Report (Final)

Traffic Impact Study for the Proposed 8037-8087 Scott Road (120 Street) Development, Delta, BC

Prepared for A.L. Sott (Delta Shoppers) Inc.
by Arcadis IBI Group

July 26, 2023



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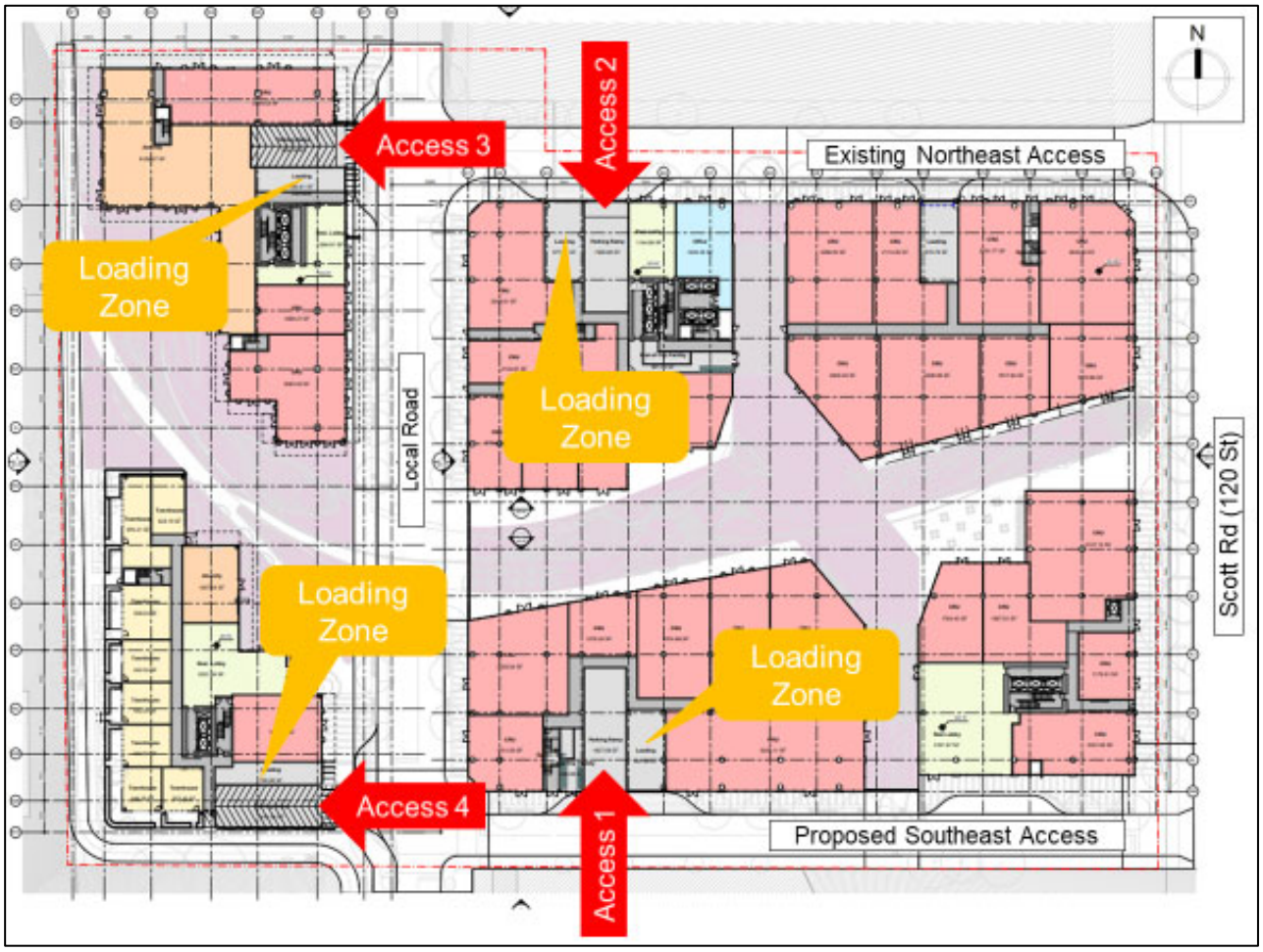
Executive Summary

This report presents the Traffic Impact Assessment (TIA) undertaken for the proposed new mixed-use residential, retail, and office development located at 8037-8087 Scott Road (120 Street) in the City of Delta by A.L. Sott (Delta Shoppers) Inc.

The proposed plan calls for the construction of a 32-Storey Condo + Office Tower (Tower North), 32-Storey Condo Tower (Tower South), 10-Storey Seniors Building (Midrise North), and 6-Storey Rental Building (Midrise South), which includes 80,752 ft^2 retail area, 122,499 ft^2 office area, and 3,340 ft^2 childcare space.

Vehicle access to the property will be provided from Scott Road (120 Street). Four vehicle accesses to the site (for the use of residents and visitors) will be provided as indicated in the site plan in Exhibit 1. The development is expected to proceed immediately and will be completed in three phases (phasing to be finalized at a later stage), during the period 2024-2025.

Exhibit 1: Site Plan



To support this development and to identify whether the proposed development requires access to Sharma Blvd, the following were analyzed:

- Three scenarios
    - Scenario 1: Do nothing (Minor changes)

    - Scenario 2: Sharma Blvd Closed
    - Scenario 3: Sharma Blvd Closed (for site traffic) & Full Signalization Mid-Block 120 St
- Two sub-scenarios,
    - No reduction to site trip generation
    - 20% reduction in site trip generation due to proximity to a frequent transit network
- Three peak hour periods
    - Weekday morning peak hour (AM)
    - Weekday afternoon peak hour (PM)
    - Weekend Saturday midday peak hour (SAT)
- Three horizon periods
    - 2023 - Existing base year
    - 2028 - 5-year planning horizon
    - 2033 - 10-year planning horizon

The TIA analyzed the capacity and Level of Service (LOS) of six intersections:

1. Scott Road (120 Street) & 82 Avenue
2. Scott Road (120 Street) & Northeast Access / Access to Scott Road Centre (Mid-Block)
3. Scott Road (120 Street) & Southeast Access (Relocated south ~30m and restricted EBL/NBL)
4. Scott Road (120 Street) & 80 Avenue
5. Sharma Boulevard & 80 Avenue
6. 80 Avenue & 116 Street

The study was conducted using the following methodologies:

- Background traffic volumes were based on the existing/ historic traffic counts and assumed a 1.1% growth rate.
- Two nearby proposed developments were considered, as required by the city.
- Site (development) traffic volumes were estimated based on ITE standard trip rates and were adjusted to reflect net new traffic. The site traffic was assigned to the road network based on the existing patterns.
- The performance of the study intersections for the background and combined Weekday AM, PM peak, and Saturday peak hours was analyzed using the Synchro software.

