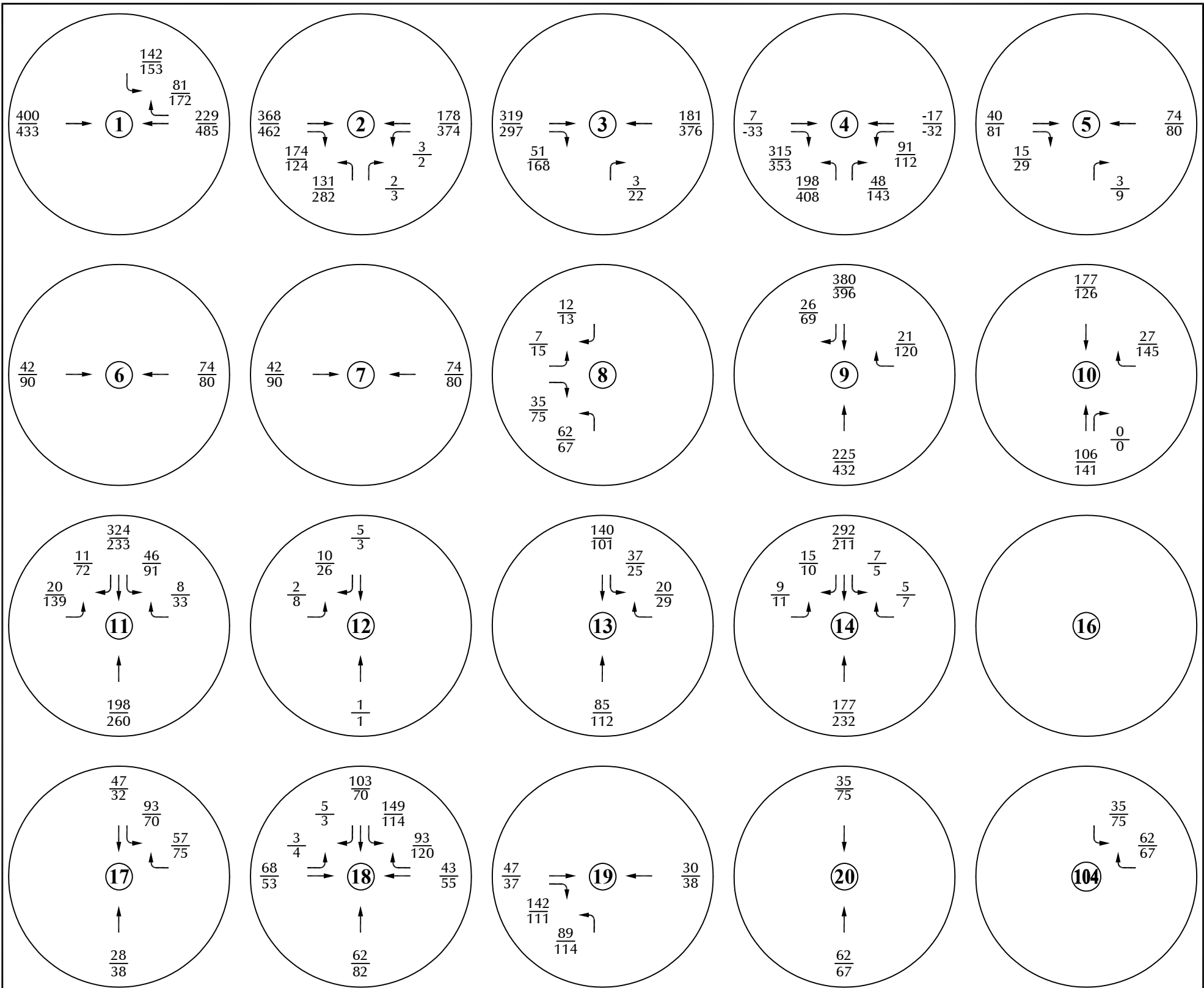


Figure 7a

LEGEND:

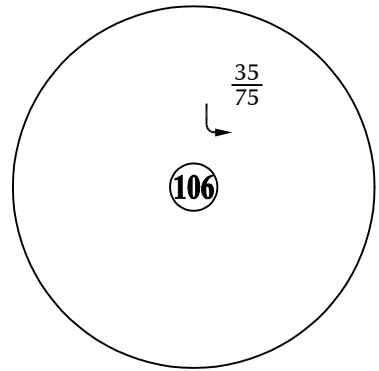
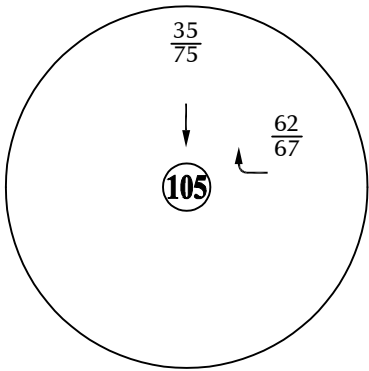
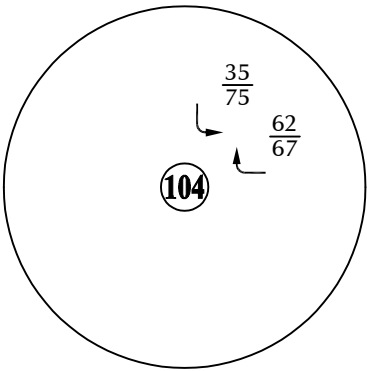
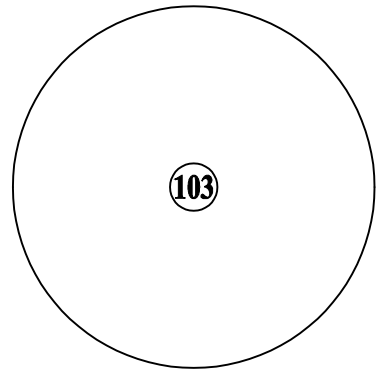
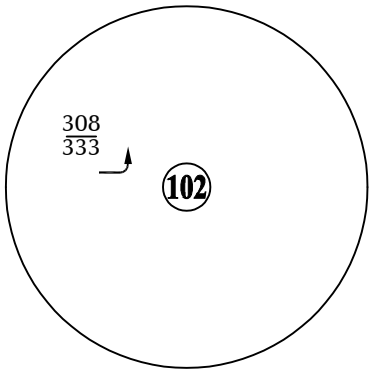
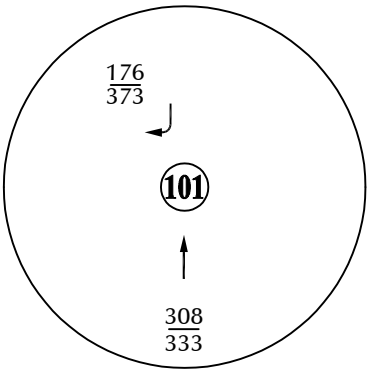
$\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

Year 2030 Assignment  
of Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)







Note:  
 The 2030 Assignment assumes:  
 -The I-70 Aerotropolis interchange has been completed.  
 -An interchange at I-70 and Monaghan has not been constructed.  
 -Watkins Road has not been constructed across U.P.R.R. railroad tracks.

See the attached pages showing the known interchange plans.

Figure 7b

LEGEND:  
 $\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{67}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

*Year 2030 Assignment  
 of Site-Generated Traffic  
 CDOT Intersections*  
 Blue Eagle Technology Park (LSC #230650)





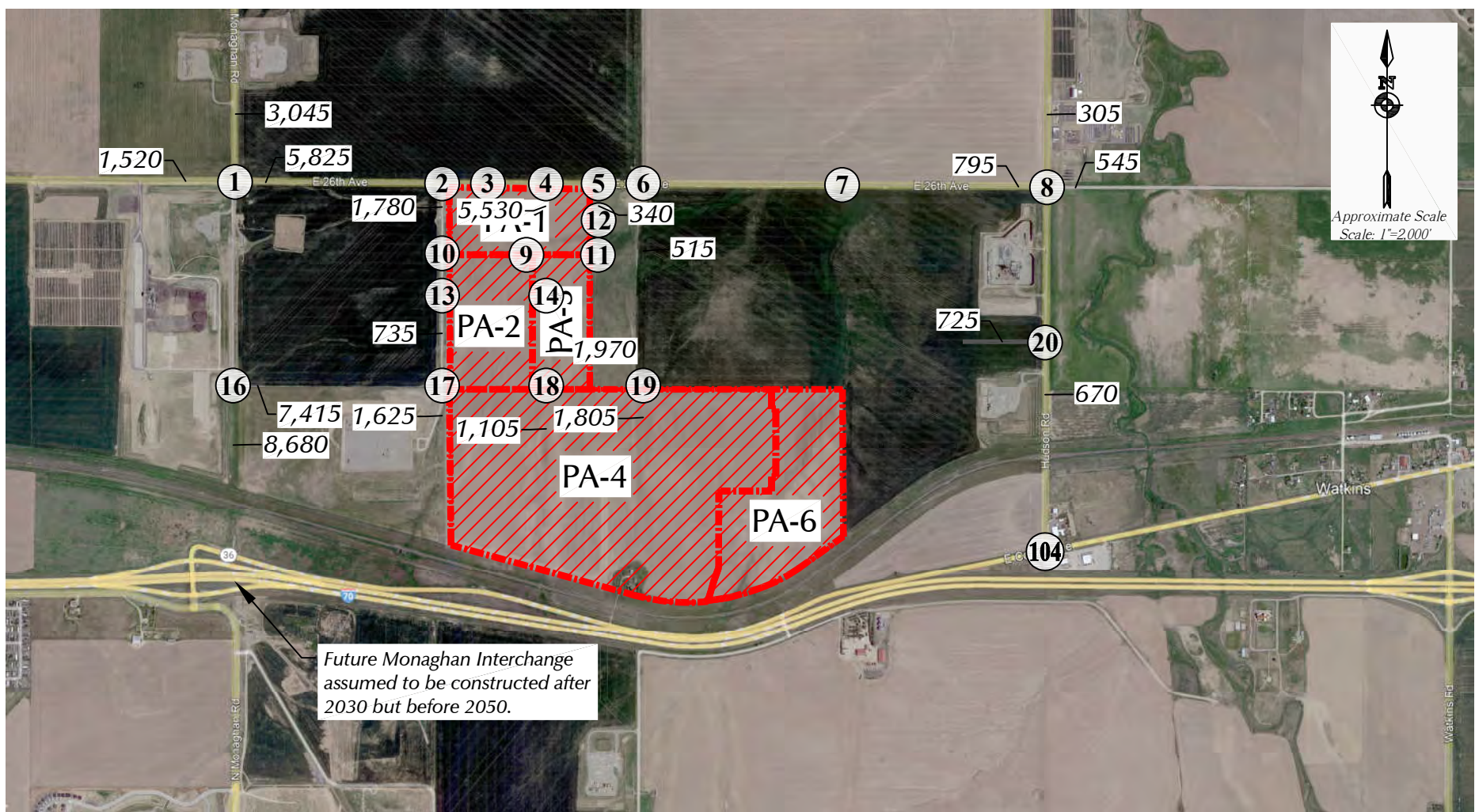
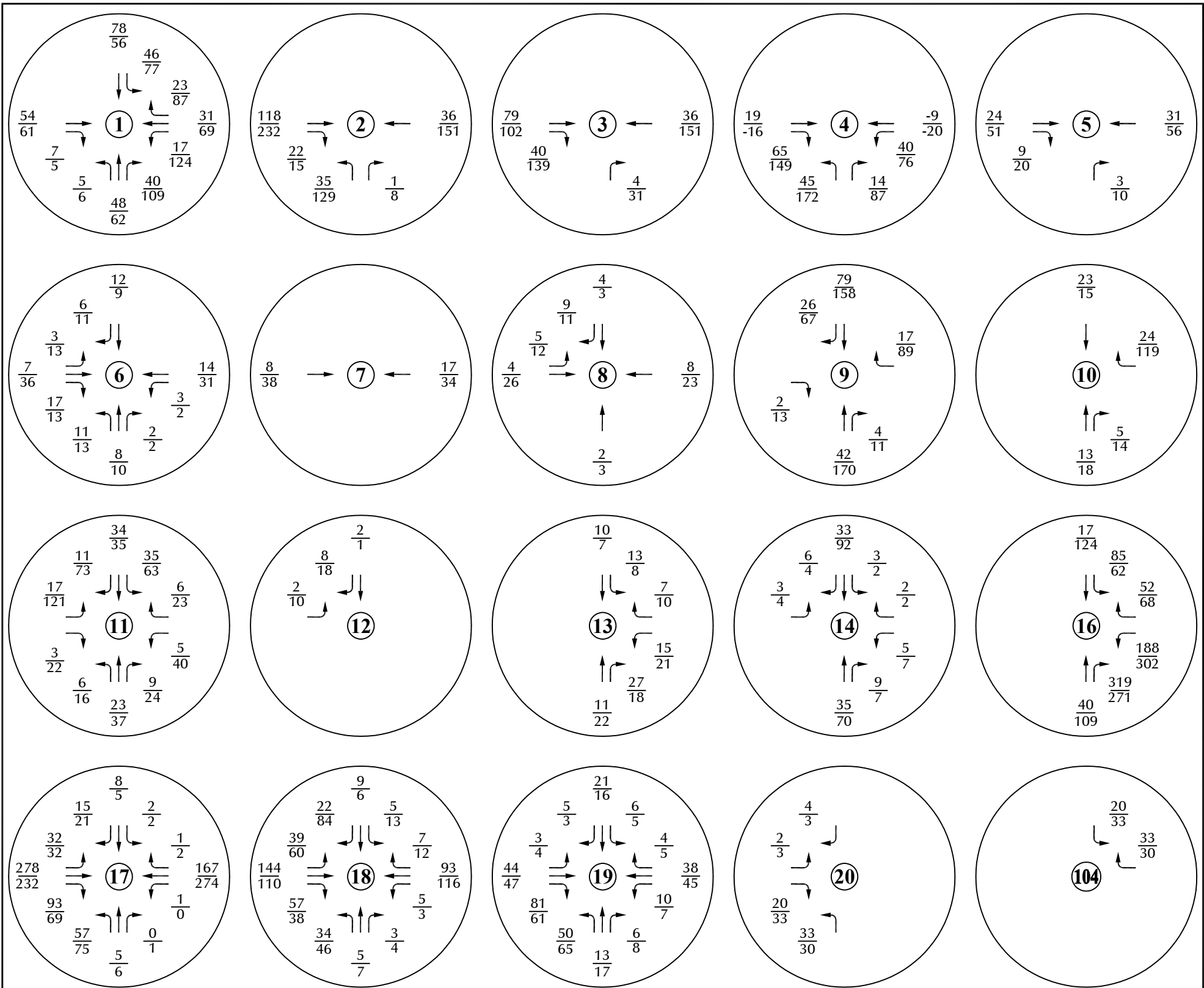


Figure 8a

LEGEND:

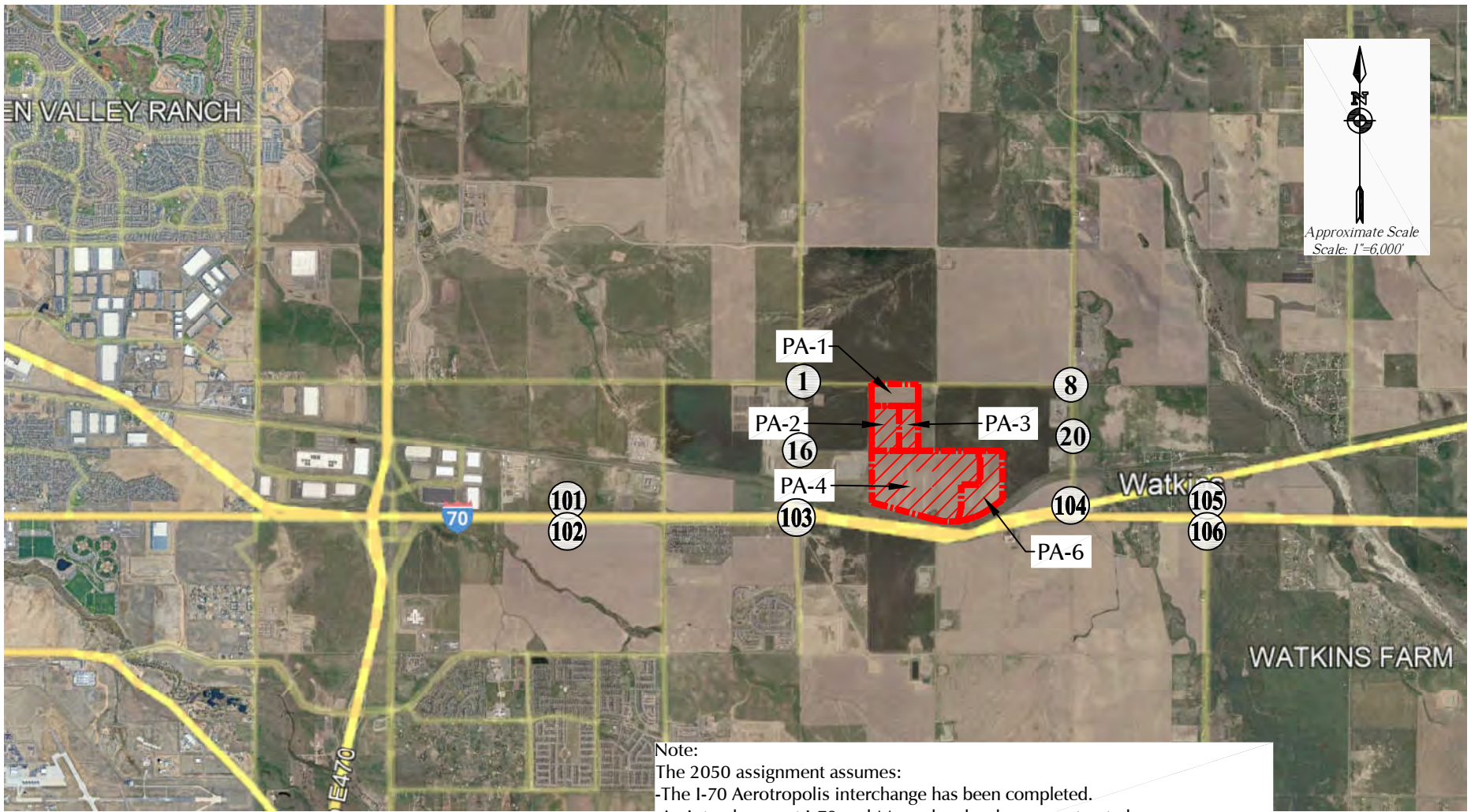
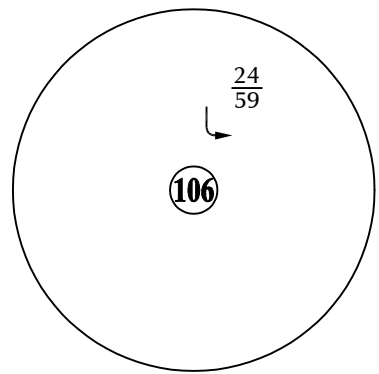
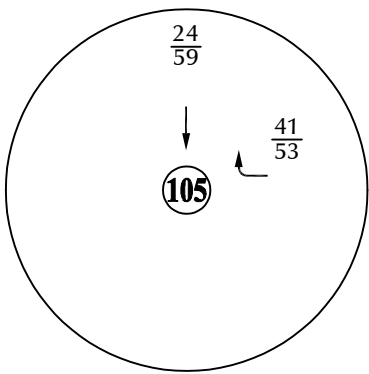
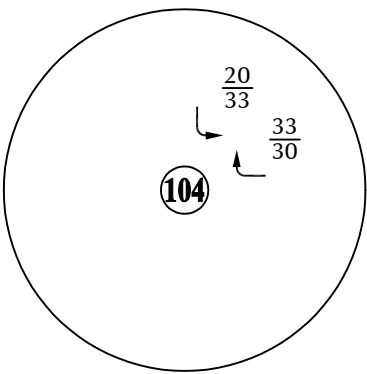
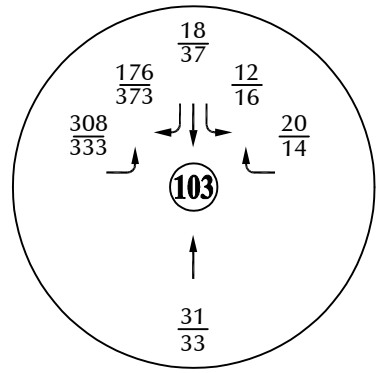
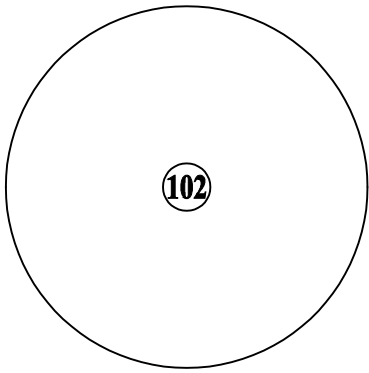
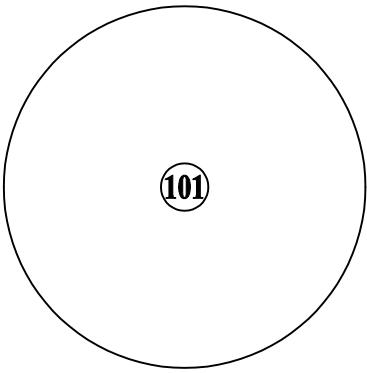
$\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic



# Year 2050 Assignment of Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)





See the attached pages showing the known interchange plans. As a final design has not been selected for the Monaghan Intersection the site-generated traffic volumes are shown as if this intersection were an at-grade intersection.

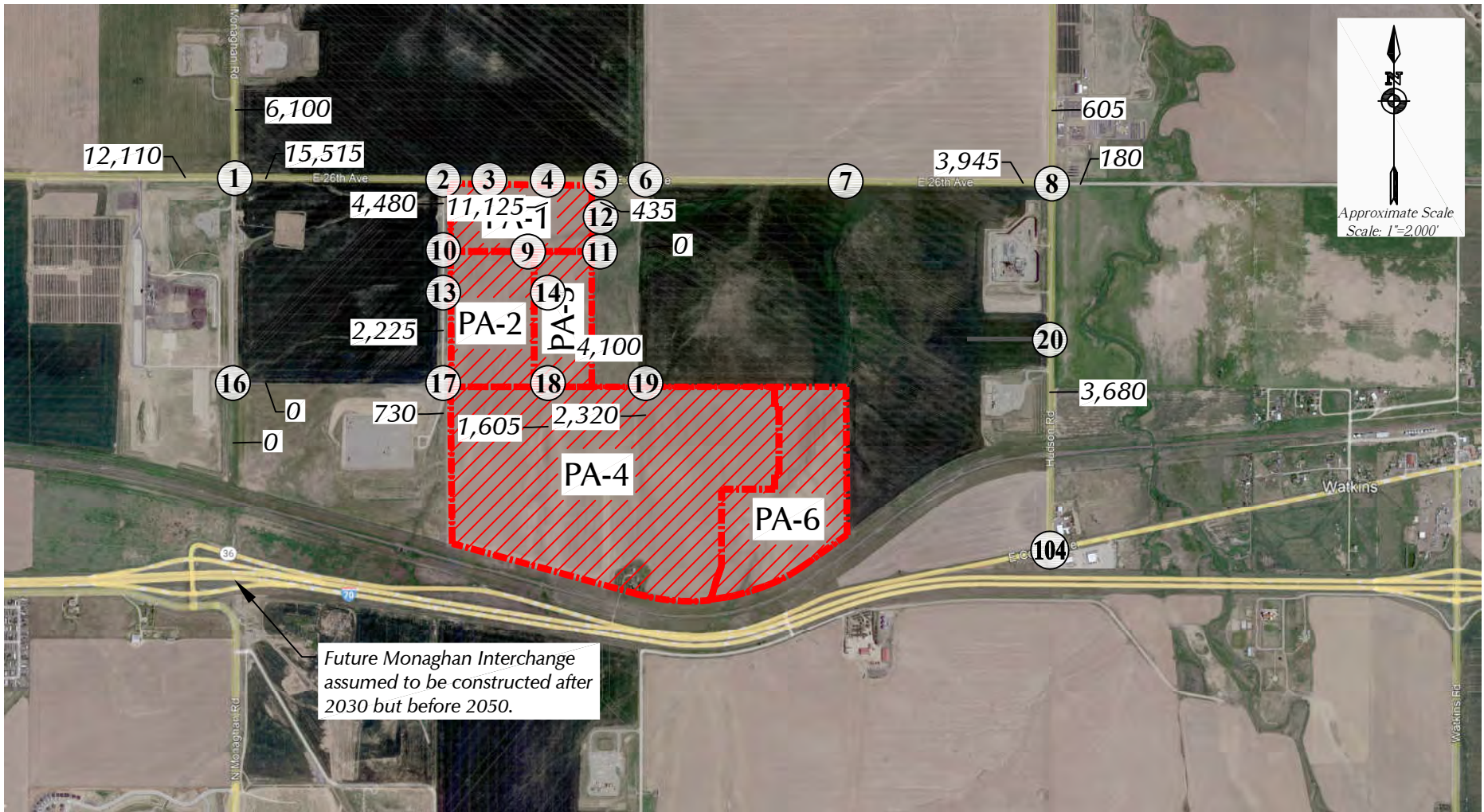
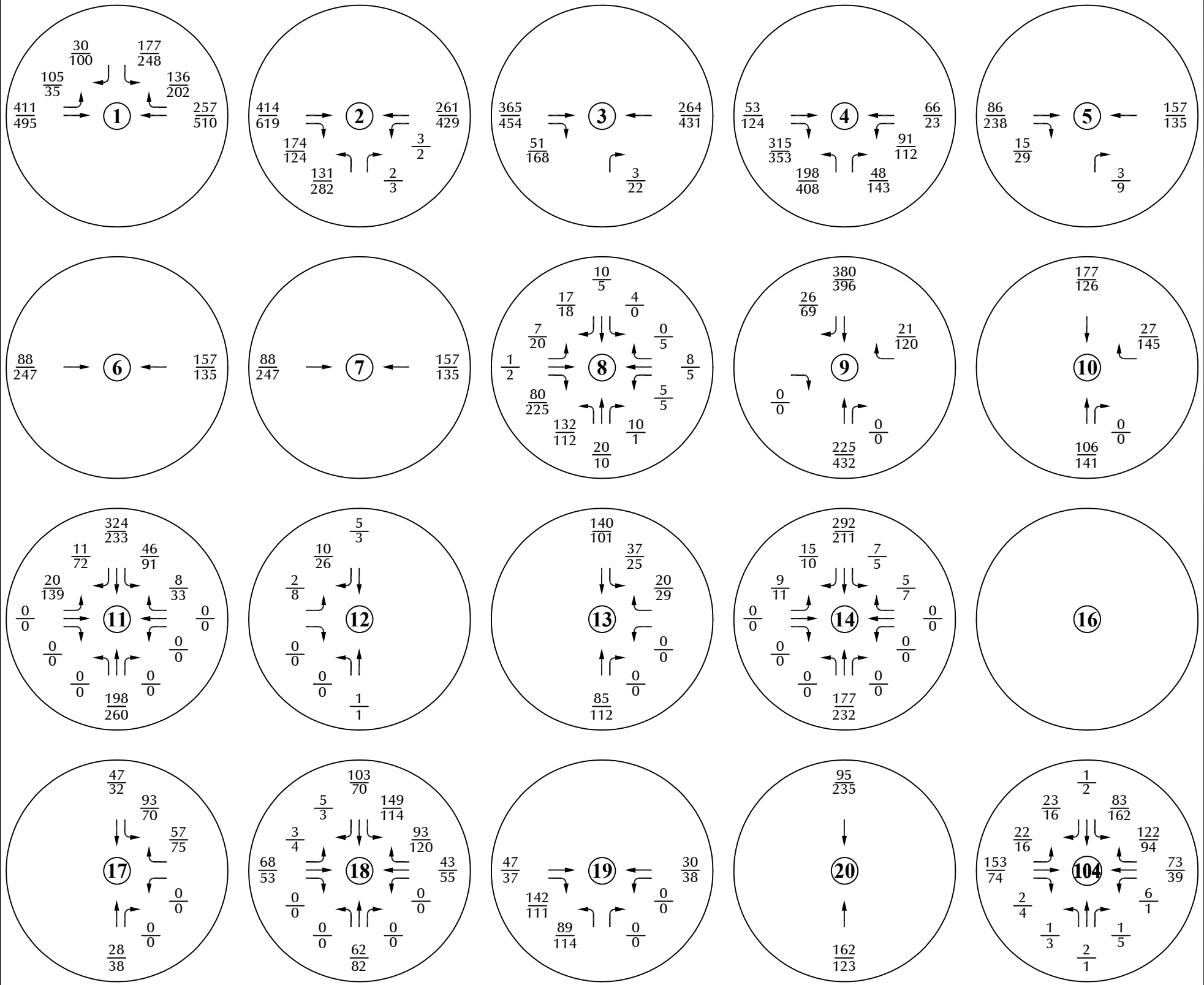
Figure 8b

**Year 2050 Assignment  
 of Site-Generated Traffic  
 CDOT Intersections**  
 Blue Eagle Technology Park (LSC #230650)

LEGEND:  
 $\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic







Note: These volumes are the sum of the volumes in Figures 4a and 7.

Figure 9a

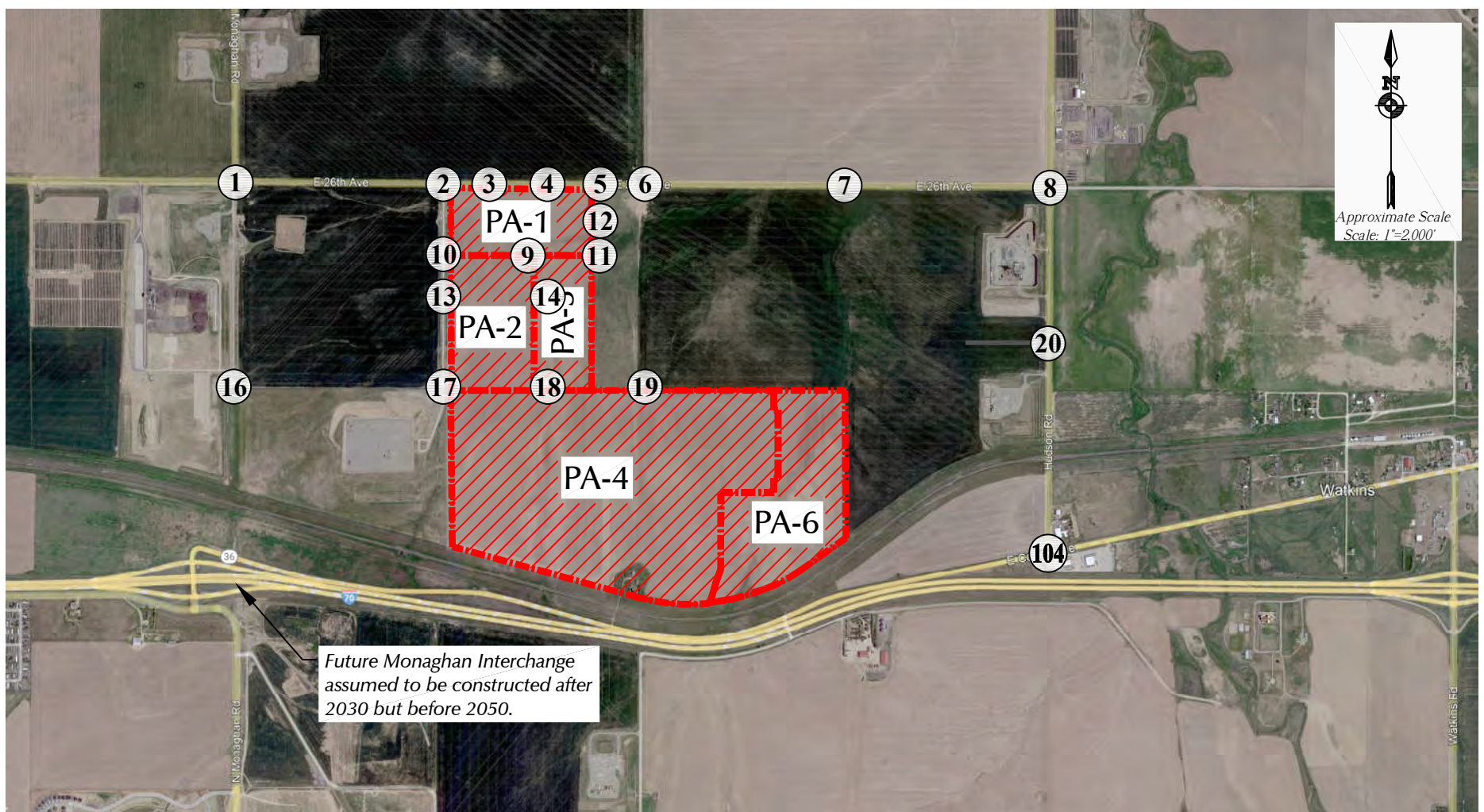
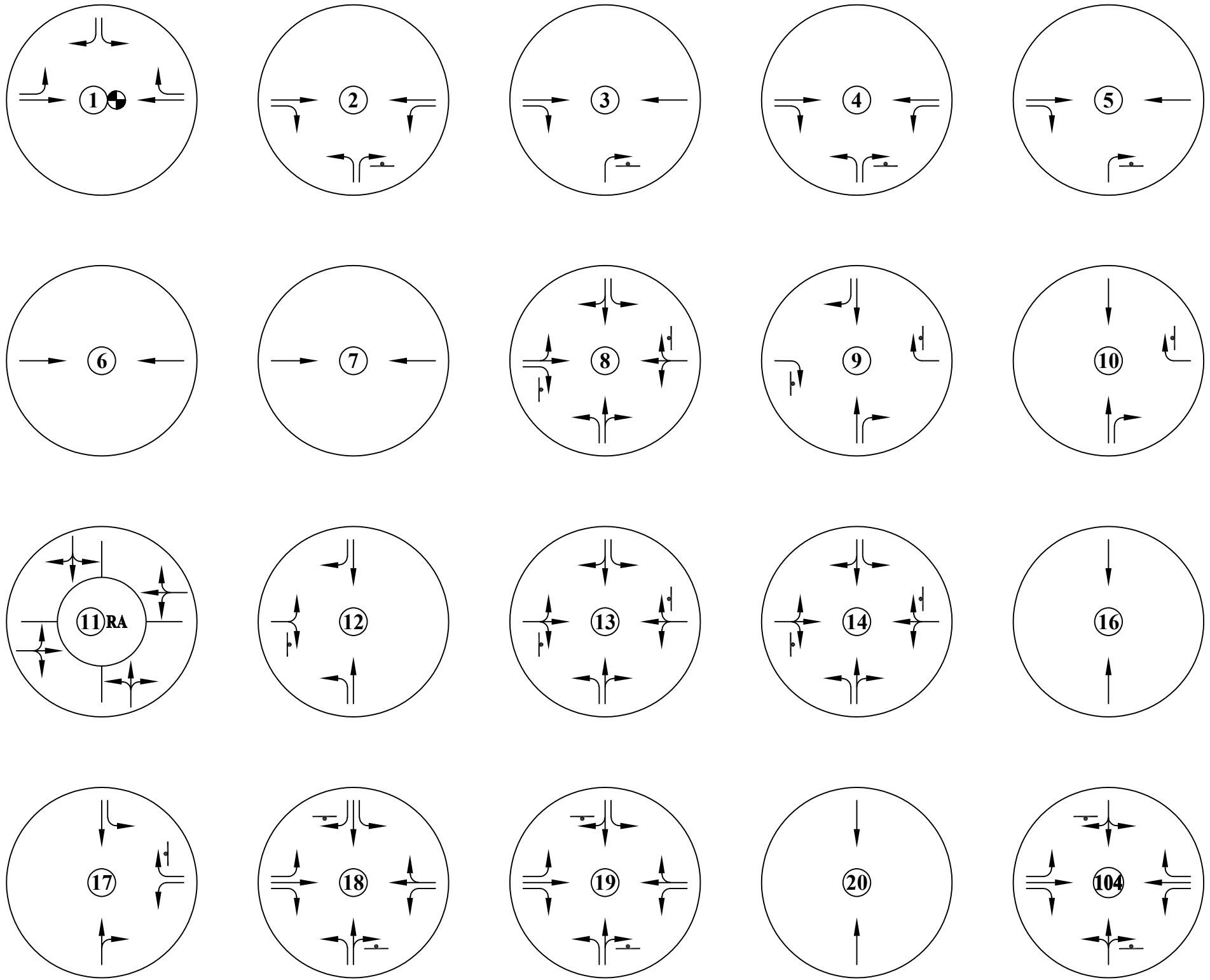
LEGEND:  
 $\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

Year 2030  
 Total Traffic

Blue Eagle Technology Park (LSC #230650)







LEGEND:

- = Stop Sign
- = Traffic Signal
- = Modern Roundabout

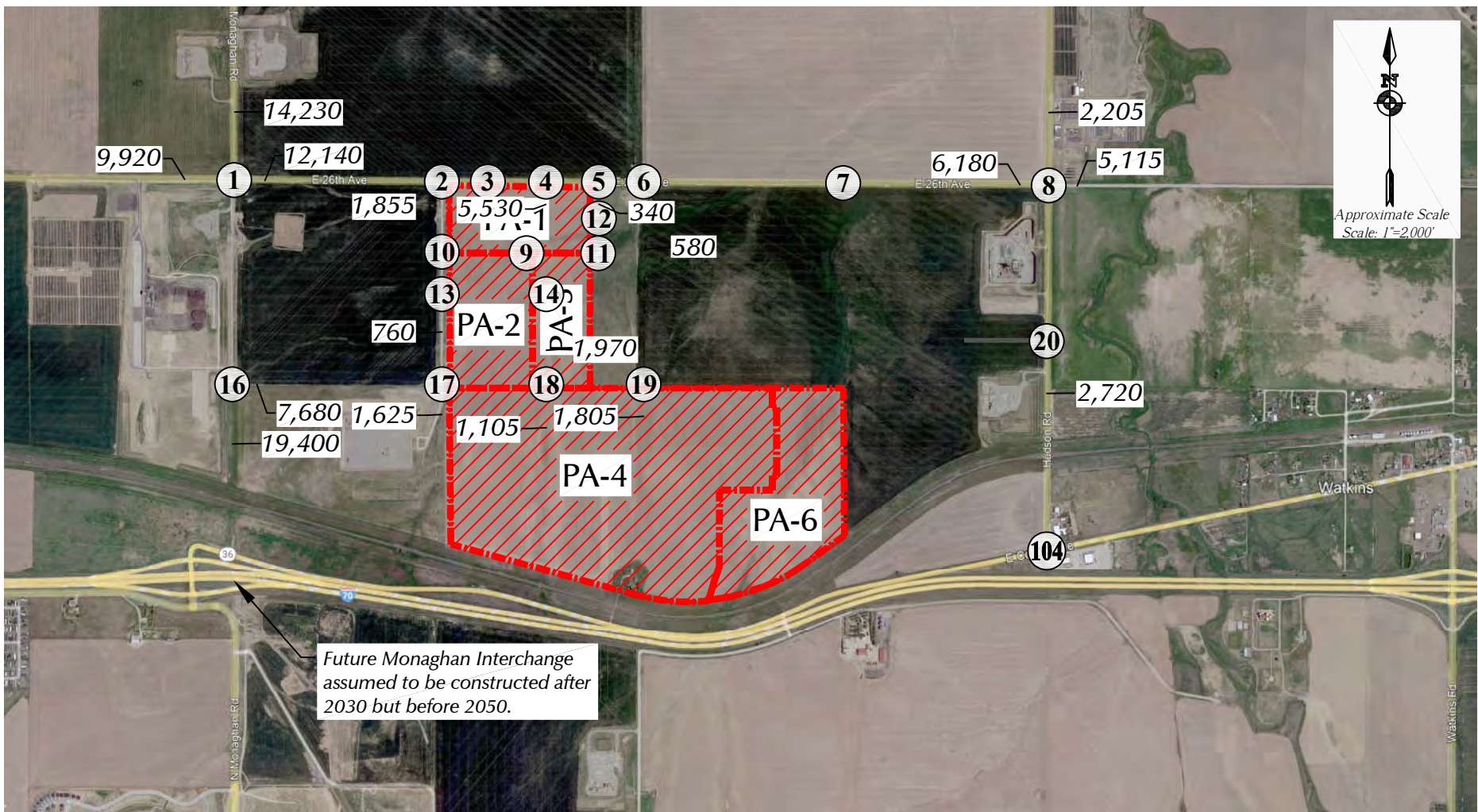
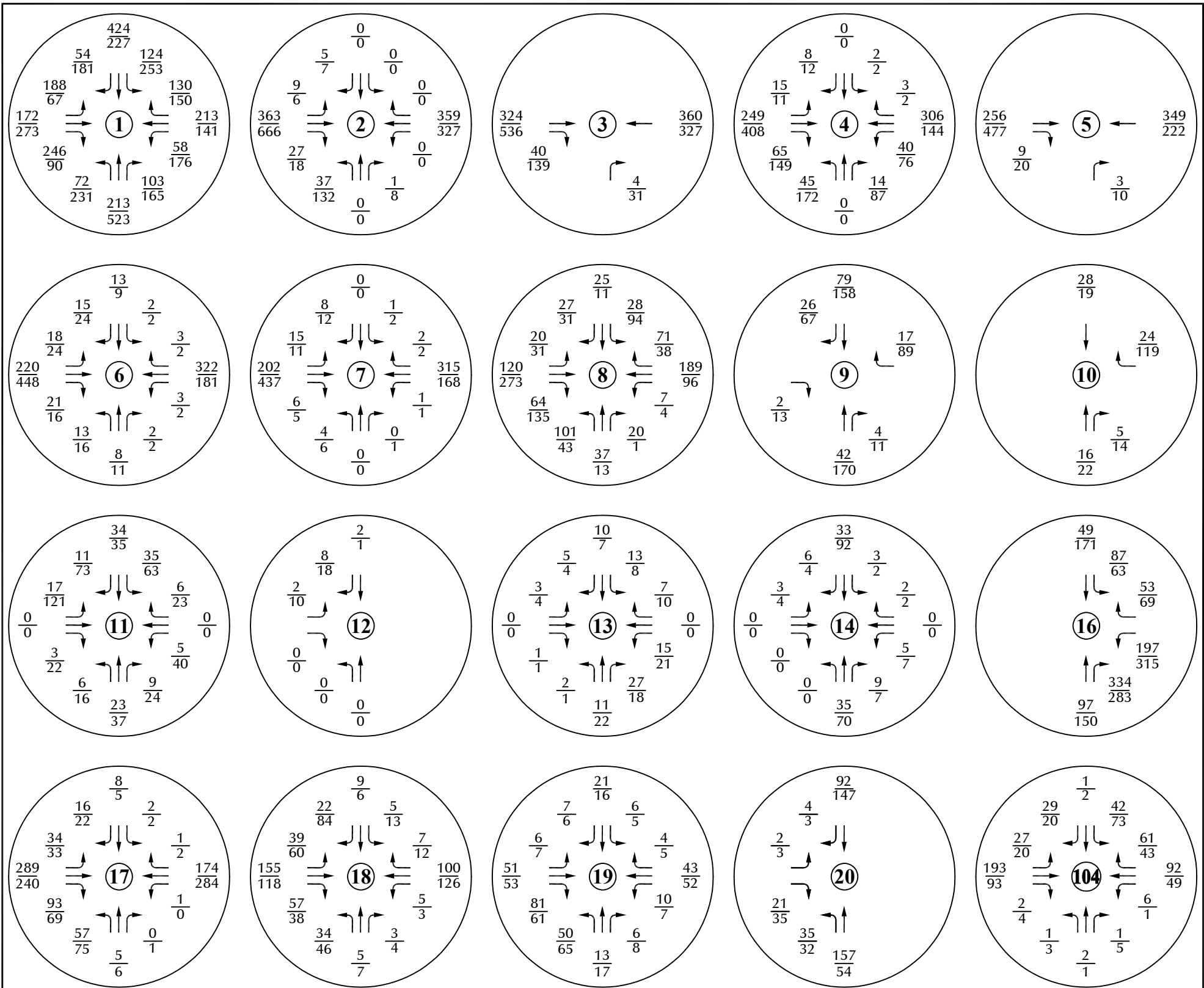


Figure 9b

**Year 2030 Total  
Lane Geometry and Traffic Control**

Blue Eagle Technology Park (LSC #230650)





Note: These volumes are the sum of the volumes in Figures 5a and 8.