The study also included:

- Parking and loading requirements were assessed using the City of Delta’s Zoning bylaw.
- Site distance analysis at the three main accesses to the site along Scott Rd (120 St) and 80 Ave.
- Design vehicle circulation plans were prepared (using the AutoTURN software) to confirm the loading area requirements.

The analyses indicate that:

- The proposed development is estimated to generate during peak hours, a net traffic volume of
    - Sub-Scenario “No-Reduction” (AM – 427, PM – 462, Saturday – 383 vehicles per hour),
    - Sub-Scenario “20%-Reduction” (AM – 342, PM – 370, Saturday – 306 vehicles per hour).
- Study area intersections should be able to maintain acceptable overall levels of service (LOS) with combined future demands.
- In terms of overall intersection performance (LOS, v/c and delays), compared to background condition, the site traffic is expected to have minimal impacts on the surrounding network, in all three scenarios.
- The proposed development does not require access to Sharma Blvd with full signalization of Scott Road (120 Street) & Northeast Access (Mid-Block) ID#2.
- The following upgrades are identified:
    - Upgrade Scott Road (120 Street) & Northeast Access (Mid-Block)
        - Permit eastbound left turn,
        - Modify northbound left turn storage according to the proposed R6 design upgrades, and
        - Upgrade traffic signal infrastructure (to a full-signalized intersection), traffic signs, and pavement markings.
    - Upgrade Scott Road (120 Street) & Southeast Access
        - Relocate ~30m south,
        - Restrict eastbound left turn and northbound left turn (to be a Right-in/ Right-out.)
    - Upgrade Scott Road (120 Street) & 80 Avenue
        - Modify southbound left turn storage according to the proposed R6 design upgrades.
    - Signalized intersections to optimize traffic signal timings/ phasing plans.
- The proposed upgrades will be coordinated with the R6 civil consultant and the City of Surrey.

The developer will provide:

- 1577 vehicle parking spaces, meeting the bylaw requirements (utilizing ~20% parking reduction),
- 1073 bicycle parking spaces, exceeding the bylaw requirements.
- 4 loading spaces, meeting the bylaw requirements.
- A Transportation Demand Management Plan.
- The three main vehicular access points to the site have adequate sight distance for safe maneuvering to and from public roads.
- The design vehicles are capable of safely maneuvering the vehicle access and loading area.

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1 INTRODUCTION

Arcadis IBI Group has been retained by A.L. Sott (Delta Shoppers) Inc. to undertake a Traffic Impact Study (TIS) for the proposed mixed-use development located at 8037-8087 Scott Road (120 Street), Delta, BC. Exhibits 1-1 and 1-2 illustrate the context of the site within the City of Delta and the existing site location.

Exhibit 1-1: Context Plan

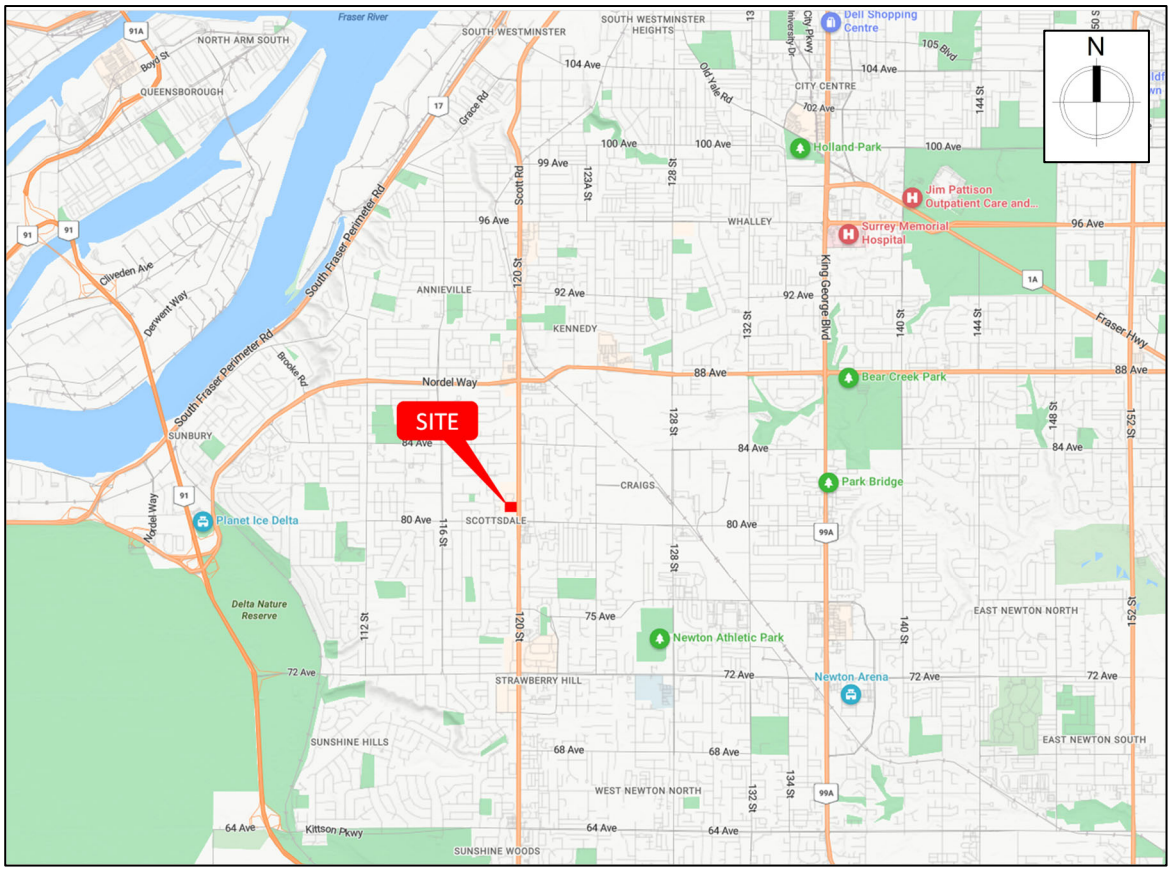
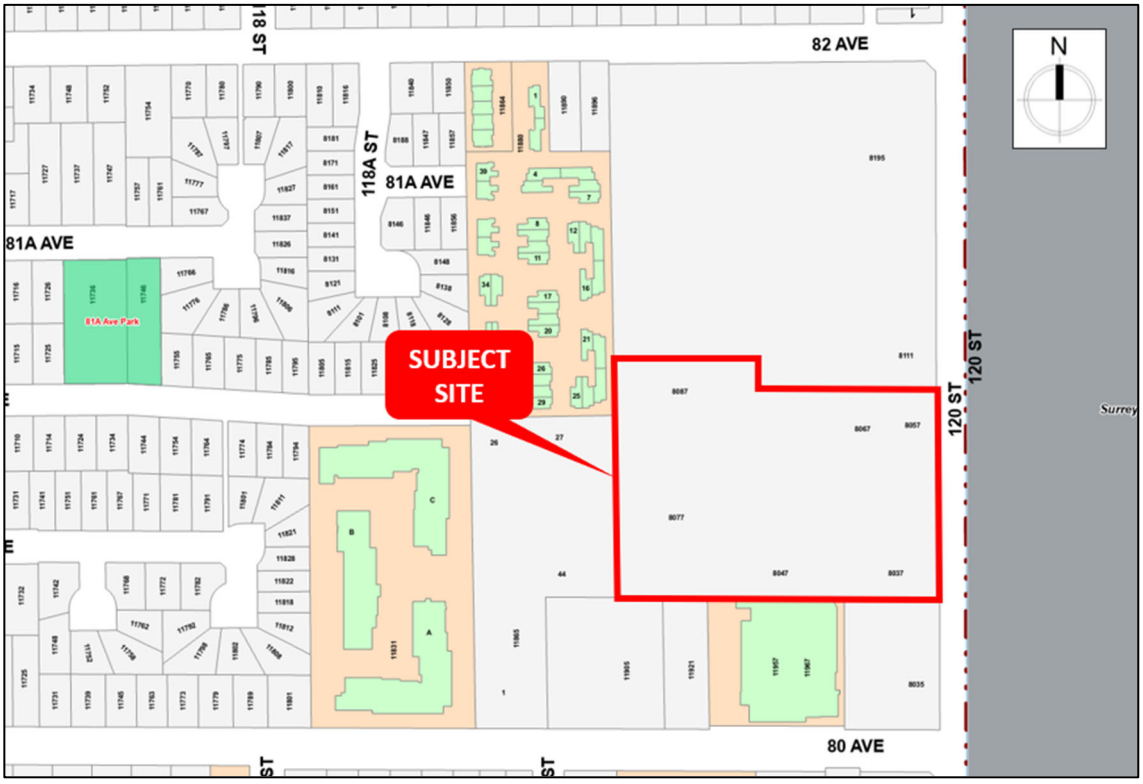


Exhibit 1-2: Site Location



To support this development, the primary objective of the TIS is to identify:

- The road, traffic, and alternative transportation-related impacts and improvements required,
- The configuration and adequacy of site accesses,
- Car parking, bicycle parking, loading requirements, and
- Transportation Demand Management (TDM) Strategy.

The secondary objective of the TIS is to determine whether the proposed development requires access to Sharma Blvd.

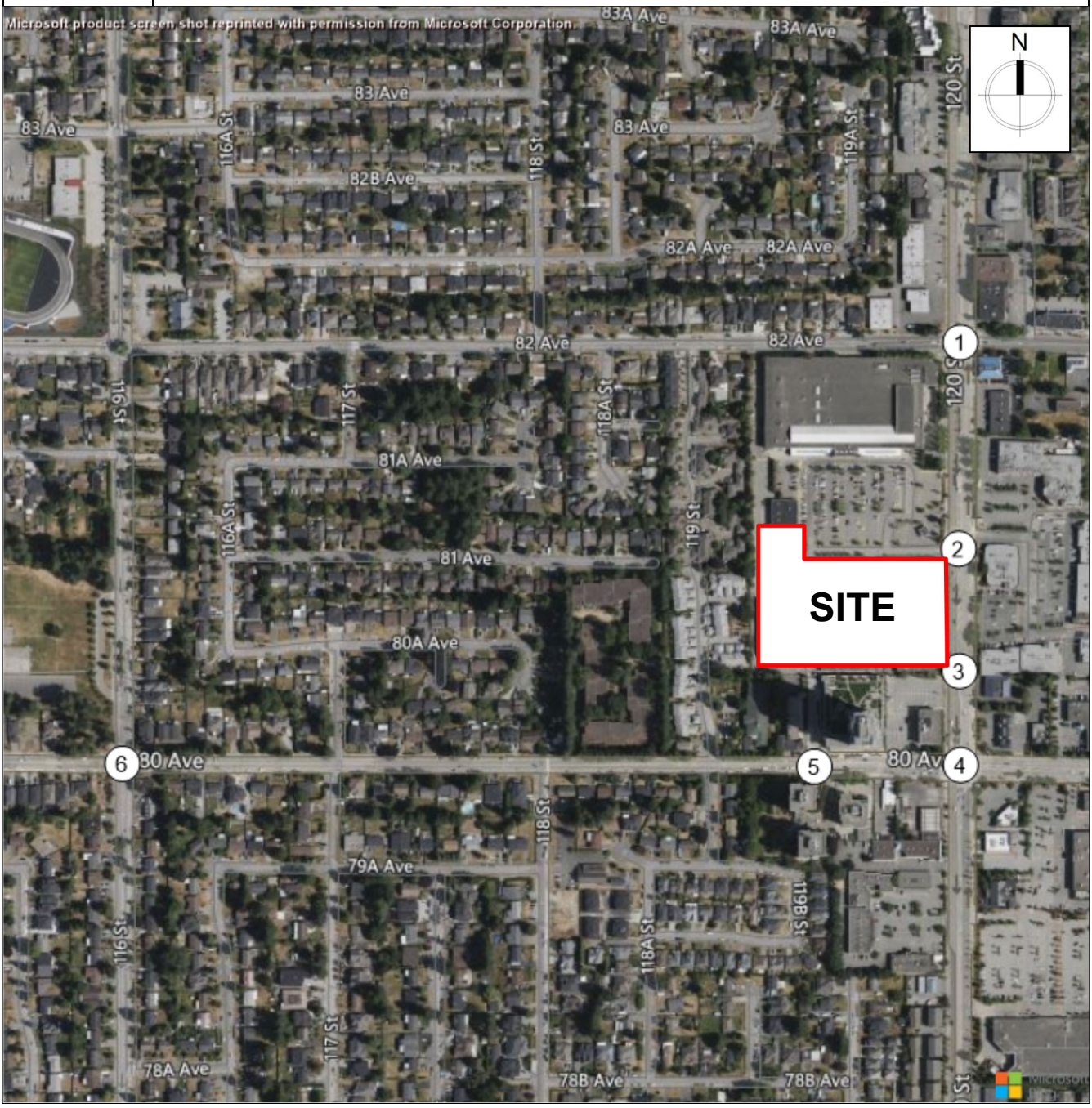
Based on their review of the preliminary traffic impact report prepared by Arcadis IBI Group, dated October 21, 2022, the city required a complete Traffic Impact Study to be provided for this proposed development. This TIS has been undertaken per:

- The City of Delta Form AB – Traffic Impact Study Requirements (February 2022),
- The current development statistics provided by the developer, dated December 22, 2022,
- Comments received from the City between April 2023 and July 2023, and
- Final comments were received from the City on July 25, 2023.

The study area includes the key adjacent and nearby intersections along Scott Road (120 Street) and 80 Avenue. Exhibit 1-3 illustrates the study intersections.