Figure 10a

LEGEND:

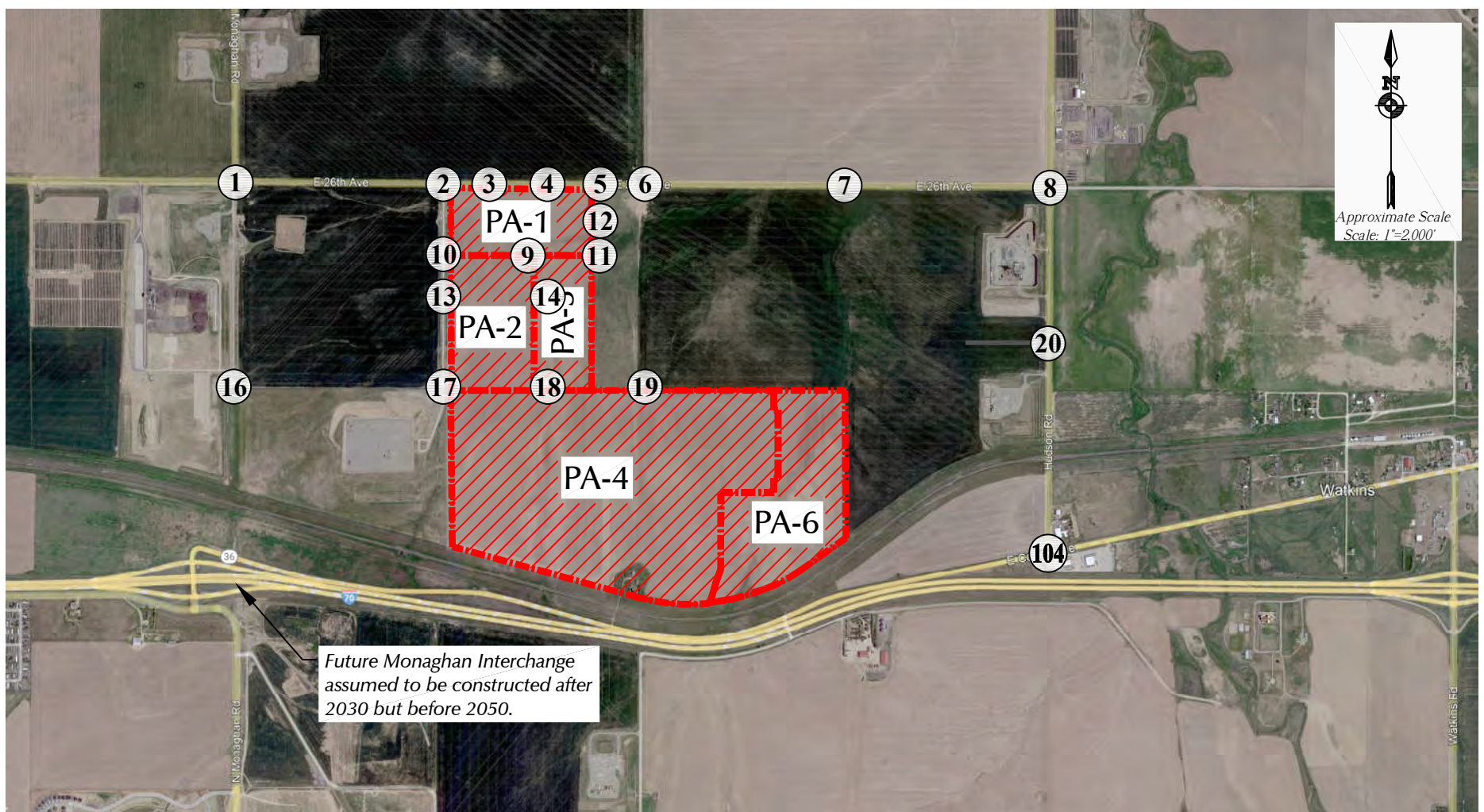
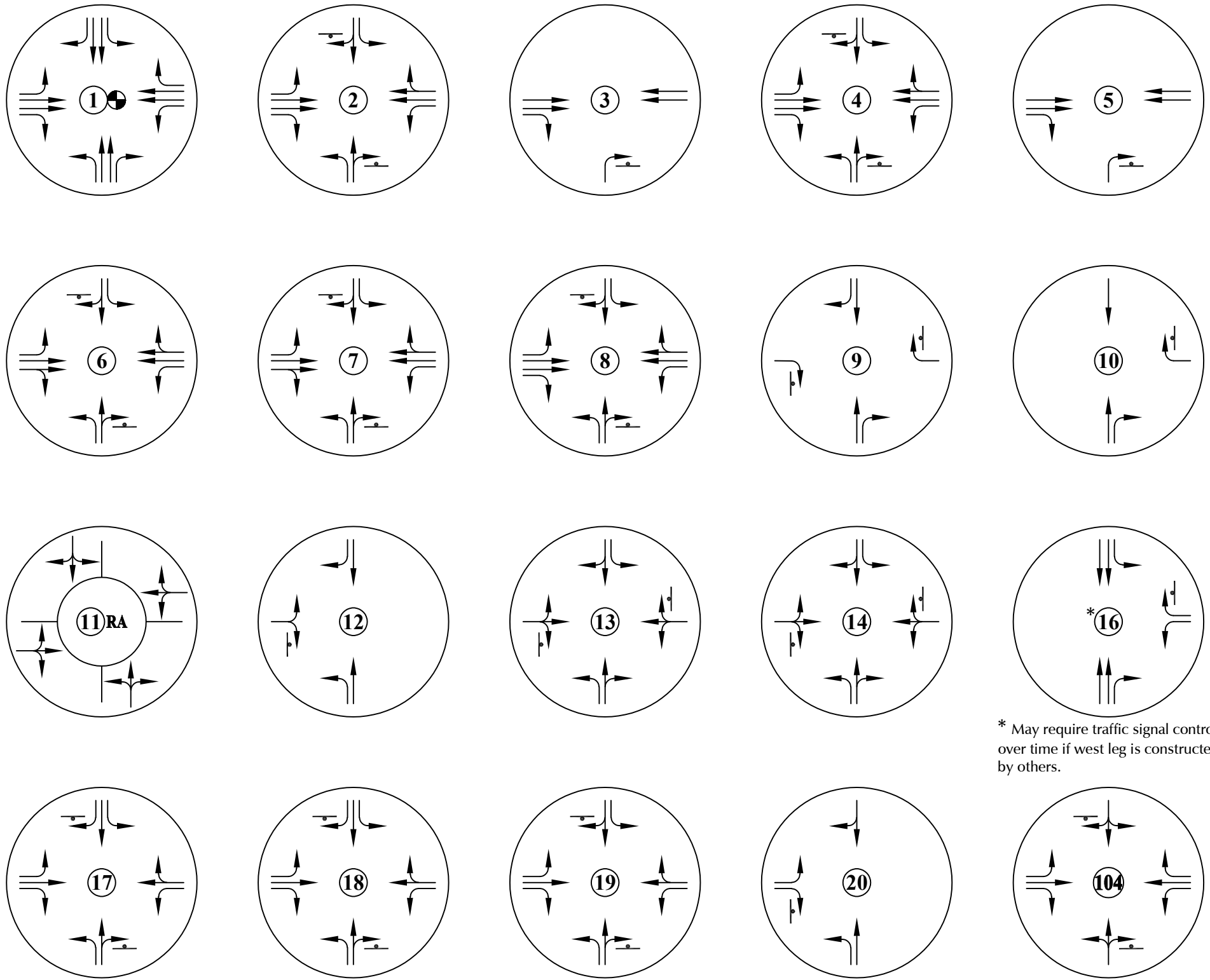
$\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

Year 2050  
 Total Traffic

Blue Eagle Technology Park (LSC #230650)







#### LEGEND:

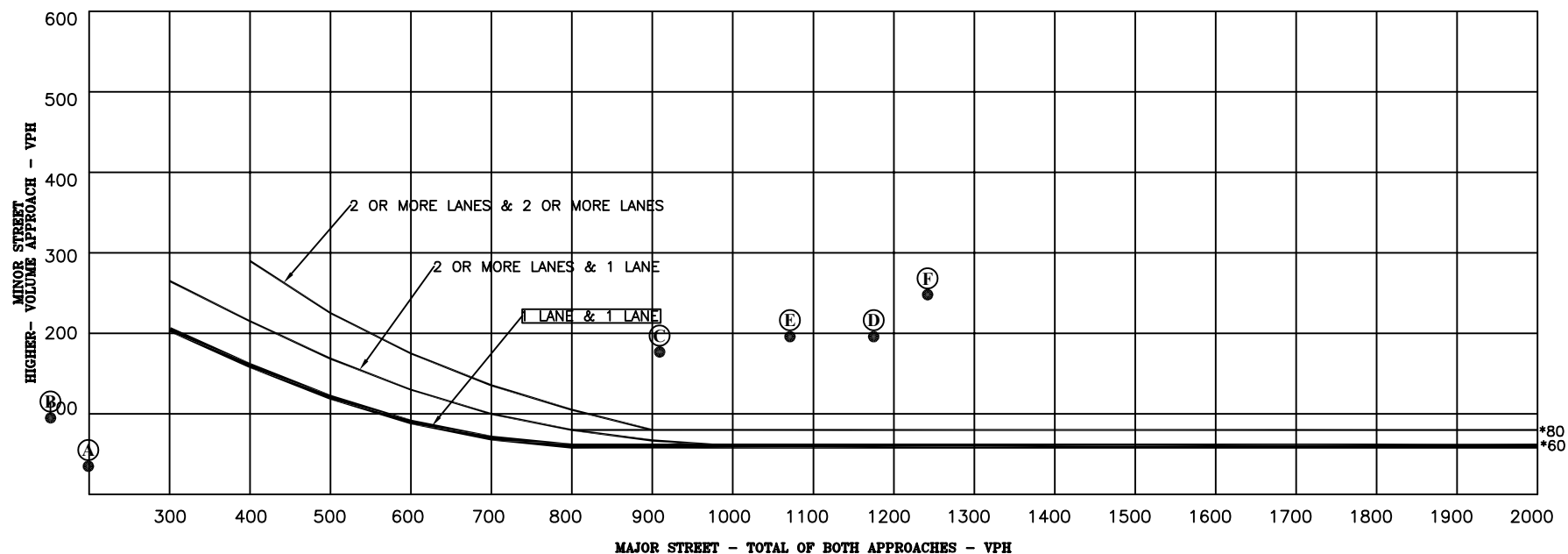
- = Stop Sign
- = Traffic Signal
- = Modern Roundabout



Figure 10b  
**Year 2050 Total  
 Lane Geometry and Traffic Control**  
 Blue Eagle Technology Park (LSC #230650)

**Figure 4C-2. Warrant 2 Four-Hour Vehicular Volume (70% Factor)**

(Community Less than 10,000 population or above 40 mph on Major Street)



\* Note: 80 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Year 2030 Background Traffic

- Ⓐ 2030 Background AM Peak = (199,35)
- Ⓑ 2030 Background PM Peak = (152,95)

Year 2030 Total Traffic

- Ⓒ 2030 Total AM Peak = (909,177)
- Ⓓ 2030 Total 2PM = (1175,196)
- Ⓔ 2030 Total 3PM = (1071,196)
- Ⓕ 2030 Total PM Peak = (1242,248)

Note: This warrant is expected to be met by the 2030 total traffic.

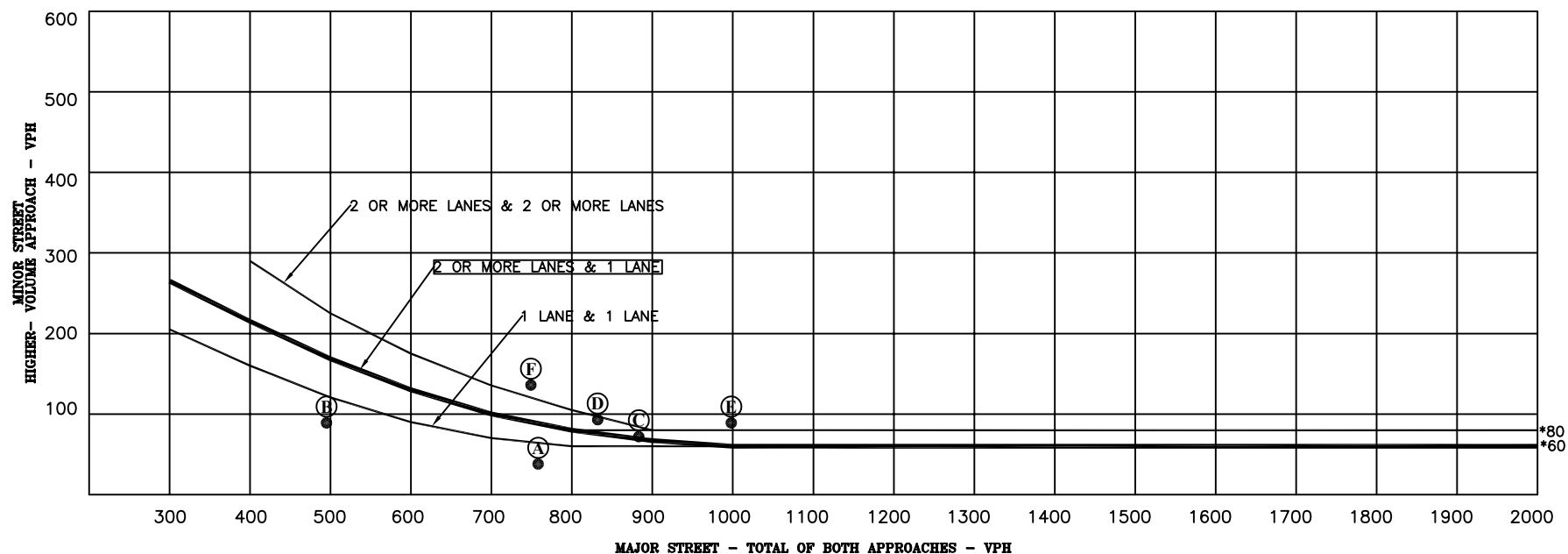
Figure 11

**Warrant 2**  
**Four-Hour Vehicular Volume**  
**E. 26th Avenue/Monaghan Road (#1)**

Blue Eagle Technology Park (LSC #230650)

**Figure 4C-2. Warrant 2 Four-Hour Vehicular Volume (70% Factor)**

(Community Less than 10,000 population or above 40 mph on Major Street)



\* Note: 80 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Year 2050 Total Traffic

- Ⓐ 2050 Total 7AM = (758,38)
- Ⓑ 2050 Total Noon = (495,89)
- Ⓒ 2050 Total 2PM = (883,72)
- Ⓓ 2050 Total 3PM = (832,93)
- Ⓔ 2050 Total 4PM = (998,89)
- Ⓕ 2050 Total 5PM = (749,136)

Note: This warrant is expected to be met by the 2050 total traffic.

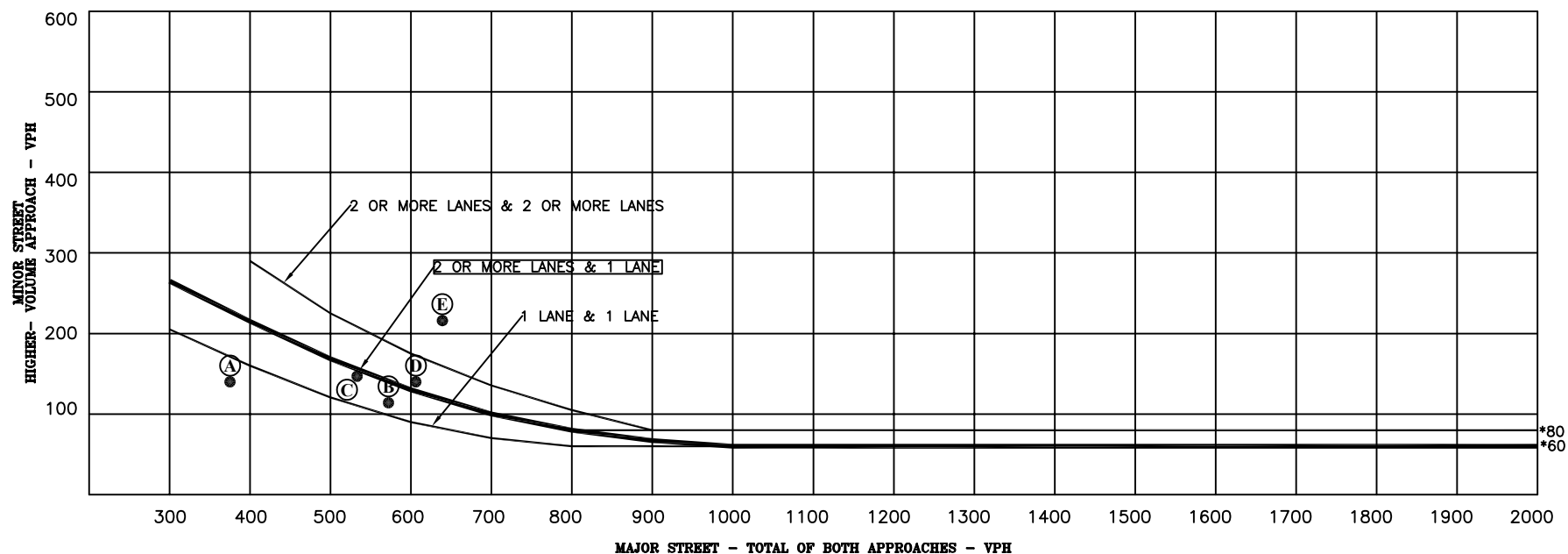
Figure 12

## Warrant 2 Four-Hour Vehicular Volume E. 26th Avenue/West N/S Collector (#2)

Blue Eagle Technology Park (LSC #230650)

**Figure 4C-2. Warrant 2 Four-Hour Vehicular Volume (70% Factor)**

(Community Less than 10,000 population or above 40 mph on Major Street)



\* Note: 80 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Year 2050 Total Traffic

- Ⓐ 2050 Total Noon = (375,140)
- Ⓑ 2050 Total 2PM = (572,114)
- Ⓒ 2050 Total 3PM = (533,147)
- Ⓓ 2050 Total 4PM = (606,140)
- Ⓔ 2050 Total 5PM = (639,216)

Note: This warrant is not expected to be met through 2050.

Figure 13

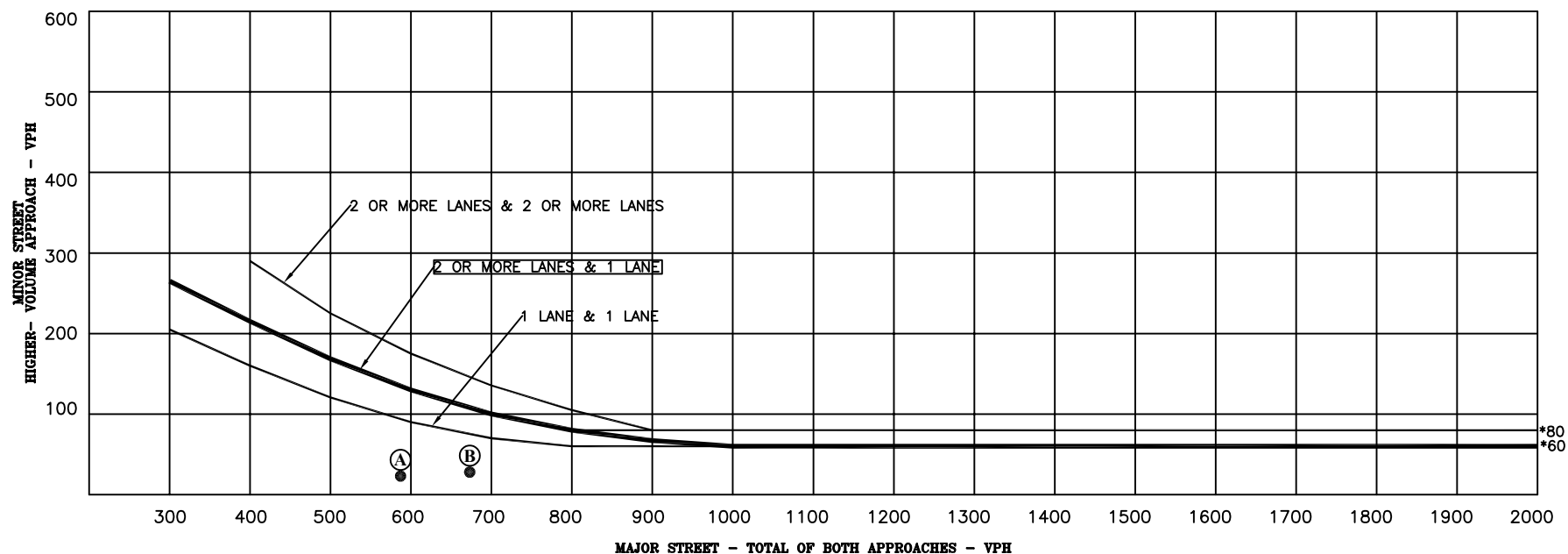
## Warrant 2 Four-Hour Vehicular Volume E. 26th Avenue/Middle N/S Collector (#4)

Blue Eagle Technology Park (LSC #230650)



**Figure 4C-2. Warrant 2 Four-Hour Vehicular Volume (70% Factor)**

(Community Less than 10,000 population or above 40 mph on Major Street)



\* Note: 80 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Year 2050 Total Traffic

Ⓐ 2050 Total 7AM = (587,23)

Ⓑ 2050 Total 5PM = (673,28)

Note: This warrant is not expected to be met through 2050.

Figure 14

**Warrant 2**  
**Four-Hour Vehicular Volume**  
**E. 26th Avenue/Hayesmount Road (#6)**

Blue Eagle Technology Park (LSC #230650)

# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: MONAGHAN RD  
E/W STREET: E. 26TH AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : MONA26THAVE  
Site Code : 00000013  
Start Date : 6/27/2023  
Page No : 1

## Groups Printed- VEHICLES

	MONAGHAN RD Southbound				E. 26TH AVE Westbound				MONAGHAN RD Northbound				E. 26TH AVE Eastbound				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	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	7	0	9	0	0	4	17	0	0	0	0	0	36	1	0	0	74
06:45 AM	8	0	8	0	0	3	11	0	0	0	0	0	16	2	0	0	48
Total	15	0	17	0	0	7	28	0	0	0	0	0	52	3	0	0	122
07:00 AM	4	1	6	0	0	2	5	1	0	1	0	0	16	2	0	0	38
07:15 AM	10	0	2	0	0	1	13	0	0	0	0	0	16	3	0	0	45
07:30 AM	7	1	3	0	0	1	6	0	0	0	0	0	8	2	0	0	28
07:45 AM	3	0	4	0	0	4	15	0	0	0	0	0	15	2	0	0	43
Total	24	2	15	0	0	8	39	1	0	1	0	0	55	9	0	0	154
08:00 AM	7	0	11	0	1	1	15	0	0	0	0	0	12	6	0	0	53
08:15 AM	5	0	7	0	0	7	17	0	0	0	0	0	10	0	0	0	46
Total	12	0	18	0	1	8	32	0	0	0	0	0	22	6	0	0	99
04:00 PM	15	0	24	0	0	3	12	0	0	0	0	0	3	6	0	0	63
04:15 PM	21	0	25	0	0	2	2	0	0	0	0	0	2	3	0	0	55
04:30 PM	20	0	20	0	0	0	4	0	0	0	0	0	13	8	0	0	65
04:45 PM	21	0	12	0	0	7	6	0	0	0	0	0	11	11	0	0	68
Total	77	0	81	0	0	12	24	0	0	0	0	0	29	28	0	0	251
05:00 PM	25	0	13	0	0	4	10	0	0	0	0	0	9	4	0	0	65
05:15 PM	20	0	20	0	0	6	7	0	0	0	0	0	11	7	1	0	72
05:30 PM	21	0	9	0	0	2	5	0	0	0	1	0	10	6	0	0	54
05:45 PM	9	0	14	0	0	2	9	0	0	0	0	0	2	4	0	0	40
Total	75	0	56	0	0	14	31	0	0	0	1	0	32	21	1	0	231
Grand Total	203	2	187	0	1	49	154	1	0	1	1	0	190	67	1	0	857
Apprch %	51.8	0.5	47.7	0.0	0.5	23.9	75.1	0.5	0.0	50.0	50.0	0.0	73.6	26.0	0.4	0.0	
Total %	23.7	0.2	21.8	0.0	0.1	5.7	18.0	0.1	0.0	0.1	0.1	0.0	22.2	7.8	0.1	0.0	

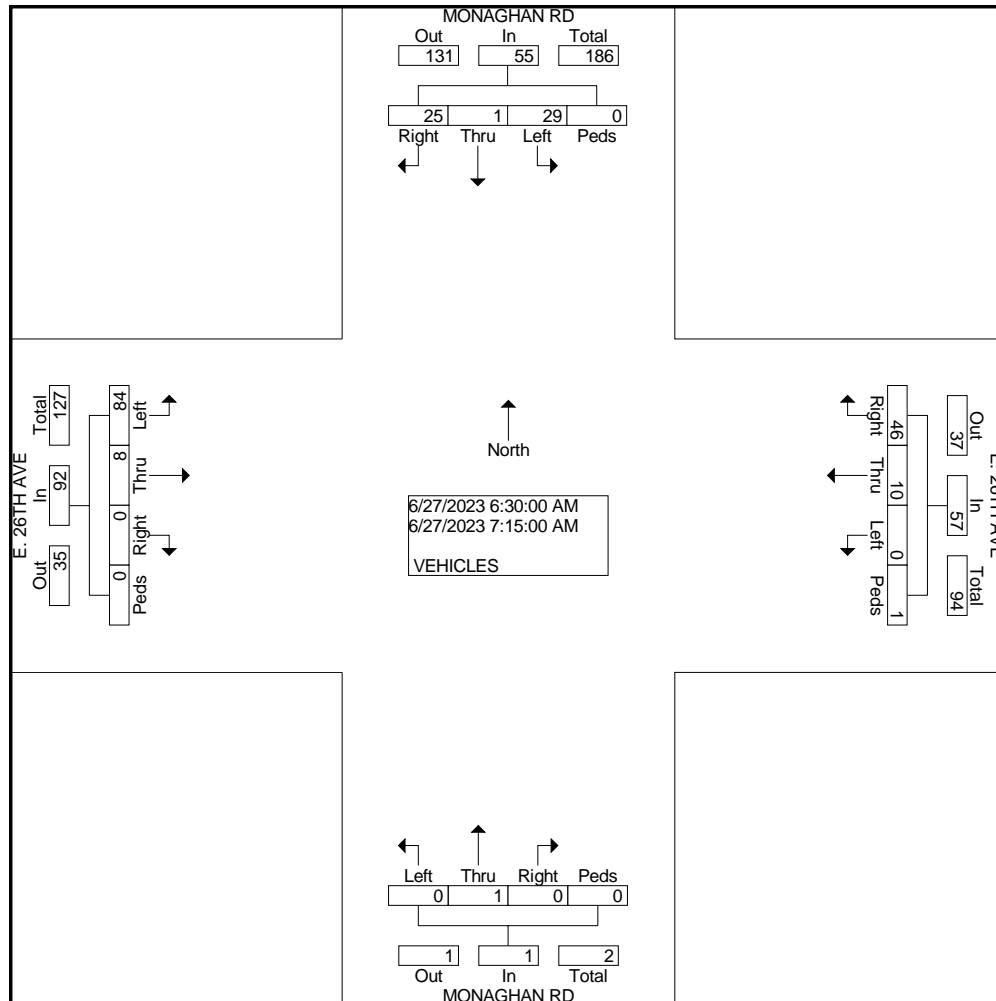
# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: MONAGHAN RD  
E/W STREET: E. 26TH AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : MONA26THAVE  
Site Code : 00000013  
Start Date : 6/27/2023  
Page No : 2

	MONAGHAN RD Southbound					E. 26TH AVE Westbound					MONAGHAN RD Northbound					E. 26TH AVE Eastbound					Int.
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Total
Peak Hour From 06:30 AM to 07:15 AM - Peak 1 of 1	06:30 AM																				
Intersection	06:30 AM																				
Volume	29	1	25	0	55	0	10	46	1	57	0	1	0	0	1	84	8	0	0	92	205
Percent	52.7	1.8	45.5	0.0		0.0	17.5	80.7	1.8		0.0	100.0	0.0	0.0		91.3	8.7	0.0	0.0		
06:30 Volume Peak Factor	7	0	9	0	16	0	4	17	0	21	0	0	0	0	0	36	1	0	0	37	74
High Int. Volume Peak Factor	06:30 AM					06:30 AM					07:00 AM					06:30 AM					
	7	0	9	0	16	0	4	17	0	21	0	1	0	0	1	36	1	0	0	37	
	0.85					0.67					0.25					0.62					
	9					9					0					2					



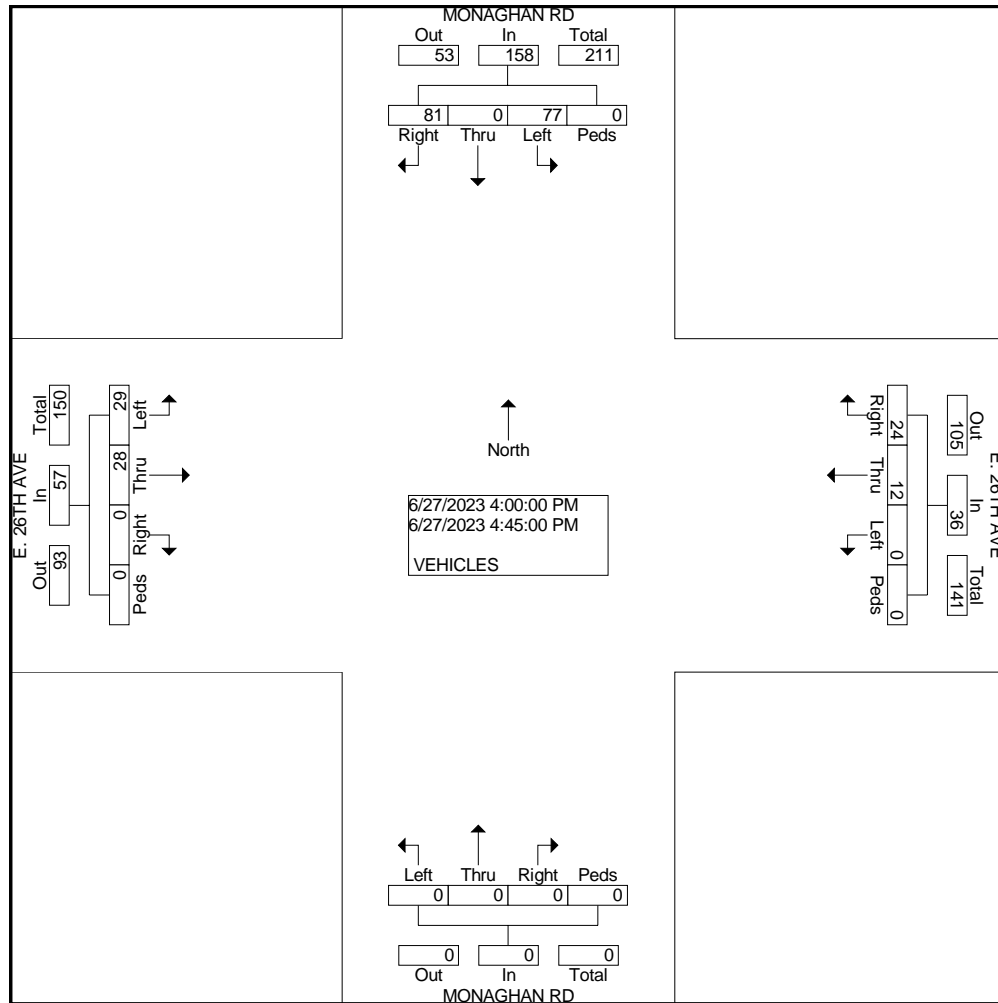
# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: MONAGHAN RD  
E/W STREET: E. 26TH AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : MONA26THAVE  
Site Code : 00000013  
Start Date : 6/27/2023  
Page No : 3

	MONAGHAN RD Southbound					E. 26TH AVE Westbound					MONAGHAN RD Northbound					E. 26TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 04:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	77	0	81	0	158	0	12	24	0	36	0	0	0	0	0	29	28	0	0	57	251
Percent	48.7	0.0	51.3	0.0		0.0	33.3	66.7	0.0		0.0	0.0	0.0	0.0		50.9	49.1	0.0	0.0		
04:45																					
Volume	21	0	12	0	33	0	7	6	0	13	0	0	0	0	0	11	11	0	0	22	68
Peak Factor																					0.923
High Int.	04:15 PM					04:00 PM										04:45 PM					
Volume	21	0	25	0	46	0	3	12	0	15	0	0	0	0	0	11	11	0	0	22	
Peak Factor																					0.648



# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: N. HUDSON RD  
E/W STREET: E. 26TH AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : HUDS26THAVE  
Site Code : 00000011  
Start Date : 6/28/2023  
Page No : 1

## Groups Printed- VEHICLES

	N. HUDSON RD Southbound				E. 26TH AVE Westbound				N. HUDSON RD Northbound				E. 26TH AVE Eastbound				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	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	0	0	1	0	1	0	0	0	22	2	5	0	0	1	10	0	42
06:45 AM	0	6	1	0	0	2	0	0	22	4	0	0	0	1	11	0	47
Total	0	6	2	0	1	2	0	0	44	6	5	0	0	2	21	0	89
07:00 AM	0	1	2	0	0	2	0	0	18	5	0	0	1	3	9	1	42
07:15 AM	0	1	1	0	0	0	0	0	10	4	0	0	1	0	15	0	32
07:30 AM	0	1	0	0	0	0	0	0	15	5	0	0	1	3	12	0	37
07:45 AM	0	2	0	0	1	0	0	0	24	0	0	0	0	0	12	0	39
Total	0	5	3	0	1	2	0	0	67	14	0	0	3	6	48	1	150
08:00 AM	0	2	1	0	1	1	0	0	15	5	0	0	3	0	13	0	41
08:15 AM	0	3	2	0	0	0	0	0	18	0	0	0	5	0	6	0	34
Total	0	5	3	0	1	1	0	0	33	5	0	0	8	0	19	0	75
04:00 PM	2	2	1	0	0	0	3	0	15	0	0	0	2	0	31	0	56
04:15 PM	0	0	0	0	0	1	0	0	8	3	0	0	0	1	34	0	47
04:30 PM	0	3	4	0	4	2	0	0	6	5	0	0	4	0	22	0	50
04:45 PM	0	1	0	0	0	1	0	0	6	1	0	0	0	0	33	0	42
Total	2	6	5	0	4	4	3	0	35	9	0	0	6	1	120	0	195
05:00 PM	0	3	1	0	0	1	0	0	7	4	0	0	1	2	20	0	39
05:15 PM	0	3	1	0	0	0	0	0	6	1	2	0	2	1	32	0	48
05:30 PM	0	3	0	0	0	0	0	0	4	1	1	0	2	1	15	0	27
05:45 PM	0	2	2	0	0	0	0	0	9	4	0	0	2	0	15	0	34
Total	0	11	4	0	0	1	0	0	26	10	3	0	7	4	82	0	148
Grand Total	2	33	17	0	7	10	3	0	205	44	8	0	24	13	290	1	657
Apprch %	3.8	63.5	32.7	0.0	35.0	50.0	15.0	0.0	79.8	17.1	3.1	0.0	7.3	4.0	88.4	0.3	
Total %	0.3	5.0	2.6	0.0	1.1	1.5	0.5	0.0	31.2	6.7	1.2	0.0	3.7	2.0	44.1	0.2	

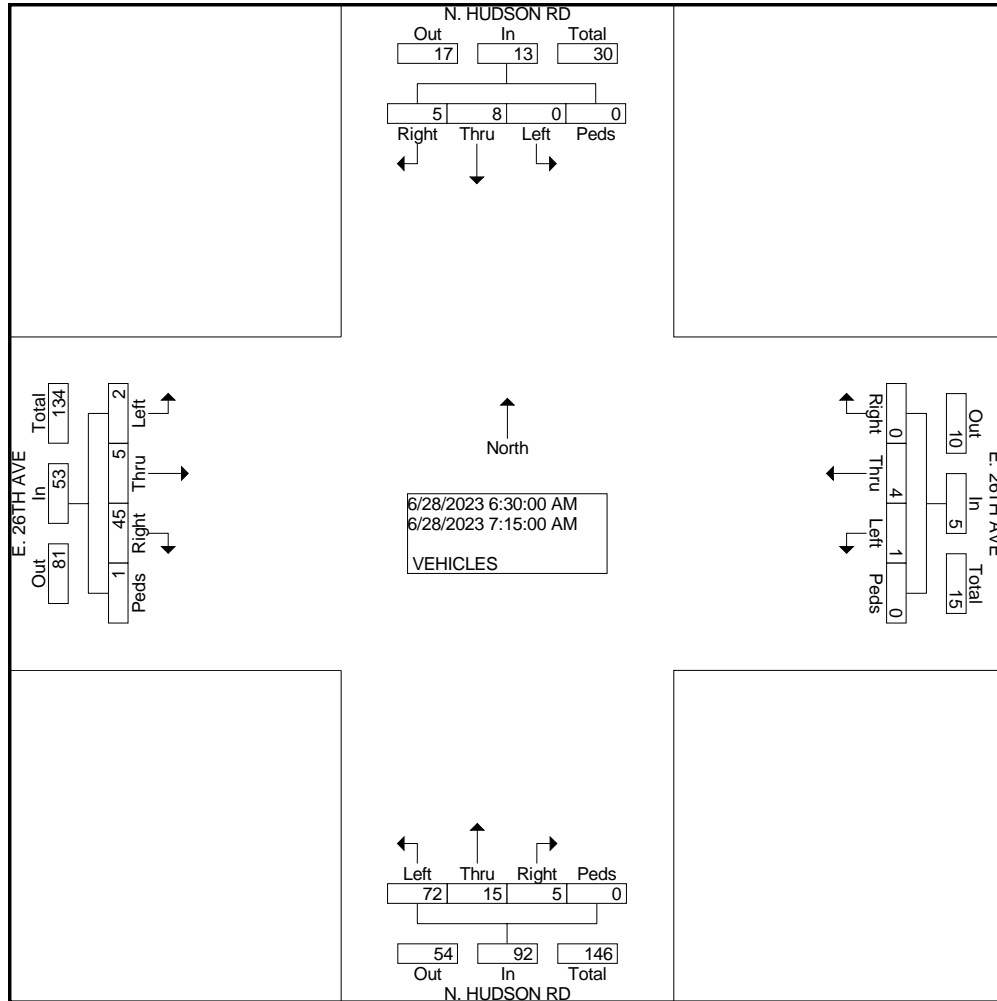
# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: N. HUDSON RD  
E/W STREET: E. 26TH AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : HUDS26THAVE  
Site Code : 00000011  
Start Date : 6/28/2023  
Page No : 2

	N. HUDSON RD Southbound					E. 26TH AVE Westbound					N. HUDSON RD Northbound					E. 26TH AVE Eastbound					Int.
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 07:15 AM - Peak 1 of 1	06:30 AM																				
Intersection	06:30 AM																				
Volume	0	8	5	0	13	1	4	0	0	5	72	15	5	0	92	2	5	45	1	53	163
Percent	0.0	61.5	38.5	0.0		20.0	80.0	0.0	0.0		78.3	16.3	5.4	0.0		3.8	9.4	84.9	1.9		
06:45																					
Volume	0	6	1	0	7	0	2	0	0	2	22	4	0	0	26	0	1	11	0	12	47
Peak Factor																					0.867
High Int.	06:45 AM					06:45 AM					06:30 AM					07:15 AM					
Volume	0	6	1	0	7	0	2	0	0	2	22	2	5	0	29	1	0	15	0	16	
Peak Factor	0.46					0.62					0.79					0.82					
	4					5					3					8					



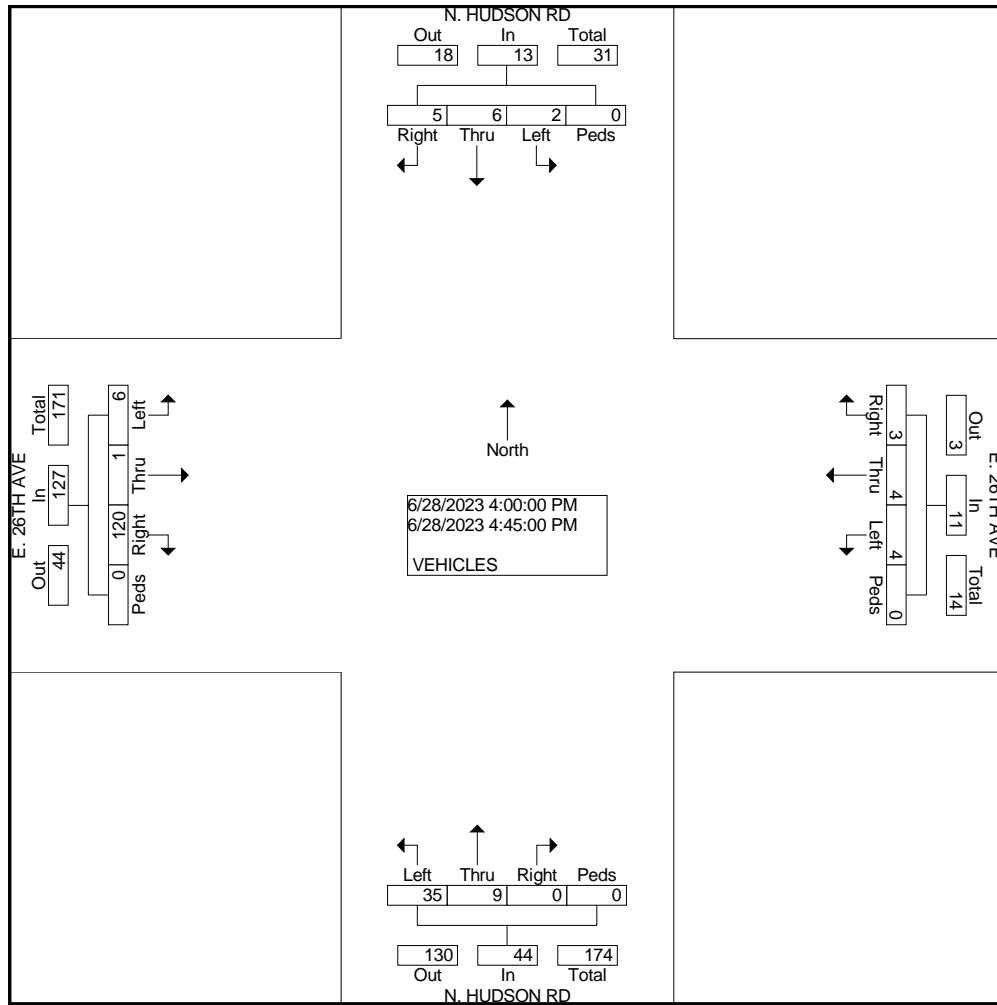
# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER, COLORADO  
303-333-7409