Exhibit 1-3: Study Intersections

ID	Intersection Name
1	Scott Road (120 Street) & 82 Avenue
2	Scott Road (120 Street) & Northeast Access / Access to Scott Road Centre (Mid-Block)
3	Scott Road (120 Street) & Southeast Access (Relocated south ~30m and restricted EBL/NBL)
4	Scott Road (120 Street) & 80 Avenue
5	Sharma Boulevard & 80 Avenue
6	80 Avenue & 116 Street



To support this development and to identify whether the proposed development requires access to Sharma Blvd, the following were analyzed:

- Three scenarios (see Exhibit 1-4),
- Two sub-scenarios (see Exhibit 1-5),
- Three peak hour periods (see Exhibit 1-6), and
- Three horizon periods (see Exhibit 1-7).

Exhibit 1-4: Analysis Scenarios

#	Scenario Name	Description	Changes
1	Do Nothing (Minor Changes)	Access to Sharma Blvd • Full site access to Sharma Blvd & 80 Ave intersection (ID#5). • Site traffic is directed to Sharma Blvd based on trip assignment. Access to Scott Rd (120 St) • No changes to Scott Rd & Northeast Access Mid-Block (ID#2). • Scott Rd & Southeast Access restricted eastbound/northbound left (ID#3). • Site traffic is directed to Scott Rd based on trip assignment.	• Relocating Scott Road (120 Street) & Southeast Access (ID #3) ~30m south and restricted EBL/NBL • Re-routing NBL traffic volumes to Scott Rd & Northeast Access Mid-Block (ID#2) • The cross-section changes to 120 Street as part of the R6 Rapid Bus Project
2	Sharma Blvd Closed	Access to Sharma Blvd • No access to Sharma Blvd & 80 Ave intersection (ID#5). • Site traffic is re-routed from Sharma Blvd to Scott Rd. Access to Scott Rd (120 St) • No changes to Scott Rd & Northeast Access Mid-Block (ID#2). • Scott Rd & Southeast Access restricted eastbound/northbound left (ID#3). • Site traffic, including those assigned to Sharma Blvd previously, is re-routed to Scott Rd southbound only.	• Relocating Scott Road (120 Street) & Southeast Access (ID #3) ~30m south and restricted EBL/NBL • Re-routing NBL traffic volumes to Scott Rd & Northeast Access Mid-Block (ID#2) • The cross-section changes to 120 Street as part of the R6 Rapid Bus Project
3	Sharma Blvd Closed & Full Signalization Mid-Block 120 St	Access to Sharma Blvd • No access to Sharma Blvd & 80 Ave intersection (ID#5). • Site traffic is re-routed from Sharma Blvd to Scott Rd. Access to Scott Rd (120 St) • Changes to a full signal at Scott Rd & Northeast Access Mid-Block (ID#2). • Scott Rd & Southeast Access restricted eastbound/northbound left (ID#3). • Site traffic is directed to Scott Rd southbound. • Site traffic is directed to Scott Rd northbound.	• Relocating Scott Road (120 Street) & Southeast Access (ID #3) ~30m south and restricted EBL/NBL • Re-routing NBL traffic volumes to Scott Rd & Northeast Access Mid-Block (ID#2) • The cross-section changes to 120 Street as part of the R6 Rapid Bus Project

Exhibit 1-5: Analysis Sub Scenarios

#	Sub-Scenario Name	Description
1	No Reduction	The site trip generation was estimated based on: • The Institute of Transportation Engineers (ITE) 11th Edition standard trip rates and • Removing the traffic associated with the existing development (see section 3.4. Trip Generation) based on the ITE standard trip rates
2	20% Reduction	The site trip generation from "Sub-Scenario #1" was adjusted by 20% considering: • Proximity to a frequent transit network (the future R6 Scott Road RapidBus will bring fast and reliable service to the Scott Road Corridor), • The minimum number of parking spaces be reduced by 20% (the City's zoning bylaw Section 8.4.4 allows the required minimum number of parking spaces to be reduced by 20% for a building constructed on a lot within 125m of Scott Rd), and • The developer's commitment to implement a set of strategies aimed at maximizing the utility of sustainable transportation choices (e.g. additional bike spaces, bike end-of-trip facility, car share spaces, etc.) (See section 6)

Exhibit 1-6: Analysis Peak Hours

#	Scenario Name	Description
1	AM	Weekday morning peak hour
2	PM	Weekday afternoon peak hour
3	SAT	Weekend Saturday midday peak hour

Exhibit 1-7: Analysis Horizon Years

#	Scenario Name	Description
1	2023 Existing	Existing Base year
2	2028	5-year planning horizon
3	2033	10-year planning horizon

2 PROPOSED DEVELOPMENT

This section presents the proposed development plan and a vehicular access plan.

2.1 Proposed Development Characteristics

The developer, A.L. Sott (Delta Shoppers) Inc., is considering the re-development of the site located in the City of Delta, at the northwest corner of Scott Road (120 Street) & 80 Avenue. The proposed development would require the construction of a 32-Storey Condo + Office Tower (Tower North), 32-Storey Condo Tower (Tower South), 10-Storey Seniors Building (Midrise North), and 6-Storey Rental Building (Midrise South) (see Exhibit 2-1) that includes:

- 876 residential dwelling units.
- 7,502.10 m^2 (80,752 ft^2) of retail space.
- 11,380.52 m^2 (122,499 ft^2) of office space.
- 310.31 m^2 (3,340 ft^2) of childcare space

Development surrounding the subject site is as follows:

- To the north, lies the existing Northeast Access roadway of the shopping mall.
- To the south, lies existing residential and commercial buildings (Complex 11957 80 Ave, 8035 120 St, 11921 80 Ave, and 11905 80 Ave).
- To the east, lies Scott Rd (120 St).
- To the west, lies existing residential buildings (Complex 11880 82 Ave, and 11865 80 Ave).

Exhibit 2-1: Development 3D View



2.2 Development Staging

The development is expected to proceed immediately, and the redevelopment will be completed in three phases (phasing to be finalized at a later stage), during the period 2024-2025.

2.3 Proposed Development Vehicle Accesses

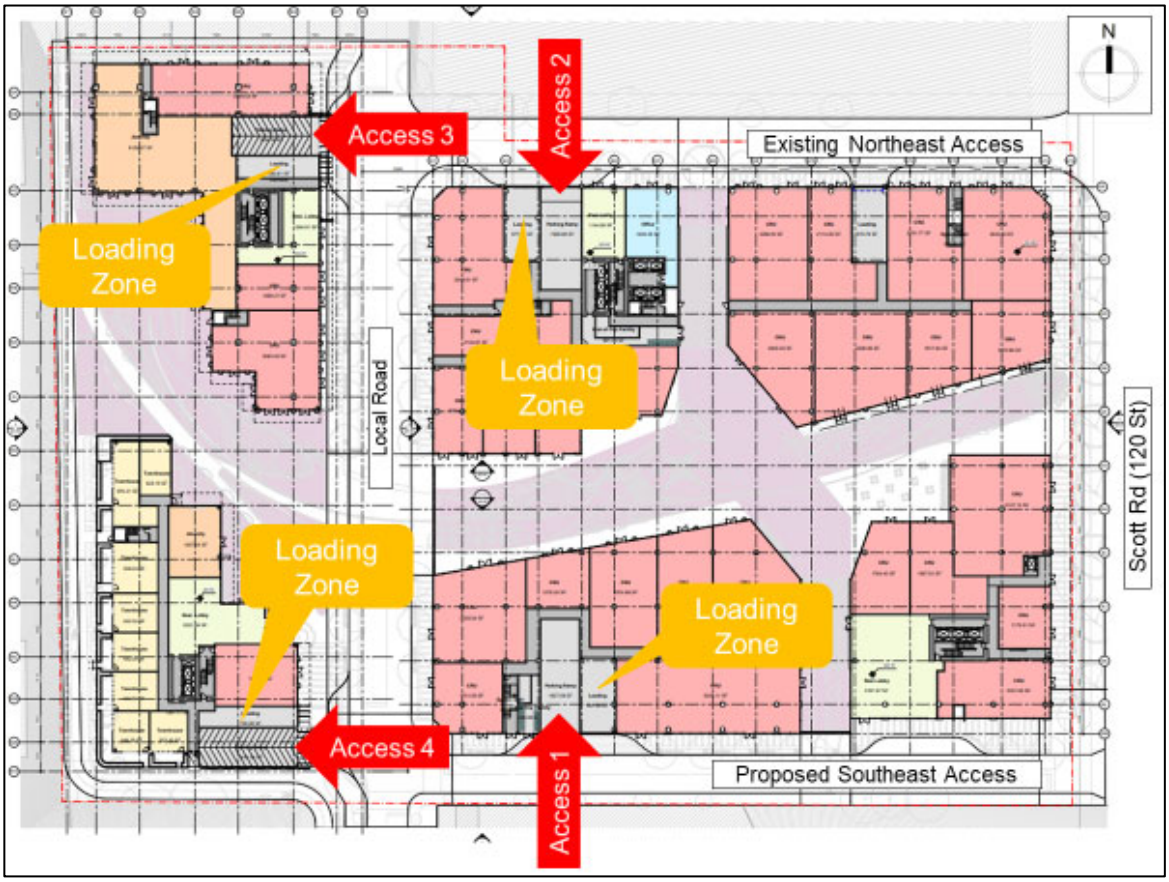
As shown in Exhibit 2-2, four vehicle accesses to the site (for the use of residents and visitors) will be provided:

- Access #1 via the proposed Southeast Access Roadway,
- Access # 2 via the existing Northeast Access Roadway,
- Access #3 via Local Road, parallel to the existing northeast access, and
- Access #4 via Local Road, parallel to the proposed southeast access.

Property to the south of the proposed development is expected to be rezoned and the proposed vehicle access for that lot should meet standard access spacing.

Accesses for the loading are located next to the proposed parkade accesses.

Exhibit 2-2: Development Vehicle Access Points



3 EXISTING AREA CONDITIONS

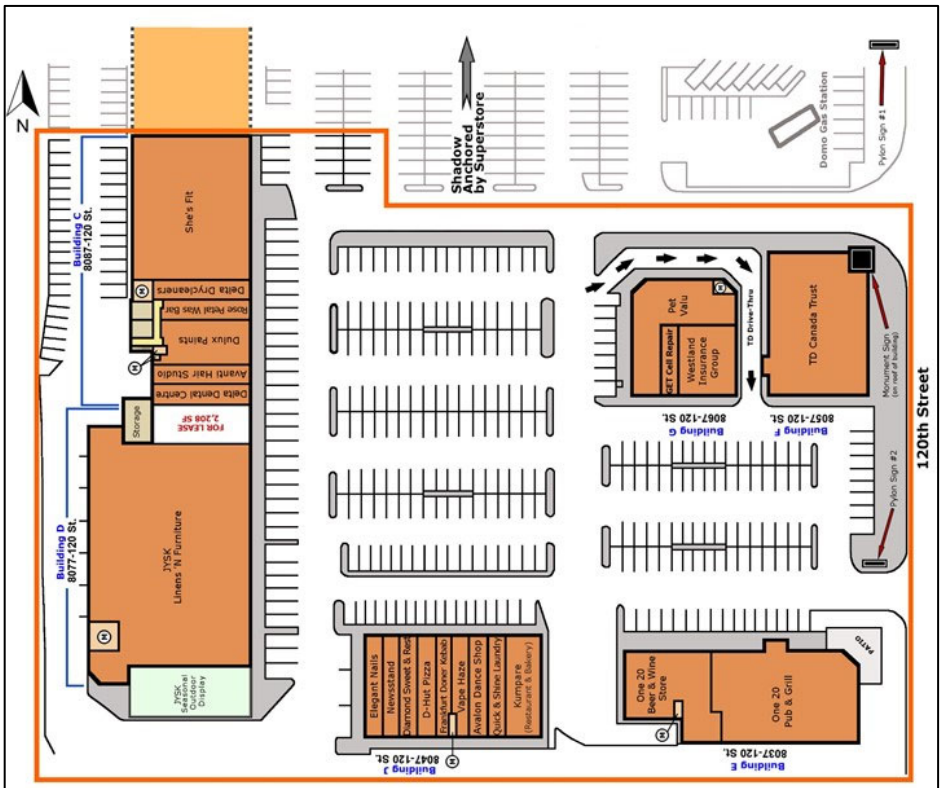
This section presents the existing road network, traffic volumes, and traffic controls, as well as pedestrian, bicycle, and transit network connections around the proposed development.

3.4 Existing Development

The site covers approximately 5.9 acres (23,875m^2) of land located within the North Delta community. As shown in Exhibit 3-1, the parcels are currently occupied by multi-tenant commercial/office buildings, which all together form a local shopping center named Delta Shoppers Mall (74,669 ft^2/6,937 m^2 GFA). To support customers' parking demand, the existing site provides 337 car parking stalls.

The existing vehicular accesses to the properties are from 120 Street and 80 Avenue.