N/S STREET: N. HUDSON RD  
E/W STREET: E. 26TH AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : HUDS26THAVE  
Site Code : 00000011  
Start Date : 6/28/2023  
Page No : 3

	N. HUDSON RD Southbound					E. 26TH AVE Westbound					N. HUDSON RD Northbound					E. 26TH AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 04:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	2	6	5	0	13	4	4	3	0	11	35	9	0	0	44	6	1	120	0	127	195
Percent	15.	46.	38.	0.0		36.	36.	27.	0.0		79.	20.	0.0	0.0		4.7	0.8	94.	0.0		
	4	2	5			4	4	3			5	5						5			
04:00 Volume	2	2	1	0	5	0	0	3	0	3	15	0	0	0	15	2	0	31	0	33	56
Peak Factor																					0.871
High Int.	04:30 PM					04:30 PM					04:00 PM					04:15 PM					
Volume	0	3	4	0	7	4	2	0	0	6	15	0	0	0	15	0	1	34	0	35	
Peak Factor	0.46					0.45					0.73					0.90					7
	4					8					3					7					



# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: HUDSON RD  
E/W STREET: E. COLFAX AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : HUDSCOLFAX23  
Site Code : 00000011  
Start Date : 6/22/2023  
Page No : 1

## Groups Printed- VEHICLES

	HUDSON RD Southbound				E. COLFAX AVE Westbound				HUDSON RD Northbound				E. COLFAX AVE Eastbound				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	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	19	1	10	0	3	12	8	0	1	0	0	0	3	31	1	0	89
06:45 AM	6	0	4	0	2	15	12	0	0	0	0	0	4	36	1	0	80
Total	25	1	14	0	5	27	20	0	1	0	0	0	7	67	2	0	169
07:00 AM	8	0	1	0	1	21	15	0	0	0	0	0	5	34	0	0	85
07:15 AM	11	0	6	0	0	19	12	0	0	2	0	0	0	40	0	0	90
07:30 AM	4	0	2	0	2	18	9	0	0	0	0	0	3	21	0	0	59
07:45 AM	11	0	3	0	0	11	11	0	0	0	0	0	3	21	0	0	60
Total	34	0	12	0	3	69	47	0	0	2	0	0	11	116	0	0	294
08:00 AM	7	0	0	0	0	12	8	0	1	0	0	0	3	18	1	0	50
08:15 AM	17	0	4	0	0	10	6	0	0	0	0	0	3	13	0	0	53
Total	24	0	4	0	0	22	14	0	1	0	0	0	6	31	1	0	103
04:00 PM	27	0	4	0	0	4	4	0	0	0	0	0	5	13	0	0	57
04:15 PM	17	1	6	0	0	16	5	0	0	0	0	0	3	14	3	0	65
04:30 PM	13	1	0	0	0	6	6	0	0	0	3	0	1	20	0	0	50
04:45 PM	20	0	2	0	0	10	10	0	3	0	2	0	2	21	1	0	71
Total	77	2	12	0	0	36	25	0	3	0	5	0	11	68	4	0	243
05:00 PM	11	0	2	0	0	10	9	0	2	0	1	0	4	16	0	0	55
05:15 PM	11	1	0	0	0	10	5	0	0	1	0	0	0	14	1	0	43
05:30 PM	6	0	1	0	0	0	5	0	0	0	1	0	3	14	0	0	30
05:45 PM	4	0	3	0	1	4	4	0	0	0	4	0	1	6	0	0	27
Total	32	1	6	0	1	24	23	0	2	1	6	0	8	50	1	0	155
Grand Total	192	4	48	0	9	178	129	0	7	3	11	0	43	332	8	0	964
Apprch %	78.7	1.6	19.7	0.0	2.8	56.3	40.8	0.0	33.3	14.3	52.4	0.0	11.2	86.7	2.1	0.0	
Total %	19.9	0.4	5.0	0.0	0.9	18.5	13.4	0.0	0.7	0.3	1.1	0.0	4.5	34.4	0.8	0.0	



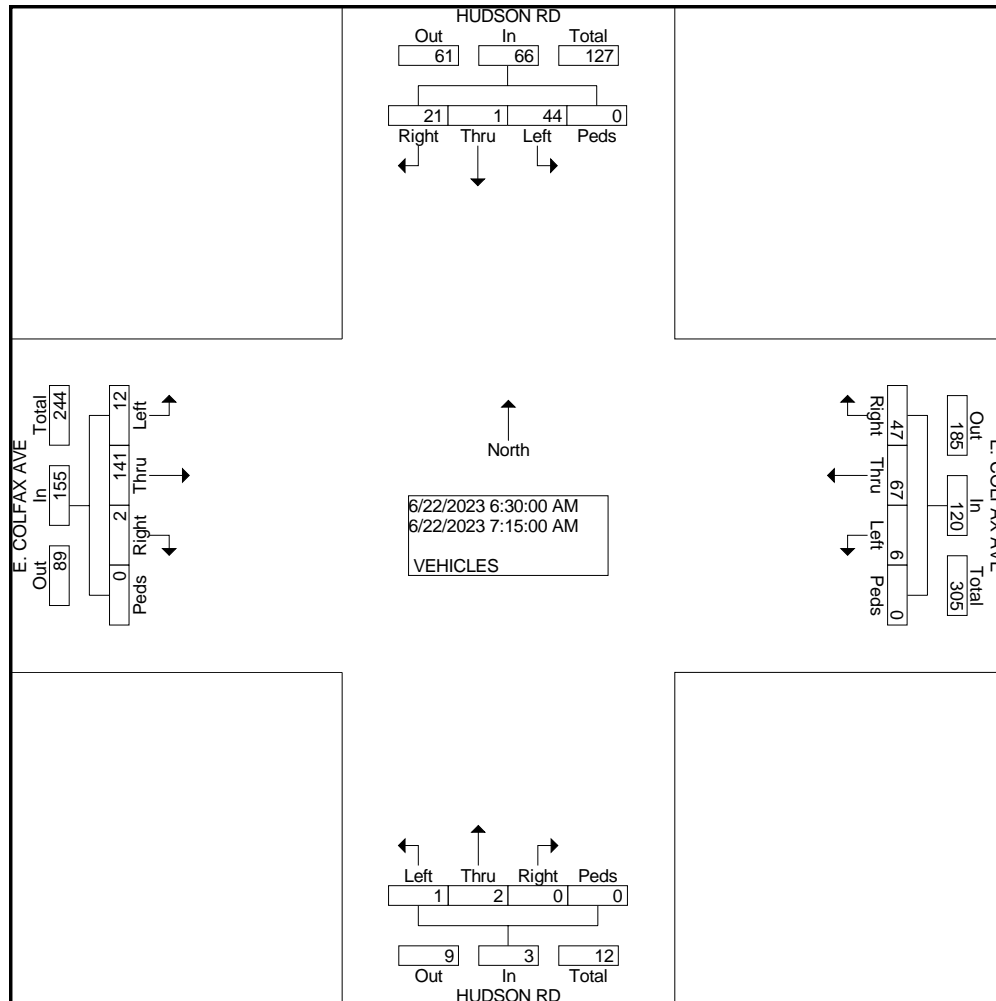
# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: HUDSON RD  
E/W STREET: E. COLFAX AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : HUDSCOLFAX23  
Site Code : 00000011  
Start Date : 6/22/2023  
Page No : 2

	HUDSON RD Southbound					E. COLFAX AVE Westbound					HUDSON RD Northbound					E. COLFAX AVE Eastbound					Int. Total
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1	06:30 AM																				
Intersection	06:30 AM																				
Volume	44	1	21	0	66	6	67	47	0	120	1	2	0	0	3	12	141	2	0	155	344
Percent	66.7	1.5	31.8	0.0		5.0	55.8	39.2	0.0		33.3	66.7	0.0	0.0		7.7	91.0	1.3	0.0		
07:15 Volume	11	0	6	0	17	0	19	12	0	31	0	2	0	0	2	0	40	0	0	40	90
Peak Factor																					0.956
High Int. Volume	06:30 AM					07:00 AM					07:15 AM					06:45 AM					
Peak Factor	19	1	10	0	30	1	21	15	0	37	0	2	0	0	2	4	36	1	0	41	
	0.55					0.81					0.37					0.94					
	0					1					5					5					



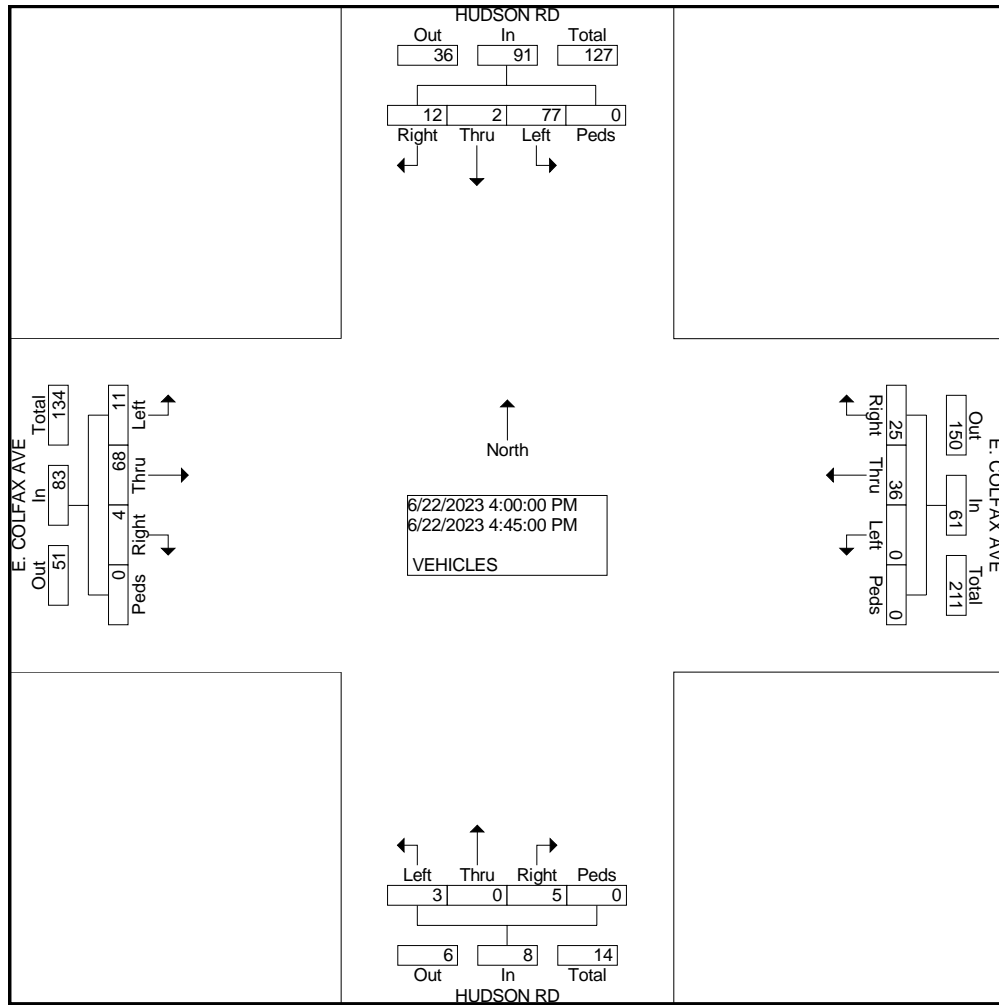
# COUNTER MEASURES INC.

1889 YORK STREET  
DENVER.COLORADO  
303-333-7409

N/S STREET: HUDSON RD  
E/W STREET: E. COLFAX AVE  
CITY: WATKINS  
COUNTY: ADAMS

File Name : HUDSCOLFAX23  
Site Code : 00000011  
Start Date : 6/22/2023  
Page No : 3

	HUDSON RD Southbound					E. COLFAX AVE Westbound					HUDSON RD Northbound					E. COLFAX AVE Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	77	2	12	0	91	0	36	25	0	61	3	0	5	0	8	11	68	4	0	83	243
Percent	84.6	2.2	13.2	0.0		0.0	59.0	41.0	0.0		37.5	0.0	62.5	0.0		13.3	81.9	4.8	0.0		
04:45 Volume	20	0	2	0	22	0	10	10	0	20	3	0	2	0	5	2	21	1	0	24	71
Peak Factor																					0.856
High Int. Volume	04:00 PM					04:15 PM					04:45 PM					04:45 PM					
Peak Factor	27	0	4	0	31	0	16	5	0	21	3	0	2	0	5	2	21	1	0	24	
	0.73					0.72					0.40					0.86					5
	4					6					0					5					



BLUE EAGLE

Location: E. 26TH AVE E-O MONAGHAN RD  
City: AURORA  
County: ADAMS  
Direction: EAST/WEST

Site Code: 2326306 2328305  
Station ID: 2326306  
Start Date: 07262023 8/28/2023  
End Date: 07272023 8/31/2023  
Latitude: 0.000000  
Longitude: 0.000000

8/28/2023	EAST	WEST	Total
Time			
12:00 AM	*	*	0
1:00	*	*	0
2:00	*	*	0
3:00	*	*	0
4:00	*	*	0
5:00	*	*	0
6:00	*	*	0
7:00	*	*	0
8:00	*	*	0
9:00	*	*	0
10:00	*	*	0
11:00	*	*	0
12:00 PM	14	11	25
1:00	58	45	103
2:00	82	33	115
3:00	65	37	102
4:00	96	35	131
5:00	59	36	95
6:00	39	29	68
7:00	28	19	47
8:00	23	12	35
9:00	17	9	26
10:00	27	14	41
11:00	15	8	23
Total	523	288	811
Percent	64.5%	35.5%	
AM Peak			
Volume			
PM Peak	4:00	1:00	4:00
Volume	96	45	131

BLUE EAGLE

Location: E. 26TH AVE E-O MONAGHAN RD  
 City: AURORA  
 County: ADAMS  
 Direction: EAST/WEST

Site Code: 2326306 2328305  
 Station ID: 2326306  
 Start Date: 07262023 8/28/2023  
 End Date: 07272023 8/31/2023  
 Latitude: 0.000000  
 Longitude: 0.000000

8/29/2023	EAST	WEST	Total
Time			
12:00 AM	16	2	18
1:00	9	8	17
2:00	5	7	12
3:00	1	24	25
4:00	8	39	47
5:00	11	77	88
6:00	31	69	100
7:00	44	73	117
8:00	33	61	94
9:00	28	27	55
10:00	30	43	73
11:00	37	38	75
12:00 PM	48	41	89
1:00	51	43	94
2:00	71	41	112
3:00	87	28	115
4:00	103	47	150
5:00	63	20	83
6:00	55	22	77
7:00	34	18	52
8:00	28	16	44
9:00	9	9	18
10:00	22	9	31
11:00	21	5	26
Total	845	767	1612
Percent	52.4%	47.6%	
AM Peak	7:00	5:00	7:00
Volume	44	77	117
PM Peak	4:00	4:00	4:00
Volume	103	47	150

BLUE EAGLE

Location: E. 26TH AVE E-O MONAGHAN RD  
 City: AURORA  
 County: ADAMS  
 Direction: EAST/WEST

Site Code: 2326306 2328305  
 Station ID: 2326306  
 Start Date: 07262023 8/28/2023  
 End Date: 07272023 8/31/2023  
 Latitude: 0.000000  
 Longitude: 0.000000

8/30/2023	EAST	WEST	Total
Time			
12:00 AM	24	6	30
1:00	11	10	21
2:00	6	11	17
3:00	4	25	29
4:00	7	41	48
5:00	10	72	82
6:00	41	79	120
7:00	47	61	108
8:00	36	62	98
9:00	37	38	75
10:00	35	41	76
11:00	37	34	71
12:00 PM	46	32	78
1:00	55	48	103
2:00	78	49	127
3:00	77	42	119
4:00	93	34	127
5:00	86	33	119
6:00	36	20	56
7:00	18	16	34
8:00	25	20	45
9:00	17	12	29
10:00	17	14	31
11:00	16	6	22
Total	859	806	1665
Percent	51.6%	48.4%	
AM Peak	7:00	6:00	6:00
Volume	47	79	120
PM Peak	4:00	2:00	2:00
Volume	93	49	127

BLUE EAGLE

Location: E. 26TH AVE E-O MONAGHAN RD  
City: AURORA  
County: ADAMS  
Direction: EAST/WEST

Site Code: 2326306 2328305  
Station ID: 2326306  
Start Date: 07262023 8/28/2023  
End Date: 07272023 8/31/2023  
Latitude: 0.000000  
Longitude: 0.000000

8/31/2023	EAST	WEST	Total
Time			
12:00 AM	18	2	20
1:00	12	6	18
2:00	3	6	9
3:00	3	18	21
4:00	4	36	40
5:00	9	68	77
6:00	33	74	107
7:00	36	70	106
8:00	34	41	75
9:00	26	19	45
10:00	41	67	108
11:00	34	39	73
12:00 PM	*	*	0
1:00	*	*	0
2:00	*	*	0
3:00	*	*	0
4:00	*	*	0
5:00	*	*	0
6:00	*	*	0
7:00	*	*	0
8:00	*	*	0
9:00	*	*	0
10:00	*	*	0
11:00	*	*	0
Total	253	446	699
Percent	36.2%	63.8%	
AM Peak	10:00	6:00	10:00
Volume	41	74	108
PM Peak			
Volume			
Grand Total	2480	2307	4787
Percent	51.8%	48.2%	
ADT		ADT: 1,638	AADT: 1,638

BLUE EAGLE

Location: HUDSON RD S-O E. 26TH AVE  
City: AURORA  
County: ADAMS  
Direction: NORTH/SOUTH

Site Code: 2326306 2328304  
Station ID: 2326306  
Start Date: 07262023 8/28/2023  
End Date: 07272023 8/31/2023  
Latitude: 0.000000  
Longitude: 0.000000

8/28/2023	NORTH	SOUTH	Total
Time			
12:00 AM	*	*	0
1:00	*	*	0
2:00	*	*	0
3:00	*	*	0
4:00	*	*	0
5:00	*	*	0
6:00	*	*	0
7:00	*	*	0
8:00	*	*	0
9:00	*	*	0
10:00	*	*	0
11:00	*	*	0
12:00 PM	49	47	96
1:00	53	62	115
2:00	36	105	141
3:00	52	94	146
4:00	49	119	168
5:00	37	85	122
6:00	31	58	89
7:00	14	37	51
8:00	16	24	40
9:00	12	17	29
10:00	13	23	36
11:00	11	21	32
Total	373	692	1065
Percent	35.0%	65.0%	
AM Peak			
Volume			
PM Peak	1:00	4:00	4:00
Volume	53	119	168

BLUE EAGLE

Location: HUDSON RD S-O E. 26TH AVE  
 City: AURORA  
 County: ADAMS  
 Direction: NORTH/SOUTH

Site Code: 2326306 2328304  
 Station ID: 2326306  
 Start Date: 07262023 8/28/2023  
 End Date: 07272023 8/31/2023  
 Latitude: 0.000000  
 Longitude: 0.000000

8/29/2023	NORTH	SOUTH	Total
Time			
12:00 AM	6	19	25
1:00	6	12	18
2:00	12	4	16
3:00	22	4	26
4:00	49	4	53
5:00	78	9	87
6:00	99	31	130
7:00	82	45	127
8:00	73	36	109
9:00	44	36	80
10:00	58	53	111
11:00	45	55	100
12:00 PM	57	60	117
1:00	56	72	128
2:00	39	76	115
3:00	42	95	137
4:00	46	118	164
5:00	27	78	105
6:00	27	65	92
7:00	27	45	72
8:00	14	31	45
9:00	14	22	36
10:00	16	27	43
11:00	7	22	29
Total	946	1019	1965
Percent	48.1%	51.9%	
AM Peak	6:00	11:00	6:00
Volume	99	55	130
PM Peak	12:00 PM	4:00	4:00
Volume	57	118	164



BLUE EAGLE

Location: HUDSON RD S-O E. 26TH AVE  
 City: AURORA  
 County: ADAMS  
 Direction: NORTH/SOUTH

Site Code: 2326306 2328304  
 Station ID: 2326306  
 Start Date: 07262023 8/28/2023  
 End Date: 07272023 8/31/2023  
 Latitude: 0.000000  
 Longitude: 0.000000

8/30/2023	NORTH	SOUTH	Total
Time			
12:00 AM	6	21	27
1:00	11	15	26
2:00	13	6	19
3:00	26	6	32
4:00	46	9	55
5:00	80	7	87
6:00	86	32	118
7:00	73	51	124
8:00	64	31	95
9:00	60	51	111
10:00	62	59	121
11:00	52	53	105
12:00 PM	48	65	113
1:00	70	62	132
2:00	60	92	152
3:00	40	110	150
4:00	40	111	151
5:00	46	94	140
6:00	18	60	78
7:00	28	33	61
8:00	20	32	52
9:00	16	15	31
10:00	16	28	44
11:00	12	15	27
Total	993	1058	2051
Percent	48.4%	51.6%	
AM Peak	6:00	10:00	7:00
Volume	86	59	124
PM Peak	1:00	4:00	2:00
Volume	70	111	152

BLUE EAGLE

Location: HUDSON RD S-O E. 26TH AVE  
City: AURORA  
County: ADAMS  
Direction: NORTH/SOUTH

Site Code: 2326306 2328304  
Station ID: 2326306  
Start Date: 07262023 8/28/2023  
End Date: 07272023 8/31/2023  
Latitude: 0.000000  
Longitude: 0.000000

8/31/2023	NORTH	SOUTH	Total
Time			
12:00 AM	6	26	32
1:00	6	16	22
2:00	10	5	15
3:00	18	3	21
4:00	43	4	47
5:00	74	10	84
6:00	91	31	122
7:00	84	46	130
8:00	56	36	92
9:00	45	43	88
10:00	59	61	120
11:00	55	57	112
12:00 PM	*	*	0
1:00	*	*	0
2:00	*	*	0
3:00	*	*	0
4:00	*	*	0
5:00	*	*	0
6:00	*	*	0
7:00	*	*	0
8:00	*	*	0
9:00	*	*	0
10:00	*	*	0
11:00	*	*	0
Total	547	338	885
Percent	61.8%	38.2%	
AM Peak	6:00	10:00	7:00
Volume	91	61	130
PM Peak			
Volume			
Grand Total	2859	3107	5966
Percent	47.9%	52.1%	
ADT		ADT: 2,008	AADT: 2,008

BLUE EAGLE

Location: MONAGHAN RD N-O E. 26TH AVE  
City: AURORA  
County: ADAMS  
Direction: NORTH/SOUTH

Site Code: 2326306 2328306  
Station ID: 2326306  
Start Date: 07262023 8/28/2023  
End Date: 07272023 8/31/2023  
Latitude: 0.000000  
Longitude: 0.000000

8/28/2023	NORTH	SOUTH	Total
Time			
12:00 AM	*	*	0
1:00	*	*	0
2:00	*	*	0
3:00	*	*	0
4:00	*	*	0
5:00	*	*	0
6:00	*	*	0
7:00	*	*	0
8:00	*	*	0
9:00	*	*	0
10:00	*	*	0
11:00	*	*	0
12:00 PM	70	83	153
1:00	78	111	189
2:00	54	168	222
3:00	54	157	211
4:00	43	167	210
5:00	46	108	154
6:00	47	72	119
7:00	29	41	70
8:00	10	30	40
9:00	15	45	60
10:00	17	68	85
11:00	8	33	41
Total	471	1083	1554
Percent	30.3%	69.7%	
AM Peak			
Volume			
PM Peak	1:00	2:00	2:00
Volume	78	168	222

BLUE EAGLE

Location: MONAGHAN RD N-O E. 26TH AVE  
 City: AURORA  
 County: ADAMS  
 Direction: NORTH/SOUTH

Site Code: 2326306 2328306  
 Station ID: 2326306  
 Start Date: 07262023 8/28/2023  
 End Date: 07272023 8/31/2023  
 Latitude: 0.000000  
 Longitude: 0.000000

8/29/2023	NORTH	SOUTH	Total
Time			
12:00 AM	4	52	56
1:00	12	22	34
2:00	24	14	38
3:00	57	7	64
4:00	97	11	108
5:00	179	19	198
6:00	106	43	149
7:00	137	61	198
8:00	92	47	139
9:00	59	57	116
10:00	65	60	125
11:00	85	67	152
12:00 PM	80	81	161
1:00	94	122	216
2:00	70	163	233
3:00	58	176	234
4:00	57	175	232
5:00	47	101	148
6:00	40	80	120
7:00	23	52	75
8:00	23	50	73
9:00	18	38	56
10:00	18	82	100
11:00	5	55	60
Total	1450	1635	3085
Percent	47.0%	53.0%	
AM Peak	5:00	11:00	5:00
Volume	179	67	198
PM Peak	1:00	3:00	3:00
Volume	94	176	234



BLUE EAGLE

Location: MONAGHAN RD N-O E. 26TH AVE  
 City: AURORA  
 County: ADAMS  
 Direction: NORTH/SOUTH

Site Code: 2326306 2328306  
 Station ID: 2326306  
 Start Date: 07262023 8/28/2023  
 End Date: 07272023 8/31/2023  
 Latitude: 0.000000  
 Longitude: 0.000000

8/30/2023	NORTH	SOUTH	Total
Time			
12:00 AM	5	44	49
1:00	12	19	31
2:00	25	10	35
3:00	57	11	68
4:00	101	18	119
5:00	148	19	167
6:00	127	57	184
7:00	138	63	201
8:00	113	67	180
9:00	83	75	158
10:00	82	67	149
11:00	86	91	177
12:00 PM	76	110	186
1:00	127	130	257
2:00	74	182	256
3:00	79	176	255
4:00	69	173	242
5:00	49	123	172
6:00	34	70	104
7:00	34	35	69
8:00	23	51	74
9:00	19	44	63
10:00	13	71	84
11:00	8	44	52
Total	1582	1750	3332
Percent	47.5%	52.5%	
AM Peak	5:00	11:00	7:00
Volume	148	91	201
PM Peak	1:00	2:00	1:00
Volume	127	182	257

BLUE EAGLE

Location: MONAGHAN RD N-O E. 26TH AVE  
City: AURORA  
County: ADAMS  
Direction: NORTH/SOUTH

Site Code: 2326306 2328306  
Station ID: 2326306  
Start Date: 07262023 8/28/2023  
End Date: 07272023 8/31/2023  
Latitude: 0.000000  
Longitude: 0.000000

8/31/2023	NORTH	SOUTH	Total
Time			
12:00 AM	4	41	45
1:00	8	18	26
2:00	27	9	36
3:00	52	8	60
4:00	103	10	113
5:00	149	20	169
6:00	129	43	172
7:00	159	75	234
8:00	96	75	171
9:00	31	29	60
10:00	82	72	154
11:00	81	93	174
12:00 PM	*	*	0
1:00	*	*	0
2:00	*	*	0
3:00	*	*	0
4:00	*	*	0
5:00	*	*	0
6:00	*	*	0
7:00	*	*	0
8:00	*	*	0
9:00	*	*	0
10:00	*	*	0
11:00	*	*	0
Total	921	493	1414
Percent	65.1%	34.9%	
AM Peak	7:00	11:00	7:00
Volume	159	93	234
PM Peak			
Volume			
Grand Total	4424	4961	9385
Percent	47.1%	52.9%	
ADT		ADT: 3,208	AADT: 3,208

# **THE AURORA HIGHLANDS AURORA, COLORADO**

## **Transportation Impact Study**

Prepared for:

CGF Management  
6550 S Pecos Road, Suite 124  
Las Vegas, NV 89120

Prepared by:

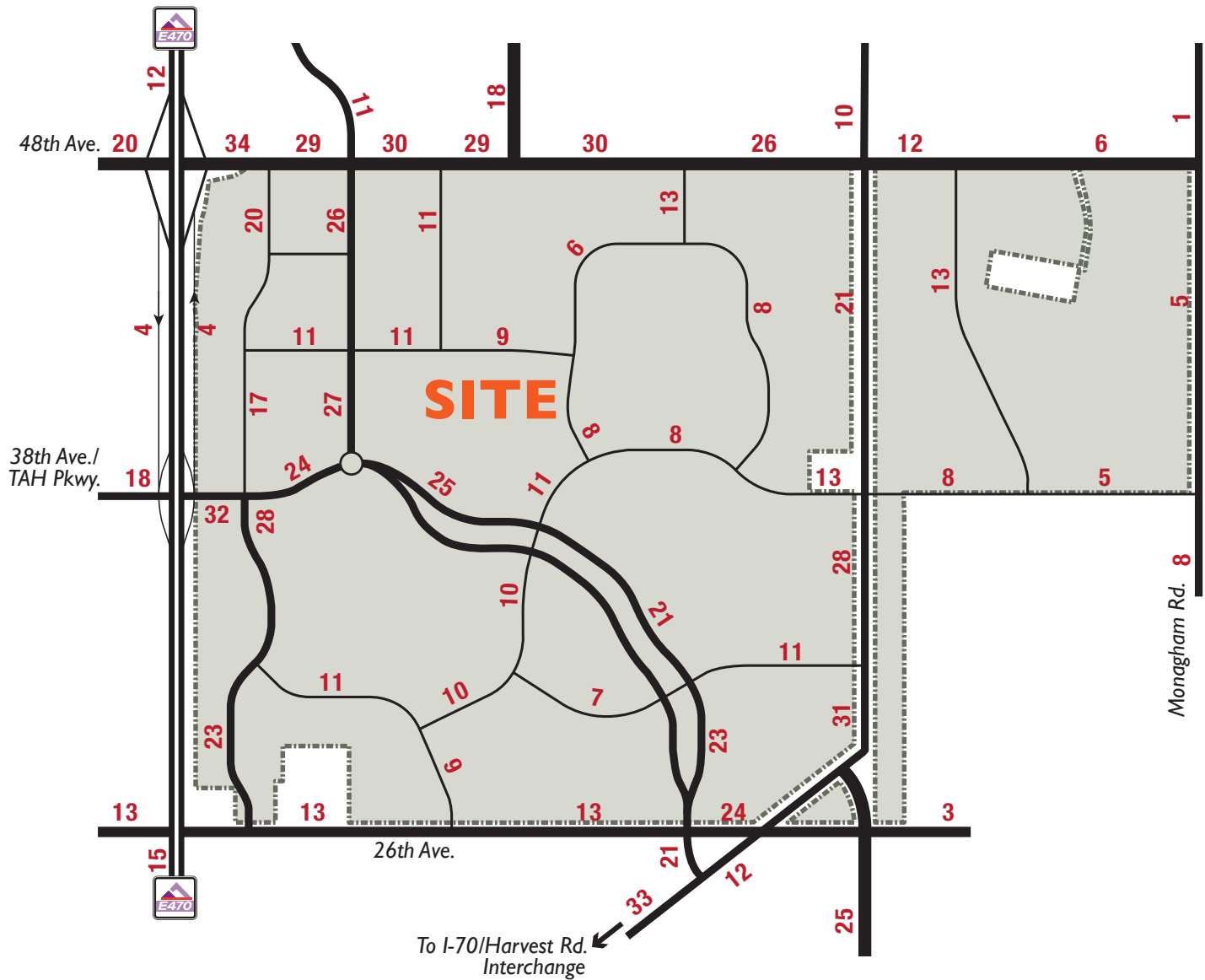
Felsburg Holt & Ullevig  
6300 South Syracuse Way, Suite 600  
Centennial, CO 80111  
303.721.1440

Project Manager: Christopher J. Fasching, PE, PTOE  
Project Planner: Shea Suski



FHU Reference No. 115396

August 2018



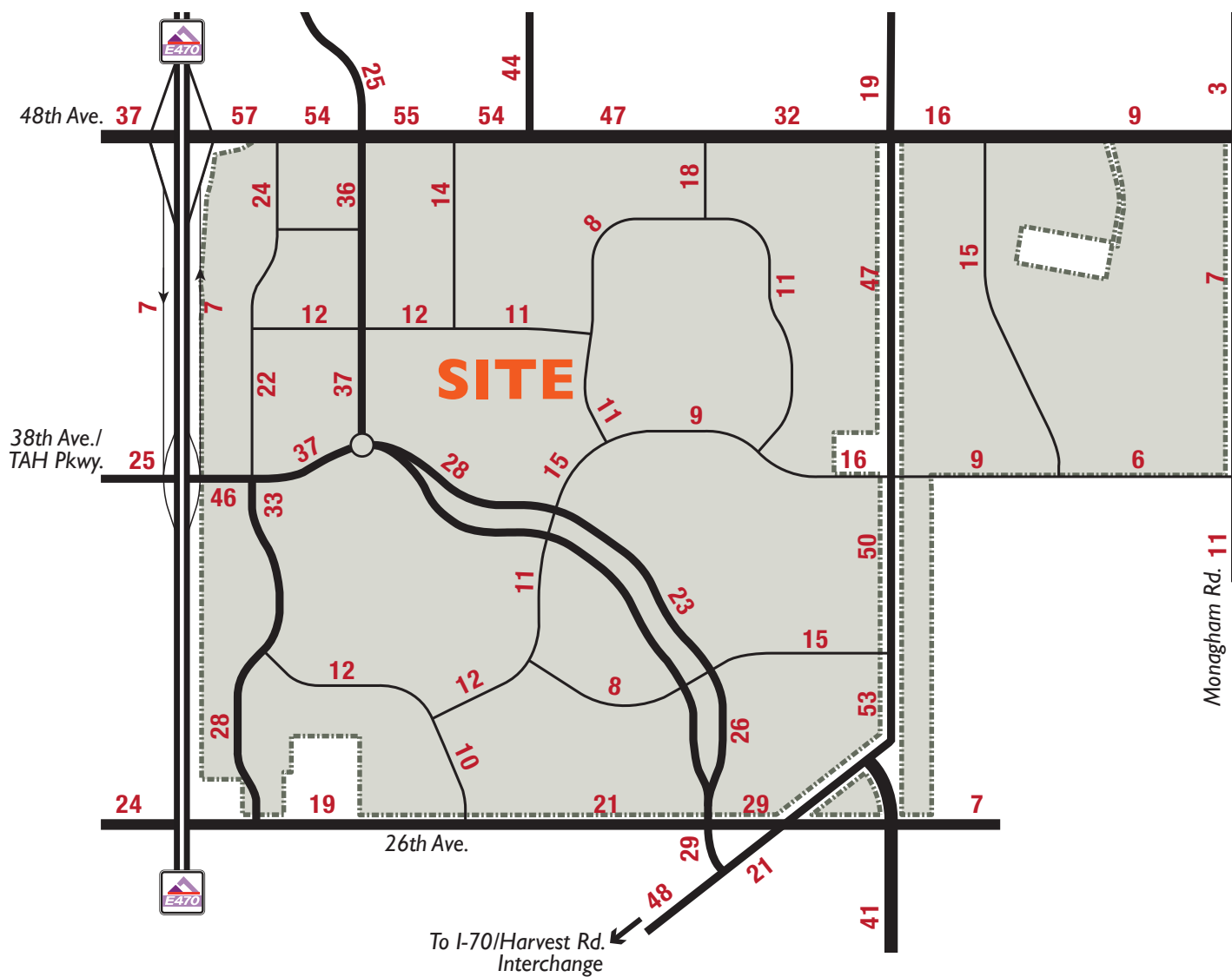
#### LEGEND

**XXXX** = Volumes in 1000's

 = Aurora Highlands







#### LEGEND

**XXXX** = Volumes in 1000's

 = Aurora Highlands



# TRANSPORT COLORADO

## Revised Traffic Impact Analysis



Prepared for:

TransPort Colorado, LLC  
c/o Western Transport, LLC  
1331 17<sup>th</sup> Street, Suite 1000  
Denver, CO 80202

Prepared by:

Felsburg Holt & Ullevig  
6300 South Syracuse Way, Suite 600  
Centennial, CO 80111  
303.721.1440

Project Manager: Richard R. Follmer, PE, PTOE  
Project Engineer: Philip Dunham, PE



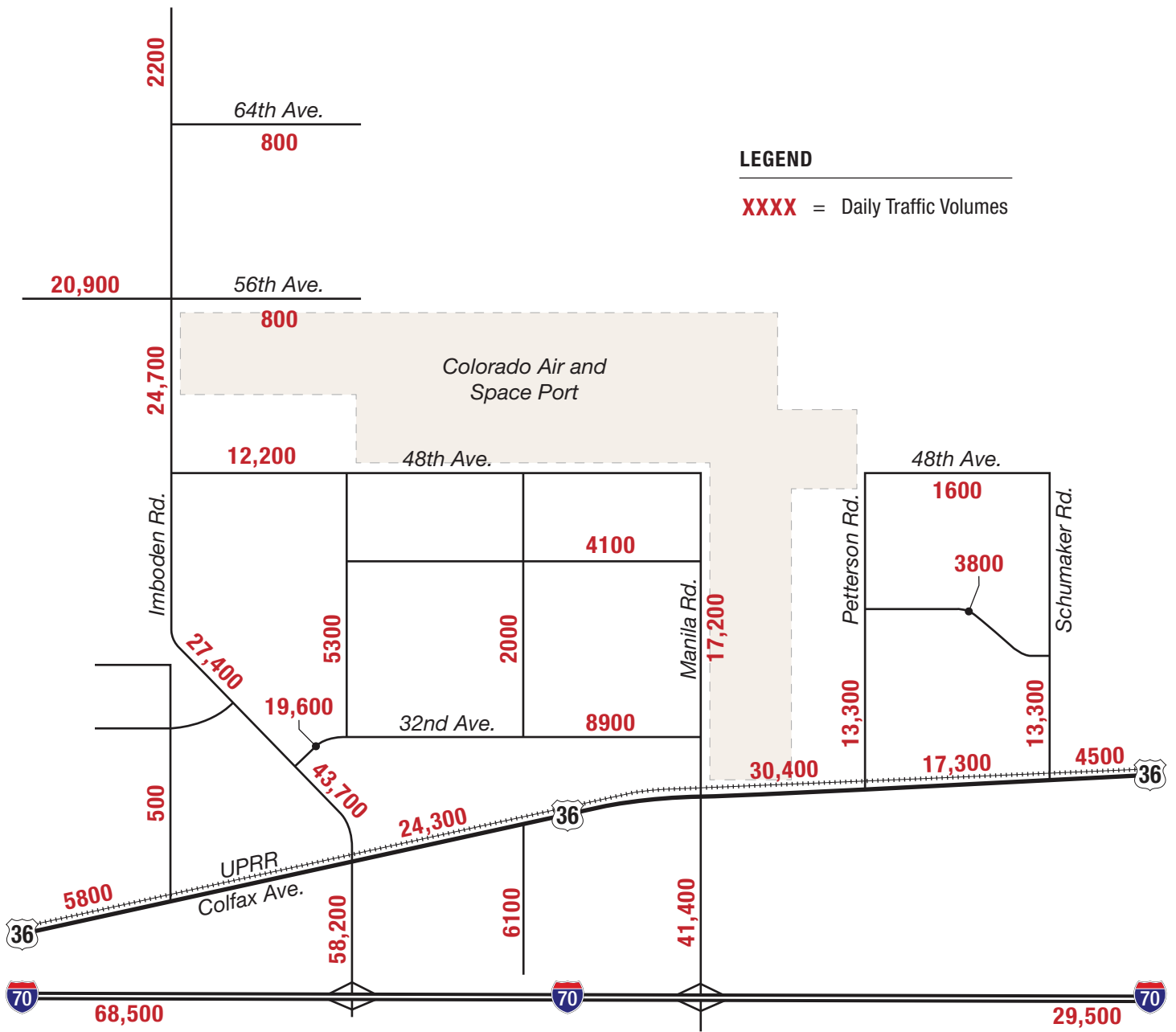
FHU Reference No. 118335-01

April 2019

1<sup>st</sup> Revision November 2019

2<sup>nd</sup> Revision January 2020

3<sup>rd</sup> Revision April 2020







## TRAFFIC IMPACT LETTER

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**TAB 16**



DAVID EVANS  
AND ASSOCIATES INC.

June 7, 2018

Victor Rachael  
Public Works Traffic Division  
15151 E Alameda Parkway, Suite 5200  
Aurora, CO 80012

**SUBJECT:**

**Monaghan Materials Facility (#1183742) Pre-application—Site Trip Generation**

Dear Mr Rachael,

David Evans and Associates, Inc. assisted Rock and Rail with verifying the anticipated opening year trip generation values for the proposed Monaghan Materials Facility located in Aurora, Colorado. This project is proposed to be located south of 26<sup>th</sup> Avenue and between Powhaton Road and Monahan Road. At this point in the application process, Rock and Rail is requesting feedback from the City of Aurora on possible road improvements that may be required for the project based on the estimated site trip generation information provided by Rock and Rail to determine the feasibility of construction of the proposed facility. At this time, a full Traffic Impact Study is not being performed. No traffic counts, analysis, or future trip projections were developed as part of this effort.

Based on Rock and Rail's estimates, the anticipated daily and peak hour trip generation for Opening year (2018) is shown in **Table 1**. The trip generation includes employee trips entering/exiting the facility, ancillary employees that may be at the facility, and truck traffic related to product transportation and delivery. The truck traffic will include Rock and Rail employees, customers and leased ready mix trucks, asphalt trucks, aggregate trucks, and various product delivery trucks.

**Table 1. Daily and Peak Hour Site Trips**

Vehicle Trip Type	Daily Site Trips	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
Materials and Deliveries Trips	880	9	62	71	48	0	48
Employee Trips	222	80	0	80	0	77	77
<b>Total Trips</b>	<b>1,102</b>	<b>89</b>	<b>62</b>	<b>151</b>	<b>48</b>	<b>77</b>	<b>125</b>

The primary haul route for truck traffic entering/exiting the site will be via 26<sup>th</sup> Avenue to Powhaton Road. Powhaton Road does not provide access to I-70, so traffic will utilize Colfax



Avenue/I-70 Frontage Road either to the west to enter I-70 at Exit 289, or to the east to enter I-70 at Exit 292. The anticipated routes are shown in **Figure 1**, Traffic Route layout map. It is not anticipated that 26<sup>th</sup> Avenue will be utilized west of Powhaton Road unless there is a local delivery.