Exhibit 3-1: Existing Land Uses at the Site



DELTA SHOPPERS MALL		
Tenant	**Unit #**	**SF**
8037 - 120 Street [E]		
One 20 Pub and Grill	100	6,520
One 20 Beer and Wine Store	110	4,691
8047 - 120 Street [J]		
Kumpare (Philipino & Thai Restaurant/Bakery)	100	2,345
Quick and Shine Laundry	110	1,039
Avalon Dance Shop of Canada	120	1,039
Vape Haze	130	962
Frankfurt Doner Kebab	140	978
D-Hut Pizza	150	1,039
Diamond Sweet & Restaurant	160	1,039
Delta Shoppers Newsstand	170	1,039
Elegant Nails	180	1,305
8057 - 120 Street [F]		
TD Bank	100	8,003

8067 - 120 Street [G]		
Bosley's Pet Food Plus	100, 140	3,980
GET Cell Repair	110	775
Westland Insurance Group	120	1,876
8077 - 120 Street [D]		
Jysk Linen 'n Furniture	100, 110M	18,482
FOR LEASE	120	2,208
8087 - 120 Street [C]		
Delta Dental Centre	130	1,181
Avanti Hair Studio	140	1,105
Dulux Paints	160	1,993
Rose Petal Wax Bar	170	1,103
Delta Drycleaners	180	1,177
She's Fit	190	10,790
	Total:	**74,669**

3.1 Existing Pedestrian, Cycling, and Transit Network

Currently, the active transportation network consists of sidewalks on all study roads (see Exhibit 3-2):

- Good sidewalk connections exist between the site and most of the surrounding area. The sidewalks along Scott Road (120 Street) are directly adjacent to the roadway, whereas the sidewalk along Sharma Boulevard is separated from the roadway using a green boulevard.
- Most of the sidewalks in this area are in good pavement condition.

Exhibit 3-2: Existing Pedestrian Network

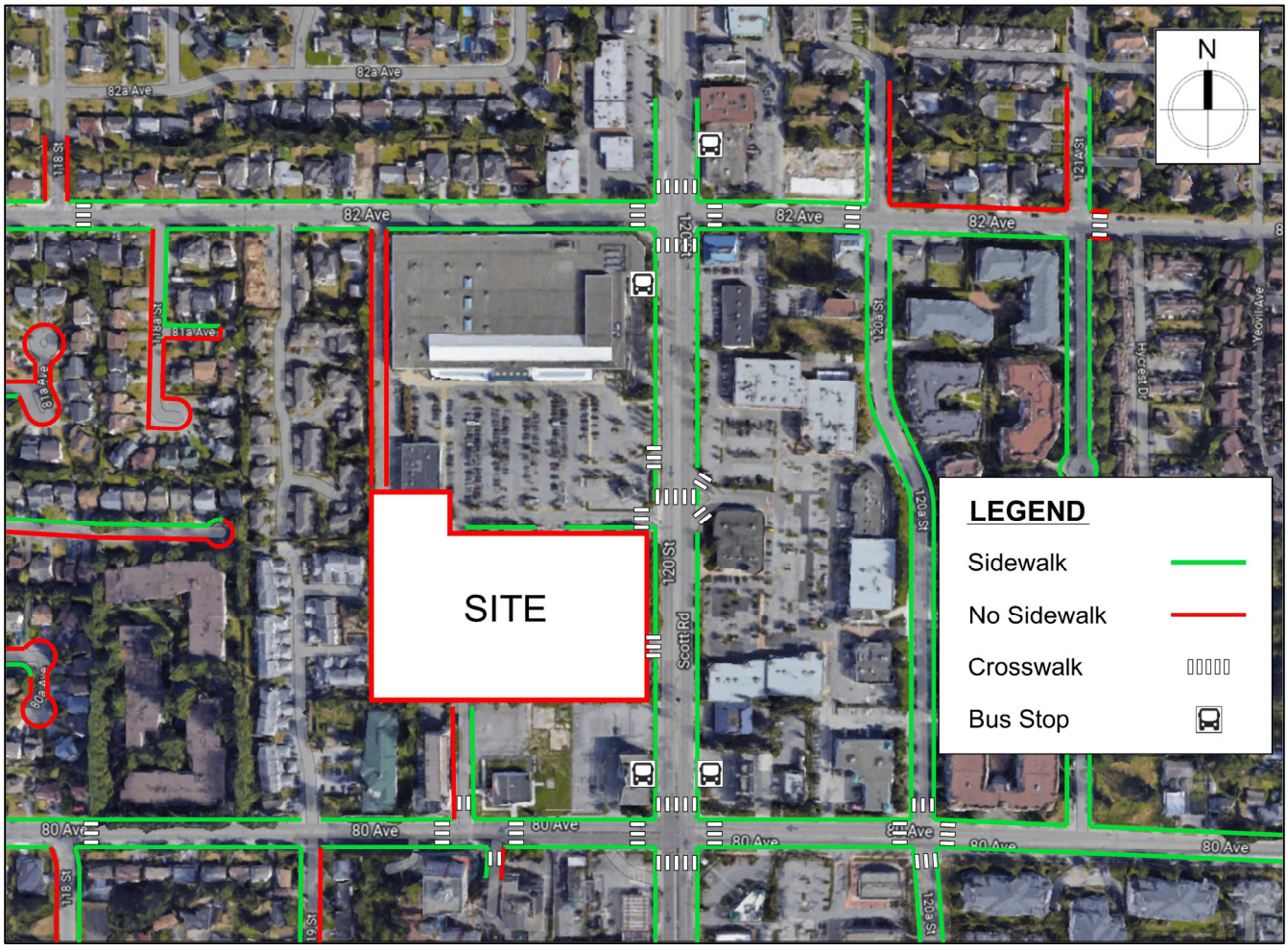


Exhibit 3-3 illustrates the existing cycling network adjacent to the site. As shown in the exhibit, shared lanes along 82 Avenue and 116 St are nearby cycling facilities to the site. Developer is exploring opportunities to provide a bike connection through the proposed development to connect 80 Ave and 82 Ave. To achieve this, coordination will be taking place with the adjacent properties.

Exhibit 3-3: Existing Cycling Network

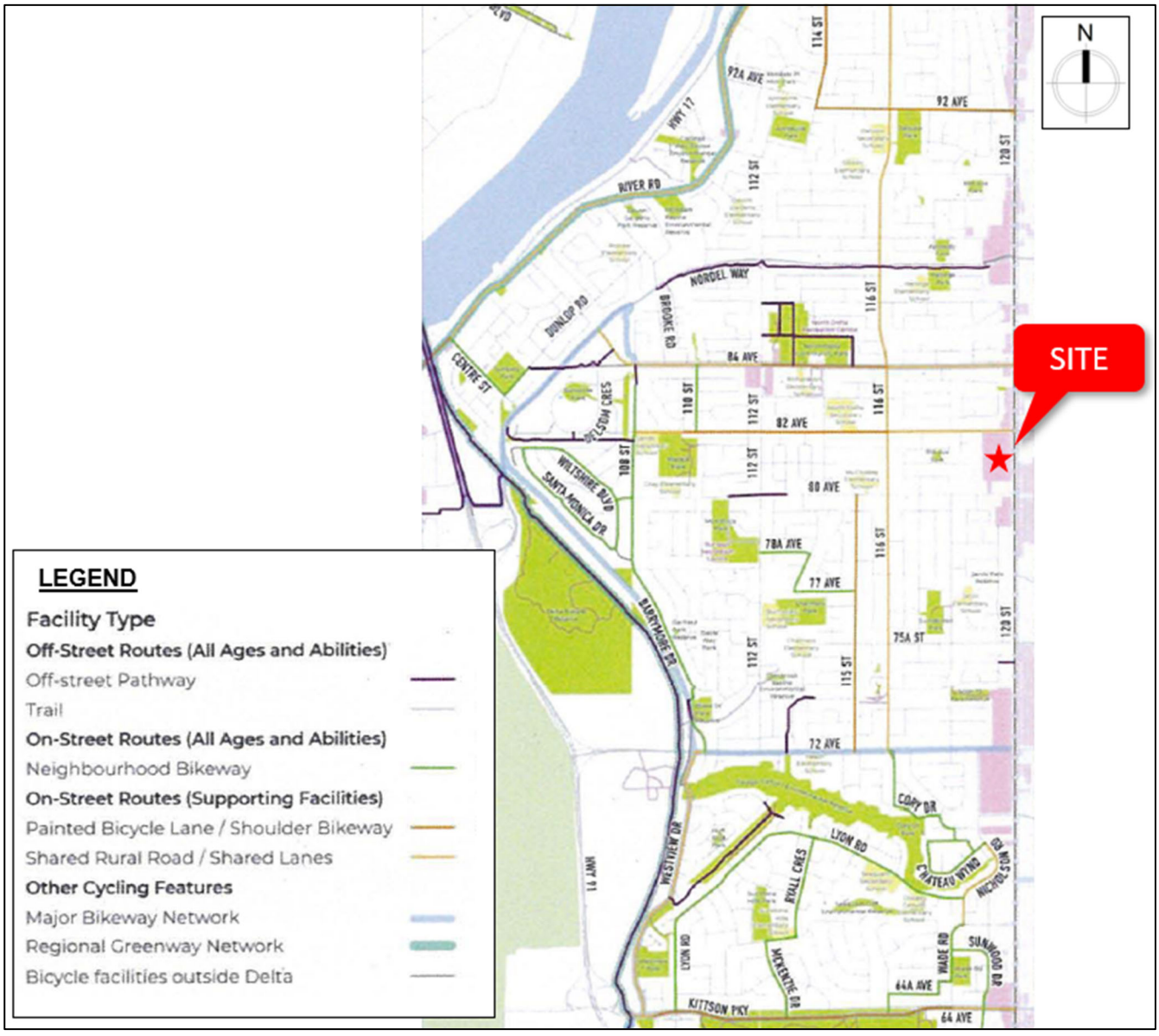


Image Source: Adopted from 2022 Delta Cycling Master Plan. Retrieved February 9, 2023, from https://delta.civicweb.net/filepro/documents/?preview=216408

Existing shared lanes along 82 Avenue are illustrated in Exhibit 3-4.

Exhibit 3-4: Existing Shared Bicycle Lane on 82 Avenue



The proposed development is situated in very close proximity to the bus stops in both directions for two public transit routes that provide residents/tenants/visitors with an alternative mode of transportation (see Exhibit 3-5). The operational details of the routes are summarized in Exhibit 3-6.

Exhibit 3-5: Existing Transit Network



Exhibit 3-6: Nearby Transit Route Summary

Route #	Stop ID #	Route Name	From – To Locations	Running Days	Peak Headway
301	SB – 55206 NB – 55196	Brighouse / Newton Exchange	Richmond / Brighouse Station @ Bay 6– Newton Exchange @ Bay 5	All Week	15 mins
319	SB – 55205, 55206 NB – 55196, 55197	Scott Road / Newton Exchange	Scott Road Station @ Bay 9 – Newton Exchange @ Bay 5	All Week	5 mins

3.2 Future Cycling Network

The 2022 Delta Cycling Master Plan proposed the cycling network development throughout the City of Delta. The proposed cycling network for the North Delta includes several prioritized bike routes including a protected bicycle lane at Scott Road (120 Street) and neighborhood bikeways along 80 Avenue and 82 Avenue (see Exhibit 3-7). Those routes that run near the site, were classified as one of the highest-priority projects.