The proposed facility will have one main roadway access, which will be located off of 26<sup>th</sup> Avenue. A secondary/emergency access will be located off of Monaghan Road. Internally, the site will have a one-lane access road which will run counterclockwise throughout the property, and has one proposed main exit, also on 26<sup>th</sup> Avenue, as shown in the conceptual layout in **Figure 2**.

Please feel free to contact me at 720-225-4630 if you have any questions regarding the proposed trip generation for this site.

Sincerely,

**DAVID EVANS AND ASSOCIATES, INC.**

A handwritten signature in cursive script, reading 'Heather Gade'.

Heather Gade, P.E.  
Traffic Engineer

Copies: David Bieber, Amanda Limburg

Attachments/Enclosures: None

Project Number: MMMA00000004

File Path: P:\M\MMMA00000004\0600INFO\TT\MM\_Denver East Rail Letter.docx

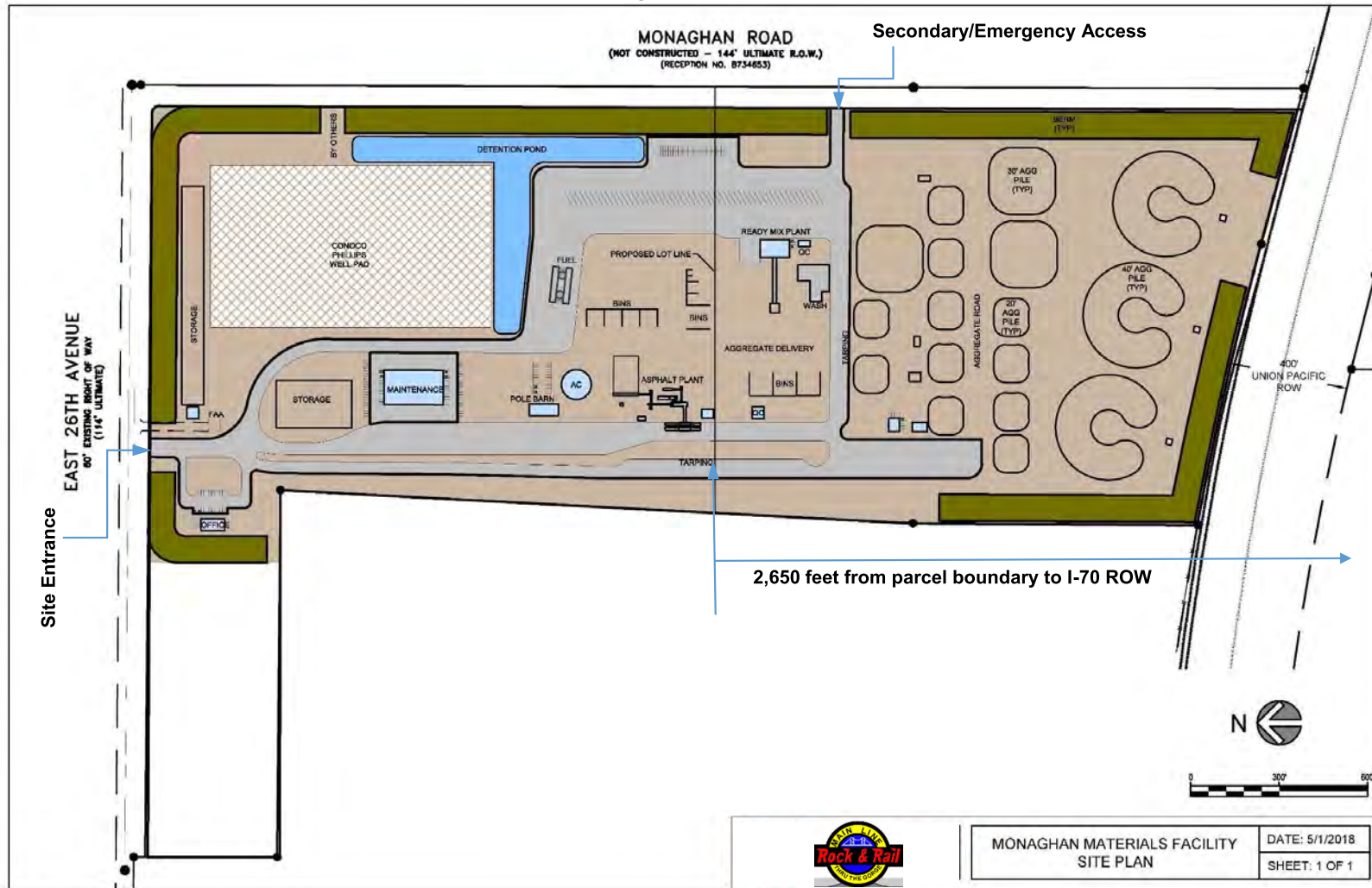
**Figure 1: Monaghan Materials Facility Traffic Route**



Use 26<sup>th</sup> Ave west to Powhatan Road, south to Colfax Ave east/west to access interstate and or tollways.



Figure 2: Site Plan



MONAGHAN MATERIALS FACILITY  
SITE PLAN

DATE: 5/1/2018  
SHEET: 1 OF 1

September 10, 2018  
Merrick Project No. 65119570

Victor Rachael  
Public Works Traffic Division  
15151 E. Alameda Parkway, Suite 5200  
Aurora, CO 80012

**Re: Traffic Impact Discussion – Monaghan Materials Facility - FDP**  
**Application Number: DA-2110-00**  
**Case Number: 2017-7004-00**

Dear Mr. Rachael:

Once the I-70 and Monaghan interchange is completed the dedicated haul route would become: exit at Monaghan Road from I-70, then north on Monaghan Rd to 26<sup>th</sup> Avenue, then West on 26<sup>th</sup> Avenue to the main access to the site and then South into the site.

If you have any questions, or need further clarification concerning the resubmitted plans, please don't hesitate to give me a call at 303-353-3744.

Respectfully submitted,  
**MERRICK & COMPANY**



Tyler Scarlett



# I-70 System Level Study

## Existing Conditions Report

Prepared for:

CDOT Region 1



Prepared by:



Project Manager: Shane Binder

Apex Design Reference No. 170269.20

May 8, 2020

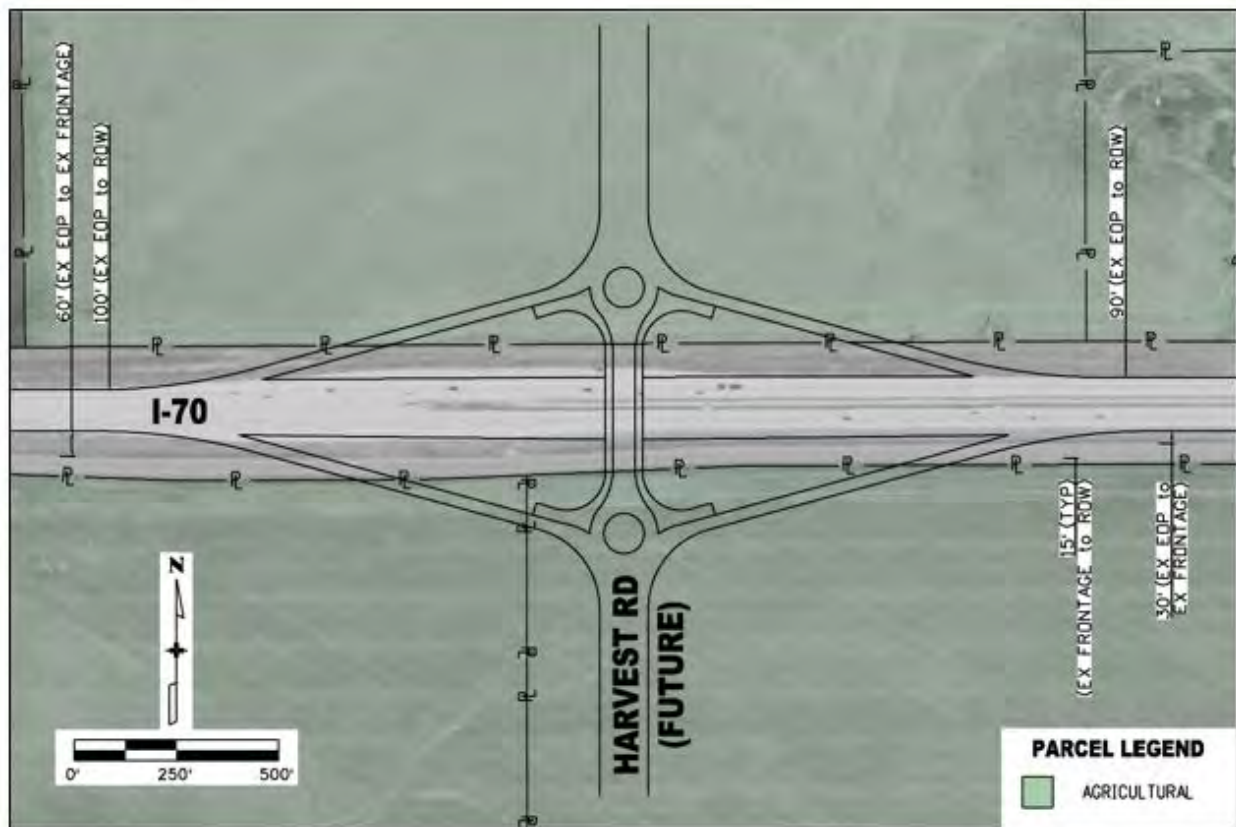
### MP 290: Harvest Road

No interchange exists at this location at present; however, a future interchange has been designed and construction funds have been committed. The future Harvest Road interchange is included in the DRCOG Year 2040 baseline model.

Harvest Road does not exist in the vicinity of I-70 at present. However, it is a north-south arterial from 6<sup>th</sup> Avenue, one mile to the south, serving new residential development in eastern Aurora. When Harvest Road is extended to a new interchange at I-70 in the future, it is anticipated to have a four-lane cross-section at the future interchange with a speed limit to be determined in the future. The future interchange is anticipated to have two-lane roundabouts with right turn bypass lanes at each ramp terminal.

The land use surrounding this location is rural agricultural as shown in **Figure 7**. A two-lane frontage road exists at present on the south side of I-70; this frontage road is envisioned to be rerouted significantly to the south in the future.

**Figure 7. MP 290: Future Harvest Road ROW and Land Uses**





## HISTORY & BACKGROUND

### The Aerotropolis Regional Transportation Authority

On February 27, 2018, the Aurora City Council, the Adams County Board of County Commissioners, and the Aerotropolis Area Coordinating Metropolitan District (AACMD) executed an intergovernmental agreement establishing the Aerotropolis Regional Transportation Authority (ARTA). The ARTA Board of Directors consists of representatives from all three of these agencies. They will manage and oversee the budgeting, phasing, and financing of critical regional transportation infrastructure projects needed to improve access across Aurora and Adams County. These improvements will provide much-needed additional connectivity to Denver International Airport with new interchanges on Interstate 70 (I-70) and E-470. For more information about ARTA, its vision, and recent achievements, **please visit the ARTA website at [www.aerotropolisrta.org](http://www.aerotropolisrta.org).**

### I-70/Harvest Road Interchange

A key element of the transportation network is a new interchange on I-70 along the proposed Harvest Road alignment. This project will be a critical piece of the roadway network which will convey people and commerce to Denver International Airport and to the adjacent Colorado Aerotropolis; a developing world-class residential, commercial, and industrial community expected to create 170,000 new jobs.

### History of the Interchange

Harvest Road has long been identified in numerous transportation and land-use plans as a key north-south transportation corridor, and has more recently been included in the Denver Regional Council of Governments (DRCOG) 2040 Metro Vision Regional Transportation Plan as well as the update of the Northeast Area Transportation Study.

In 2006, the I-70/Harvest Road Interchange was included as part of the "Preferred Alternative" identified in the Environmental Assessment (EA), the Finding of No Significant Impact (FONSI), and the Interstate Access Request (IAR) documentation prepared for the I-70/E-470 Interchange Complex. The environmental studies and the subsequent summary documents (EA and FONSI), along with the IAR, were conducted and prepared in accordance with requirements set forth from the National Environmental Policy Act (NEPA), Federal Highway Administration (FHWA), and Colorado Department of Transportation (CDOT).

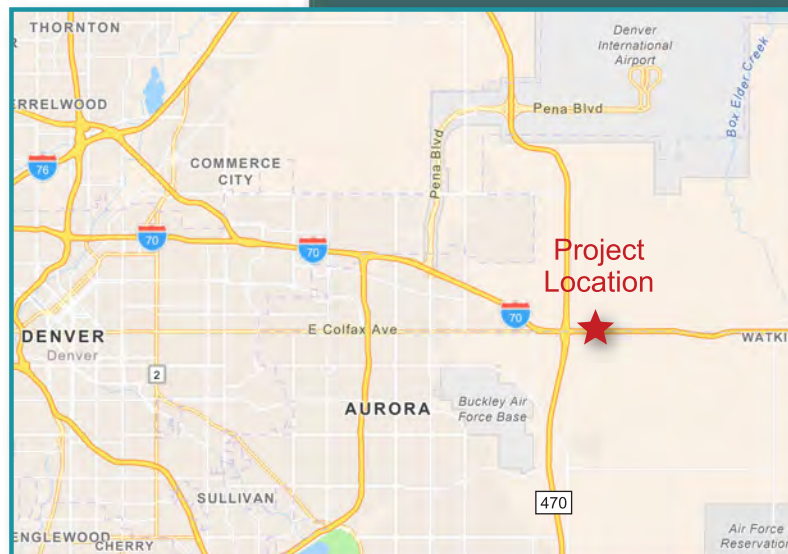
The original approvals of these documents were granted on the following dates:

- Interstate Access Request – February 9, 2006
- Environmental Assessment – November 7, 2006
- Finding of No Significant Impact – July 10, 2007

The design and construction of the interchange was not completed at the time due to a lack of funding.

## PROJECT BENEFITS

- Create regional connectivity
- Establish Harvest Road as a key North-South arterial
- Increase mobility to handle projected trips associated with growth
- Reduce congestion & vehicle travel time
- Connect local residents to job opportunities in the area



## PROJECT MILESTONES AND SCHEDULE

- Feb 2006 - IAR approved
- Nov 2006 - EA approved
- July 2007 - FONSI signed
- July 2007 to Feb 2018 – Project on hold (unfunded)
- Feb 2018 - ARTA formed
- Feb 2019 - EA & Traffic Reevaluation began
- Estimated Dec 2019 - EA Reevaluation and IAR update approval
- Estimated Jan 2020 - Interchange Design begins

## STATUS UPDATE

### Project Restart

With the formation of ARTA and its mission providing a funding mechanism for the interchange, preliminary meetings with CDOT and FHWA were held in 2018 with regard to advancing the design and construction of this interchange. Through these discussions it was determined, due to the length of time elapsed since the initial approvals, that a “Reevaluation” of the original EA, as well as an update of the traffic forecasts, travel demands, and the impacts to the regional transportation network, would be required.

### Purpose

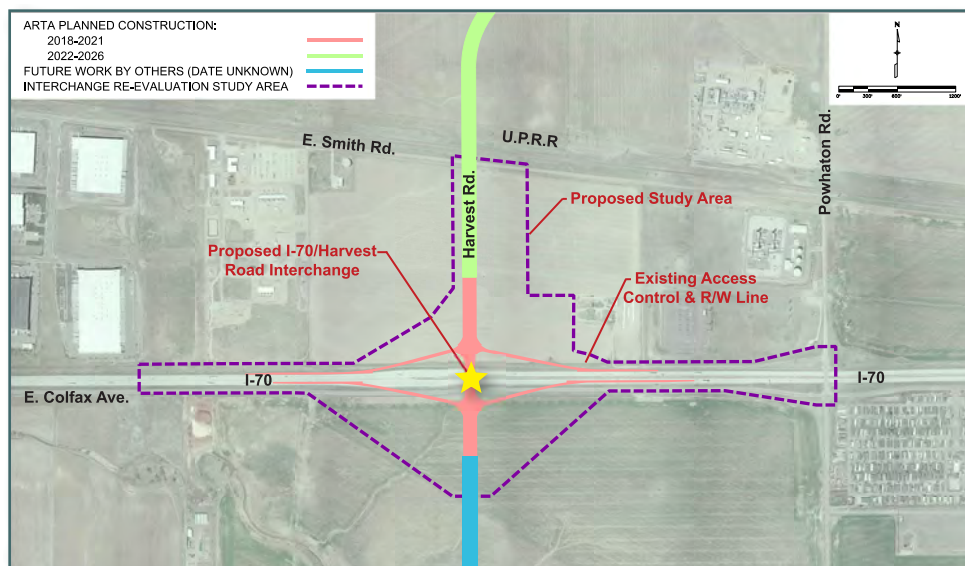
The purpose for the interchange remains the same today as what is documented in the original EA and FONSI—to link the freeway and tollway systems in an efficient and safe manner while maintaining and enhancing local access for the existing and planned roadway system along with future travel demand.

### Current Project Status

The Reevaluation process began in early 2019, as a project team consisting of transportation engineers and environmental specialists began collecting traffic and environmental-related data, along with coordinating with personnel from FHWA and CDOT. The Reevaluation, including the updated traffic and environmental documents and development of conceptual and preliminary layouts for the interchange, is scheduled to be completed by December 2019. The Reevaluation of the previously approved EA is following FHWA and CDOT policies and procedures, which outline the requirements for the justification and documentation necessary to substantiate any proposed changes in access to the interstate system.

### Moving Forward

Upon approval of the Reevaluation and the updated IAR, preliminary and final design of the I-70/Harvest Road Interchange will proceed along with portions of Harvest Road north from I-70 to DIA. Harvest Road will eventually extend to the south of I-70, providing additional connectivity to future growth areas within the City of Aurora and Arapahoe County.



I-70/Harvest Road Interchange EA Reevaluation Study Area



I-70 | Harvest Road

## CURRENT STATUS

The following tasks are currently under way:

- Project Management Team meetings
- Environmental resource investigations
- Traffic update & analysis
- Interchange refinement study



## QUESTIONS OR COMMENTS?

Contact Dan Keyghobad at:  
[dkeyghobad@b-l-n.com](mailto:dkeyghobad@b-l-n.com)

**ARTA Website:**  
[www.aerotropolisrta.org](http://www.aerotropolisrta.org)



FIGURE 8. I-70/AIRPARK CONTINUOUS FLOW INTERCHANGE

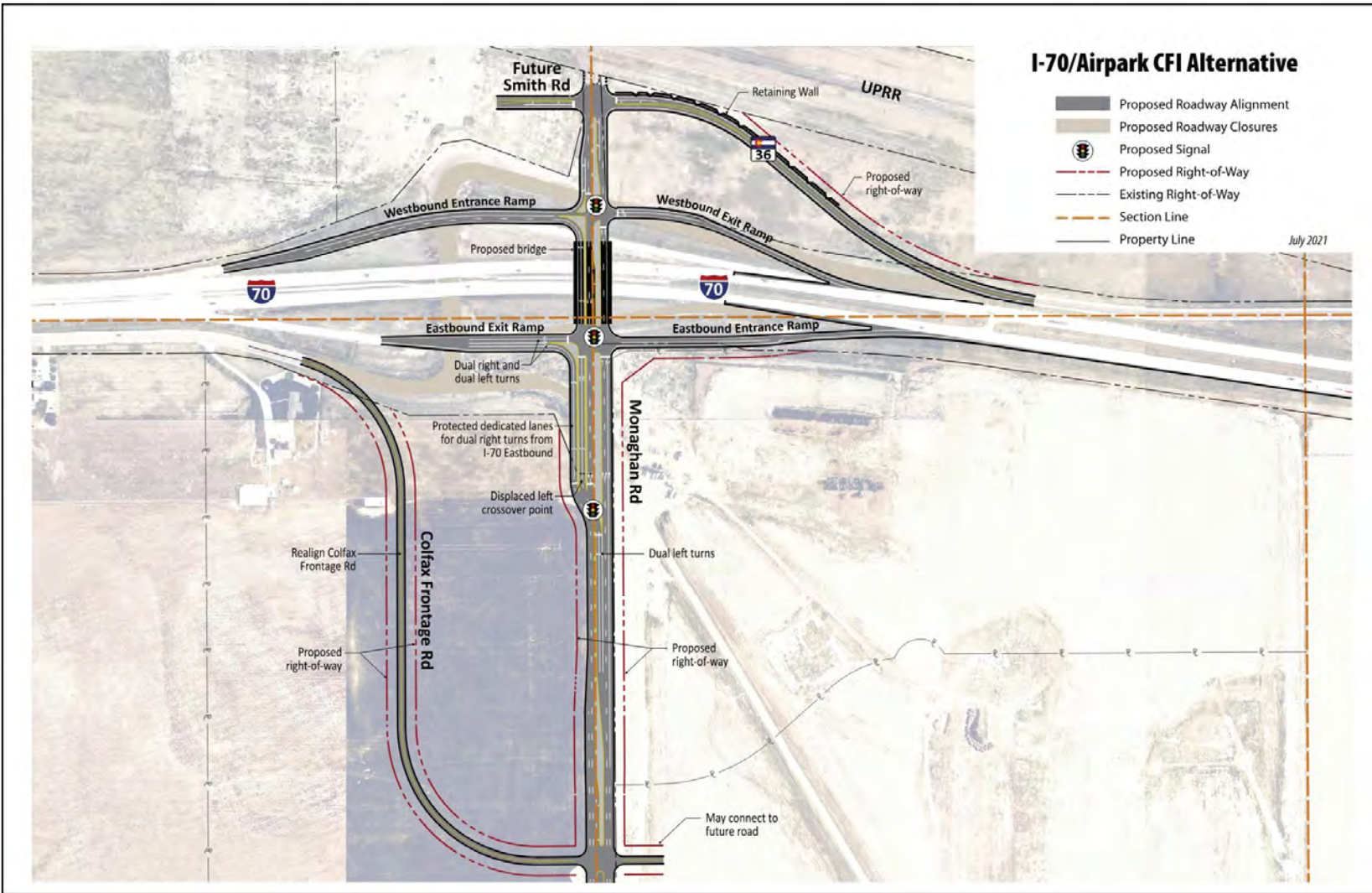


FIGURE 9. I-70/AIRPARK PARTIAL CLOVERLEAF WITH SLIP RAMP

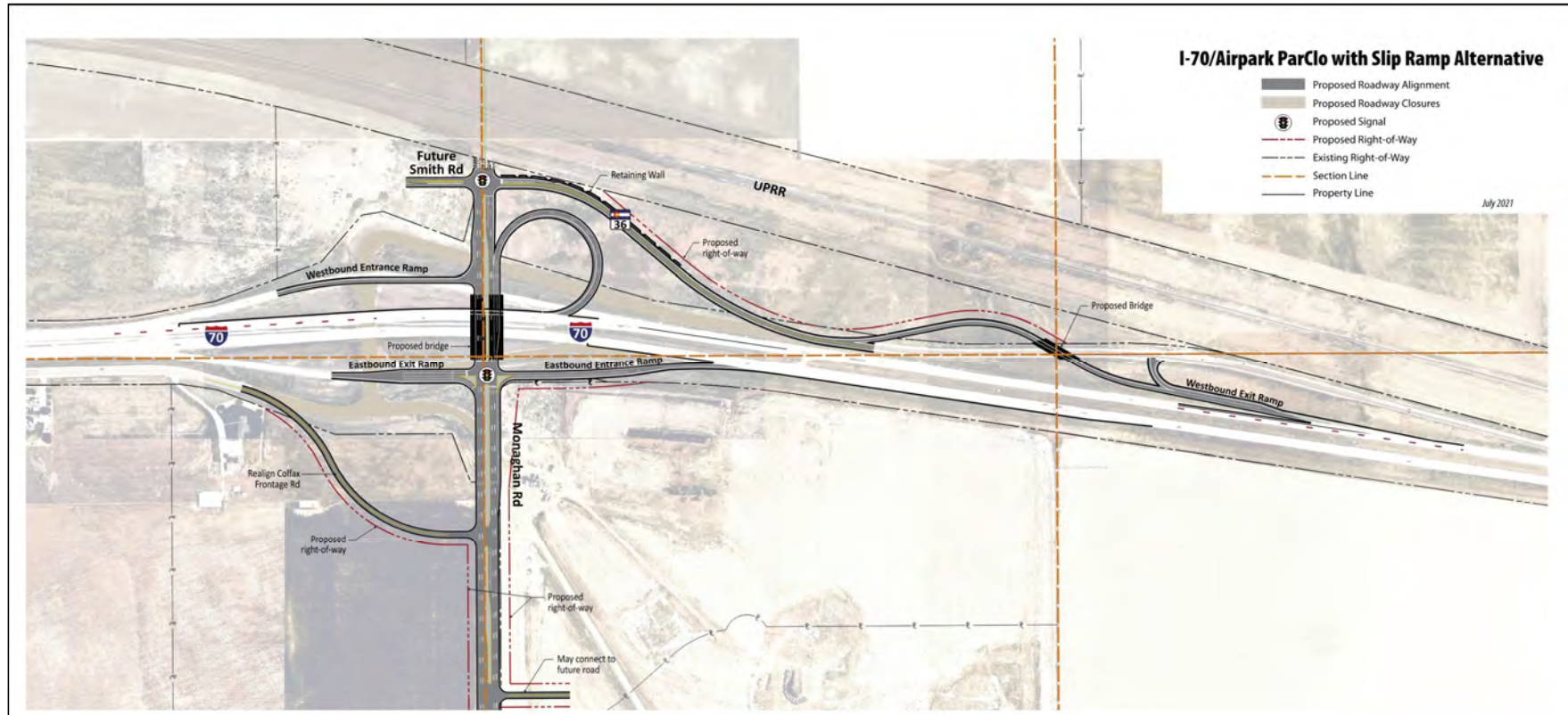
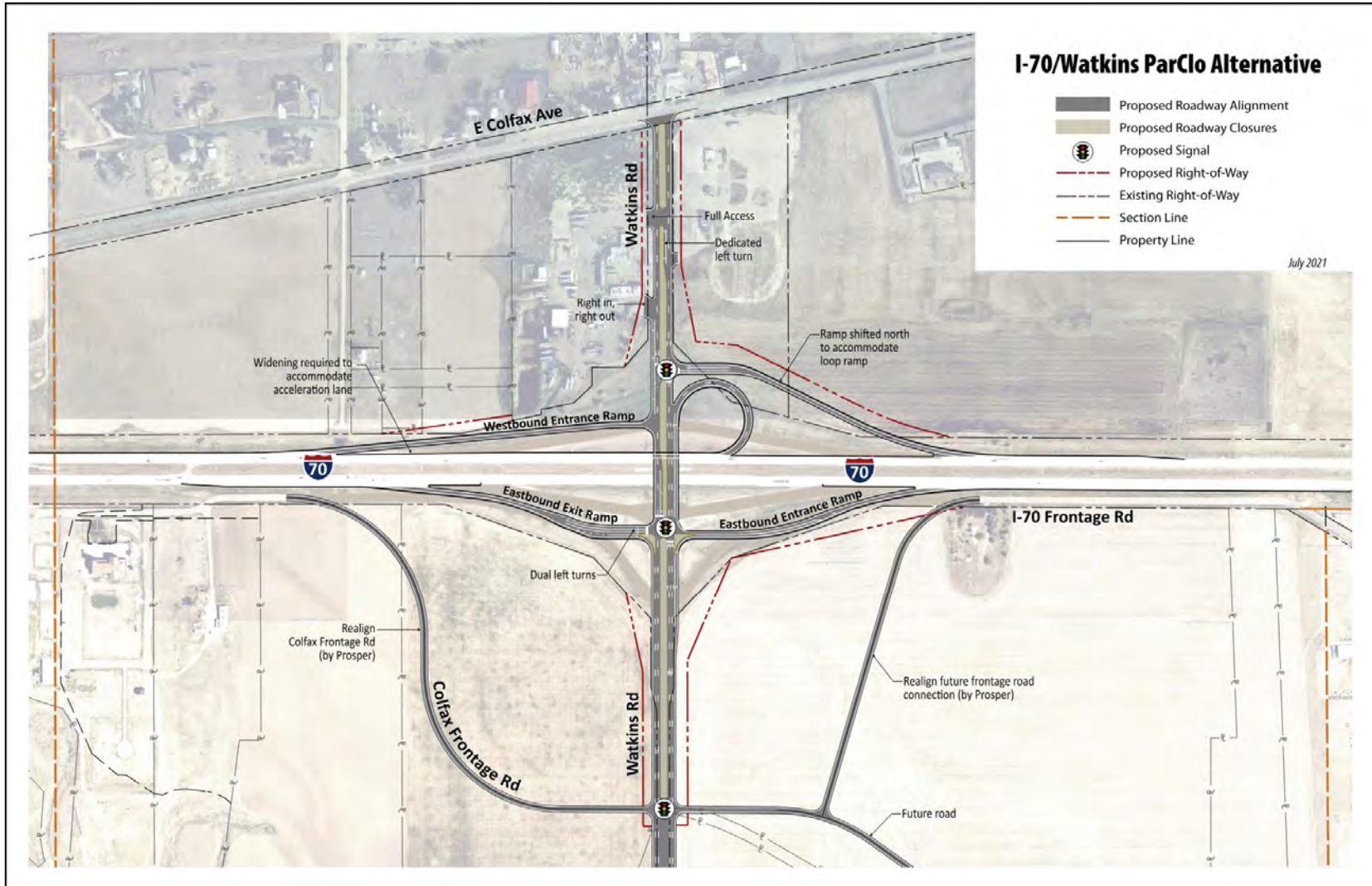




FIGURE 10. I-70/WATKINS PARTIAL CLOVERLEAF



# LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

## SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

<b>LOS</b>	<b><u>Average Vehicle Delay</u> sec/vehicle</b>	<b><u>Operational Characteristics</u></b>
<b>A</b>	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
<b>B</b>	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
<b>C</b>	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
<b>D</b>	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
<b>E</b>	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
<b>F</b>	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

## LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

### UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. <u>The delay could be up to 15 seconds.</u> Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. <u>Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.</u>
D	25 to 35 seconds	<u>This is the point at which a traffic signal may be warranted for this intersection.</u> The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. <u>There is a high probability that this intersection will meet traffic signal warrants.</u> The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. <u>The only remedy for these long delays is installing a traffic signal or restricting the accesses.</u> The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

HCM 6th TWSC  
1: Monaghan Rd & E 26th Ave

Existing Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	84	8	0	0	10	46	29	1	25	0	1	0
Future Vol, veh/h	84	8	0	0	10	46	29	1	25	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	122	12	0	0	14	67	42	1	36	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	81	0	0	12	0	0	304	337	12	323	304	48
Stage 1	-	-	-	-	-	-	256	256	-	48	48	-
Stage 2	-	-	-	-	-	-	48	81	-	275	256	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1517	-	-	1607	-	-	648	584	1069	630	609	1021
Stage 1	-	-	-	-	-	-	749	696	-	965	855	-
Stage 2	-	-	-	-	-	-	965	828	-	731	696	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1517	-	-	1607	-	-	607	537	1069	570	560	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	607	537	-	570	560	-
Stage 1	-	-	-	-	-	-	688	640	-	887	855	-
Stage 2	-	-	-	-	-	-	963	828	-	648	640	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.9	0	10.3	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	753	1517	-	-	1607	-	-	560
HCM Lane V/C Ratio	0.106	0.08	-	-	-	-	-	0.003
HCM Control Delay (s)	10.3	7.6	0	-	0	-	-	11.4
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0	-	-	0



HCM 6th TWSC  
8: Hudson Rd & E 26th Ave

Existing Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	45	1	4	0	72	15	5	0	8	5
Future Vol, veh/h	2	5	45	1	4	0	72	15	5	0	8	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	6	52	1	5	0	83	17	6	0	9	6
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	201	201	12	227	201	20	15	0	0	23	0	0
Stage 1	12	12	-	186	186	-	-	-	-	-	-	-
Stage 2	189	189	-	41	15	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	757	695	1069	728	695	1058	1603	-	-	1592	-	-
Stage 1	1009	886	-	816	746	-	-	-	-	-	-	-
Stage 2	813	744	-	974	883	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	723	659	1069	661	659	1058	1603	-	-	1592	-	-
Mov Cap-2 Maneuver	723	659	-	661	659	-	-	-	-	-	-	-
Stage 1	957	886	-	774	707	-	-	-	-	-	-	-
Stage 2	766	705	-	921	883	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.9		10.5		5.8		0					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1603	-	-	991	659	1592	-	-				
HCM Lane V/C Ratio	0.052	-	-	0.06	0.009	-	-	-				
HCM Control Delay (s)	7.4	0	-	8.9	10.5	0	-	-				
HCM Lane LOS	A	A	-	A	B	A	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0	0	-	-				

HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

Existing Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	20	141	2	6	67	55	1	2	1	44	1	21
Future Vol, veh/h	20	141	2	6	67	55	1	2	1	44	1	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	400	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	23	160	2	7	76	63	1	2	1	50	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	139	0	0	162	0	0	340	359	160	331	330	108
Stage 1	-	-	-	-	-	-	206	206	-	122	122	-
Stage 2	-	-	-	-	-	-	134	153	-	209	208	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1402	-	-	1375	-	-	601	557	867	609	578	927
Stage 1	-	-	-	-	-	-	780	718	-	866	782	-
Stage 2	-	-	-	-	-	-	853	758	-	777	717	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1402	-	-	1375	-	-	574	544	867	595	564	927
Mov Cap-2 Maneuver	-	-	-	-	-	-	574	544	-	595	564	-
Stage 1	-	-	-	-	-	-	766	705	-	850	777	-
Stage 2	-	-	-	-	-	-	825	753	-	760	704	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.4			11			11		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	609	1402	-	-	1375	-	-	671				
HCM Lane V/C Ratio	0.007	0.016	-	-	0.005	-	-	0.112				
HCM Control Delay (s)	11	7.6	0	-	7.6	0	-	11				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4				

HCM 6th TWSC  
1: Monaghan Rd & E 26th Ave

Existing Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	28	0	0	12	24	0	0	0	77	0	81
Future Vol, veh/h	29	28	0	0	12	24	0	0	0	77	0	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	30	0	0	13	26	0	0	0	84	0	88

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	39	0	0	30	0	0	164	133	30	120	120	26
Stage 1	-	-	-	-	-	-	94	94	-	26	26	-
Stage 2	-	-	-	-	-	-	70	39	-	94	94	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1571	-	-	1583	-	-	801	758	1044	855	770	1050
Stage 1	-	-	-	-	-	-	913	817	-	992	874	-
Stage 2	-	-	-	-	-	-	940	862	-	913	817	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1571	-	-	1583	-	-	722	742	1044	841	754	1050
Mov Cap-2 Maneuver	-	-	-	-	-	-	722	742	-	841	754	-
Stage 1	-	-	-	-	-	-	894	800	-	971	874	-
Stage 2	-	-	-	-	-	-	861	862	-	894	800	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.7	0	0	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1571	-	-	1583	-	-	937
HCM Lane V/C Ratio	-	0.02	-	-	-	-	-	0.183
HCM Control Delay (s)	0	7.3	0	-	0	-	-	9.7
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.7

HCM 6th TWSC  
8: Hudson Rd & E 26th Ave

Existing Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	1	120	4	4	3	35	9	0	2	6	5
Future Vol, veh/h	6	1	120	4	4	3	35	9	0	2	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	138	5	5	3	40	10	0	2	7	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	108	104	10	174	107	10	13	0	0	10	0	0
Stage 1	14	14	-	90	90	-	-	-	-	-	-	-
Stage 2	94	90	-	84	17	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	871	786	1071	789	783	1071	1606	-	-	1610	-	-
Stage 1	1006	884	-	917	820	-	-	-	-	-	-	-
Stage 2	913	820	-	924	881	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	847	766	1071	673	763	1071	1606	-	-	1610	-	-
Mov Cap-2 Maneuver	847	766	-	673	763	-	-	-	-	-	-	-
Stage 1	981	883	-	894	800	-	-	-	-	-	-	-
Stage 2	882	800	-	803	880	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9		9.7			5.8			1.1			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1606	-	-	1055	786	1610	-	-				
HCM Lane V/C Ratio	0.025	-	-	0.138	0.016	0.001	-	-				
HCM Control Delay (s)	7.3	0	-	9	9.7	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0	0	-	-				



HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

Existing Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	15	68	4	1	36	25	3	1	5	80	2	15
Future Vol, veh/h	15	68	4	1	36	25	3	1	5	80	2	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	400	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	17	77	5	1	41	28	3	1	6	91	2	17
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	69	0	0	82	0	0	178	182	77	174	173	55
Stage 1	-	-	-	-	-	-	111	111	-	57	57	-
Stage 2	-	-	-	-	-	-	67	71	-	117	116	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1489	-	-	1472	-	-	769	700	965	773	708	992
Stage 1	-	-	-	-	-	-	877	790	-	938	834	-
Stage 2	-	-	-	-	-	-	926	822	-	871	786	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1472	-	-	747	691	965	760	699	992
Mov Cap-2 Maneuver	-	-	-	-	-	-	747	691	-	760	699	-
Stage 1	-	-	-	-	-	-	866	781	-	927	833	-
Stage 2	-	-	-	-	-	-	907	821	-	854	777	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.1			9.3			10.3		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	845	1489	-	-	1472	-	-	787				
HCM Lane V/C Ratio	0.012	0.011	-	-	0.001	-	-	0.14				
HCM Control Delay (s)	9.3	7.4	0	-	7.4	0	-	10.3				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.5				

HCM 6th TWSC  
1: Monaghan Rd & E 26th Ave

2030 Background Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	105	11	0	0	28	55	0	0	0	35	0	30
Future Vol, veh/h	105	11	0	0	28	55	0	0	0	35	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	152	16	0	0	41	80	0	0	0	51	0	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	121	0	0	16	0	0	417	441	16	401	401	81
Stage 1	-	-	-	-	-	-	320	320	-	81	81	-
Stage 2	-	-	-	-	-	-	97	121	-	320	320	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1467	-	-	1602	-	-	546	510	1063	560	538	979
Stage 1	-	-	-	-	-	-	692	652	-	927	828	-
Stage 2	-	-	-	-	-	-	910	796	-	692	652	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1467	-	-	1602	-	-	486	456	1063	515	482	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	486	456	-	515	482	-
Stage 1	-	-	-	-	-	-	619	584	-	830	828	-
Stage 2	-	-	-	-	-	-	881	796	-	619	584	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	7	0	0	11.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1467	-	-	1602	-	-	628
HCM Lane V/C Ratio	-	0.104	-	-	-	-	-	0.13
HCM Control Delay (s)	0	7.7	0	-	0	-	-	11.6
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.3	-	-	0	-	-	0.4

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	45	5	8	0	70	20	10	4	10	5
Future Vol, veh/h	0	1	45	5	8	0	70	20	10	4	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	52	6	9	0	80	23	11	5	11	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	217	218	14	240	216	29	17	0	0	34	0	0
Stage 1	24	24	-	189	189	-	-	-	-	-	-	-
Stage 2	193	194	-	51	27	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	739	680	1066	714	682	1046	1600	-	-	1578	-	-
Stage 1	994	875	-	813	744	-	-	-	-	-	-	-
Stage 2	809	740	-	962	873	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	701	643	1066	650	645	1046	1600	-	-	1578	-	-
Mov Cap-2 Maneuver	701	643	-	650	645	-	-	-	-	-	-	-
Stage 1	943	872	-	772	706	-	-	-	-	-	-	-
Stage 2	758	702	-	911	870	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.6		10.7		5.2		1.5	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1600	-	-	1051	647	1578	-
HCM Lane V/C Ratio	0.05	-	-	0.05	0.023	0.003	-
HCM Control Delay (s)	7.4	0	-	8.6	10.7	7.3	0
HCM Lane LOS	A	A	-	A	B	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.1	0	-

HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

2030 Background Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	22	153	2	6	73	60	1	2	1	48	1	23
Future Vol, veh/h	22	153	2	6	73	60	1	2	1	48	1	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	400	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	25	174	2	7	83	68	1	2	1	55	1	26
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	176	0	0	369	389	174	358	357	117
Stage 1	-	-	-	-	-	-	224	224	-	131	131	-
Stage 2	-	-	-	-	-	-	145	165	-	227	226	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1388	-	-	1359	-	-	575	535	852	585	558	916
Stage 1	-	-	-	-	-	-	763	705	-	856	775	-
Stage 2	-	-	-	-	-	-	841	749	-	760	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1388	-	-	1359	-	-	547	521	852	571	543	916
Mov Cap-2 Maneuver	-	-	-	-	-	-	547	521	-	571	543	-
Stage 1	-	-	-	-	-	-	748	691	-	839	770	-
Stage 2	-	-	-	-	-	-	811	745	-	741	690	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			11.2			11.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	585	1388	-	-	1359	-	-	649				
HCM Lane V/C Ratio	0.008	0.018	-	-	0.005	-	-	0.126				
HCM Control Delay (s)	11.2	7.6	0	-	7.7	0	-	11.3				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.4				



Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	62	0	0	25	30	0	0	0	95	0	100
Future Vol, veh/h	35	62	0	0	25	30	0	0	0	95	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	67	0	0	27	33	0	0	0	103	0	109
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	67	0	0	241	203	67	187	187	44
Stage 1	-	-	-	-	-	-	143	143	-	44	44	-
Stage 2	-	-	-	-	-	-	98	60	-	143	143	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1544	-	-	1535	-	-	713	693	997	774	708	1026
Stage 1	-	-	-	-	-	-	860	779	-	970	858	-
Stage 2	-	-	-	-	-	-	908	845	-	860	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1544	-	-	1535	-	-	625	675	997	759	690	1026
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	675	-	759	690	-
Stage 1	-	-	-	-	-	-	838	759	-	945	858	-
Stage 2	-	-	-	-	-	-	812	845	-	838	759	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.7			0			0			10.4		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1544	-	-	1535	-	-	876				
HCM Lane V/C Ratio	-	0.025	-	-	-	-	-	0.242				
HCM Control Delay (s)	0	7.4	0	-	0	-	-	10.4				
HCM Lane LOS	A	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.9				

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	2	150	5	5	5	45	10	1	0	5	5
Future Vol, veh/h	5	2	150	5	5	5	45	10	1	0	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	2	172	6	6	6	52	11	1	0	6	6
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	131	125	9	212	128	12	12	0	0	12	0	0
Stage 1	9	9	-	116	116	-	-	-	-	-	-	-
Stage 2	122	116	-	96	12	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	841	765	1073	745	763	1069	1607	-	-	1607	-	-
Stage 1	1012	888	-	889	800	-	-	-	-	-	-	-
Stage 2	882	800	-	911	886	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	811	740	1073	608	738	1069	1607	-	-	1607	-	-
Mov Cap-2 Maneuver	811	740	-	608	738	-	-	-	-	-	-	-
Stage 1	979	888	-	860	774	-	-	-	-	-	-	-
Stage 2	842	774	-	763	886	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.1		9.8		5.9		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1607	-	-	1056	762	1607	-	-				
HCM Lane V/C Ratio	0.032	-	-	0.171	0.023	-	-	-				
HCM Control Delay (s)	7.3	0	-	9.1	9.8	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.1	0	-	-				







Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	16	74	4	1	39	27	3	1	5	87	2	16
Future Vol, veh/h	16	74	4	1	39	27	3	1	5	87	2	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	400	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	18	84	5	1	44	31	3	1	6	99	2	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	89	0	0	192	197	84	188	187	60
Stage 1	-	-	-	-	-	-	120	120	-	62	62	-
Stage 2	-	-	-	-	-	-	72	77	-	126	125	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1481	-	-	1463	-	-	753	686	956	757	695	986
Stage 1	-	-	-	-	-	-	868	783	-	932	830	-
Stage 2	-	-	-	-	-	-	920	817	-	861	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1481	-	-	1463	-	-	730	676	956	743	685	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	730	676	-	743	685	-
Stage 1	-	-	-	-	-	-	857	773	-	920	829	-
Stage 2	-	-	-	-	-	-	900	816	-	844	769	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.1			9.4			10.5		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	832	1481	-	-	1463	-	-	771				
HCM Lane V/C Ratio	0.012	0.012	-	-	0.001	-	-	0.155				
HCM Control Delay (s)	9.4	7.5	0	-	7.5	0	-	10.5				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.5				

HCM 6th TWSC  
1: E 26th Ave & Monaghan Rd

2030 Total Traffic  
AM Peak Hour

Intersection

Int Delay, s/veh 9.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	105	411	257	136	177	30
Future Vol, veh/h	105	411	257	136	177	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	200	200	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	112	437	273	145	188	32

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	418	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.23	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.317	-	-
Pot Cap-1 Maneuver	1084	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1084	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	45.6
HCM LOS			E

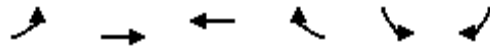
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1084	-	-	-	253	740
HCM Lane V/C Ratio	0.103	-	-	-	0.744	0.043
HCM Control Delay (s)	8.7	-	-	-	51.6	10.1
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	5.3	0.1

# Timings

## 1: E 26th Ave & Monaghan Rd

2030 Total Traffic

AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	105	411	257	136	177	30
Future Volume (vph)	105	411	257	136	177	30
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	60.0	45.0	45.0	30.0	30.0
Total Split (%)	16.7%	66.7%	50.0%	50.0%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	24.6	24.6	14.5	14.5	11.4	11.4
Actuated g/C Ratio	0.52	0.52	0.31	0.31	0.24	0.24
v/c Ratio	0.21	0.50	0.53	0.27	0.49	0.09
Control Delay	6.7	9.3	19.7	4.8	22.6	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	9.3	19.7	4.8	22.6	8.0
LOS	A	A	B	A	C	A
Approach Delay		8.8	14.5		20.4	
Approach LOS		A	B		C	

### Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 47

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 13.0

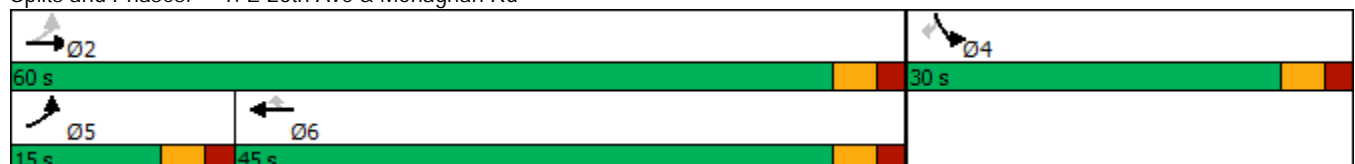
Intersection LOS: B

Intersection Capacity Utilization 41.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: E 26th Ave & Monaghan Rd





# HCM 6th Signalized Intersection Summary

## 1: E 26th Ave & Monaghan Rd

2030 Total Traffic  
AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	105	411	257	136	177	30
Future Volume (veh/h)	105	411	257	136	177	30
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1693	1693	1693
Adj Flow Rate, veh/h	112	437	273	145	188	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	14	14	14	14	14	14
Cap, veh/h	481	866	445	377	299	266
Arrive On Green	0.10	0.51	0.26	0.26	0.19	0.19
Sat Flow, veh/h	1612	1693	1693	1434	1612	1434
Grp Volume(v), veh/h	112	437	273	145	188	32
Grp Sat Flow(s),veh/h/ln	1612	1693	1693	1434	1612	1434
Q Serve(g_s), s	1.4	5.6	4.7	2.7	3.5	0.6
Cycle Q Clear(g_c), s	1.4	5.6	4.7	2.7	3.5	0.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	481	866	445	377	299	266
V/C Ratio(X)	0.23	0.50	0.61	0.38	0.63	0.12
Avail Cap(c_a), veh/h	813	2822	2053	1739	1222	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.7	5.3	10.7	10.0	12.4	11.2
Incr Delay (d2), s/veh	0.2	0.5	1.4	0.6	2.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.7	1.2	0.6	1.0	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.0	5.8	12.1	10.6	14.6	11.4
LnGrp LOS	A	A	B	B	B	B
Approach Vol, veh/h		549	418		220	
Approach Delay, s/veh		6.0	11.6		14.1	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		21.9		11.1	8.2	13.7
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		55.0		25.0	10.0	40.0
Max Q Clear Time (g_c+I1), s		7.6		5.5	3.4	6.7
Green Ext Time (p_c), s		2.7		0.6	0.1	2.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			9.5			
HCM 6th LOS			A			

HCM 6th TWSC  
2: West N/S Collector & E 26th Ave

2030 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	414	174	3	261	131	2
Future Vol, veh/h	414	174	3	261	131	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	0	200
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	440	185	3	278	139	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	625	0	724	440
Stage 1	-	-	-	-	440	-
Stage 2	-	-	-	-	284	-
Critical Hdwy	-	-	4.23	-	6.53	6.33
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.317	-	3.617	3.417
Pot Cap-1 Maneuver	-	-	905	-	377	595
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	905	-	376	595
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	738	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		15.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	478	595	-	-	905	-
HCM Lane V/C Ratio	0.292	0.004	-	-	0.004	-
HCM Control Delay (s)	15.6	11.1	-	-	9	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-

HCM 6th TWSC  
3: West Right-in/Right-out Site Access & E 26th Ave

2030 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	365	51	0	264	0	3
Future Vol, veh/h	365	51	0	264	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	388	54	0	281	0	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	388
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.417
Pot Cap-1 Maneuver	-	-	0	-	0	637
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	637
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	637	-	-	-		
HCM Lane V/C Ratio	0.005	-	-	-		
HCM Control Delay (s)	10.7	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

HCM 6th TWSC  
4: Middle N/S Collector & E 26th Ave

2030 Total Traffic  
AM Peak Hour

Intersection

Int Delay, s/veh 5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	53	315	91	66	198	48
Future Vol, veh/h	53	315	91	66	198	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	56	335	97	70	211	51

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	391
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.23
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.317
Pot Cap-1 Maneuver	-	-	1110
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1110
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	594	980	-	-	1110	-
HCM Lane V/C Ratio	0.355	0.052	-	-	0.087	-
HCM Control Delay (s)	14.4	8.9	-	-	8.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	1.6	0.2	-	-	0.3	-

HCM 6th TWSC  
5: East N/S Collector & E 26th Ave

2030 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	86	15	0	157	0	3
Future Vol, veh/h	86	15	0	157	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	91	16	0	167	0	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	91
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.417
Pot Cap-1 Maneuver	-	-	0	-	0	937
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	937
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		8.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	937	-	-	-		
HCM Lane V/C Ratio	0.003	-	-	-		
HCM Control Delay (s)	8.9	-	-	-		
HCM Lane LOS	A	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		



HCM 6th TWSC  
8: Hudson Rd & E 26th Ave

2030 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰		↰	↱		↰	↱	
Traffic Vol, veh/h	7	1	80	5	8	0	132	20	10	4	10	17
Future Vol, veh/h	7	1	80	5	8	0	132	20	10	4	10	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	7	1	85	5	9	0	140	21	11	4	11	18

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	339	340	20	378	344	27	29	0	0	32	0	0
Stage 1	28	28	-	307	307	-	-	-	-	-	-	-
Stage 2	311	312	-	71	37	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	594	564	1027	560	561	1018	1516	-	-	1512	-	-
Stage 1	962	850	-	680	642	-	-	-	-	-	-	-
Stage 2	677	638	-	912	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	544	510	1027	475	508	1018	1516	-	-	1512	-	-
Mov Cap-2 Maneuver	544	510	-	475	508	-	-	-	-	-	-	-
Stage 1	873	847	-	617	583	-	-	-	-	-	-	-
Stage 2	606	579	-	833	840	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.1		12.5		6.2		1	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1516	-	-	540	1027	495	1512	-	-
HCM Lane V/C Ratio	0.093	-	-	0.016	0.083	0.028	0.003	-	-
HCM Control Delay (s)	7.6	-	-	11.8	8.8	12.5	7.4	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0	0.3	0.1	0	-	-

HCM 6th TWSC  
9: Middle N/S Collector & PA-1 Right-in/Right-out access

2030 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↗	↗		↗	↗
Traffic Vol, veh/h	0	0	0	0	0	21	0	225	0	0	380	26
Future Vol, veh/h	0	0	0	0	0	21	0	225	0	0	380	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	200	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	0	0	0	0	0	22	0	239	0	0	404	28





Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	404	-	-	239	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.33	-	-	6.33	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.417	-	-	3.417	-	-
Pot Cap-1 Maneuver	0	0	623	0	0	774	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	623	-	-	774	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.8	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	774	-
HCM Lane V/C Ratio	-	-	-	0.029	-
HCM Control Delay (s)	-	-	0	9.8	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-

HCM 6th TWSC  
10: West N/S Collector & North E/W Collector

2030 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	27	106	0	0	177
Future Vol, veh/h	0	27	106	0	0	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	0	29	113	0	0	188
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	113	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.33	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.417	-	-	-	-
Pot Cap-1 Maneuver	0	911	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	911	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.1	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	911		-		
HCM Lane V/C Ratio	-	0.032		-		
HCM Control Delay (s)	-	9.1		-		
HCM Lane LOS	-	A		-		
HCM 95th %tile Q(veh)	-	0.1		-		

HCM 6th Roundabout  
11: Middle N/S Collector & North E/W Collector

2030 Total Traffic  
AM Peak Hour






Intersection				
Intersection Delay, s/veh	5.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	21	9	211	406
Demand Flow Rate, veh/h	24	10	238	459
Vehicles Circulating, veh/h	445	262	79	0
Vehicles Exiting, veh/h	14	55	390	272
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.0	3.9	4.9	6.1
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	24	10	238	459
Cap Entry Lane, veh/h	876	1056	1273	1380
Entry HV Adj Factor	0.875	0.900	0.885	0.885
Flow Entry, veh/h	21	9	211	406
Cap Entry, veh/h	767	951	1127	1221
V/C Ratio	0.027	0.009	0.187	0.333
Control Delay, s/veh	5.0	3.9	4.9	6.1
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

HCM 6th TWSC  
12: East N/S Collector & North E/W Collector

2030 Total Traffic  
AM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	1	5	10
Future Vol, veh/h	2	0	0	1	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	200
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	2	0	0	1	5	11

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	6	5	16
Stage 1	5	-	-
Stage 2	1	-	-
Critical Hdwy	6.53	6.33	4.23
Critical Hdwy Stg 1	5.53	-	-
Critical Hdwy Stg 2	5.53	-	-
Follow-up Hdwy	3.617	3.417	2.317
Pot Cap-1 Maneuver	987	1047	1533
Stage 1	990	-	-
Stage 2	994	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	987	1047	1533
Mov Cap-2 Maneuver	987	-	-
Stage 1	990	-	-
Stage 2	994	-	-





Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1533	-	987	-	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



HCM 6th TWSC  
13: West N/S Collector & Middle E/W Collector

2030 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	85	0	37	140
Future Vol, veh/h	0	20	85	0	37	140
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	0	21	90	0	39	149

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	317	90	0
Stage 1	90	-	-
Stage 2	227	-	-
Critical Hdwy	6.53	6.33	4.23
Critical Hdwy Stg 1	5.53	-	-
Critical Hdwy Stg 2	5.53	-	-
Follow-up Hdwy	3.617	3.417	2.317
Pot Cap-1 Maneuver	654	938	1439
Stage 1	907	-	-
Stage 2	785	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	636	938	1439
Mov Cap-2 Maneuver	636	-	-
Stage 1	907	-	-
Stage 2	764	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	938	1439	-
HCM Lane V/C Ratio	-	0.023	0.027	-
HCM Control Delay (s)	-	8.9	7.6	-
HCM Lane LOS	-	A	A	-
HCM 95th %tile Q(veh)	-	0.1	0.1	-

HCM 6th TWSC  
14: Middle N/S Collector & Middle E/W Collector

2030 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	9	0	0	0	0	5	0	177	0	7	292	15
Future Vol, veh/h	9	0	0	0	0	5	0	177	0	7	292	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	10	0	0	0	0	5	0	188	0	7	311	16






Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	524	521	319	521	529	188	327	0	0	188	0	0
Stage 1	333	333	-	188	188	-	-	-	-	-	-	-
Stage 2	191	188	-	333	341	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	447	445	697	449	440	827	1173	-	-	1323	-	-
Stage 1	658	625	-	789	724	-	-	-	-	-	-	-
Stage 2	786	724	-	658	620	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	443	443	697	447	438	827	1173	-	-	1323	-	-
Mov Cap-2 Maneuver	443	443	-	447	438	-	-	-	-	-	-	-
Stage 1	658	622	-	789	724	-	-	-	-	-	-	-
Stage 2	781	724	-	655	617	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.3		9.4		0		0.2	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1173	-	-	443	827	1323	-
HCM Lane V/C Ratio	-	-	-	0.022	0.006	0.006	-
HCM Control Delay (s)	0	-	-	13.3	9.4	7.7	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-











HCM 6th TWSC  
17: West N/S Collector & South E/W Collector

2030 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	57	28	0	93	47
Future Vol, veh/h	0	57	28	0	93	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	0	61	30	0	99	50
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	278	30	0	0	30	0
Stage 1	30	-	-	-	-	-
Stage 2	248	-	-	-	-	-
Critical Hdwy	6.53	6.33	-	-	4.23	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.417	-	-	2.317	-
Pot Cap-1 Maneuver	689	1014	-	-	1514	-
Stage 1	965	-	-	-	-	-
Stage 2	768	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	644	1014	-	-	1514	-
Mov Cap-2 Maneuver	644	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.8	0	5			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	-	1014	1514	-
HCM Lane V/C Ratio	-	-	-	0.06	0.065	-
HCM Control Delay (s)	-	-	0	8.8	7.5	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.2	-

HCM 6th TWSC  
18: Middle N/S Collector & South E/W Collector

2030 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	68	0	0	43	93	0	62	0	149	103	5
Future Vol, veh/h	3	68	0	0	43	93	0	62	0	149	103	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	3	72	0	0	46	99	0	66	0	159	110	5







Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	72	0	0	231	223	72	207	174	96
Stage 1	-	-	-	-	-	-	78	78	-	96	96	-
Stage 2	-	-	-	-	-	-	153	145	-	111	78	-
Critical Hdwy	4.23	-	-	4.23	-	-	7.23	6.63	6.33	7.23	6.63	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Follow-up Hdwy	2.317	-	-	2.317	-	-	3.617	4.117	3.417	3.617	4.117	3.417
Pot Cap-1 Maneuver	1372	-	-	1461	-	-	701	657	960	727	700	931
Stage 1	-	-	-	-	-	-	904	809	-	884	795	-
Stage 2	-	-	-	-	-	-	824	756	-	868	809	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1372	-	-	1461	-	-	612	656	960	670	699	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	612	656	-	670	699	-
Stage 1	-	-	-	-	-	-	902	807	-	882	795	-
Stage 2	-	-	-	-	-	-	706	756	-	795	807	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	11.1	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	656	1372	-	-	1461	-	-	670	699	931
HCM Lane V/C Ratio	-	0.101	0.002	-	-	-	-	-	0.237	0.157	0.006
HCM Control Delay (s)	0	11.1	7.6	-	-	0	-	-	12	11.1	8.9
HCM Lane LOS	A	B	A	-	-	A	-	-	B	B	A
HCM 95th %tile Q(veh)	-	0.3	0	-	-	0	-	-	0.9	0.6	0

HCM 6th TWSC  
19: Hayesmount Rd & South E/W Collector









2030 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	142	0	30	89	0
Future Vol, veh/h	47	142	0	30	89	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	50	151	0	32	95	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	201	0	82	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	-	-	4.23	-	6.53	6.33
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	-	-	2.317	-	3.617	3.417
Pot Cap-1 Maneuver	-	-	1308	-	894	988
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	963	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1308	-	894	988
Mov Cap-2 Maneuver	-	-	-	-	894	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	963	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	894		-	-	-	1308
HCM Lane V/C Ratio	0.106		-	-	-	-
HCM Control Delay (s)	9.5		0	-	-	0
HCM Lane LOS	A		A	-	-	A
HCM 95th %tile Q(veh)	0.4		-	-	-	0



HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

2030 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	153	2	6	73	122	1	2	1	83	1	23
Future Vol, veh/h	22	153	2	6	73	122	1	2	1	83	1	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	405	-	400	405	-	378	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	25	174	2	7	83	139	1	2	1	94	1	26







Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	222	0	0	176	0	0	404	460	174	324	323	83
Stage 1	-	-	-	-	-	-	224	224	-	97	97	-
Stage 2	-	-	-	-	-	-	180	236	-	227	226	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1307	-	-	1359	-	-	545	488	852	616	583	957
Stage 1	-	-	-	-	-	-	763	705	-	893	801	-
Stage 2	-	-	-	-	-	-	806	697	-	760	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1307	-	-	1359	-	-	519	476	852	602	569	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	519	476	-	602	569	-
Stage 1	-	-	-	-	-	-	749	692	-	876	797	-
Stage 2	-	-	-	-	-	-	779	694	-	742	691	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.2			11.6			11.8		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	548	1307	-	-	1359	-	-	654
HCM Lane V/C Ratio	0.008	0.019	-	-	0.005	-	-	0.186
HCM Control Delay (s)	11.6	7.8	-	-	7.7	-	-	11.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.7

HCM 6th TWSC  
1: E 26th Ave & Monaghan Rd

2030 Total Traffic  
PM Peak Hour

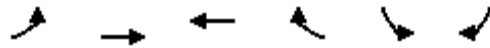
Intersection						
Int Delay, s/veh	31.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	495	510	202	248	100
Future Vol, veh/h	35	495	510	202	248	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	200	200	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	37	527	543	215	264	106
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	758	0	-	0	1144	543
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	4.14	-	-	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.336
Pot Cap-1 Maneuver	844	-	-	-	~ 219	536
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	544	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	844	-	-	-	~ 209	536
Mov Cap-2 Maneuver	-	-	-	-	~ 209	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	544	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		143.8		
HCM LOS	F					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	844	-	-	-	209	536
HCM Lane V/C Ratio	0.044	-	-	-	1.262	0.198
HCM Control Delay (s)	9.5	-	-	-	196.4	13.4
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.1	-	-	-	13.9	0.7
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

# Timings

## 1: E 26th Ave & Monaghan Rd

2030 Total Traffic

PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	35	495	510	202	248	100
Future Volume (vph)	35	495	510	202	248	100
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	60.0	45.0	45.0	30.0	30.0
Total Split (%)	16.7%	66.7%	50.0%	50.0%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	27.7	27.7	24.1	24.1	15.4	15.4
Actuated g/C Ratio	0.50	0.50	0.44	0.44	0.28	0.28
v/c Ratio	0.09	0.57	0.68	0.27	0.54	0.21
Control Delay	7.1	11.6	18.8	3.2	25.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	11.6	18.8	3.2	25.1	6.6
LOS	A	B	B	A	C	A
Approach Delay		11.3	14.4		19.8	
Approach LOS		B	B		B	

### Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 54.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 14.5

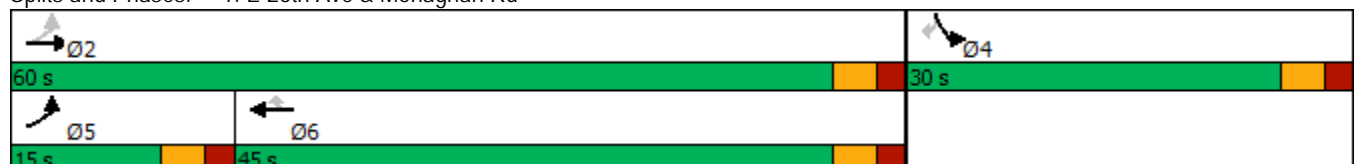
Intersection LOS: B

Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: E 26th Ave & Monaghan Rd



# HCM 6th Signalized Intersection Summary

## 1: E 26th Ave & Monaghan Rd

2030 Total Traffic  
PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	495	510	202	248	100
Future Volume (veh/h)	35	495	510	202	248	100
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	37	527	543	215	264	106
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	342	1022	729	618	368	328
Arrive On Green	0.04	0.55	0.40	0.40	0.21	0.21
Sat Flow, veh/h	1753	1841	1841	1560	1753	1560
Grp Volume(v), veh/h	37	527	543	215	264	106
Grp Sat Flow(s),veh/h/ln	1753	1841	1841	1560	1753	1560
Q Serve(g_s), s	0.5	7.6	10.8	4.1	6.0	2.5
Cycle Q Clear(g_c), s	0.5	7.6	10.8	4.1	6.0	2.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	342	1022	729	618	368	328
V/C Ratio(X)	0.11	0.52	0.75	0.35	0.72	0.32
Avail Cap(c_a), veh/h	680	2378	1729	1465	1029	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	5.9	11.0	9.0	15.6	14.2
Incr Delay (d2), s/veh	0.1	0.4	1.5	0.3	2.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	3.1	1.0	2.1	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.9	6.3	12.6	9.3	18.3	14.8
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h		564	758		370	
Approach Delay, s/veh		6.4	11.6		17.3	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		28.6		14.0	6.8	21.9
Change Period (Y+Rc), s		5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s		55.0		25.0	10.0	40.0
Max Q Clear Time (g_c+I1), s		9.6		8.0	2.5	12.8
Green Ext Time (p_c), s		3.4		1.0	0.0	4.1
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.1			
HCM 6th LOS			B			

HCM 6th TWSC  
2: West N/S Collector & E 26th Ave

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	9.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	619	124	2	429	282	3
Future Vol, veh/h	619	124	2	429	282	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	0	200
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	659	132	2	456	300	3

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	791
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	821
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	821
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	49.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	359	460	-	-	821	-
HCM Lane V/C Ratio	0.836	0.007	-	-	0.003	-
HCM Control Delay (s)	49.7	12.9	-	-	9.4	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	7.5	0	-	-	0	-

Notes			
-: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



HCM 6th TWSC  
3: West Right-in/Right-out Site Access & E 26th Ave

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	454	168	0	431	0	22
Future Vol, veh/h	454	168	0	431	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	483	179	0	459	0	23
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	483
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.336
Pot Cap-1 Maneuver	-	-	0	-	0	580
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	580
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		11.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	580	-	-	-		
HCM Lane V/C Ratio	0.04	-	-	-		
HCM Control Delay (s)	11.5	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

HCM 6th TWSC  
4: Middle N/S Collector & E 26th Ave

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	13.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	124	353	112	23	408	143
Future Vol, veh/h	124	353	112	23	408	143
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	132	376	119	24	434	152
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	508	0	394	132
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1047	-	607	912
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1047	-	538	912
Mov Cap-2 Maneuver	-	-	-	-	538	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	688	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		7.4		27.6	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	538	912	-	-	1047	-
HCM Lane V/C Ratio	0.807	0.167	-	-	0.114	-
HCM Control Delay (s)	33.9	9.7	-	-	8.9	-
HCM Lane LOS	D	A	-	-	A	-
HCM 95th %tile Q(veh)	7.8	0.6	-	-	0.4	-

HCM 6th TWSC  
5: East N/S Collector & E 26th Ave

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↑		↗
Traffic Vol, veh/h	238	29	0	135	0	9
Future Vol, veh/h	238	29	0	135	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	253	31	0	144	0	10
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	253
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.336
Pot Cap-1 Maneuver	-	-	0	-	0	781
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	781
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	781	-	-	-		
HCM Lane V/C Ratio	0.012	-	-	-		
HCM Control Delay (s)	9.7	-	-	-		
HCM Lane LOS	A	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

HCM 6th TWSC  
8: Hudson Rd & E 26th Ave

2030 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	20	2	225	5	5	5	112	10	1	0	5	18
Future Vol, veh/h	20	2	225	5	5	5	112	10	1	0	5	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	21	2	239	5	5	5	119	11	1	0	5	19

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	270	265	15	385	274	12	24	0	0	12	0	0
Stage 1	15	15	-	250	250	-	-	-	-	-	-	-
Stage 2	255	250	-	135	24	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	678	637	1059	570	630	1063	1578	-	-	1594	-	-
Stage 1	1000	879	-	750	696	-	-	-	-	-	-	-
Stage 2	745	696	-	864	871	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	631	589	1059	414	583	1063	1578	-	-	1594	-	-
Mov Cap-2 Maneuver	631	589	-	414	583	-	-	-	-	-	-	-
Stage 1	925	879	-	694	644	-	-	-	-	-	-	-
Stage 2	680	644	-	667	871	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.5		11.2		6.8		0	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1578	-	-	627	1059	592	1594	-	-
HCM Lane V/C Ratio	0.076	-	-	0.037	0.226	0.027	-	-	-
HCM Control Delay (s)	7.5	-	-	11	9.4	11.2	0	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.9	0.1	0	-	-

HCM 6th TWSC  
9: Middle N/S Collector & PA-1 Right-in/Right-out access

2030 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↗	↗		↗	↗
Traffic Vol, veh/h	0	0	0	0	0	120	0	432	0	0	396	69
Future Vol, veh/h	0	0	0	0	0	120	0	432	0	0	396	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	200	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	0	0	0	128	0	460	0	0	421	73

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	421	-	-	460	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	-	-	6.24	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	-	-	3.336	-	-
Pot Cap-1 Maneuver	0	0	628	0	0	597	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	628	-	-	597	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-





Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.7	0	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	597	-
HCM Lane V/C Ratio	-	-	-	0.214	-
HCM Control Delay (s)	-	-	0	12.7	-
HCM Lane LOS	-	-	A	B	-
HCM 95th %tile Q(veh)	-	-	-	0.8	-



HCM 6th TWSC  
10: West N/S Collector & North E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	145	141	0	0	126
Future Vol, veh/h	0	145	141	0	0	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	0	154	150	0	0	134
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	150	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.24	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.336	-	-	-	-
Pot Cap-1 Maneuver	0	891	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	891	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	891		-		
HCM Lane V/C Ratio	-	0.173		-		
HCM Control Delay (s)	-	9.9		-		
HCM Lane LOS	-	A		-		
HCM 95th %tile Q(veh)	-	0.6		-		






HCM 6th Roundabout  
11: Middle N/S Collector & North E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection				
Intersection Delay, s/veh	5.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	148	35	277	422
Demand Flow Rate, veh/h	154	36	288	439
Vehicles Circulating, veh/h	359	442	255	0
Vehicles Exiting, veh/h	80	101	258	478
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.5	4.6	6.2	5.6
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	154	36	288	439
Cap Entry Lane, veh/h	957	879	1064	1380
Entry HV Adj Factor	0.961	0.972	0.962	0.961
Flow Entry, veh/h	148	35	277	422
Cap Entry, veh/h	920	855	1023	1327
V/C Ratio	0.161	0.041	0.271	0.318
Control Delay, s/veh	5.5	4.6	6.2	5.6
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	1

HCM 6th TWSC  
12: East N/S Collector & North E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	0	0	1	3	26
Future Vol, veh/h	8	0	0	1	3	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	200
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	9	0	0	1	3	28





Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	4	3	31
Stage 1	3	-	-
Stage 2	1	-	-
Critical Hdwy	6.44	6.24	4.14
Critical Hdwy Stg 1	5.44	-	-
Critical Hdwy Stg 2	5.44	-	-
Follow-up Hdwy	3.536	3.336	2.236
Pot Cap-1 Maneuver	1013	1075	1569
Stage 1	1015	-	-
Stage 2	1017	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	1013	1075	1569
Mov Cap-2 Maneuver	1013	-	-
Stage 1	1015	-	-
Stage 2	1017	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1569	-	1013	-	-
HCM Lane V/C Ratio	-	-	0.008	-	-
HCM Control Delay (s)	0	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC  
13: West N/S Collector & Middle E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	29	112	0	25	101
Future Vol, veh/h	0	29	112	0	25	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	0	31	119	0	27	107
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	280	119	0	0	119	0
Stage 1	119	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	706	927	-	-	1457	-
Stage 1	901	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	693	927	-	-	1457	-
Mov Cap-2 Maneuver	693	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9	0	1.5			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	927	1457	-	
HCM Lane V/C Ratio	-	-	0.033	0.018	-	
HCM Control Delay (s)	-	-	9	7.5	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	

HCM 6th TWSC  
14: Middle N/S Collector & Middle E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	11	0	0	0	0	7	0	232	0	5	211	10
Future Vol, veh/h	11	0	0	0	0	7	0	232	0	5	211	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	0	0	0	0	7	0	247	0	5	224	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	491	487	230	487	492	247	235	0	0	247	0	0
Stage 1	240	240	-	247	247	-	-	-	-	-	-	-
Stage 2	251	247	-	240	245	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	485	478	804	488	475	787	1321	-	-	1307	-	-
Stage 1	759	703	-	752	698	-	-	-	-	-	-	-
Stage 2	749	698	-	759	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	479	476	804	487	473	787	1321	-	-	1307	-	-
Mov Cap-2 Maneuver	479	476	-	487	473	-	-	-	-	-	-	-
Stage 1	759	700	-	752	698	-	-	-	-	-	-	-
Stage 2	742	698	-	756	697	-	-	-	-	-	-	-






Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		9.6		0		0.2	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1321	-	-	479	787	1307	-
HCM Lane V/C Ratio	-	-	-	0.024	0.009	0.004	-
HCM Control Delay (s)	0	-	-	12.7	9.6	7.8	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-













HCM 6th TWSC  
17: West N/S Collector & South E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	5.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	75	38	0	70	32
Future Vol, veh/h	0	75	38	0	70	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	0	80	40	0	74	34
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	222	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	182	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	762	1026	-	-	1557	-
Stage 1	977	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	725	1026	-	-	1557	-
Mov Cap-2 Maneuver	725	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.8	0	5.1			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	1026	1557	-	
HCM Lane V/C Ratio	-	-	0.078	0.048	-	
HCM Control Delay (s)	-	-	0	8.8	7.4	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.3	0.2	-

HCM 6th TWSC  
18: Middle N/S Collector & South E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	53	0	0	55	120	0	82	0	114	70	3
Future Vol, veh/h	4	53	0	0	55	120	0	82	0	114	70	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	4	56	0	0	59	128	0	87	0	121	74	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	187	0	0	56	0	0	226	251	56	231	187	123
Stage 1	-	-	-	-	-	-	64	64	-	123	123	-
Stage 2	-	-	-	-	-	-	162	187	-	108	64	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1375	-	-	1536	-	-	725	649	1005	720	704	923
Stage 1	-	-	-	-	-	-	942	838	-	876	790	-
Stage 2	-	-	-	-	-	-	835	741	-	893	838	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1375	-	-	1536	-	-	663	647	1005	644	702	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	663	647	-	644	702	-
Stage 1	-	-	-	-	-	-	939	835	-	873	790	-
Stage 2	-	-	-	-	-	-	754	741	-	797	835	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	11.4	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	647	1375	-	-	1536	-	-	644	702	923
HCM Lane V/C Ratio	-	0.135	0.003	-	-	-	-	-	0.188	0.106	0.003
HCM Control Delay (s)	0	11.4	7.6	-	-	0	-	-	11.9	10.7	8.9
HCM Lane LOS	A	B	A	-	-	A	-	-	B	B	A
HCM 95th %tile Q(veh)	-	0.5	0	-	-	0	-	-	0.7	0.4	0









HCM 6th TWSC  
19: Hayesmount Rd & South E/W Collector

2030 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	3.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	37	111	0	38	114	0
Future Vol, veh/h	37	111	0	38	114	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	39	118	0	40	121	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	157	0	79	39
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	40	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1411	-	919	1027
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	977	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1411	-	919	1027
Mov Cap-2 Maneuver	-	-	-	-	919	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	977	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	919		-	-	-	1411
HCM Lane V/C Ratio	0.132		-	-	-	-
HCM Control Delay (s)	9.5		0	-	0	-
HCM Lane LOS	A		A	-	-	A
HCM 95th %tile Q(veh)	0.5		-	-	-	0

HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

2030 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	74	4	1	39	94	3	1	5	162	2	16
Future Vol, veh/h	16	74	4	1	39	94	3	1	5	162	2	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	405	-	400	405	-	378	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	18	84	5	1	44	107	3	1	6	184	2	18

























Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	89	0	0	230	273	84	172	171	44
Stage 1	-	-	-	-	-	-	120	120	-	46	46	-
Stage 2	-	-	-	-	-	-	110	153	-	126	125	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1388	-	-	1463	-	-	710	622	956	776	710	1006
Stage 1	-	-	-	-	-	-	868	783	-	950	843	-
Stage 2	-	-	-	-	-	-	878	758	-	861	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1388	-	-	1463	-	-	688	613	956	762	700	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	613	-	762	700	-
Stage 1	-	-	-	-	-	-	857	773	-	938	842	-
Stage 2	-	-	-	-	-	-	859	757	-	844	769	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.1			9.5			11.3		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	802	1388	-	-	1463	-	-	778
HCM Lane V/C Ratio	0.013	0.013	-	-	0.001	-	-	0.263
HCM Control Delay (s)	9.5	7.6	-	-	7.5	-	-	11.3
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	1.1

Timings  
1: Monaghan Rd & E 26th Ave

2050 Background Traffic  
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	118	239	41	182	107	67	165	63	78	346	54
Future Volume (vph)	188	118	239	41	182	107	67	165	63	78	346	54
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
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)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	12.0	30.0	30.0	12.0	30.0	30.0	12.0	36.0	36.0	12.0	36.0	36.0
Total Split (%)	13.3%	33.3%	33.3%	13.3%	33.3%	33.3%	13.3%	40.0%	40.0%	13.3%	40.0%	40.0%
Yellow Time (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
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effect Green (s)	18.9	15.0	15.0	16.1	9.6	9.6	36.5	31.3	31.3	36.6	31.4	31.4
Actuated g/C Ratio	0.26	0.21	0.21	0.22	0.13	0.13	0.51	0.43	0.43	0.51	0.43	0.43
v/c Ratio	0.62	0.17	0.48	0.13	0.41	0.34	0.12	0.11	0.09	0.13	0.24	0.07
Control Delay	31.2	27.8	7.8	20.2	32.1	6.2	8.4	14.0	0.2	8.4	14.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	27.8	7.8	20.2	32.1	6.2	8.4	14.0	0.2	8.4	14.6	0.2
LOS	C	C	A	C	C	A	A	B	A	A	B	A
Approach Delay		20.2			22.2			9.8			12.0	
Approach LOS		C			C			A			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 72.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 16.4









Intersection LOS: B

Intersection Capacity Utilization 45.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Monaghan Rd & E 26th Ave

 Ø1	 Ø2	 Ø3	 Ø4
12 s	36 s	12 s	30 s
 Ø5	 Ø6	 Ø7	 Ø8
12 s	36 s	12 s	30 s



























# HCM 6th Signalized Intersection Summary

## 1: Monaghan Rd & E 26th Ave










2050 Background Traffic

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	118	239	41	182	107	67	165	63	78	346	54
Future Volume (veh/h)	188	118	239	41	182	107	67	165	63	78	346	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	126	254	44	194	114	71	176	67	83	368	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	702	313	314	502	224	547	1525	680	654	1537	686
Arrive On Green	0.10	0.20	0.20	0.04	0.14	0.14	0.05	0.43	0.43	0.06	0.43	0.43
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	200	126	254	44	194	114	71	176	67	83	368	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.8	2.1	11.1	1.5	3.6	4.8	1.6	2.1	1.8	1.8	4.7	1.5
Cycle Q Clear(g_c), s	6.8	2.1	11.1	1.5	3.6	4.8	1.6	2.1	1.8	1.8	4.7	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	370	702	313	314	502	224	547	1525	680	654	1537	686
V/C Ratio(X)	0.54	0.18	0.81	0.14	0.39	0.51	0.13	0.12	0.10	0.13	0.24	0.08
Avail Cap(c_a), veh/h	370	1230	548	414	1230	548	625	1525	680	726	1537	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	24.1	27.7	24.8	28.2	28.7	10.3	12.4	12.3	10.1	13.0	12.1
Incr Delay (d2), s/veh	1.6	0.1	5.1	0.2	0.5	1.8	0.1	0.2	0.3	0.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.8	4.2	0.6	1.4	1.8	0.5	0.8	0.6	0.6	1.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	24.2	32.8	25.0	28.7	30.5	10.4	12.5	12.6	10.2	13.3	12.3
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		580			352			314			508	
Approach Delay, s/veh		28.1			28.8			12.1			12.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	36.0	7.9	19.3	8.8	36.3	12.0	15.2				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	31.0	7.0	25.0	7.0	31.0	7.0	25.0				
Max Q Clear Time (g_c+I1), s	3.8	4.1	3.5	13.1	3.6	6.7	8.8	6.8				
Green Ext Time (p_c), s	0.0	1.2	0.0	1.2	0.0	2.3	0.0	1.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			20.9									
HCM 6th LOS			C									

HCM 6th TWSC  
2: West N/S Collector & E 26th Ave

2050 Background Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	245	5	0	323	0	2	0	0	0	0	5
Future Vol, veh/h	9	245	5	0	323	0	2	0	0	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	261	5	0	344	0	2	0	0	0	0	5






Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	344	0	0	266	0	0	453	625	131	495	630	172
Stage 1	-	-	-	-	-	-	281	281	-	344	344	-
Stage 2	-	-	-	-	-	-	172	344	-	151	286	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1212	-	-	1295	-	-	490	400	894	457	397	842
Stage 1	-	-	-	-	-	-	702	677	-	645	635	-
Stage 2	-	-	-	-	-	-	813	635	-	836	674	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1212	-	-	1295	-	-	484	397	894	454	394	842
Mov Cap-2 Maneuver	-	-	-	-	-	-	484	397	-	454	394	-
Stage 1	-	-	-	-	-	-	696	672	-	640	635	-
Stage 2	-	-	-	-	-	-	808	635	-	829	669	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	12.5	9.3
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	484	-	1212	-	-	1295	-	-	-	842
HCM Lane V/C Ratio	0.004	-	0.008	-	-	-	-	-	-	0.006
HCM Control Delay (s)	12.5	0	8	-	-	0	-	-	0	9.3
HCM Lane LOS	B	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	0	-	-	0	-	-	-	0

HCM 6th TWSC  
4: E 26th Ave & Middle N/S Collector

2050 Background Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	230	315	3	2	8
Future Vol, veh/h	15	230	315	3	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	245	335	3	2	9









Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	338	0	0	492	169
Stage 1	-	-	-	337	-
Stage 2	-	-	-	155	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	1218	-	-	506	845
Stage 1	-	-	-	695	-
Stage 2	-	-	-	857	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1218	-	-	499	845
Mov Cap-2 Maneuver	-	-	-	499	-
Stage 1	-	-	-	686	-
Stage 2	-	-	-	857	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1218	-	-	-	499	845
HCM Lane V/C Ratio	0.013	-	-	-	0.004	0.01
HCM Control Delay (s)	8	-	-	-	12.2	9.3
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0

HCM 6th TWSC  
6: Hayesmount Rd & E 26th Ave

2050 Background Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	213	4	0	308	3	2	0	0	2	1	9
Future Vol, veh/h	15	213	4	0	308	3	2	0	0	2	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	227	4	0	328	3	2	0	0	2	1	10









Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	331	0	0	231	0	0	426	592	116	476	593	166
Stage 1	-	-	-	-	-	-	261	261	-	330	330	-
Stage 2	-	-	-	-	-	-	165	331	-	146	263	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1225	-	-	1334	-	-	512	418	914	472	417	849
Stage 1	-	-	-	-	-	-	721	691	-	657	644	-
Stage 2	-	-	-	-	-	-	821	644	-	842	689	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1225	-	-	1334	-	-	500	413	914	467	412	849
Mov Cap-2 Maneuver	-	-	-	-	-	-	500	413	-	467	412	-
Stage 1	-	-	-	-	-	-	712	682	-	648	644	-
Stage 2	-	-	-	-	-	-	810	644	-	831	680	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	12.2	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	500	-	1225	-	-	1334	-	-	467	768
HCM Lane V/C Ratio	0.004	-	0.013	-	-	-	-	-	0.005	0.014
HCM Control Delay (s)	12.2	0	8	-	-	0	-	-	12.7	9.8
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	0	-	-	0	-	-	0	0

HCM 6th TWSC  
7: Future Collector & E 26th Ave

2050 Background Traffic  
AM Peak Hour













Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	194	6	1	298	2	4	0	0	1	0	8
Future Vol, veh/h	15	194	6	1	298	2	4	0	0	1	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	206	6	1	317	2	4	0	0	1	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	319	0	0	212	0	0	402	562	106	455	564	160
Stage 1	-	-	-	-	-	-	241	241	-	320	320	-
Stage 2	-	-	-	-	-	-	161	321	-	135	244	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1238	-	-	1356	-	-	533	434	928	489	433	857
Stage 1	-	-	-	-	-	-	741	705	-	666	651	-
Stage 2	-	-	-	-	-	-	825	650	-	854	703	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1238	-	-	1356	-	-	522	428	928	484	427	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	522	428	-	484	427	-
Stage 1	-	-	-	-	-	-	731	696	-	657	650	-
Stage 2	-	-	-	-	-	-	816	649	-	843	694	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	12	9.6
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	522	-	1238	-	-	1356	-	-	484	857
HCM Lane V/C Ratio	0.008	-	0.013	-	-	0.001	-	-	0.002	0.01
HCM Control Delay (s)	12	0	7.9	-	-	7.7	-	-	12.5	9.2
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	0	-	-	0	-	-	0	0



Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	116	64	7	181	71	101	35	20	28	21	18
Future Vol, veh/h	15	116	64	7	181	71	101	35	20	28	21	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	123	68	7	193	76	107	37	21	30	22	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	269	0	0	191	0	0	277	438	62	357	468	135
Stage 1	-	-	-	-	-	-	155	155	-	245	245	-
Stage 2	-	-	-	-	-	-	122	283	-	112	223	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1292	-	-	1380	-	-	654	511	990	574	491	889
Stage 1	-	-	-	-	-	-	832	768	-	737	702	-
Stage 2	-	-	-	-	-	-	869	676	-	881	718	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1292	-	-	1380	-	-	609	502	990	523	483	889
Mov Cap-2 Maneuver	-	-	-	-	-	-	609	502	-	523	483	-
Stage 1	-	-	-	-	-	-	822	759	-	728	698	-
Stage 2	-	-	-	-	-	-	819	673	-	810	709	-






Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6	-	-	0.2	-	-	12	-	-	11.7	-	-
HCM LOS	-	-	-	-	-	-	B	-	-	B	-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	609	612	1292	-	-	1380	-	-	523	612
HCM Lane V/C Ratio	0.176	0.096	0.012	-	-	0.005	-	-	0.057	0.068
HCM Control Delay (s)	12.2	11.5	7.8	-	-	7.6	-	-	12.3	11.3
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.6	0.3	0	-	-	0	-	-	0.2	0.2







HCM 6th TWSC  
13: West N/S Collector & Middle E/W Collector

2050 Background Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1	2	0	0	5
Future Vol, veh/h	3	1	2	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	1	2	0	0	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	7	3	5	0	-	0
Stage 1	3	-	-	-	-	-
Stage 2	4	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1014	1081	1616	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1013	1081	1616	-	-	-
Mov Cap-2 Maneuver	1013	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	7.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1616	-	1029	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.2	-	8.5	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	






HCM 6th TWSC  
16: Monaghan Rd & South E/W Collector

2050 Background Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	1	57	15	2	32
Future Vol, veh/h	9	1	57	15	2	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	200	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	1	61	16	2	34
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	82	31	0	0	77	0
Stage 1	61	-	-	-	-	-
Stage 2	21	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	911	1036	-	-	1520	-
Stage 1	954	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	910	1036	-	-	1520	-
Mov Cap-2 Maneuver	910	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	998	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9	0	0.4			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 910 1036 1520	-	-		
HCM Lane V/C Ratio	-	- 0.011 0.001 0.001	-	-		
HCM Control Delay (s)	-	- 9 8.5 7.4	-	-		
HCM Lane LOS	-	- A A A	-	-		
HCM 95th %tile Q(veh)	-	- 0 0 0	-	-		






HCM 6th TWSC  
17: South E/W Collector & West N/S Collector

2050 Background Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	11	7	0	0	1
Future Vol, veh/h	2	11	7	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	200	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	12	7	0	0	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	7	0	-	0	23	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	16	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1614	-	-	-	993	1075
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1007	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1614	-	-	-	992	1075
Mov Cap-2 Maneuver	-	-	-	-	992	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	1007	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		8.4		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1614	-	-	-	-	1075
HCM Lane V/C Ratio	0.001	-	-	-	-	0.001
HCM Control Delay (s)	7.2	-	-	-	0	8.4
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0

HCM 6th TWSC  
19: South E/W Collector & Hayesmount Rd







2050 Background Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	7	5	0	0	2
Future Vol, veh/h	3	7	5	0	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	7	5	0	0	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	5	0	-	0	18	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	13	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1616	-	-	-	1000	1078
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1616	-	-	-	998	1078
Mov Cap-2 Maneuver	-	-	-	-	998	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1010	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.2	0		8.3		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1616	-	-	-	-	1078
HCM Lane V/C Ratio	0.002	-	-	-	-	0.002
HCM Control Delay (s)	7.2	-	-	-	0	8.3
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0



HCM 6th TWSC  
20: Hudson Rd & South E/W Collector

2050 Background Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	2	157	92	0
Future Vol, veh/h	0	1	2	157	92	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	2	167	98	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	269	98	98	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	171	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	720	958	1495	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	719	958	1495	-	-	-
Mov Cap-2 Maneuver	719	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1495	-	-	958	-	-
HCM Lane V/C Ratio	0.001	-	-	0.001	-	-
HCM Control Delay (s)	7.4	-	0	8.8	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	-

























HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

2050 Background Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	27	193	2	6	92	28	1	2	1	22	1	29
Future Vol, veh/h	27	193	2	6	92	28	1	2	1	22	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	400	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	31	219	2	7	105	32	1	2	1	25	1	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	137	0	0	221	0	0	433	432	219	419	418	121
Stage 1	-	-	-	-	-	-	281	281	-	135	135	-
Stage 2	-	-	-	-	-	-	152	151	-	284	283	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1405	-	-	1308	-	-	521	506	803	532	515	912
Stage 1	-	-	-	-	-	-	711	666	-	852	771	-
Stage 2	-	-	-	-	-	-	834	759	-	708	664	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1405	-	-	1308	-	-	490	490	803	517	499	912
Mov Cap-2 Maneuver	-	-	-	-	-	-	490	490	-	517	499	-
Stage 1	-	-	-	-	-	-	693	649	-	831	766	-
Stage 2	-	-	-	-	-	-	798	754	-	687	647	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.4			11.7			10.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	543	1405	-	-	1308	-	-	681				
HCM Lane V/C Ratio	0.008	0.022	-	-	0.005	-	-	0.087				
HCM Control Delay (s)	11.7	7.6	0	-	7.8	0	-	10.8				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.3				

Timings  
1: Monaghan Rd & E 26th Ave

2050 Background Traffic  
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	212	85	52	72	63	225	461	56	176	171	181
Future Volume (vph)	67	212	85	52	72	63	225	461	56	176	171	181
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
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)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	12.0	30.0	30.0	12.0	30.0	30.0	12.0	36.0	36.0	12.0	36.0	36.0
Total Split (%)	13.3%	33.3%	33.3%	13.3%	33.3%	33.3%	13.3%	40.0%	40.0%	13.3%	40.0%	40.0%
Yellow Time (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
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effect Green (s)	15.8	11.9	11.9	14.7	9.4	9.4	38.4	31.4	31.4	38.2	31.3	31.3
Actuated g/C Ratio	0.22	0.17	0.17	0.20	0.13	0.13	0.53	0.44	0.44	0.53	0.43	0.43
v/c Ratio	0.23	0.39	0.24	0.19	0.17	0.20	0.35	0.32	0.08	0.36	0.12	0.24
Control Delay	21.5	30.2	3.2	21.0	29.5	1.4	10.0	15.2	0.2	10.1	13.9	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	30.2	3.2	21.0	29.5	1.4	10.0	15.2	0.2	10.1	13.9	3.4
LOS	C	C	A	C	C	A	A	B	A	B	B	A
Approach Delay		22.3			17.7			12.5			9.0	
Approach LOS		C			B			B			A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 72.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 14.0









Intersection LOS: B

Intersection Capacity Utilization 49.2%

ICU Level of Service A

Analysis Period (min) 15





























Splits and Phases: 1: Monaghan Rd & E 26th Ave

 Ø1	 Ø2	 Ø3	 Ø4
12 s	36 s	12 s	30 s
 Ø5	 Ø6	 Ø7	 Ø8
12 s	36 s	12 s	30 s

# HCM 6th Signalized Intersection Summary










## 1: Monaghan Rd & E 26th Ave

2050 Background Traffic  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (veh/h)	67	212	85	52	72	63	225	461	56	176	171	181
Future Volume (veh/h)	67	212	85	52	72	63	225	461	56	176	171	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	226	90	55	77	67	239	490	60	187	182	193
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	306	392	175	243	368	164	706	1664	742	580	1608	717
Arrive On Green	0.05	0.11	0.11	0.05	0.10	0.10	0.10	0.47	0.47	0.08	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	71	226	90	55	77	67	239	490	60	187	182	193
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.4	4.1	3.7	1.9	1.4	2.7	4.8	5.8	1.4	3.7	2.0	5.2
Cycle Q Clear(g_c), s	2.4	4.1	3.7	1.9	1.4	2.7	4.8	5.8	1.4	3.7	2.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	306	392	175	243	368	164	706	1664	742	580	1608	717
V/C Ratio(X)	0.23	0.58	0.51	0.23	0.21	0.41	0.34	0.29	0.08	0.32	0.11	0.27
Avail Cap(c_a), veh/h	391	1296	578	340	1296	578	713	1664	742	616	1608	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	29.0	28.7	25.6	28.1	28.7	8.0	11.2	10.1	8.5	10.8	11.7
Incr Delay (d2), s/veh	0.4	1.3	2.3	0.5	0.3	1.6	0.3	0.5	0.2	0.3	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.7	1.4	0.7	0.5	1.0	1.4	2.0	0.5	1.2	0.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	30.3	31.1	26.1	28.4	30.4	8.3	11.7	10.3	8.8	11.0	12.6
LnGrp LOS	C	C	C	C	C	C	A	B	B	A	B	B
Approach Vol, veh/h		387			199			789			562	
Approach Delay, s/veh		29.6			28.4			10.6			10.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	37.1	8.2	12.6	11.7	36.0	8.7	12.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	31.0	7.0	25.0	7.0	31.0	7.0	25.0				
Max Q Clear Time (g_c+I1), s	5.7	7.8	3.9	6.1	6.8	7.2	4.4	4.7				
Green Ext Time (p_c), s	0.1	3.1	0.0	1.4	0.0	1.6	0.0	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			16.3									
HCM 6th LOS			B									

HCM 6th TWSC  
2: West N/S Collector & E 26th Ave

2050 Background Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	434	3	0	176	0	3	0	0	0	0	7
Future Vol, veh/h	6	434	3	0	176	0	3	0	0	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	462	3	0	187	0	3	0	0	0	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	187	0	0	465	0	0	568	661	231	430	664	94
Stage 1	-	-	-	-	-	-	474	474	-	187	187	-
Stage 2	-	-	-	-	-	-	94	187	-	243	477	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1385	-	-	1093	-	-	406	381	771	509	380	944
Stage 1	-	-	-	-	-	-	540	556	-	797	744	-
Stage 2	-	-	-	-	-	-	902	744	-	739	554	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1385	-	-	1093	-	-	402	379	771	507	378	944
Mov Cap-2 Maneuver	-	-	-	-	-	-	402	379	-	507	378	-
Stage 1	-	-	-	-	-	-	538	554	-	794	744	-
Stage 2	-	-	-	-	-	-	895	744	-	736	552	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			14			8.8		
HCM LOS							B			A		






  

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	402	-	1385	-	-	1093	-	-	-	944
HCM Lane V/C Ratio	0.008	-	0.005	-	-	-	-	-	-	0.008
HCM Control Delay (s)	14	0	7.6	-	-	0	-	-	0	8.8
HCM Lane LOS	B	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	0	-	-	0	-	-	-	0



HCM 6th TWSC  
4: E 26th Ave & Middle N/S Collector

2050 Background Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	424	164	2	2	12
Future Vol, veh/h	11	424	164	2	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	451	174	2	2	13









Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	176	0	0	425	88
Stage 1	-	-	-	175	-
Stage 2	-	-	-	250	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	1398	-	-	557	953
Stage 1	-	-	-	838	-
Stage 2	-	-	-	768	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1398	-	-	552	953
Mov Cap-2 Maneuver	-	-	-	552	-
Stage 1	-	-	-	830	-
Stage 2	-	-	-	768	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1398	-	-	-	552	953
HCM Lane V/C Ratio	0.008	-	-	-	0.004	0.013
HCM Control Delay (s)	7.6	-	-	-	11.5	8.8
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0

HCM 6th TWSC  
6: Hayesmount Rd & E 26th Ave

2050 Background Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	412	3	0	150	2	3	1	0	2	0	13
Future Vol, veh/h	11	412	3	0	150	2	3	1	0	2	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	438	3	0	160	2	3	1	0	2	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	441	0	0	544	626	221	405	626	81
Stage 1	-	-	-	-	-	-	464	464	-	161	161	-
Stage 2	-	-	-	-	-	-	80	162	-	244	465	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1414	-	-	1115	-	-	422	399	783	530	399	963
Stage 1	-	-	-	-	-	-	548	562	-	825	764	-
Stage 2	-	-	-	-	-	-	919	763	-	738	561	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1414	-	-	1115	-	-	413	396	783	525	396	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	413	396	-	525	396	-
Stage 1	-	-	-	-	-	-	544	558	-	818	764	-
Stage 2	-	-	-	-	-	-	906	763	-	730	557	-









Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			13.9			9.2		
HCM LOS							B			A		










  

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	413	396	1414	-	-	1115	-	-	525	963
HCM Lane V/C Ratio	0.008	0.003	0.008	-	-	-	-	-	0.004	0.014
HCM Control Delay (s)	13.8	14.1	7.6	-	-	0	-	-	11.9	8.8
HCM Lane LOS	B	B	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0	0	-	-	0	-	-	0	0

HCM 6th TWSC  
7: Future Collector & E 26th Ave

2050 Background Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	399	5	1	134	2	6	0	1	2	0	12
Future Vol, veh/h	11	399	5	1	134	2	6	0	1	2	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	424	5	1	143	2	6	0	1	2	0	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	429	0	0	525	598	215	382	599	73
Stage 1	-	-	-	-	-	-	451	451	-	146	146	-
Stage 2	-	-	-	-	-	-	74	147	-	236	453	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1435	-	-	1127	-	-	435	414	790	551	414	974
Stage 1	-	-	-	-	-	-	557	569	-	842	775	-
Stage 2	-	-	-	-	-	-	927	774	-	746	568	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1435	-	-	1127	-	-	426	410	790	547	410	974
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	410	-	547	410	-
Stage 1	-	-	-	-	-	-	553	564	-	835	774	-
Stage 2	-	-	-	-	-	-	914	773	-	739	563	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.1			13			9.1		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	426	790	1435	-	-	1127	-	-	547	974		
HCM Lane V/C Ratio	0.015	0.001	0.008	-	-	0.001	-	-	0.004	0.013		
HCM Control Delay (s)	13.6	9.6	7.5	-	-	8.2	-	-	11.6	8.7		
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A		
HCM 95th %tile Q(veh)	0	0	0	-	-	0	-	-	0	0		

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	247	135	4	73	38	43	10	1	94	8	20
Future Vol, veh/h	19	247	135	4	73	38	43	10	1	94	8	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	263	144	4	78	40	46	11	1	100	9	21






Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	118	0	0	407	0	0	355	429	132	283	553	59
Stage 1	-	-	-	-	-	-	303	303	-	106	106	-
Stage 2	-	-	-	-	-	-	52	126	-	177	447	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1468	-	-	1148	-	-	576	517	893	647	440	994
Stage 1	-	-	-	-	-	-	681	662	-	888	807	-
Stage 2	-	-	-	-	-	-	954	791	-	808	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1148	-	-	548	508	893	628	433	994
Mov Cap-2 Maneuver	-	-	-	-	-	-	548	508	-	628	433	-
Stage 1	-	-	-	-	-	-	671	653	-	876	805	-
Stage 2	-	-	-	-	-	-	920	789	-	783	564	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.3			12.2			11.4		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	548	529	1468	-	-	1148	-	-	628	725
HCM Lane V/C Ratio	0.083	0.022	0.014	-	-	0.004	-	-	0.159	0.041
HCM Control Delay (s)	12.2	12	7.5	-	-	8.1	-	-	11.8	10.2
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0	-	-	0.6	0.1

HCM 6th TWSC  
13: West N/S Collector & Middle E/W Collector

2050 Background Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1	1	0	0	4
Future Vol, veh/h	4	1	1	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	1	1	0	0	4







Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	4	2	4	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	2	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1018	1082	1618	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1021	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1017	1082	1618	-	-	-
Mov Cap-2 Maneuver	1017	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1021	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1618	-	1029	-	-
HCM Lane V/C Ratio	0.001	-	0.005	-	-
HCM Control Delay (s)	7.2	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC  
16: Monaghan Rd & South E/W Collector






2050 Background Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	1	41	12	1	47
Future Vol, veh/h	13	1	41	12	1	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	200	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	1	44	13	1	50
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	71	22	0	0	57	0
Stage 1	44	-	-	-	-	-
Stage 2	27	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	925	1050	-	-	1546	-
Stage 1	973	-	-	-	-	-
Stage 2	992	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	924	1050	-	-	1546	-
Mov Cap-2 Maneuver	924	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	991	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9	0		0.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	924 1050	1546	-	
HCM Lane V/C Ratio	-	-	0.015 0.001	0.001	-	
HCM Control Delay (s)	-	-	9 8.4	7.3	-	
HCM Lane LOS	-	-	A A	A	-	
HCM 95th %tile Q(veh)	-	-	0 0	0	-	








HCM 6th TWSC  
17: South E/W Collector & West N/S Collector

2050 Background Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	8	10	0	0	1
Future Vol, veh/h	1	8	10	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	200	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	9	11	0	0	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	11	0	-	0	22	11
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	11	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1608	-	-	-	995	1070
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	1012	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1608	-	-	-	994	1070
Mov Cap-2 Maneuver	-	-	-	-	994	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	1012	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		8.4		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1608	-	-	-	-	1070
HCM Lane V/C Ratio	0.001	-	-	-	-	0.001
HCM Control Delay (s)	7.2	-	-	-	0	8.4
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0

HCM 6th TWSC  
19: South E/W Collector & Hayesmount Rd

2050 Background Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	6	7	0	0	3
Future Vol, veh/h	3	6	7	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	7	0	0	3







Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	7	0	0 19 7
Stage 1	-	-	- - 7 -
Stage 2	-	-	- - 12 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1614	-	- - 998 1075
Stage 1	-	-	- - 1016 -
Stage 2	-	-	- - 1011 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1614	-	- - 996 1075
Mov Cap-2 Maneuver	-	-	- - 996 -
Stage 1	-	-	- - 1014 -
Stage 2	-	-	- - 1011 -

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	8.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1614	-	-	-	-	1075
HCM Lane V/C Ratio	0.002	-	-	-	-	0.003
HCM Control Delay (s)	7.2	-	-	-	0	8.4
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0

HCM 6th TWSC  
20: Hudson Rd & South E/W Collector

2050 Background Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	2	54	147	0
Future Vol, veh/h	0	2	2	54	147	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	2	57	156	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	217	156	156	0	-	0
Stage 1	156	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	771	890	1424	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	770	890	1424	-	-	-
Mov Cap-2 Maneuver	770	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	0.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1424	-	-	890	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	-	-
HCM Control Delay (s)	7.5	-	0	9.1	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	-

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔			↔	
Traffic Vol, veh/h	20	93	4	1	49	13	3	1	5	40	2	20
Future Vol, veh/h	20	93	4	1	49	13	3	1	5	40	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	400	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	23	106	5	1	56	15	3	1	6	45	2	23

























Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	111	0	0	230	225	106	224	223	64
Stage 1	-	-	-	-	-	-	152	152	-	66	66	-
Stage 2	-	-	-	-	-	-	78	73	-	158	157	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1486	-	-	1436	-	-	710	662	930	717	664	981
Stage 1	-	-	-	-	-	-	834	758	-	927	826	-
Stage 2	-	-	-	-	-	-	914	821	-	828	755	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1486	-	-	1436	-	-	683	651	930	703	653	981
Mov Cap-2 Maneuver	-	-	-	-	-	-	683	651	-	703	653	-
Stage 1	-	-	-	-	-	-	821	746	-	912	825	-
Stage 2	-	-	-	-	-	-	889	820	-	809	743	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.1			9.6			10.1		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	796	1486	-	-	1436	-	-	772
HCM Lane V/C Ratio	0.013	0.015	-	-	0.001	-	-	0.091
HCM Control Delay (s)	9.6	7.5	0	-	7.5	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Timings  
1: Monaghan Rd & E 26th Ave

2050 Total Traffic  
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	172	246	58	213	130	72	213	103	124	424	54
Future Volume (vph)	188	172	246	58	213	130	72	213	103	124	424	54
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
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)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	12.0	30.0	30.0	12.0	30.0	30.0	12.0	36.0	36.0	12.0	36.0	36.0
Total Split (%)	13.3%	33.3%	33.3%	13.3%	33.3%	33.3%	13.3%	40.0%	40.0%	13.3%	40.0%	40.0%
Yellow Time (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
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effect Green (s)	19.9	15.8	15.8	17.5	10.9	10.9	37.7	31.1	31.1	39.1	33.5	33.5
Actuated g/C Ratio	0.26	0.21	0.21	0.23	0.14	0.14	0.50	0.41	0.41	0.52	0.44	0.44
v/c Ratio	0.69	0.27	0.52	0.21	0.50	0.42	0.16	0.17	0.16	0.23	0.32	0.08
Control Delay	36.6	28.3	8.3	21.1	33.7	9.3	9.2	15.2	2.2	9.7	15.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	28.3	8.3	21.1	33.7	9.3	9.2	15.2	2.2	9.7	15.9	0.2
LOS	D	C	A	C	C	A	A	B	A	A	B	A
Approach Delay		22.7			24.0			10.6			13.2	
Approach LOS		C			C			B			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 75.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 17.8









Intersection LOS: B

Intersection Capacity Utilization 48.9%

ICU Level of Service A

Analysis Period (min) 15

























Splits and Phases: 1: Monaghan Rd & E 26th Ave

			
Ø1	Ø2	Ø3	Ø4
12 s	36 s	12 s	30 s
			
Ø5	Ø6	Ø7	Ø8
12 s	36 s	12 s	30 s

# HCM 6th Signalized Intersection Summary

## 1: Monaghan Rd & E 26th Ave










2050 Total Traffic  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	172	246	58	213	130	72	213	103	124	424	54
Future Volume (veh/h)	188	172	246	58	213	130	72	213	103	124	424	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707	1707
Adj Flow Rate, veh/h	200	183	262	62	227	138	77	227	110	132	451	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	13	13	13	13	13	13	13	13	13	13	13	13
Cap, veh/h	346	705	314	319	563	251	446	1314	586	549	1366	609
Arrive On Green	0.09	0.22	0.22	0.05	0.17	0.17	0.05	0.40	0.40	0.07	0.42	0.42
Sat Flow, veh/h	1626	3244	1447	1626	3244	1447	1626	3244	1447	1626	3244	1447
Grp Volume(v), veh/h	200	183	262	62	227	138	77	227	110	132	451	57
Grp Sat Flow(s),veh/h/ln	1626	1622	1447	1626	1622	1447	1626	1622	1447	1626	1622	1447
Q Serve(g_s), s	7.0	3.6	13.3	2.4	4.8	6.7	2.1	3.4	3.7	3.6	7.2	1.8
Cycle Q Clear(g_c), s	7.0	3.6	13.3	2.4	4.8	6.7	2.1	3.4	3.7	3.6	7.2	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	705	314	319	563	251	446	1314	586	549	1366	609
V/C Ratio(X)	0.58	0.26	0.83	0.19	0.40	0.55	0.17	0.17	0.19	0.24	0.33	0.09
Avail Cap(c_a), veh/h	346	1059	473	390	1059	473	509	1314	586	586	1366	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	24.9	28.6	24.1	28.1	28.9	12.1	14.6	14.7	11.6	14.9	13.4
Incr Delay (d2), s/veh	2.4	0.2	7.8	0.3	0.5	1.9	0.2	0.3	0.7	0.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.3	4.9	0.9	1.7	2.3	0.7	1.2	1.2	1.1	2.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	25.0	36.5	24.4	28.6	30.8	12.3	14.9	15.4	11.9	15.5	13.7
LnGrp LOS	C	C	D	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		645			427			414			640	
Approach Delay, s/veh		30.1			28.7			14.5			14.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	36.0	8.7	21.6	9.0	37.2	12.0	18.3				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	31.0	7.0	25.0	7.0	31.0	7.0	25.0				
Max Q Clear Time (g_c+I1), s	5.6	5.7	4.4	15.3	4.1	9.2	9.0	8.7				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.4	0.0	2.9	0.0	1.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			22.1									
HCM 6th LOS			C									



HCM 6th TWSC  
2: West N/S Collector & E 26th Ave

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	363	27	0	359	0	37	0	1	0	0	5
Future Vol, veh/h	9	363	27	0	359	0	37	0	1	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	10	386	29	0	382	0	39	0	1	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	382	0	0	415	0	0	597	788	193	595	817	191
Stage 1	-	-	-	-	-	-	406	406	-	382	382	-
Stage 2	-	-	-	-	-	-	191	382	-	213	435	-
Critical Hdwy	4.36	-	-	4.36	-	-	7.76	6.76	7.16	7.76	6.76	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Follow-up Hdwy	2.33	-	-	2.33	-	-	3.63	4.13	3.43	3.63	4.13	3.43
Pot Cap-1 Maneuver	1098	-	-	1066	-	-	364	302	783	366	290	785
Stage 1	-	-	-	-	-	-	564	569	-	583	584	-
Stage 2	-	-	-	-	-	-	762	584	-	739	552	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1098	-	-	1066	-	-	359	299	783	363	287	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	299	-	363	287	-
Stage 1	-	-	-	-	-	-	559	564	-	578	584	-
Stage 2	-	-	-	-	-	-	757	584	-	731	547	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			16.1			9.6		
HCM LOS							C			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	359	783	1098	-	-	1066	-	-	-	785
HCM Lane V/C Ratio	0.11	0.001	0.009	-	-	-	-	-	-	0.007
HCM Control Delay (s)	16.3	9.6	8.3	-	-	0	-	-	0	9.6
HCM Lane LOS	C	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	0	0	-	-	0	-	-	-	0










HCM 6th TWSC  
3: West Right-in/Right-out Site Access & E 26th Ave

2050 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Vol, veh/h	324	40	0	360	0	4
Future Vol, veh/h	324	40	0	360	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	345	43	0	383	0	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	173
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.43
Pot Cap-1 Maneuver	-	-	0	-	0	807
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	807
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		9.5	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	807	-	-	-		
HCM Lane V/C Ratio	0.005	-	-	-		
HCM Control Delay (s)	9.5	-	-	-		
HCM Lane LOS	A	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

HCM 6th TWSC  
4: Middle N/S Collector & E 26th Ave

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	249	65	40	306	3	45	0	14	2	0	8
Future Vol, veh/h	15	249	65	40	306	3	45	0	14	2	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	16	265	69	43	326	3	48	0	15	2	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	329	0	0	334	0	0	546	712	133	579	780	165
Stage 1	-	-	-	-	-	-	297	297	-	414	414	-
Stage 2	-	-	-	-	-	-	249	415	-	165	366	-
Critical Hdwy	4.36	-	-	4.36	-	-	7.76	6.76	7.16	7.76	6.76	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Follow-up Hdwy	2.33	-	-	2.33	-	-	3.63	4.13	3.43	3.63	4.13	3.43
Pot Cap-1 Maneuver	1152	-	-	1146	-	-	398	335	858	376	305	817
Stage 1	-	-	-	-	-	-	657	640	-	558	565	-
Stage 2	-	-	-	-	-	-	703	564	-	790	594	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1152	-	-	1146	-	-	378	318	858	355	289	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	378	318	-	355	289	-
Stage 1	-	-	-	-	-	-	648	631	-	550	544	-
Stage 2	-	-	-	-	-	-	670	543	-	766	586	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.9			14.3			10.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	378	858	1152	-	-	1146	-	-	355	817
HCM Lane V/C Ratio	0.127	0.017	0.014	-	-	0.037	-	-	0.006	0.01
HCM Control Delay (s)	15.9	9.3	8.2	-	-	8.3	-	-	15.2	9.5
HCM Lane LOS	C	A	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.4	0.1	0	-	-	0.1	-	-	0	0

HCM 6th TWSC  
5: East N/S Collector & E 26th Ave

2050 Total Traffic  
AM Peak Hour

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	256	9	0	349	0	3
Future Vol, veh/h	256	9	0	349	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	272	10	0	371	0	3









Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 136
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.16
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.43
Pot Cap-1 Maneuver	-	-	0 - 0 854
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 854
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	854	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-
HCM Control Delay (s)	9.2	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM 6th TWSC  
6: Hayesmount Rd & E 26th Ave

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	220	21	3	322	3	13	8	2	2	13	15
Future Vol, veh/h	18	220	21	3	322	3	13	8	2	2	13	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	19	234	22	3	343	3	14	9	2	2	14	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	346	0	0	256	0	0	468	635	128	511	645	173
Stage 1	-	-	-	-	-	-	283	283	-	351	351	-
Stage 2	-	-	-	-	-	-	185	352	-	160	294	-
Critical Hdwy	4.36	-	-	4.36	-	-	7.76	6.76	7.16	7.76	6.76	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Follow-up Hdwy	2.33	-	-	2.33	-	-	3.63	4.13	3.43	3.63	4.13	3.43
Pot Cap-1 Maneuver	1134	-	-	1230	-	-	454	373	864	422	367	807
Stage 1	-	-	-	-	-	-	670	649	-	609	604	-
Stage 2	-	-	-	-	-	-	768	603	-	795	642	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1134	-	-	1230	-	-	426	366	864	408	360	807
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	366	-	408	360	-
Stage 1	-	-	-	-	-	-	659	638	-	599	603	-
Stage 2	-	-	-	-	-	-	734	602	-	769	631	-









Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			13.8			12.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	426	414	1134	-	-	1230	-	-	408	512
HCM Lane V/C Ratio	0.032	0.026	0.017	-	-	0.003	-	-	0.005	0.058
HCM Control Delay (s)	13.7	13.9	8.2	-	-	7.9	-	-	13.9	12.5
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.1	0.1	-	-	0	-	-	0	0.2

HCM 6th TWSC  
7: Future Collector & E 26th Ave

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	202	6	1	315	2	4	0	0	1	0	8
Future Vol, veh/h	15	202	6	1	315	2	4	0	0	1	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	16	215	6	1	335	2	4	0	0	1	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	337	0	0	221	0	0	420	589	111	478	591	169
Stage 1	-	-	-	-	-	-	250	250	-	338	338	-
Stage 2	-	-	-	-	-	-	170	339	-	140	253	-
Critical Hdwy	4.36	-	-	4.36	-	-	7.76	6.76	7.16	7.76	6.76	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Follow-up Hdwy	2.33	-	-	2.33	-	-	3.63	4.13	3.43	3.63	4.13	3.43
Pot Cap-1 Maneuver	1143	-	-	1269	-	-	492	397	887	446	396	812
Stage 1	-	-	-	-	-	-	702	672	-	620	612	-
Stage 2	-	-	-	-	-	-	784	612	-	818	670	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1143	-	-	1269	-	-	481	391	887	441	390	812
Mov Cap-2 Maneuver	-	-	-	-	-	-	481	391	-	441	390	-
Stage 1	-	-	-	-	-	-	692	663	-	611	611	-
Stage 2	-	-	-	-	-	-	775	611	-	807	661	-













Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	12.6	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	481	-	1143	-	-	1269	-	-	441	812
HCM Lane V/C Ratio	0.009	-	0.014	-	-	0.001	-	-	0.002	0.01
HCM Control Delay (s)	12.6	0	8.2	-	-	7.8	-	-	13.2	9.5
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	0	-	-	0	-	-	0	0



HCM 6th TWSC  
8: Hudson Rd & E 26th Ave

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	120	64	7	189	71	101	37	20	28	25	27
Future Vol, veh/h	20	120	64	7	189	71	101	37	20	28	25	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	21	128	68	7	201	76	107	39	21	30	27	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	196	0	0	298	461	64	379	491	139
Stage 1	-	-	-	-	-	-	170	170	-	253	253	-
Stage 2	-	-	-	-	-	-	128	291	-	126	238	-
Critical Hdwy	4.36	-	-	4.36	-	-	7.76	6.76	7.16	7.76	6.76	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.76	5.76	-	6.76	5.76	-
Follow-up Hdwy	2.33	-	-	2.33	-	-	3.63	4.13	3.43	3.63	4.13	3.43
Pot Cap-1 Maneuver	1207	-	-	1298	-	-	604	472	953	527	453	850
Stage 1	-	-	-	-	-	-	784	731	-	699	670	-
Stage 2	-	-	-	-	-	-	831	644	-	834	681	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1207	-	-	1298	-	-	547	462	953	473	443	850
Mov Cap-2 Maneuver	-	-	-	-	-	-	547	462	-	473	443	-
Stage 1	-	-	-	-	-	-	771	719	-	687	667	-
Stage 2	-	-	-	-	-	-	767	641	-	757	669	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8	-	-	0.2	-	-	12.8	-	-	12.2	-	-
HCM LOS	-	-	-	-	-	-	B	-	-	B	-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	547	564	1207	-	-	1298	-	-	473	590
HCM Lane V/C Ratio	0.196	0.108	0.018	-	-	0.006	-	-	0.063	0.094
HCM Control Delay (s)	13.2	12.2	8	-	-	7.8	-	-	13.1	11.7
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.7	0.4	0.1	-	-	0	-	-	0.2	0.3

HCM 6th TWSC  
9: Middle N/S Collector & PA-1 Right-in/Right-out access

2050 Total Traffic  
AM Peak Hour





Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↗	↗		↗	↗
Traffic Vol, veh/h	0	0	2	0	0	17	0	42	4	0	79	26
Future Vol, veh/h	0	0	2	0	0	17	0	42	4	0	79	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	200	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	0	0	2	0	0	18	0	45	4	0	84	28
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	84	-	-	45	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.33	-	-	6.33	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.417	-	-	3.417	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	946	0	0	994	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	946	-	-	994	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.8		8.7		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBT		NBR EBLn1WBLn1		SBT		SBR					
Capacity (veh/h)	-		946 994		-		-					
HCM Lane V/C Ratio	-		0.002 0.018		-		-					
HCM Control Delay (s)	-		8.8 8.7		-		-					
HCM Lane LOS	-		A A		-		-					
HCM 95th %tile Q(veh)	-		0 0.1		-		-					

HCM 6th TWSC  
10: West N/S Collector & North E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection

Int Delay, s/veh 2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	24	16	5	0	28
Future Vol, veh/h	0	24	16	5	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	0	26	17	5	0	30

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	17	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.33	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.417	-
Pot Cap-1 Maneuver	0	1031	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1031	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1031	-
HCM Lane V/C Ratio	-	- 0.025	-
HCM Control Delay (s)	-	- 8.6	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.1	-

HCM 6th Roundabout  
11: Middle N/S Collector & North E/W Collector

2050 Total Traffic  
AM Peak Hour






Intersection				
Intersection Delay, s/veh	3.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	21	11	40	85
Demand Flow Rate, veh/h	23	13	45	97
Vehicles Circulating, veh/h	89	54	62	13
Vehicles Exiting, veh/h	21	53	50	54
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.3	3.4	3.6
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	23	13	45	97
Cap Entry Lane, veh/h	1260	1306	1295	1362
Entry HV Adj Factor	0.913	0.846	0.887	0.879
Flow Entry, veh/h	21	11	40	85
Cap Entry, veh/h	1151	1105	1148	1197
V/C Ratio	0.018	0.010	0.035	0.071
Control Delay, s/veh	3.3	3.3	3.4	3.6
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

HCM 6th TWSC  
12: East N/S Collector & North E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	0	2	8
Future Vol, veh/h	2	0	0	0	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	200
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	2	0	0	0	2	9

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2	2	11
Stage 1	2	-	-
Stage 2	0	-	-
Critical Hdwy	6.53	6.33	4.23
Critical Hdwy Stg 1	5.53	-	-
Critical Hdwy Stg 2	5.53	-	-
Follow-up Hdwy	3.617	3.417	2.317
Pot Cap-1 Maneuver	993	1051	1539
Stage 1	993	-	-
Stage 2	-	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	993	1051	1539
Mov Cap-2 Maneuver	993	-	-
Stage 1	993	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1539	-	993	-	-
HCM Lane V/C Ratio	-	-	0.002	-	-
HCM Control Delay (s)	0	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC  
13: West N/S Collector & Middle E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	0	1	15	0	7	2	11	27	13	10	5
Future Vol, veh/h	3	0	1	15	0	7	2	11	27	13	10	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	3	0	1	16	0	7	2	12	29	14	11	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	76	87	14	73	75	27	16	0	0	41	0	0
Stage 1	42	42	-	31	31	-	-	-	-	-	-	-
Stage 2	34	45	-	42	44	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	887	783	1035	891	795	1018	1533	-	-	1500	-	-
Stage 1	945	839	-	958	848	-	-	-	-	-	-	-
Stage 2	955	836	-	945	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	874	775	1035	883	787	1018	1533	-	-	1500	-	-
Mov Cap-2 Maneuver	874	775	-	883	787	-	-	-	-	-	-	-
Stage 1	944	831	-	957	847	-	-	-	-	-	-	-
Stage 2	947	835	-	935	829	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9		9		0.4		3.4	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1533	-	-	909	922	1500	-
HCM Lane V/C Ratio	0.001	-	-	0.005	0.025	0.009	-
HCM Control Delay (s)	7.4	-	-	9	9	7.4	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-









HCM 6th TWSC  
14: Middle N/S Collector & Middle E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵		↵	↵	
Traffic Vol, veh/h	3	0	0	5	0	2	0	35	9	3	33	6
Future Vol, veh/h	3	0	0	5	0	2	0	35	9	3	33	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	3	0	0	5	0	2	0	37	10	3	35	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	87	91	38	86	89	42	41	0	0	47	0	0
Stage 1	44	44	-	42	42	-	-	-	-	-	-	-
Stage 2	43	47	-	44	47	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.23	6.63	6.33	4.23	-	-	4.23	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.617	4.117	3.417	2.317	-	-	2.317	-	-
Pot Cap-1 Maneuver	873	779	1003	874	781	998	1500	-	-	1493	-	-
Stage 1	943	837	-	945	839	-	-	-	-	-	-	-
Stage 2	944	834	-	943	834	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	870	777	1003	872	779	998	1500	-	-	1493	-	-
Mov Cap-2 Maneuver	870	777	-	872	779	-	-	-	-	-	-	-
Stage 1	943	835	-	945	839	-	-	-	-	-	-	-
Stage 2	942	834	-	941	832	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.2		9			0			0.5			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1500	-	-	870	905	1493	-	-				
HCM Lane V/C Ratio	-	-	-	0.004	0.008	0.002	-	-				
HCM Control Delay (s)	0	-	-	9.2	9	7.4	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				











HCM 6th TWSC  
16: Monaghan Rd & South E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	197	53	97	334	87	49
Future Vol, veh/h	197	53	97	334	87	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	200	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	210	56	103	355	93	52
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	315	52	0	0	458	0
Stage 1	103	-	-	-	-	-
Stage 2	212	-	-	-	-	-
Critical Hdwy	7.06	7.16	-	-	4.36	-
Critical Hdwy Stg 1	6.06	-	-	-	-	-
Critical Hdwy Stg 2	6.06	-	-	-	-	-
Follow-up Hdwy	3.63	3.43	-	-	2.33	-
Pot Cap-1 Maneuver	624	970	-	-	1025	-
Stage 1	878	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	567	970	-	-	1025	-
Mov Cap-2 Maneuver	567	-	-	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	13.7	0	5.7			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 567 970	1025	-		
HCM Lane V/C Ratio	-	- 0.37 0.058	0.09	-		
HCM Control Delay (s)	-	- 15 8.9	8.9	-		
HCM Lane LOS	-	- C A	A	-		
HCM 95th %tile Q(veh)	-	- 1.7 0.2	0.3	-		

HCM 6th TWSC  
17: West N/S Collector & South E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	289	93	1	174	1	57	5	0	2	8	16
Future Vol, veh/h	34	289	93	1	174	1	57	5	0	2	8	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	36	307	99	1	185	1	61	5	0	2	9	17











Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	186	0	0	406	0	0	580	567	307	619	666	186
Stage 1	-	-	-	-	-	-	379	379	-	188	188	-
Stage 2	-	-	-	-	-	-	201	188	-	431	478	-
Critical Hdwy	4.23	-	-	4.23	-	-	7.23	6.63	6.33	7.23	6.63	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Follow-up Hdwy	2.317	-	-	2.317	-	-	3.617	4.117	3.417	3.617	4.117	3.417
Pot Cap-1 Maneuver	1325	-	-	1096	-	-	410	418	708	386	366	829
Stage 1	-	-	-	-	-	-	621	596	-	789	724	-
Stage 2	-	-	-	-	-	-	776	724	-	582	537	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1325	-	-	1096	-	-	386	406	708	374	356	829
Mov Cap-2 Maneuver	-	-	-	-	-	-	386	406	-	374	356	-
Stage 1	-	-	-	-	-	-	604	580	-	768	723	-
Stage 2	-	-	-	-	-	-	750	723	-	561	523	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	15.9	11.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	386	406	1325	-	-	1096	-	-	374	356	829
HCM Lane V/C Ratio	0.157	0.013	0.027	-	-	0.001	-	-	0.006	0.024	0.021
HCM Control Delay (s)	16.1	14	7.8	-	-	8.3	-	-	14.7	15.4	9.4
HCM Lane LOS	C	B	A	-	-	A	-	-	B	C	A
HCM 95th %tile Q(veh)	0.6	0	0.1	-	-	0	-	-	0	0.1	0.1










HCM 6th TWSC  
18: Middle N/S Collector & South E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	155	57	5	100	7	34	5	3	5	9	22
Future Vol, veh/h	39	155	57	5	100	7	34	5	3	5	9	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	41	165	61	5	106	7	36	5	3	5	10	23
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	113	0	0	226	0	0	383	370	165	402	428	110
Stage 1	-	-	-	-	-	-	247	247	-	120	120	-
Stage 2	-	-	-	-	-	-	136	123	-	282	308	-
Critical Hdwy	4.23	-	-	4.23	-	-	7.23	6.63	6.33	7.23	6.63	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Follow-up Hdwy	2.317	-	-	2.317	-	-	3.617	4.117	3.417	3.617	4.117	3.417
Pot Cap-1 Maneuver	1411	-	-	1280	-	-	556	543	852	540	503	914
Stage 1	-	-	-	-	-	-	733	682	-	858	776	-
Stage 2	-	-	-	-	-	-	842	773	-	702	641	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1411	-	-	1280	-	-	520	525	852	521	486	914
Mov Cap-2 Maneuver	-	-	-	-	-	-	520	525	-	521	486	-
Stage 1	-	-	-	-	-	-	712	662	-	833	773	-
Stage 2	-	-	-	-	-	-	807	770	-	674	622	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			0.3			12.1			10.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3	
Capacity (veh/h)	520	613	1411	-	-	1280	-	-	521	486	914	
HCM Lane V/C Ratio	0.07	0.014	0.029	-	-	0.004	-	-	0.01	0.02	0.026	
HCM Control Delay (s)	12.4	11	7.6	-	-	7.8	-	-	12	12.6	9	
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B	A	
HCM 95th %tile Q(veh)	0.2	0	0.1	-	-	0	-	-	0	0.1	0.1	







HCM 6th TWSC  
19: Hayesmount Rd & South E/W Collector

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	51	81	10	43	4	50	13	6	6	21	7
Future Vol, veh/h	6	51	81	10	43	4	50	13	6	6	21	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13	13	13	13	13	13	13
Mvmt Flow	6	54	86	11	46	4	53	14	6	6	22	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	50	0	0	140	0	0	151	138	54	189	222	48
Stage 1	-	-	-	-	-	-	66	66	-	70	70	-
Stage 2	-	-	-	-	-	-	85	72	-	119	152	-
Critical Hdwy	4.23	-	-	4.23	-	-	7.23	6.63	6.33	7.23	6.63	6.33
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.63	-	6.23	5.63	-
Follow-up Hdwy	2.317	-	-	2.317	-	-	3.617	4.117	3.417	3.617	4.117	3.417
Pot Cap-1 Maneuver	1489	-	-	1378	-	-	792	733	983	748	658	991
Stage 1	-	-	-	-	-	-	918	819	-	913	816	-
Stage 2	-	-	-	-	-	-	896	814	-	859	751	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1489	-	-	1378	-	-	759	724	983	726	650	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	759	724	-	726	650	-
Stage 1	-	-	-	-	-	-	914	816	-	909	809	-
Stage 2	-	-	-	-	-	-	858	807	-	836	748	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.3			10			10.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	759	790	1489	-	-	1378	-	-	726	711		
HCM Lane V/C Ratio	0.07	0.026	0.004	-	-	0.008	-	-	0.009	0.042		
HCM Control Delay (s)	10.1	9.7	7.4	-	-	7.6	-	-	10	10.3		
HCM Lane LOS	B	A	A	-	-	A	-	-	B	B		
HCM 95th %tile Q(veh)	0.2	0.1	0	-	-	0	-	-	0	0.1		

HCM 6th TWSC  
20: Hudson Rd & South E/W Collector









2050 Total Traffic  
AM Peak Hour

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	21	35	157	92	4
Future Vol, veh/h	2	21	35	157	92	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	13	13	13	13	13	13
Mvmt Flow	2	22	37	167	98	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	341	100	102	0	-	0
Stage 1	100	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.53	6.33	4.23	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.417	2.317	-	-	-
Pot Cap-1 Maneuver	633	926	1424	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	617	926	1424	-	-	-
Mov Cap-2 Maneuver	617	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.2	1.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1424	-	617	926	-	-
HCM Lane V/C Ratio	0.026	-	0.003	0.024	-	-
HCM Control Delay (s)	7.6	-	10.9	9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	0.1	-	-



HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

2050 Total Traffic  
AM Peak Hour

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	193	2	6	92	61	1	2	1	42	1	29
Future Vol, veh/h	27	193	2	6	92	61	1	2	1	42	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	405	-	400	405	-	378	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	31	219	2	7	105	69	1	2	1	48	1	33

























Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	174	0	0	221	0	0	452	469	219	403	402	105
Stage 1	-	-	-	-	-	-	281	281	-	119	119	-
Stage 2	-	-	-	-	-	-	171	188	-	284	283	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1361	-	-	1308	-	-	506	482	803	546	526	931
Stage 1	-	-	-	-	-	-	711	666	-	869	784	-
Stage 2	-	-	-	-	-	-	815	731	-	708	664	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1361	-	-	1308	-	-	477	469	803	532	511	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	477	469	-	532	511	-
Stage 1	-	-	-	-	-	-	695	651	-	849	780	-
Stage 2	-	-	-	-	-	-	781	727	-	688	649	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			11.9			11.4		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	526	1361	-	-	1308	-	-	643
HCM Lane V/C Ratio	0.009	0.023	-	-	0.005	-	-	0.127
HCM Control Delay (s)	11.9	7.7	-	-	7.8	-	-	11.4
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.4

Timings  
1: Monaghan Rd & E 26th Ave

2050 Total Traffic  
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	273	90	176	141	150	231	523	165	253	227	181
Future Volume (vph)	67	273	90	176	141	150	231	523	165	253	227	181
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
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)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	20.0
Total Split (s)	12.0	30.0	30.0	12.0	30.0	30.0	12.0	36.0	36.0	12.0	36.0	36.0
Total Split (%)	13.3%	33.3%	33.3%	13.3%	33.3%	33.3%	13.3%	40.0%	40.0%	13.3%	40.0%	40.0%
Yellow Time (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
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Act Effect Green (s)	18.4	11.8	11.8	19.9	14.3	14.3	38.0	31.0	31.0	38.0	31.0	31.0
Actuated g/C Ratio	0.24	0.15	0.15	0.26	0.19	0.19	0.49	0.40	0.40	0.49	0.40	0.40
v/c Ratio	0.21	0.55	0.27	0.62	0.23	0.38	0.41	0.40	0.24	0.61	0.17	0.26
Control Delay	20.6	34.0	3.8	31.1	28.9	8.1	12.1	17.7	3.7	17.3	15.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	34.0	3.8	31.1	28.9	8.1	12.1	17.7	3.7	17.3	15.6	3.7
LOS	C	C	A	C	C	A	B	B	A	B	B	A
Approach Delay		25.6			23.0			13.8			13.0	
Approach LOS		C			C			B			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 76.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 17.4









Intersection LOS: B

Intersection Capacity Utilization 62.4%

ICU Level of Service B

Analysis Period (min) 15

























Splits and Phases: 1: Monaghan Rd & E 26th Ave

			
Ø1	Ø2	Ø3	Ø4
12 s	36 s	12 s	30 s
			
Ø5	Ø6	Ø7	Ø8
12 s	36 s	12 s	30 s

# HCM 6th Signalized Intersection Summary













## 1: Monaghan Rd & E 26th Ave

2050 Total Traffic  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	273	90	176	141	150	231	523	165	253	227	181
Future Volume (veh/h)	67	273	90	176	141	150	231	523	165	253	227	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	71	290	96	187	150	160	246	556	176	269	241	193
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	323	452	202	310	600	267	610	1452	648	478	1452	648
Arrive On Green	0.05	0.13	0.13	0.09	0.17	0.17	0.09	0.42	0.42	0.09	0.42	0.42
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	71	290	96	187	150	160	246	556	176	269	241	193
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	2.6	5.9	4.3	6.9	2.8	7.1	6.0	8.3	5.6	6.6	3.2	6.2
Cycle Q Clear(g_c), s	2.6	5.9	4.3	6.9	2.8	7.1	6.0	8.3	5.6	6.6	3.2	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	452	202	310	600	267	610	1452	648	478	1452	648
V/C Ratio(X)	0.22	0.64	0.48	0.60	0.25	0.60	0.40	0.38	0.27	0.56	0.17	0.30
Avail Cap(c_a), veh/h	397	1171	522	310	1171	522	610	1452	648	478	1452	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	30.9	30.2	25.4	26.8	28.6	10.6	15.2	14.4	11.4	13.7	14.6
Incr Delay (d2), s/veh	0.3	1.5	1.7	3.2	0.2	2.1	0.4	0.8	1.0	1.5	0.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.4	1.6	2.9	1.1	2.6	2.0	3.0	1.9	2.3	1.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	32.4	31.9	28.6	27.0	30.7	11.0	15.9	15.4	12.9	14.0	15.7
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h	457		497			978			703			
Approach Delay, s/veh	31.4		28.8			14.6			14.0			
Approach LOS	C		C			B			B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	36.0	12.0	14.7	12.0	36.0	8.9	17.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	31.0	7.0	25.0	7.0	31.0	7.0	25.0				
Max Q Clear Time (g_c+I1), s	8.6	10.3	8.9	7.9	8.0	8.2	4.6	9.1				
Green Ext Time (p_c), s	0.0	3.9	0.0	1.8	0.0	2.0	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

HCM 6th TWSC  
2: West N/S Collector & E 26th Ave

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	666	18	0	327	0	132	0	8	0	0	7
Future Vol, veh/h	6	666	18	0	327	0	132	0	8	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	6	709	19	0	348	0	140	0	9	0	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	348	0	0	728	0	0	895	1069	355	715	1088	174
Stage 1	-	-	-	-	-	-	721	721	-	348	348	-
Stage 2	-	-	-	-	-	-	174	348	-	367	740	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.58	6.58	6.98	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.54	4.04	3.34	3.54	4.04	3.34
Pot Cap-1 Maneuver	1193	-	-	858	-	-	232	217	636	314	211	833
Stage 1	-	-	-	-	-	-	380	425	-	636	628	-
Stage 2	-	-	-	-	-	-	805	628	-	619	417	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1193	-	-	858	-	-	229	216	636	309	210	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	229	216	-	309	210	-
Stage 1	-	-	-	-	-	-	378	423	-	633	628	-
Stage 2	-	-	-	-	-	-	798	628	-	608	415	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	41	9.4
HCM LOS			E	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	229	636	1193	-	-	858	-	-	-	833
HCM Lane V/C Ratio	0.613	0.013	0.005	-	-	-	-	-	-	0.009
HCM Control Delay (s)	42.8	10.7	8	-	-	0	-	-	0	9.4
HCM Lane LOS	E	B	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	3.6	0	0	-	-	0	-	-	-	0

HCM 6th TWSC  
3: West Right-in/Right-out Site Access & E 26th Ave

2050 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	536	139	0	327	0	31
Future Vol, veh/h	536	139	0	327	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	570	148	0	348	0	33










Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	285
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.98
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.34
Pot Cap-1 Maneuver	-	-	0	-	706
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	706
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	706	-	-	-
HCM Lane V/C Ratio	0.047	-	-	-
HCM Control Delay (s)	10.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

HCM 6th TWSC  
4: Middle N/S Collector & E 26th Ave

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	408	149	76	144	2	172	0	87	2	0	12
Future Vol, veh/h	11	408	149	76	144	2	172	0	87	2	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	434	159	81	153	2	183	0	93	2	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	593	0	0	697	775	217	557	933	78
Stage 1	-	-	-	-	-	-	458	458	-	316	316	-
Stage 2	-	-	-	-	-	-	239	317	-	241	617	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.58	6.58	6.98	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.54	4.04	3.34	3.54	4.04	3.34
Pot Cap-1 Maneuver	1408	-	-	965	-	-	324	324	781	409	261	960
Stage 1	-	-	-	-	-	-	547	560	-	664	649	-
Stage 2	-	-	-	-	-	-	737	648	-	735	475	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1408	-	-	965	-	-	297	294	781	335	237	960
Mov Cap-2 Maneuver	-	-	-	-	-	-	297	294	-	335	237	-
Stage 1	-	-	-	-	-	-	542	555	-	658	594	-
Stage 2	-	-	-	-	-	-	666	594	-	642	471	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			3.1			26.5			9.8		
HCM LOS							D			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	297	781	1408	-	-	965	-	-	335	960
HCM Lane V/C Ratio	0.616	0.119	0.008	-	-	0.084	-	-	0.006	0.013
HCM Control Delay (s)	34.8	10.2	7.6	-	-	9.1	-	-	15.8	8.8
HCM Lane LOS	D	B	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	3.8	0.4	0	-	-	0.3	-	-	0	0



HCM 6th TWSC  
5: East N/S Collector & E 26th Ave

2050 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Vol, veh/h	477	20	0	222	0	10
Future Vol, veh/h	477	20	0	222	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	507	21	0	236	0	11









Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 254
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.98
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.34
Pot Cap-1 Maneuver	-	-	0 - 0 739
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 739
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	739	-	-	-
HCM Lane V/C Ratio	0.014	-	-	-
HCM Control Delay (s)	9.9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM 6th TWSC  
6: Hayesmount Rd & E 26th Ave

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	448	16	2	181	2	16	11	2	2	9	24
Future Vol, veh/h	24	448	16	2	181	2	16	11	2	2	9	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	26	477	17	2	193	2	17	12	2	2	10	26









Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	195	0	0	494	0	0	644	737	247	495	744	98
Stage 1	-	-	-	-	-	-	538	538	-	198	198	-
Stage 2	-	-	-	-	-	-	106	199	-	297	546	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.58	6.58	6.98	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.54	4.04	3.34	3.54	4.04	3.34
Pot Cap-1 Maneuver	1361	-	-	1052	-	-	354	341	747	453	337	932
Stage 1	-	-	-	-	-	-	490	516	-	779	731	-
Stage 2	-	-	-	-	-	-	882	730	-	681	511	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1361	-	-	1052	-	-	331	334	747	433	330	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	334	-	433	330	-
Stage 1	-	-	-	-	-	-	481	506	-	764	730	-
Stage 2	-	-	-	-	-	-	845	729	-	651	501	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			16			11.2		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	331	365	1361	-	-	1052	-	-	433	622
HCM Lane V/C Ratio	0.051	0.038	0.019	-	-	0.002	-	-	0.005	0.056
HCM Control Delay (s)	16.5	15.3	7.7	-	-	8.4	-	-	13.4	11.1
HCM Lane LOS	C	C	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0.1	0.1	-	-	0	-	-	0	0.2

HCM 6th TWSC  
7: Future Collector & E 26th Ave

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	437	5	1	168	2	6	0	1	2	0	12
Future Vol, veh/h	11	437	5	1	168	2	6	0	1	2	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	12	465	5	1	179	2	6	0	1	2	0	13










Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	181	0	0	470	0	0	584	675	235	439	676	91
Stage 1	-	-	-	-	-	-	492	492	-	182	182	-
Stage 2	-	-	-	-	-	-	92	183	-	257	494	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.58	6.58	6.98	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.54	4.04	3.34	3.54	4.04	3.34
Pot Cap-1 Maneuver	1377	-	-	1074	-	-	391	370	761	497	370	942
Stage 1	-	-	-	-	-	-	522	541	-	796	743	-
Stage 2	-	-	-	-	-	-	899	742	-	719	540	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1377	-	-	1074	-	-	383	366	761	493	366	942
Mov Cap-2 Maneuver	-	-	-	-	-	-	383	366	-	493	366	-
Stage 1	-	-	-	-	-	-	517	536	-	789	742	-
Stage 2	-	-	-	-	-	-	886	741	-	712	535	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	13.9	9.4
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	383	761	1377	-	-	1074	-	-	493	942
HCM Lane V/C Ratio	0.017	0.001	0.008	-	-	0.001	-	-	0.004	0.014
HCM Control Delay (s)	14.6	9.7	7.6	-	-	8.4	-	-	12.3	8.9
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.1	0	0	-	-	0	-	-	0	0

HCM 6th TWSC  
8: Hudson Rd & E 26th Ave

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	273	135	4	96	38	43	13	1	94	11	31
Future Vol, veh/h	31	273	135	4	96	38	43	13	1	94	11	31
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	33	290	144	4	102	40	46	14	1	100	12	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	142	0	0	434	0	0	421	506	145	348	630	71
Stage 1	-	-	-	-	-	-	356	356	-	130	130	-
Stage 2	-	-	-	-	-	-	65	150	-	218	500	-
Critical Hdwy	4.18	-	-	4.18	-	-	7.58	6.58	6.98	7.58	6.58	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.58	-	6.58	5.58	-
Follow-up Hdwy	2.24	-	-	2.24	-	-	3.54	4.04	3.34	3.54	4.04	3.34
Pot Cap-1 Maneuver	1424	-	-	1108	-	-	512	463	870	577	393	971
Stage 1	-	-	-	-	-	-	629	623	-	854	783	-
Stage 2	-	-	-	-	-	-	932	767	-	759	536	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1424	-	-	1108	-	-	473	450	870	552	382	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	473	450	-	552	382	-
Stage 1	-	-	-	-	-	-	615	609	-	834	780	-
Stage 2	-	-	-	-	-	-	884	764	-	724	524	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	13.3	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	473	466	1424	-	-	1108	-	-	552	692
HCM Lane V/C Ratio	0.097	0.032	0.023	-	-	0.004	-	-	0.181	0.065
HCM Control Delay (s)	13.4	13	7.6	-	-	8.3	-	-	13	10.6
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.3	0.1	0.1	-	-	0	-	-	0.7	0.2

HCM 6th TWSC  
9: Middle N/S Collector & PA-1 Right-in/Right-out access

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↗	↗		↗	↗
Traffic Vol, veh/h	0	0	13	0	0	89	0	170	11	0	158	67
Future Vol, veh/h	0	0	13	0	0	89	0	170	11	0	158	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	200	-	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	0	14	0	0	95	0	181	12	0	168	71
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	168	-	-	181	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.24	-	-	6.24	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.336	-	-	3.336	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	871	0	0	857	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	871	-	-	857	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.2		9.7		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBT		NBR		EBLn1WBLn1		SBT		SBR			
Capacity (veh/h)	-		-		871		857		-		-	
HCM Lane V/C Ratio	-		-		0.016		0.11		-		-	
HCM Control Delay (s)	-		-		9.2		9.7		-		-	
HCM Lane LOS	-		-		A		A		-		-	
HCM 95th %tile Q(veh)	-		-		0		0.4		-		-	

HCM 6th TWSC  
10: West N/S Collector & North E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	6.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗	↗		↗
Traffic Vol, veh/h	0	119	22	14	0	19
Future Vol, veh/h	0	119	22	14	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	200	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	0	127	23	15	0	20
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	23	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.24	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.336	-	-	-	-
Pot Cap-1 Maneuver	0	1048	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1048	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.9	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	- 1048	-			
HCM Lane V/C Ratio	-	- 0.121	-			
HCM Control Delay (s)	-	- 8.9	-			
HCM Lane LOS	-	- A	-			
HCM 95th %tile Q(veh)	-	- 0.4	-			



HCM 6th Roundabout  
11: Middle N/S Collector & North E/W Collector

2050 Total Traffic  
PM Peak Hour






Intersection				
Intersection Delay, s/veh	4.1			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	152	67	82	182
Demand Flow Rate, veh/h	158	70	86	189
Vehicles Circulating, veh/h	153	193	204	63
Vehicles Exiting, veh/h	99	97	107	200
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.3	3.8	4.0	4.1
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	158	70	86	189
Cap Entry Lane, veh/h	1180	1133	1121	1294
Entry HV Adj Factor	0.962	0.957	0.958	0.961
Flow Entry, veh/h	152	67	82	182
Cap Entry, veh/h	1136	1085	1074	1243
V/C Ratio	0.134	0.062	0.077	0.146
Control Delay, s/veh	4.3	3.8	4.0	4.1
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	1

HCM 6th TWSC  
12: East N/S Collector & North E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection

Int Delay, s/veh 3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	0	0	0	1	18
Future Vol, veh/h	10	0	0	0	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	200
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	11	0	0	0	1	19







Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1	1	20
Stage 1	1	-	-
Stage 2	0	-	-
Critical Hdwy	6.44	6.24	4.14
Critical Hdwy Stg 1	5.44	-	-
Critical Hdwy Stg 2	5.44	-	-
Follow-up Hdwy	3.536	3.336	2.236
Pot Cap-1 Maneuver	1017	1078	1583
Stage 1	1017	-	-
Stage 2	-	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	1017	1078	1583
Mov Cap-2 Maneuver	1017	-	-
Stage 1	1017	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1583	-	1017	-	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	0	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC  
13: West N/S Collector & Middle E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	1	21	0	10	1	22	18	8	7	4
Future Vol, veh/h	4	0	1	21	0	10	1	22	18	8	7	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	4	0	1	22	0	11	1	23	19	9	7	4
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	67	71	9	63	64	33	11	0	0	42	0	0
Stage 1	27	27	-	35	35	-	-	-	-	-	-	-
Stage 2	40	44	-	28	29	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	921	816	1067	927	823	1035	1595	-	-	1554	-	-
Stage 1	985	869	-	976	862	-	-	-	-	-	-	-
Stage 2	970	854	-	984	867	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	907	810	1067	921	817	1035	1595	-	-	1554	-	-
Mov Cap-2 Maneuver	907	810	-	921	817	-	-	-	-	-	-	-
Stage 1	984	864	-	975	861	-	-	-	-	-	-	-
Stage 2	959	853	-	977	862	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		8.9			0.2			3.1			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1595	-	-	935	955	1554	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.006	0.035	0.005	-	-				
HCM Control Delay (s)	7.3	-	-	8.9	8.9	7.3	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

HCM 6th TWSC  
14: Middle N/S Collector & Middle E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	4	0	0	7	0	2	0	70	7	2	92	4
Future Vol, veh/h	4	0	0	7	0	2	0	70	7	2	92	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	4	0	0	7	0	2	0	74	7	2	98	4







Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	183	185	100	182	184	78	102	0	0	81	0	0
Stage 1	104	104	-	78	78	-	-	-	-	-	-	-
Stage 2	79	81	-	104	106	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.14	6.54	6.24	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.536	4.036	3.336	2.236	-	-	2.236	-	-
Pot Cap-1 Maneuver	774	706	950	775	707	977	1478	-	-	1504	-	-
Stage 1	897	805	-	926	826	-	-	-	-	-	-	-
Stage 2	925	824	-	897	804	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	772	705	950	774	706	977	1478	-	-	1504	-	-
Mov Cap-2 Maneuver	772	705	-	774	706	-	-	-	-	-	-	-
Stage 1	897	804	-	926	826	-	-	-	-	-	-	-
Stage 2	923	824	-	896	803	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.7		9.5		0		0.2	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	772	811	1504	-
HCM Lane V/C Ratio	-	-	-	0.006	0.012	0.001	-
HCM Control Delay (s)	0	-	-	9.7	9.5	7.4	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC  
16: Monaghan Rd & South E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	7.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	315	69	150	283	63	171
Future Vol, veh/h	315	69	150	283	63	171
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	200	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	335	73	160	301	67	182











Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	385	80	0
Stage 1	160	-	-
Stage 2	225	-	-
Critical Hdwy	6.88	6.98	-
Critical Hdwy Stg 1	5.88	-	-
Critical Hdwy Stg 2	5.88	-	-
Follow-up Hdwy	3.54	3.34	-
Pot Cap-1 Maneuver	585	958	-
Stage 1	846	-	-
Stage 2	785	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	549	958	-
Mov Cap-2 Maneuver	549	-	-
Stage 1	846	-	-
Stage 2	736	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	2.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	549	958
HCM Lane V/C Ratio	-	-	0.61	0.077
HCM Control Delay (s)	-	-	21.3	9.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2

HCM 6th TWSC  
17: West N/S Collector & South E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	240	69	0	284	2	75	6	1	2	5	22
Future Vol, veh/h	33	240	69	0	284	2	75	6	1	2	5	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	35	255	73	0	302	2	80	6	1	2	5	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	304	0	0	328	0	0	642	629	255	668	701	303
Stage 1	-	-	-	-	-	-	325	325	-	303	303	-
Stage 2	-	-	-	-	-	-	317	304	-	365	398	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1246	-	-	1220	-	-	384	397	779	369	360	732
Stage 1	-	-	-	-	-	-	683	645	-	702	660	-
Stage 2	-	-	-	-	-	-	690	659	-	650	599	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1220	-	-	359	386	779	356	350	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	386	-	356	350	-
Stage 1	-	-	-	-	-	-	664	627	-	682	660	-
Stage 2	-	-	-	-	-	-	663	659	-	624	582	-











Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0	17.5	11.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	359	416	1246	-	-	1220	-	-	356	350	732
HCM Lane V/C Ratio	0.222	0.018	0.028	-	-	-	-	-	0.006	0.015	0.032
HCM Control Delay (s)	17.9	13.8	8	-	-	0	-	-	15.2	15.4	10.1
HCM Lane LOS	C	B	A	-	-	A	-	-	C	C	B
HCM 95th %tile Q(veh)	0.8	0.1	0.1	-	-	0	-	-	0	0	0.1



HCM 6th TWSC  
18: Middle N/S Collector & South E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	118	38	3	126	12	46	7	4	13	6	84
Future Vol, veh/h	60	118	38	3	126	12	46	7	4	13	6	84
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	64	126	40	3	134	13	49	7	4	14	6	89










Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	166	0	0	448	407	126	427	441	141
Stage 1	-	-	-	-	-	-	254	254	-	147	147	-
Stage 2	-	-	-	-	-	-	194	153	-	280	294	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1423	-	-	1400	-	-	518	530	919	534	507	902
Stage 1	-	-	-	-	-	-	746	693	-	851	772	-
Stage 2	-	-	-	-	-	-	803	767	-	722	666	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1423	-	-	1400	-	-	445	505	919	507	483	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	445	505	-	507	483	-
Stage 1	-	-	-	-	-	-	712	662	-	813	770	-
Stage 2	-	-	-	-	-	-	716	765	-	679	636	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.1			0.2			13.5			10		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	445	604	1423	-	-	1400	-	-	507	483	902
HCM Lane V/C Ratio	0.11	0.019	0.045	-	-	0.002	-	-	0.027	0.013	0.099
HCM Control Delay (s)	14.1	11.1	7.6	-	-	7.6	-	-	12.3	12.6	9.4
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B	A
HCM 95th %tile Q(veh)	0.4	0.1	0.1	-	-	0	-	-	0.1	0	0.3

HCM 6th TWSC  
19: Hayesmount Rd & South E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	53	61	7	52	5	65	17	8	5	16	6
Future Vol, veh/h	7	53	61	7	52	5	65	17	8	5	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	200	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	7	56	65	7	55	5	69	18	9	5	17	6







Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	121	0	0	153	144	56	188	207	58
Stage 1	-	-	-	-	-	-	70	70	-	72	72	-
Stage 2	-	-	-	-	-	-	83	74	-	116	135	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.14	6.54	6.24	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.54	-	6.14	5.54	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.536	4.036	3.336	3.536	4.036	3.336
Pot Cap-1 Maneuver	1531	-	-	1454	-	-	810	744	1005	768	686	1002
Stage 1	-	-	-	-	-	-	935	833	-	933	831	-
Stage 2	-	-	-	-	-	-	920	829	-	884	781	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1531	-	-	1454	-	-	784	737	1005	742	679	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	784	737	-	742	679	-
Stage 1	-	-	-	-	-	-	930	829	-	928	827	-
Stage 2	-	-	-	-	-	-	891	825	-	853	777	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.8			9.9			10		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	784	806	1531	-	-	1454	-	-	742	744
HCM Lane V/C Ratio	0.088	0.033	0.005	-	-	0.005	-	-	0.007	0.031
HCM Control Delay (s)	10	9.6	7.4	-	-	7.5	-	-	9.9	10
HCM Lane LOS	B	A	A	-	-	A	-	-	A	B
HCM 95th %tile Q(veh)	0.3	0.1	0	-	-	0	-	-	0	0.1









HCM 6th TWSC  
20: Hudson Rd & South E/W Collector

2050 Total Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	35	32	54	147	3
Future Vol, veh/h	3	35	32	54	147	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	3	37	34	57	156	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	283	158	159	0	-	0
Stage 1	158	-	-	-	-	-
Stage 2	125	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.14	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.236	-	-	-
Pot Cap-1 Maneuver	703	882	1408	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	686	882	1408	-	-	-
Mov Cap-2 Maneuver	686	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.4	2.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1408	-	686	882	-	-
HCM Lane V/C Ratio	0.024	-	0.005	0.042	-	-
HCM Control Delay (s)	7.6	-	10.3	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	0.1	-	-

HCM 6th TWSC  
104: Hudson Road & E. Colfax Avenue (CO-36)

2050 Total Traffic  
PM Peak Hour

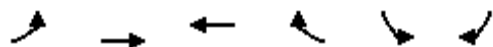
Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	93	4	1	49	43	3	1	5	73	2	20
Future Vol, veh/h	20	93	4	1	49	43	3	1	5	73	2	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	405	-	400	405	-	378	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	23	106	5	1	56	49	3	1	6	83	2	23
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	111	0	0	247	259	106	216	215	56
Stage 1	-	-	-	-	-	-	152	152	-	58	58	-
Stage 2	-	-	-	-	-	-	95	107	-	158	157	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1444	-	-	1436	-	-	692	634	930	726	671	991
Stage 1	-	-	-	-	-	-	834	758	-	936	833	-
Stage 2	-	-	-	-	-	-	895	793	-	828	755	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1444	-	-	1436	-	-	666	623	930	711	660	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	623	-	711	660	-
Stage 1	-	-	-	-	-	-	821	746	-	921	832	-
Stage 2	-	-	-	-	-	-	871	792	-	809	743	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.1			9.7			10.6		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	784	1444	-	-	1436	-	-	755				
HCM Lane V/C Ratio	0.013	0.016	-	-	0.001	-	-	0.143				
HCM Control Delay (s)	9.7	7.5	-	-	7.5	-	-	10.6				
HCM Lane LOS	A	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.5				

## Queues

1: E 26th Ave &amp; Monaghan Rd

2030 Total Traffic

AM Peak Hour



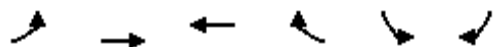
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	112	437	273	145	188	32
v/c Ratio	0.21	0.50	0.53	0.27	0.49	0.09
Control Delay	6.7	9.3	19.7	4.8	22.6	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	9.3	19.7	4.8	22.6	8.0
Queue Length 50th (ft)	13	62	64	0	46	0
Queue Length 95th (ft)	37	148	146	33	115	18
Internal Link Dist (ft)		507	2602		389	
Turn Bay Length (ft)	200			200	200	200
Base Capacity (vph)	572	1618	1380	1198	923	840
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.27	0.20	0.12	0.20	0.04
Intersection Summary						

## Queues

## 1: E 26th Ave &amp; Monaghan Rd

2030 Total Traffic

PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	37	527	543	215	264	106
v/c Ratio	0.09	0.57	0.68	0.27	0.54	0.21
Control Delay	7.1	11.6	18.8	3.2	25.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	11.6	18.8	3.2	25.1	6.6
Queue Length 50th (ft)	5	98	102	0	62	0
Queue Length 95th (ft)	19	221	339	37	202	37
Internal Link Dist (ft)		507	2602		389	
Turn Bay Length (ft)	200			200	200	200
Base Capacity (vph)	498	1606	1394	1236	931	882
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.33	0.39	0.17	0.28	0.12
Intersection Summary						















## Queues

## 1: Monaghan Rd &amp; E 26th Ave

2050 Total Traffic

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	200	183	262	62	227	138	77	227	110	132	451	57
v/c Ratio	0.69	0.27	0.52	0.21	0.50	0.42	0.16	0.17	0.16	0.23	0.32	0.08
Control Delay	36.6	28.3	8.3	21.1	33.7	9.3	9.2	15.2	2.2	9.7	15.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	28.3	8.3	21.1	33.7	9.3	9.2	15.2	2.2	9.7	15.9	0.2
Queue Length 50th (ft)	75	42	0	21	52	0	15	34	0	27	74	0
Queue Length 95th (ft)	#145	71	62	48	85	42	38	62	18	59	120	0
Internal Link Dist (ft)	507			2602			1354			389		
Turn Bay Length (ft)	200		200	200		200	200		200	200		200
Base Capacity (vph)	290	1055	647	300	1055	569	481	1309	671	564	1413	713
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.17	0.40	0.21	0.22	0.24	0.16	0.17	0.16	0.23	0.32	0.08

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.













Queue shown is maximum after two cycles.

## Queues

## 1: Monaghan Rd &amp; E 26th Ave

2050 Total Traffic

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	290	96	187	150	160	246	556	176	269	241	193
v/c Ratio	0.21	0.55	0.27	0.62	0.23	0.38	0.41	0.40	0.24	0.61	0.17	0.26
Control Delay	20.6	34.0	3.8	31.1	28.9	8.1	12.1	17.7	3.7	17.3	15.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	34.0	3.8	31.1	28.9	8.1	12.1	17.7	3.7	17.3	15.6	3.7
Queue Length 50th (ft)	24	68	0	68	33	0	55	95	0	61	37	0
Queue Length 95th (ft)	53	105	16	120	59	48	106	149	38	117	66	39
Internal Link Dist (ft)	507			2602			1354			389		
Turn Bay Length (ft)	200		200	200		200	200		200	200		200
Base Capacity (vph)	342	1130	603	303	1130	613	602	1401	731	442	1401	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.26	0.16	0.62	0.13	0.26	0.41	0.40	0.24	0.61	0.17	0.26
Intersection Summary												

# Appendix A

## Trip Generation Rate Estimate

### Land Use: General Outdoor Storage Yard

(by LSC 11-15-2023)

LSC estimates of trip-generation rates for a “General Outdoor Storage Yard” land use for this project have been based on data collected at similar sites in Colorado Springs and Arapahoe County, CO.

A “General Outdoor Storage Yard” land use is a commercial business which provides leasable outdoor spaces for businesses, including construction and industrial businesses, contractors, and others needing space store and vehicles, equipment, large machinery, materials, etc. The tenants are commonly, but not limited to, maintenance contractors, design-build contractors, and other contractors needing properly zoned storage space. The intent is to provide separate leasable spaces for several tenants, rather than for a single tenant.

Generally, this use does not include permanent buildings such as offices, warehouses or maintenance shops, although one of the sites counted did have a building on the site. As permanent buildings are not typically included, the independent/predictor variable used is “Acres.”

The businesses may offer 24-hour access with a gate and access keypad.

This use is similar to mini warehouse/self-storage but is primarily outdoor storage space for businesses and contractors, generally without permanent buildings. The use is also similar to outdoor RV/Boat storage and some of the sites surveyed allow for lease of space for RVs and boats and appear to provide vehicle parking spaces. However, this use allows for storage of materials and equipment other than or in addition to vehicles/trailers and has fenced off yard areas for storage in addition to vehicle/trailer parking spaces and is primarily intended for lease by contractors.

The data and average trip-generation rates are summarized in the following table:

Land Use		Survey Location	Value	Units <sup>1</sup>	Driveway Trips Counted <sup>1</sup>						Calculated Trip Generation Rates				
ITE Code					A.M. Peak Hour		P.M. Peak Hour		Weekday	A.M. Peak Hour		P.M. Peak Hour			
					In	Out	In	Out		In	Out	In	Out		
N/A	General Outdoor Storage	Site No. 1 - Colorado Springs, CO	8.7	Acres	350	27	21	11	11	40.28	3.11	2.42	1.27	1.27	
N/A	General Outdoor Storage	Site No. 2 - Arapahoe County, CO	9.8	Acres	517	13	10	45	28	52.76	1.33	1.02	4.59	2.86	
N/A	General Outdoor Storage	Site No. 3 - Arapahoe County, CO	5.5	Acres	110	9	3	4	6	20.00	1.64	0.55	0.73	1.09	
						Average				37.68	2.02	1.33	2.19	1.74	

<sup>1</sup>Source: local entering and exiting count data at contractor storage yards in Colorado Springs, CO and Arapahoe County, CO in October and November 2023

<sup>1</sup> Source: local entering and exiting count data at contractor storage yards in Colorado Springs, CO and Arapahoe County, CO in October and November 2023

LSC estimates of trip-generation rates shown in the table above have been used to estimate the trip generation for the General Outdoor Storage land use for this project.



August 30, 2024

Mr. Chris Fellows  
Blue Eagle Metropolitan District No. 1  
9155 E. Nichols Avenue, Suite 360  
Centennial, CO 80012

2024-09-30 (DJK) reviewed, comments include:  
- Hudson Rd and other interchanges associated with access to site clarity needed (per 6/14/24 discussion)  
- provide clearer site distribution values and access locations from I-70 (Fig 6a)  
- Recommendation tables, several intersections with only 'Others' recommended but high site volumes

Responses by Chris McGranahan  
LSC Transportation Consultants, Inc.  
November 7, 2024

Re: Blue Eagle Technology Park  
Traffic Impact Analysis  
Aurora, CO  
LSC #230650

Dear Mr. Fellows:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated traffic impact analysis for the proposed Blue Eagle Technology Park to address City comments. As shown on Figure 1, the site is located south of E. 26<sup>th</sup> Avenue and east of Monaghan Road in Aurora, Colorado.

## REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts or the impacts from growth in background traffic.

## LAND USE AND ACCESS

The site is proposed to include 30.06 acres for commercial uses, 351.91 acres for industrial uses, and 2.0 acres for a fire station. This report assumes Planning Area 1 will be developed with about 288,000 square feet of commercial floor space, Planning Areas 2, 3, and 4 will be developed with 4,259,000 square feet of floor space that will be used for a mix of warehouse logistics and data center uses and a fire station, and Planning Area 6 will be used for outdoor storage. Planning Area 5 is planned as open space. Figure 2a shows the proposed land use map. Access is proposed from multiple locations as shown in the circulation plan in Figure 2b. The existing at-grade rail road crossing just west of the Hayesmount Road alignment provides access to an existing home that will be removed - the existing access is not planned to be used as either a public or emergency access for the site.

# Summary of Comments on 2024-09-30 Traffic Report Redlines With LSC Response-110724.pdf

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Page: 1

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 Number: 1      Author: djkaiser      Subject: Text Box      Date: 9/30/2024 12:37:42 PM -06'00'

---

2024-09-30 (DJK) reviewed, comments include:- Hudson Rd and other interchanges associated with access to site clarity needed (per 6/14/24 discussion)- provide clearer site distribution values and access locations from I-70 (Fig 6a)- Recommendation tables, several intersections with only 'Others' recommended but high site volumes

 Number: 2      Author: lsc      Subject: Text Box      Date: 11/7/2024 2:37:40 PM

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Responses by Chris McGranahan  
LSC Transportation Consultants, Inc.  
November 7, 2024

## ROADWAY AND TRAFFIC CONDITIONS

### Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **E. 26<sup>th</sup> Avenue** is an east-west, two-lane paved road north of the proposed site. The posted speed limit is 45 mph. The City of Aurora NEATS reports shows E. 26<sup>th</sup> Avenue as a future four-lane Minor Arterial by 2040.
- **Monaghan Road** is a north-south, two-lane paved road west of the proposed site. The posted speed limit is 45 mph in the vicinity of the site. The City of Aurora NEATS report shows Monaghan Road as four-lane Major Arterial from E. Jewell Avenue to E. 26<sup>th</sup> Avenue and as a future four-lane Minor Arterial from E. 26<sup>th</sup> Avenue to E. 64<sup>th</sup> Avenue. The City of Aurora NEATS report shows a new grade-separated interchange at I-70 and Monaghan Road by 2040. This report assumes the north half of the grade-separated interchange at I-70 and Monaghan Road will **not** be constructed by the buildout year (2030) but will be in place by 2050.
- **Hayesmount Road** is a planned four-lane, minor arterial in the vicinity of the site between Monaghan Road and Hudson Road. The City of Aurora NEATS report shows Hayesmount Road extended north from E. Jewell Avenue across I-70 and over the U.P.R.R. railroad tracks as an overpass/flyover and extending north to E. 26<sup>th</sup> Avenue. <sup>1</sup> Per discussion with City staff, the applicant has agreed to reserve an easement or the geometry for a future overpass/flyover, however, this report assumes the overpass will **not** be constructed by 2050. Per those same discussions with City staff the applicant will not be financially responsible for the overpass/flyover, beyond reservation of the geometry for same. See the Recommendation and Conclusion section below for additional support for not including the overpass/flyover in the long term (2050) scenario.
- **Hudson Road** is a north-south, two-lane paved road east of the proposed site. The posted speed limit is 45 mph. The City of Aurora NEATS report shows future Hudson Road as a two-lane Minor Arterial. <sup>2</sup>

### Existing Traffic Conditions

Figure 3a shows the existing traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in June and August, 2023. Figure 3b shows the existing lane geometries, traffic controls, and posted speed limits in the vicinity of the site.

### Background Traffic

Figure 4a shows the estimated 2030 background traffic volumes. The 2030 background traffic volumes are based on the existing traffic volumes shown in Figure 3a with a three percent growth rate per year applied. The 2030 background traffic volumes assume Monaghan Road and Hayesmount Road have not been constructed between I-70 and E. 26<sup>th</sup> Avenue and

Per 6/14/24 discussion, Watkins Rd to the east of Hudson was to also be considered since it has an interchange with I-70

Additionally, from 6/14/24 conversation, thought that Picadilly was also to be considered due to its connection to I-70 as well <sup>3</sup>

---

 Number: 1      Author: djkaiser      Subject: Highlight      Date: 9/27/2024 9:37:18 AM -06'00'

---

Per discussion with

City staff, the applicant has agreed to reserve an easement or the geometry for a future overpass/flyover, however, this report assumes the overpass will not be constructed by 2050. Per those same discussions with City staff the applicant will not be financially responsible for the overpass/flyover, beyond reservation of the geometry for same.


---

 Number: 2      Author: djkaiser      Subject: Callout      Date: 9/27/2024 1:57:29 PM -06'00'

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Per 6/14/24 discussion, Watkins Rd to the east of Hudson was to also be considered since it has an interchange with I-70

---

 Author: kdfer      Subject: Sticky Note      Date: 10/18/2024 8:03:15 AM -06'00'

---

LSC Response: The additional information has been added as requested


---

 Number: 3      Author: djkaiser      Subject: Callout      Date: 9/27/2024 2:11:13 PM -06'00'

---

Additionally, from 6/14/24 conversation, thought that Picadilly was also to be considered due to its connection to I-70 as well

---

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:10:22 AM -06'00'

---

LSC Response: The meeting minutes note "LSC will assume the Picadilly Road and Aerotropolis interchanges with I-70 are in place for the buildout year." However, we agreed to show the trip generation impact only to the future Aerotropolis, Monaghan Road, and Watkins Road interchanges with I-70. The updated TIS includes directional distribution and trip generation estimates at these three interchanges but not Picadilly.



**Table 9 (Page 1 of 3)**  
**Recommended Improvements to Public Street Network**  
**Blue Eagle Technology Center**  
**Aurora, CO**  
**LSC #230650; August, 2024**

Site generated traffic  
is significant and  
should be shared

Inter- section No.	Intersection Location	Recommended Improvements by 2030 <sup>(1)</sup>	Responsibility	Recommended Improvements by 2050 <sup>(1)</sup>	Responsibility
	E. 26th Avenue & Monaghan Road	Provide two eastbound lanes on 26th Avenue adjacent to the site	Applicant	Widen to two through lanes in each direction	Others
	Hayesmount Road corridor through the site	Reserve right-of-way for potential future flyover of I-70 and railroad through the site	Applicant		
#1	E. 26th Avenue/Monaghan Road	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
		WB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
		SB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	NB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
		Convert to traffic signal control when warranted	Applicant/Others	NB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
				SB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
#2	E. 26th Avenue/West N/S Collector	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others
		WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others <sup>(2)</sup>
		NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant		
#3	E. 26th Avenue/West Right-in/Right-out Site Access	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant		
#4	E. 26th Avenue/Middle N/S Collector	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others
		WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others <sup>(2)</sup>
		NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant		
#5	E. 26th Avenue/East N/S Collector	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant		
#6	E. 26th Avenue/Hayesmount Road			EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
				WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others
				NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others
				SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others


(1) A transition taper of 13.5:1 was used for Major and Minor Arterials based on a posted speed limit of 45 mph (160 feet).

An appropriate redirect taper for 45 mph is 45:1

A transition taper of 10:1 was used for all Collectors based on a posted speed limit of 35 mph (120 feet). An appropriate redirect taper for 35 mph is 20:1

(2) The eastbound left-turn lane will not be required until the parcels north of E. 26th Avenue are developed, however, the applicant will be required to construct the entire south side of E. 26th Avenue along the site frontage including the eastbound left-turn lane


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 Number: 1      Author: djkaiser      Subject: Callout      Date: 9/30/2024 12:26:33 PM -06'00'

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Site generated traffic is significant and should be shared

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 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:11:26 AM -06'00'

---

LSC Response: Revised to "Applicant/Others". The percentage of site traffic is now listed for each recommended improvement.


**Table 9 (Page 2 of 3)**  
**Recommended Improvements to Public Street Network**  
**Blue Eagle Technology Center**  
**Aurora, CO**  
**LSC #230650; August, 2024**

Inter-section No.	Intersection Location	Recommended Improvements by 2030 <sup>(1)</sup>		Recommended Improvements by 2050 <sup>(1)</sup>		Responsibility
#7	E. 26th Avenue/Future Collector			EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper		Others
				WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper		Others
				NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper		Others
				SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper		Others
#8	E. 26th Avenue/Hudson Road	EB RT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	EB LT - construct lane - 1 @ 275 feet and 160-foot transition taper		Others
		NB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Applicant/Others	WB LT - construct lane - 1 @ 275 feet and 160-foot transition taper		Others
		SB LT - construct lane - 1 @ 275 feet and 160-foot transition taper	Others	Potential traffic signal control if warrants are met		Applicant/Others
#9	Middle N/S Collector/Right-in/Right-out Access	NB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
		SB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
#10	West N/S Collector/Right-in/Right-out Access	NB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
#11	Middle N/S Collector/North E/W Collector	Construct as modern one-lane roundabout	Applicant			
#12	East N/S Collector/North E/W Collector	NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
		SB RT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
#13	West N/S Collector/Middle E/W Collector	SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
		NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Others			
#14	Middle N/S Collector/Middle E/W Collector	NB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
		SB LT - construct lane - 1 @ 200 feet and 120-foot transition taper	Applicant			
#16	Monaghan Road/South E/W Collector			NB RT - construct lane - 1 @ 275 feet and 160-foot transition taper		Others
				SB LT - construct lane - 1 @ 275 feet and 160-foot transition taper		Others
				WB LT - construct lane - 1 @ 200 feet and 120-foot transition taper		Others

(1) A transition taper of 13.5:1 was used for Major and Minor Arterials based on a posted speed limit of 45 mph (160 feet).  
 An appropriate redirect taper for 45 mph is 45:1  
 A transition taper of 10:1 was used for all Collectors based on a posted speed limit of 35 mph (120 feet). An appropriate redirect taper for 35 mph is 20:1


Significant site traffic  
 should share in  
 responsibility

---

 Number: 1      Author: djkaiser      Subject: Callout      Date: 9/30/2024 12:29:26 PM -06'00'

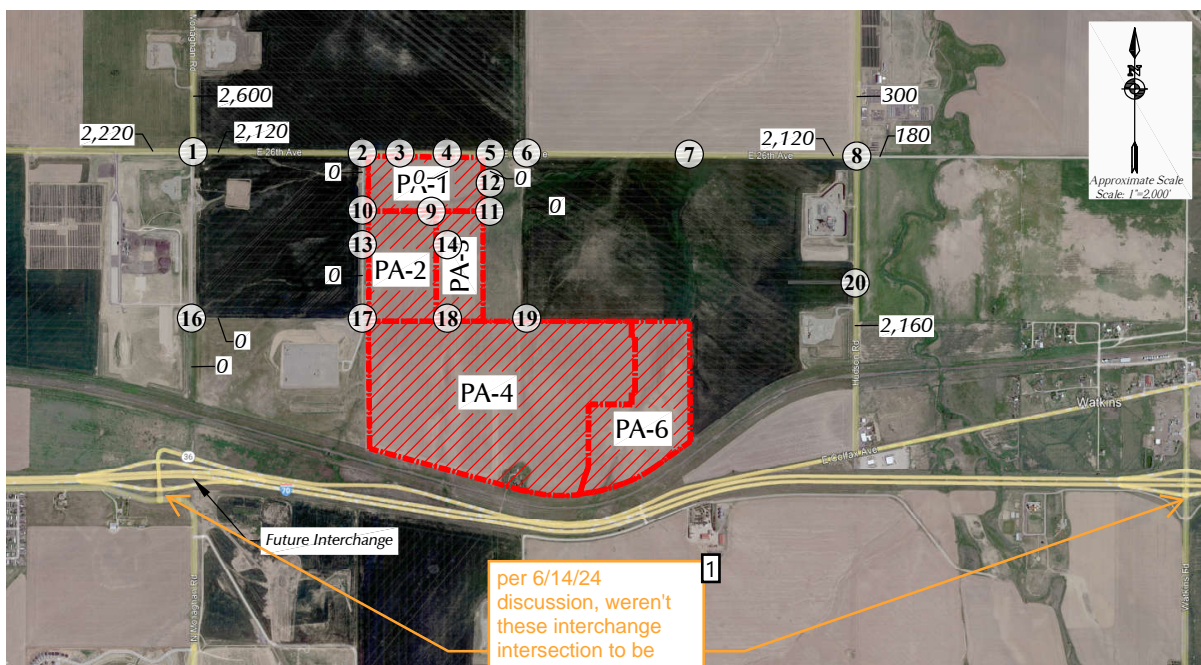
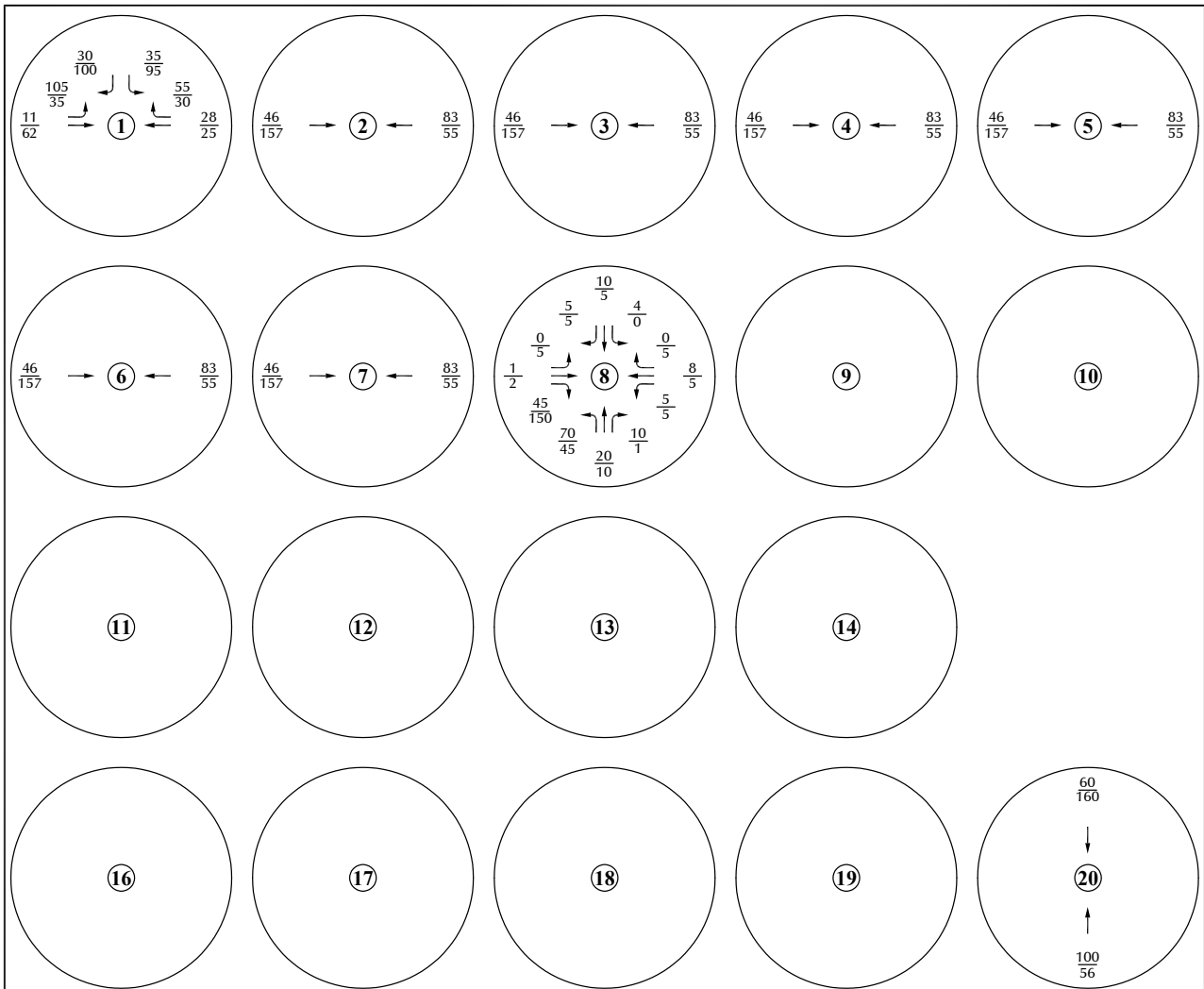
---

Significant site traffic should share in responsibility

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:11:53 AM -06'00'

---

LSC Response: Revised to "Applicant/Others". The percentage of site traffic is now listed for each recommended improvement.



LEGEND:

26 = AM Peak Hour Traffic  
 35 = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic



Figure 4a


**Year 2030  
 Background Traffic**  
 Blue Eagle Technology Park (LSC #230650)

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Number: 1      Author: djkaiser      Subject: Callout      Date: 9/27/2024 2:25:44 PM -06'00'

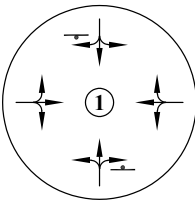
---

per 6/14/24 discussion, weren't these interchange intersection to be analyzed due to not incorporating Hayesmount?

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:13:18 AM -06'00'

---

LSC Response: LSC agreed to provide directional distribution and site-generated traffic volumes at these two interchanges as well as at the Aerotropolis interchange. The updated TIS includes this information. These intersections will be improved over time. The interchange configuration and design will be determined by an extensive analysis required by CDOT and FHWA. The information provided in the updated TIA will inform the future interchange design process of the expected impact from the Blue Eagle development.



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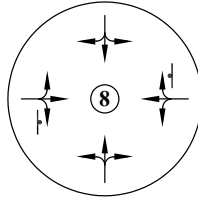
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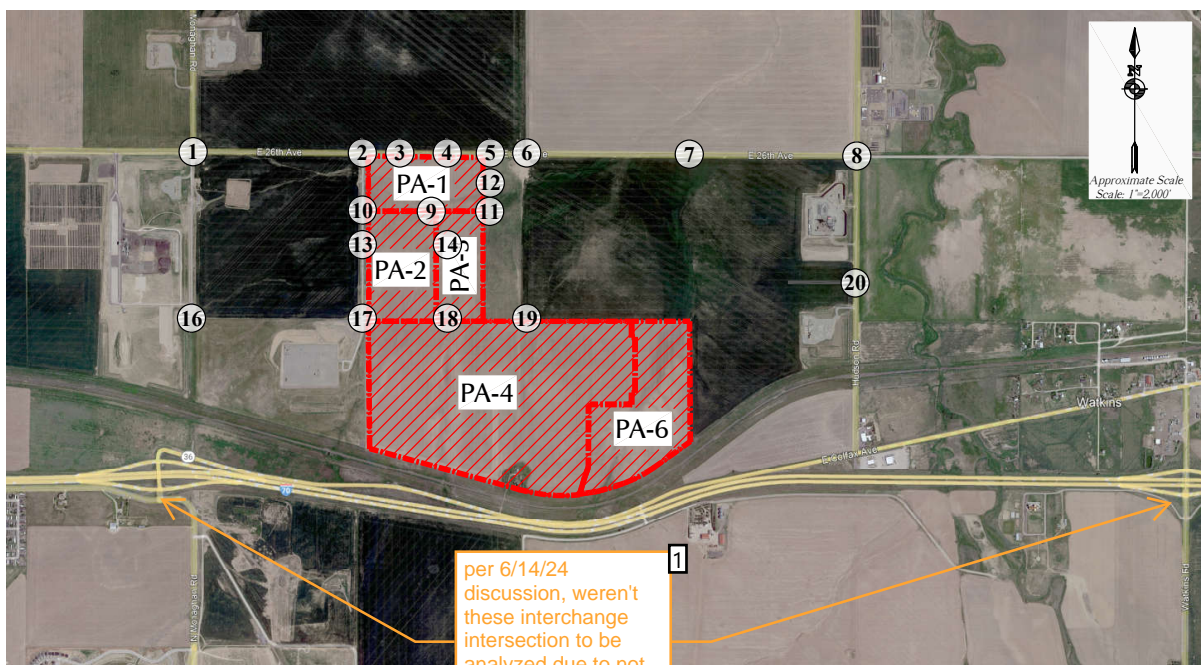
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per 6/14/24  
discussion, weren't  
these interchange  
intersection to be  
analyzed due to not  
incorporating  
Hayesmount?



LEGEND:  
⬆ = Stop Sign  
⬆⬆ = Traffic Signal

Figure 4b

## Year 2030 Background Lane Geometry and Traffic Control

Blue Eagle Technology Park (LSC #230650)




---

Number: 1      Author: djkaiser      Subject: Callout      Date: 9/27/2024 2:29:40 PM -06'00'

---

per 6/14/24 discussion, weren't these interchange intersection to be analyzed due to not incorporating Hayesmount?

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:20:58 AM -06'00'

---

LSC Response: LSC agreed to provide directional distribution and site-generated traffic volumes at these two interchanges as well as at the Aerotropolis interchange. The updated TIS includes this information. These intersections will be improved over time. The interchange configuration and design will be determined by an extensive analysis required by CDOT and FHWA. The information provided in the updated TIA will inform the future interchange design process of the expected impact from the Blue Eagle development.

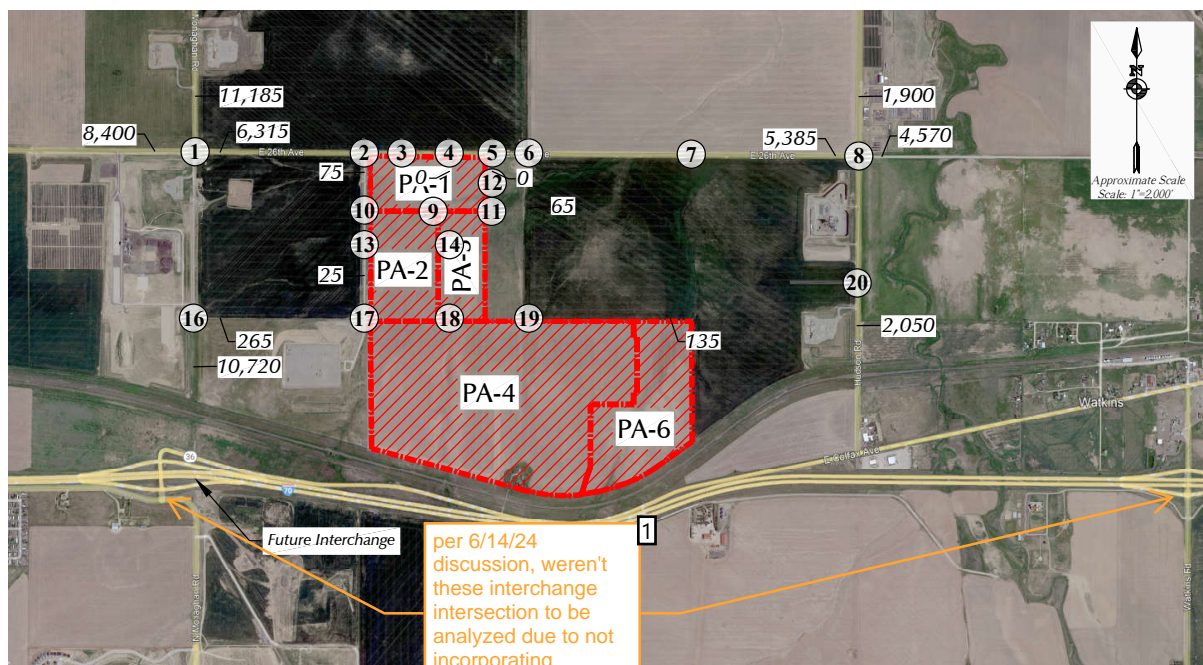
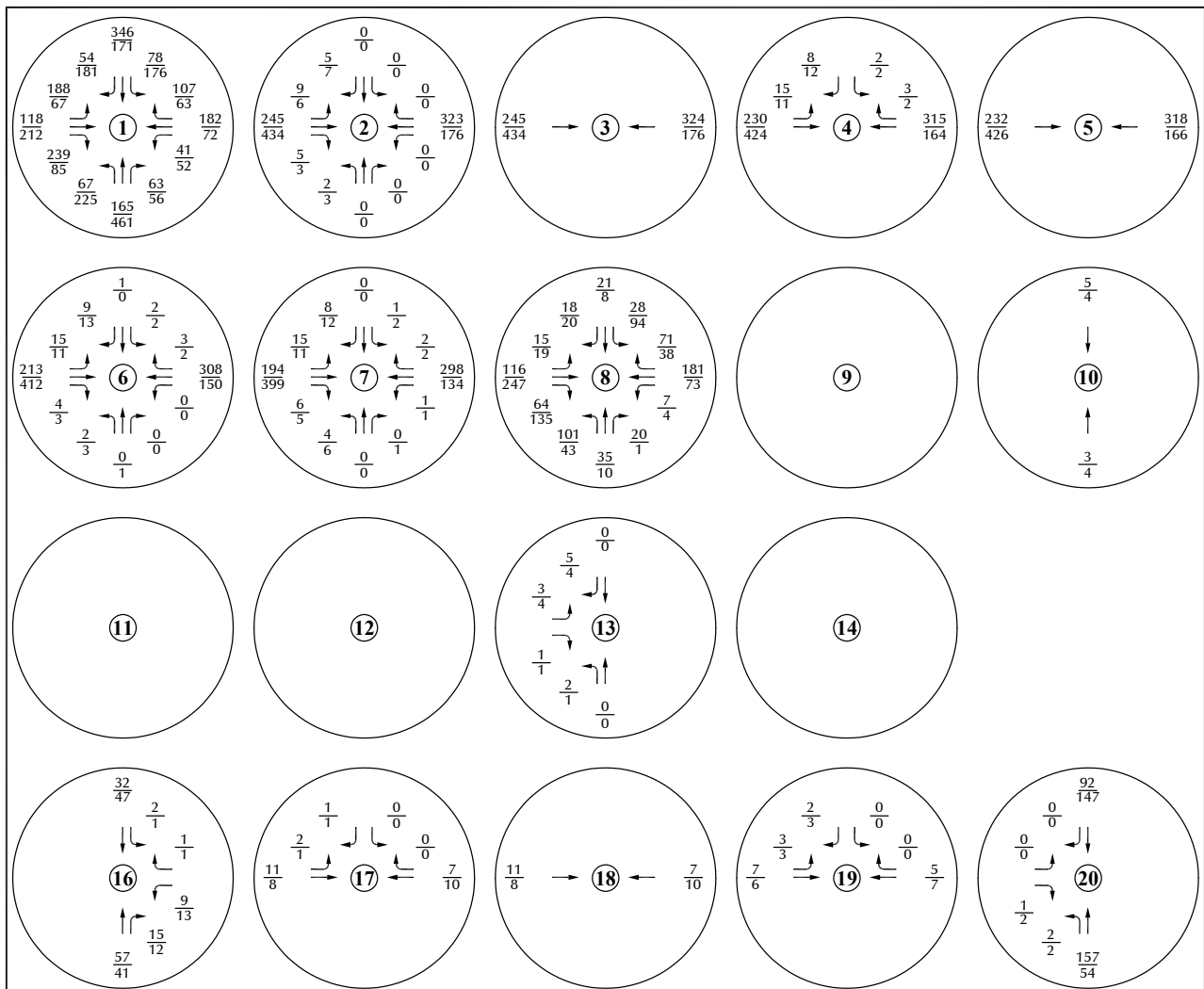


Figure 5a



LEGEND:

26 = AM Peak Hour Traffic  
 35 = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic


Year 2050  
 Background Traffic  
 Blue Eagle Technology Park (LSC #230650)

---

Number: 1      Author: djkaiser      Subject: Callout      Date: 9/27/2024 2:41:12 PM -06'00'

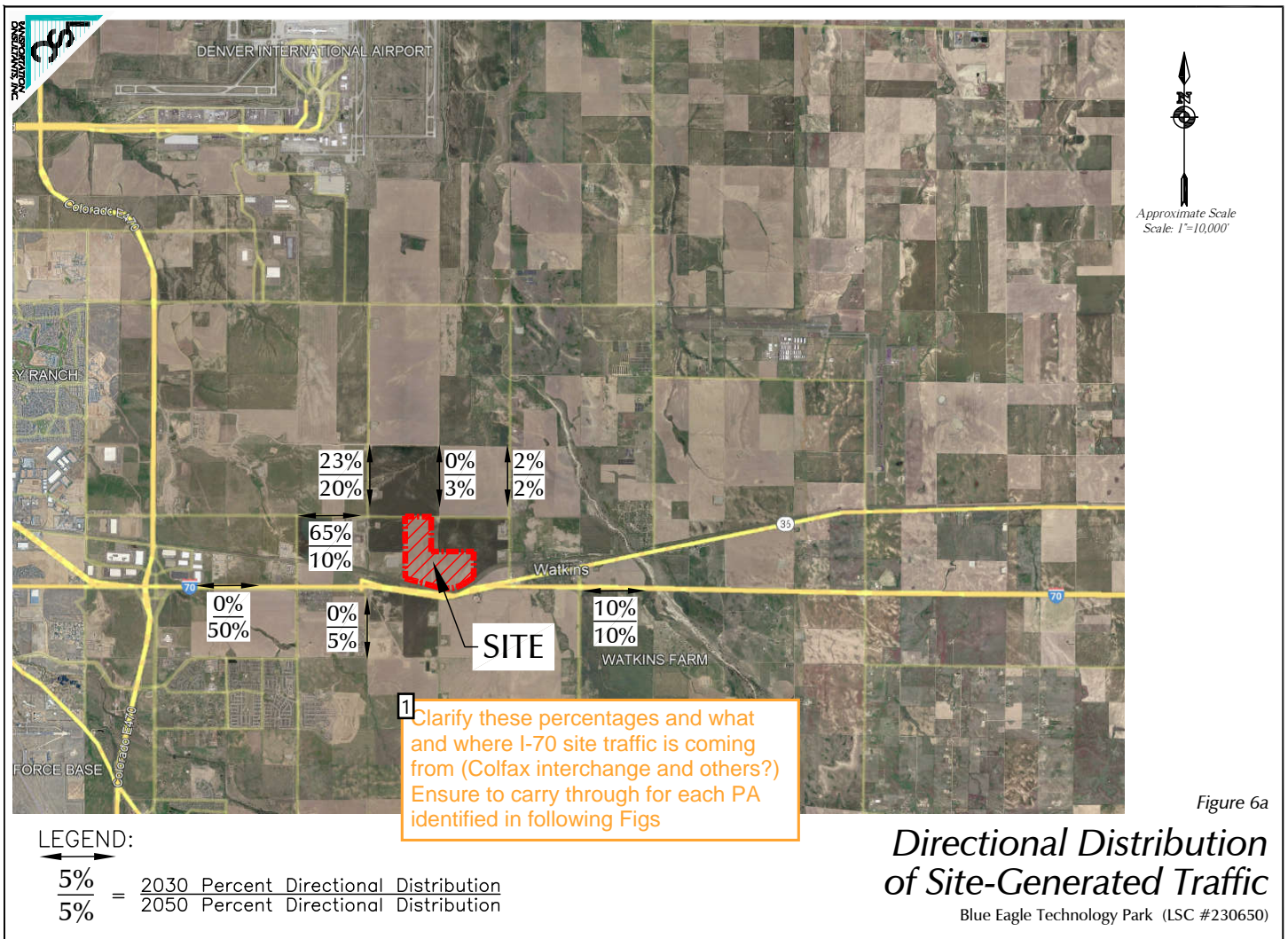
---

per 6/14/24 discussion, weren't these interchange intersection to be analyzed due to not incorporating Hayesmount?

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:21:15 AM -06'00'

---

LSC Response: LSC agreed to provide directional distribution and site-generated traffic volumes at these two interchanges as well as at the Aerotropolis interchange. The updated TIS includes this information. These intersections will be improved over time. The interchange configuration and design will be determined by an extensive analysis required by CDOT and FHWA. The information provided in the updated TIA will inform the future interchange design process of the expected impact from the Blue Eagle development.




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 Number: 1      Author: djkaiser      Subject: Text Box      Date: 9/30/2024 8:46:11 AM -06'00'

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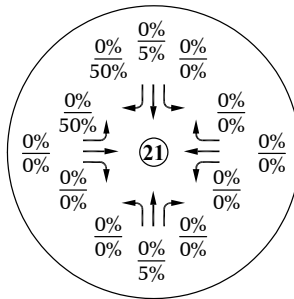
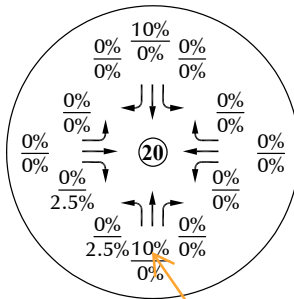
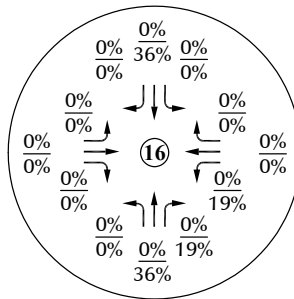
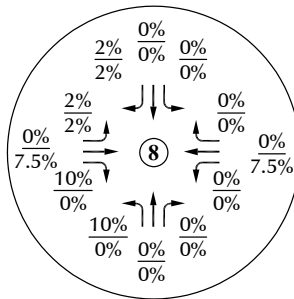
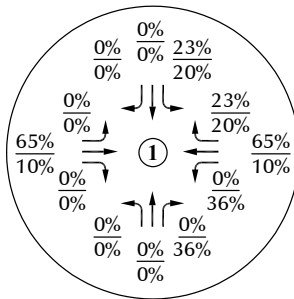
Clarify these percentages and what and where I-70 site traffic is coming from (Colfax interchange and others?) Ensure to carry through for each PA identified in following Figs

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:21:25 AM -06'00'

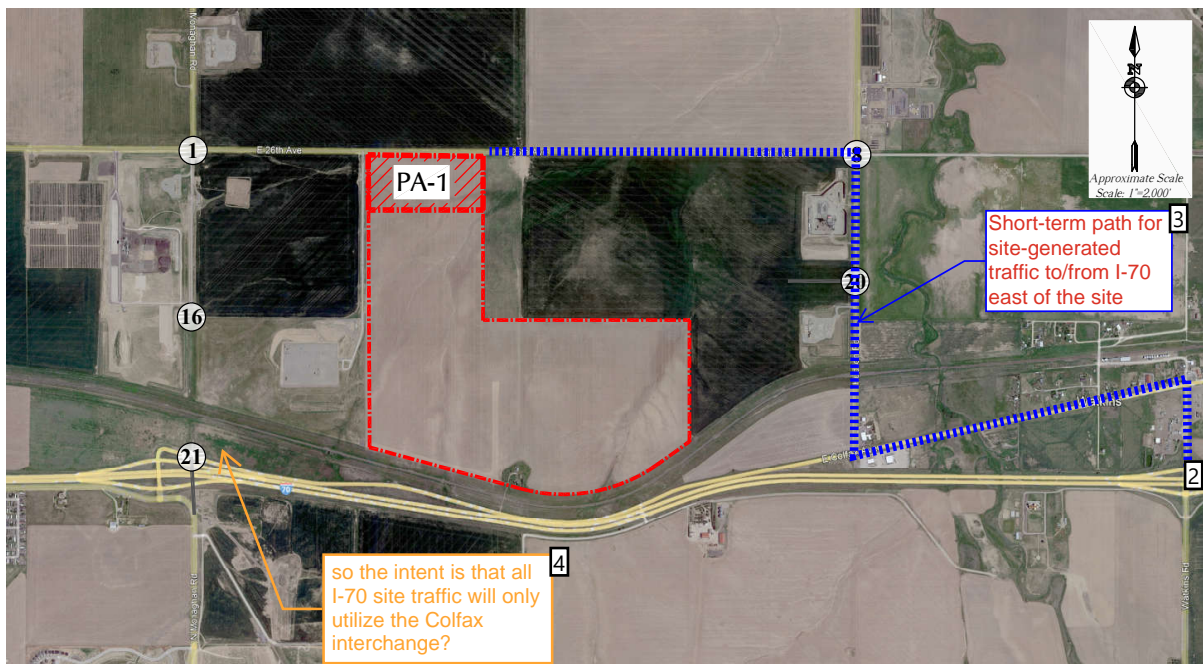
---

LSC Response: The updated TIS includes directional distribution percentages at the Aerotropolis, Monaghan and Watkins interchanges.





Where is this 10% from? Do not see the two 10% from I-70 east



LEGEND:

5% = 2030 Percent Directional Distribution  
5% = 2050 Percent Directional Distribution

Figure 6b

Directional Distribution of PA-1 Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)




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 Number: 1      Author: djkaiser      Subject: Callout      Date: 9/30/2024 8:40:35 AM -06'00'

---

Where is this 10% from? Do not see the two 10%s from I-70 east

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:19:08 AM -06'00'

LSC Response: A blue line showing the short-term path to/from I-70 east of the site has been added to the figure in this redline document.

 Number: 2      Author: kdfer      Subject: Polygonal Line      Date: 10/18/2024 9:06:30 AM -06'00'

---

 Number: 3      Author: kdfer      Subject: Callout      Date: 10/18/2024 9:10:39 AM -06'00'


---

Short-term path for site-generated traffic to/from I-70 east of the site

 Number: 4      Author: djkaiser      Subject: Callout      Date: 9/30/2024 8:36:44 AM -06'00'

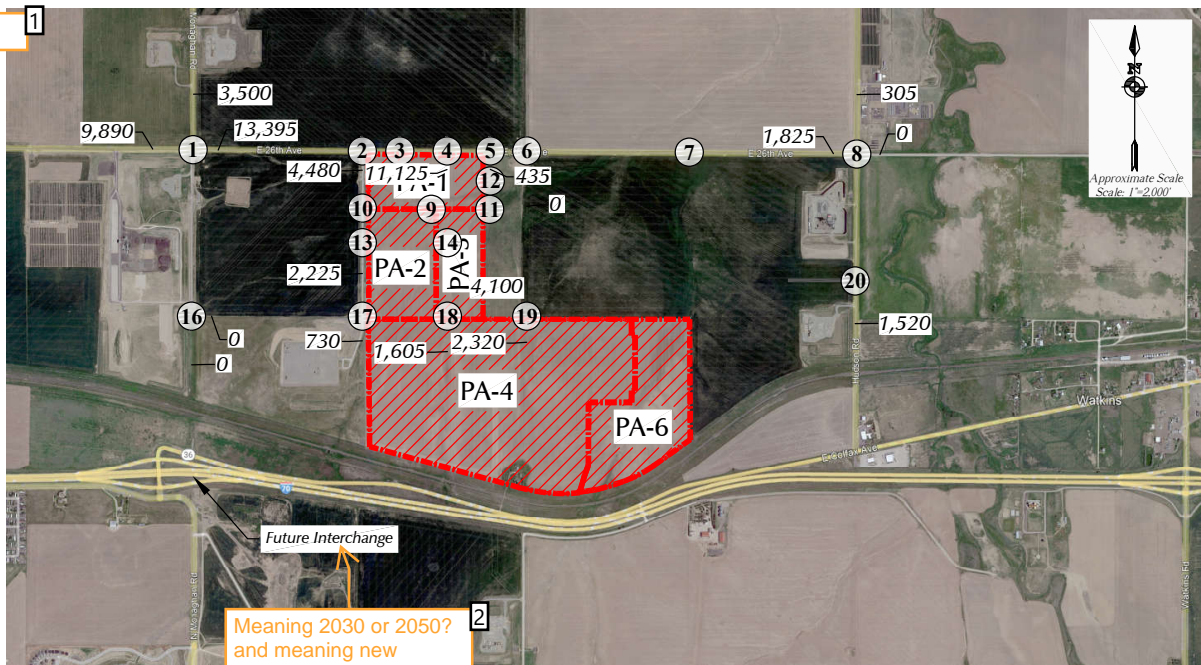
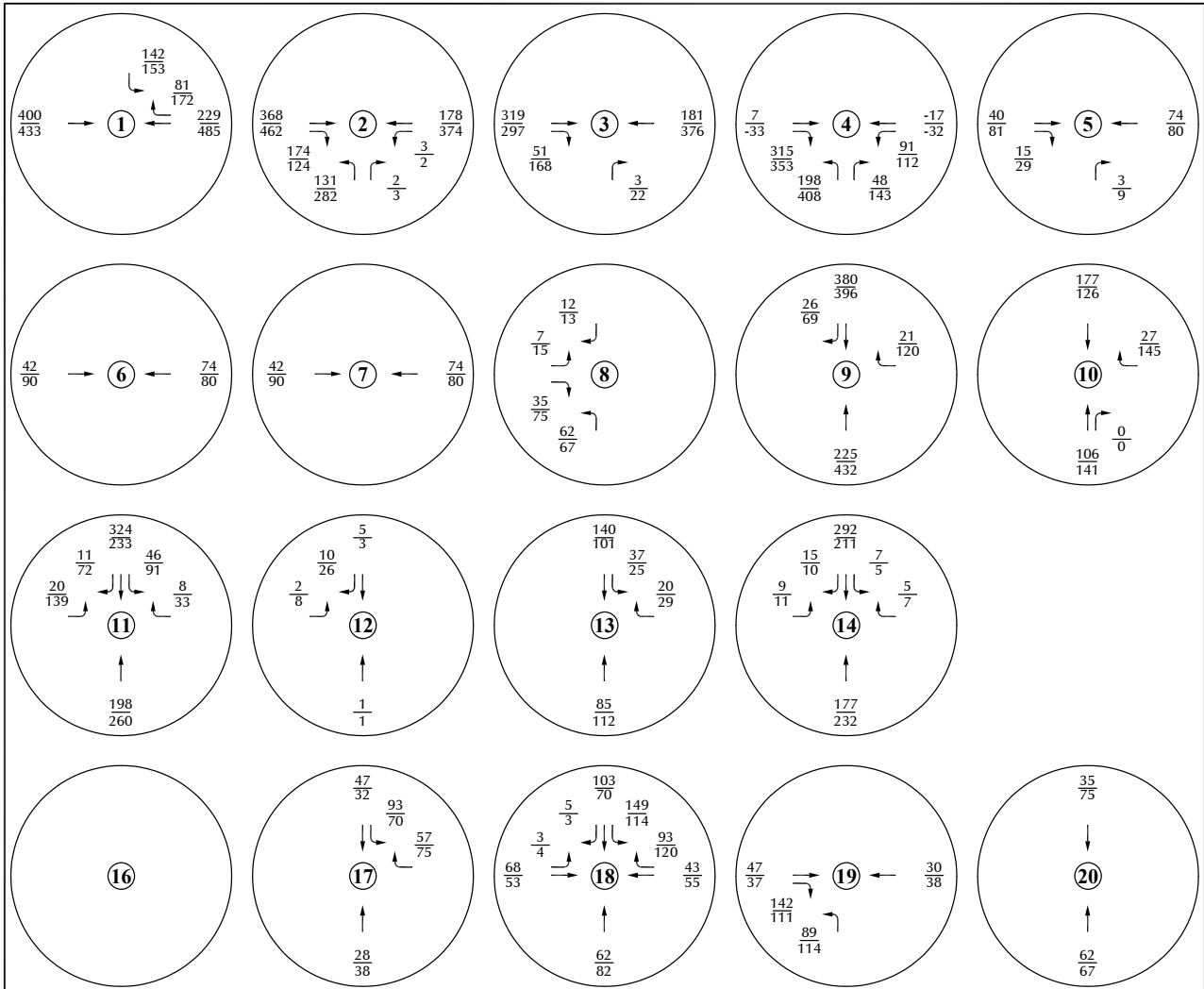
---

so the intent is that all I-70 site traffic will only utilize the Colfax interchange?

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:18:59 AM -06'00'

LSC Response: Additional site-generated traffic volumes have been added at the future Aerotropolis and Watkins interchanges to clarify the assignment of site-generated traffic to/from I-70.





Meaning 2030 or 2050?  
and meaning new  
Monaghan direct  
connection (Int #21)?

LEGEND:  
 $\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic



## Year 2030 Assignment of Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)

Figure 7

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 Number: 1      Author: djkaiser      Subject: Callout      Date: 9/30/2024 8:49:21 AM -06'00'

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 Number: 2      Author: djkaiser      Subject: Callout      Date: 9/30/2024 8:50:17 AM -06'00'

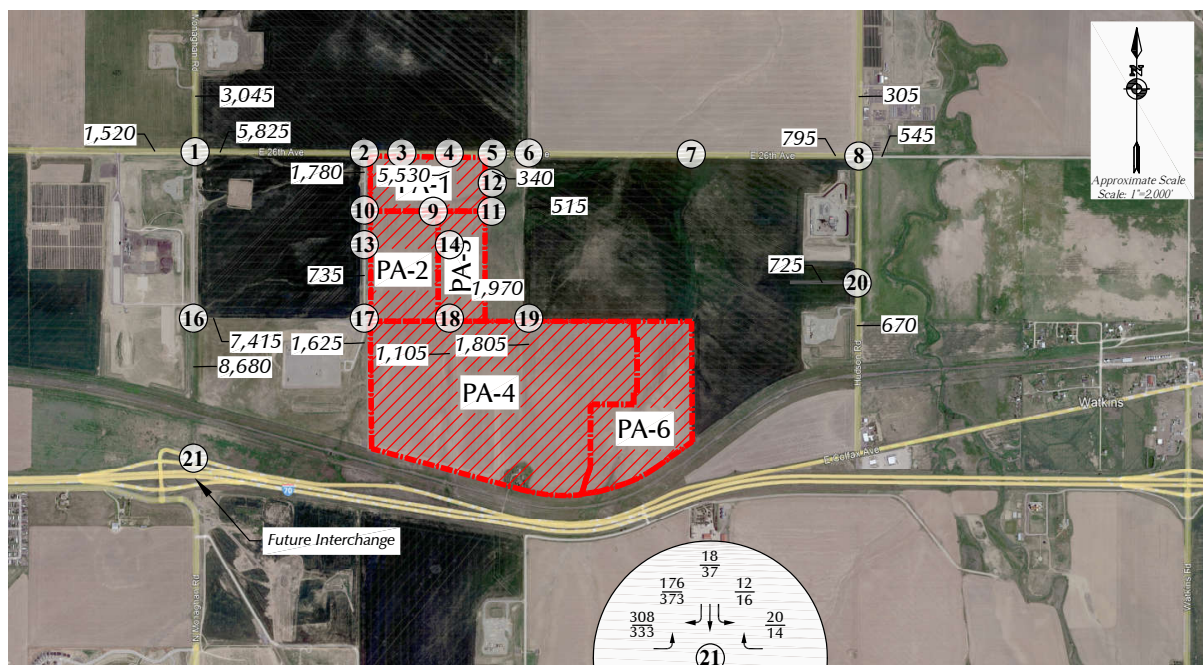
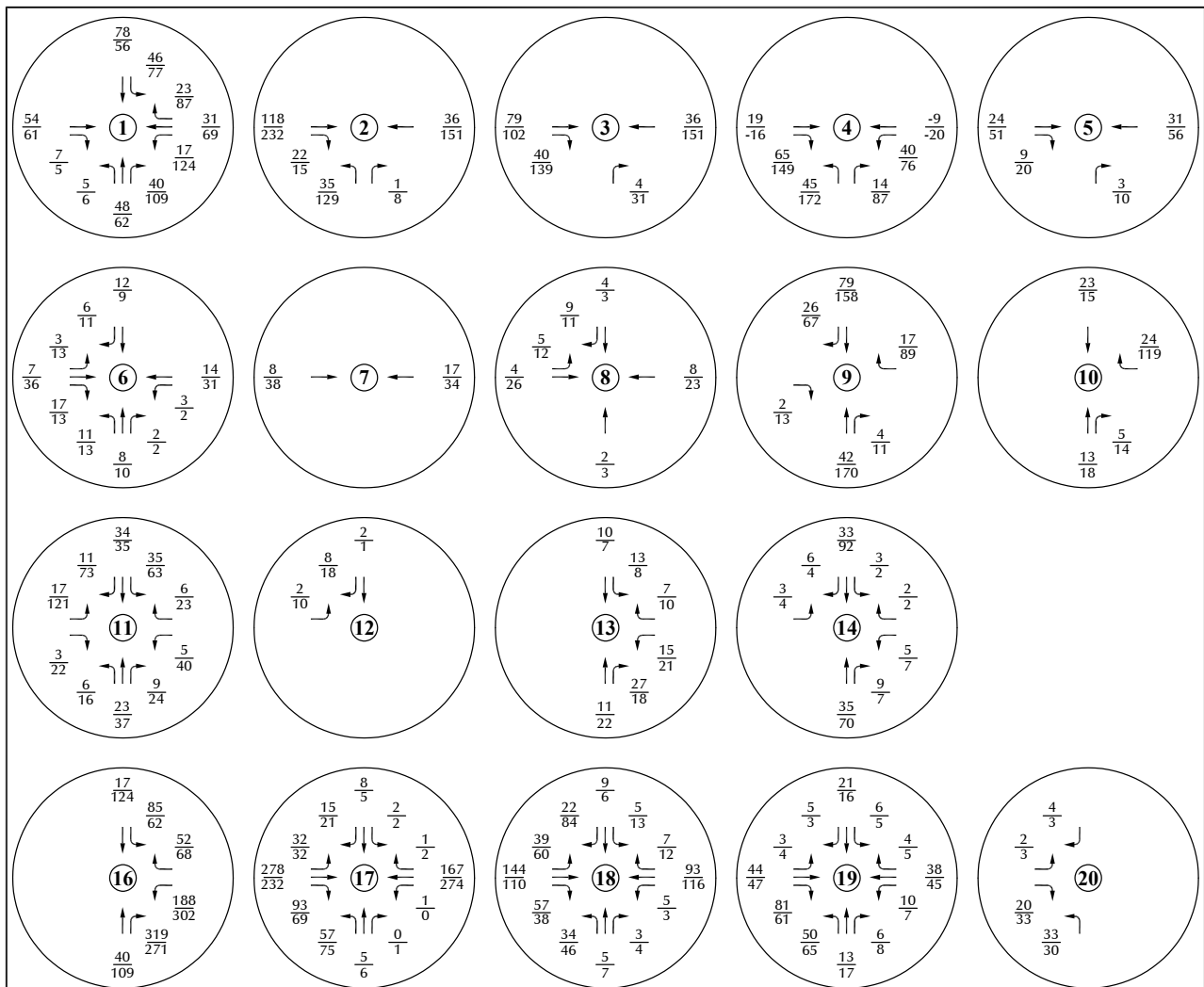
---

Meaning 2030 or 2050? and meaning new Monaghan direct connection (Int #21)?

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:18:46 AM -06'00'

---

LSC Response: This note will be revised to make it clear that the TIS assumes the Monaghan Interchange will not be in place by 2030.



LEGEND:  
 $\frac{26}{35}$  = AM Peak Hour Traffic  
 $\frac{35}{26}$  = PM Peak Hour Traffic  
 1,000 = Average Daily Traffic

New direct connection?



Figure 8

## Year 2050 Assignment of Site-Generated Traffic

Blue Eagle Technology Park (LSC #230650)


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 Number: 1      Author: djkaiser      Subject: Callout      Date: 9/30/2024 8:50:40 AM -06'00'

---

New direct connection?

---

 Author: kdfer      Subject: Sticky Note      Date: 10/24/2024 9:18:37 AM -06'00'

---

LSC Response: Intersection #21 was intended to show the site-generated traffic volumes at the future Monaghan/I-70 interchange. An additional figure that more clearly shows the site-generated traffic volumes at this interchange as well as the Aerotropolis and Watkins interchanges has been included in the updated TIS.