Exhibit 3-7: Future Cycling Network

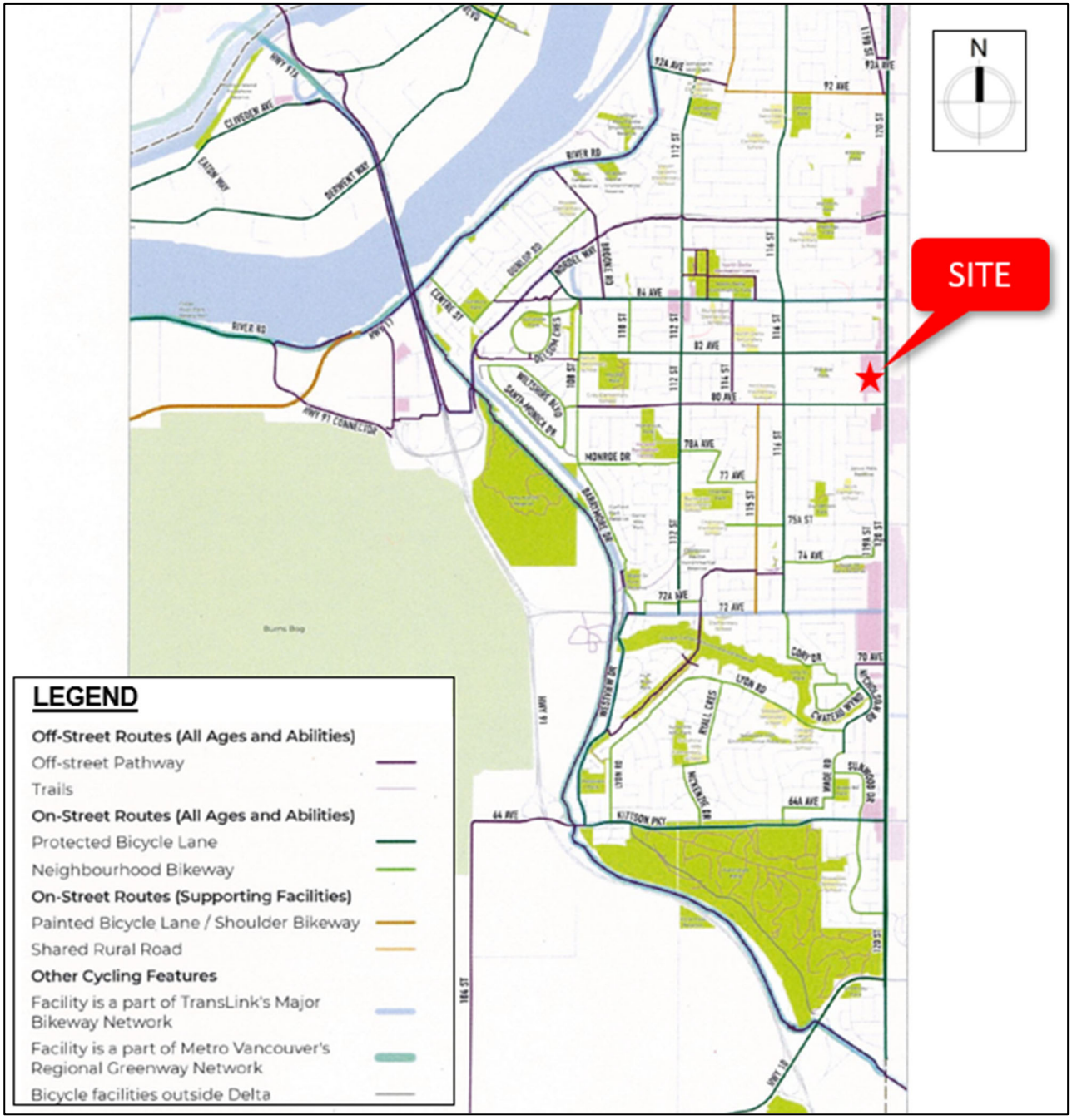


Image Source: Adopted from 2022 Delta Cycling Master Plan. Retrieved February 9, 2023, from https://delta.civicweb.net/filepro/documents/?preview=216408

3.3 Road Network and Traffic Controls

The existing streets in the study area are listed in Exhibit 3-8.

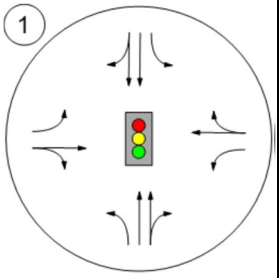
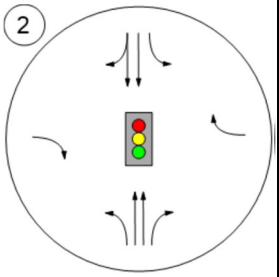
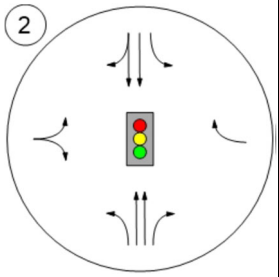
Exhibit 3-8: Study Roads – Existing Conditions

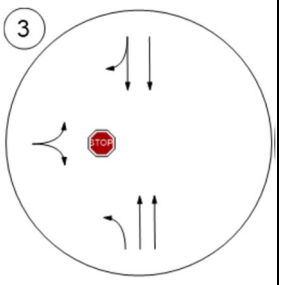
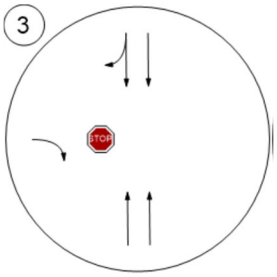
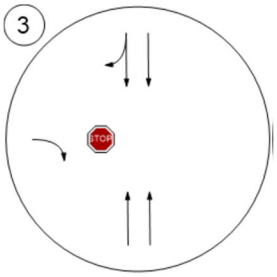
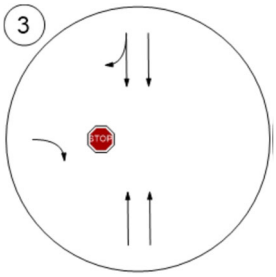
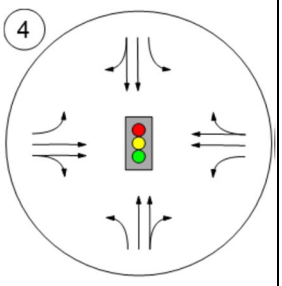
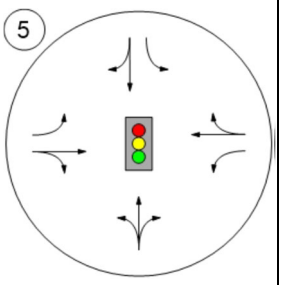
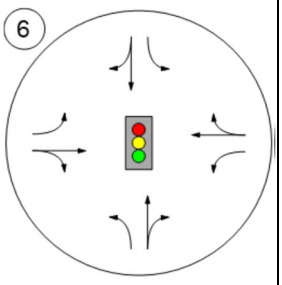
Name	Classification	Existing Number of Lanes
Scott Road (120 Street)	Arterial	4 travel lanes
82 Avenue (West of Scott Road)	Local	2 travel lanes
82 Avenue (East of Scott Road)	Collector[1]	2 travel lanes
80 Avenue (West of Scott Road)	Collector[2]	4 travel lanes
80 Avenue (East of Scott Road)	Arterial Road[1]	2 travel lanes + two-way left turn lanes
Sharma Boulevard	Private Road	2 lanes
116 Street	Collector	2 travel lanes

1. Per the City of Surrey Road Classification Map (R-91)
2. Per the City of Delta Official Community Plan Road Hierarchy Map (Map - 8)

The existing lane configuration and intersection control for the intersections in the study area are illustrated in Exhibit 3-9.

Exhibit 3-9: Study Intersections – Traffic Control and Lane Configuration

#	Intersection	Existing	Scenario 1	Scenario 2	Scenario 3
1	Scott Road (120 Street) & 82 Avenue		No Change	No Change	No Change
2	Scott Road (120 Street) & Northeast Access / Access to Scott Road Centre	 Pedestrian Actuated Half-Signal	No Change	No change	 Full Traffic Signal EBL permitted

#	Intersection	Existing	Scenario 1	Scenario 2	Scenario 3
3	Scott Road (120 Street) & Southeast Access		 Relocated south ~30m EBL/NBL restricted	 Relocated south ~30m EBL/NBL restricted	 Relocated south ~30m EBL/NBL restricted
4	Scott Road (120 Street) & 80 Avenue		No Change	No Change	No Change
5	Sharma Boulevard & 80 Avenue		No Change	No change (the proposed development will not use Sharma Boulevard)	No change (the proposed development will not use Sharma Boulevard)
6	80 Avenue & 116 Street		No Change	No Change	No Change

3.4 Traffic Volumes

This section presents the assumptions and methodologies followed to establish traffic volumes used in this study.

3.4.1 Existing Traffic Volumes

Data for the 2023 scenario was established based on the following:

- The existing volumes for all study intersections were based on the turning-movements counts conducted by Arcadis IBI Group in February, March, and April 2023. Existing traffic volumes are provided in Appendix A. Minor traffic shortcutting in the area was observed to avoid construction activities along 120 Street, and
- The 2023 traffic volumes were adjusted reconciling differences due to counts made in different months.

3.4.2 Near-by Proposed Development Traffic Volumes

The following nearby developments were considered, as advised by the city (see Exhibit 3-10 and Exhibit 3-11):

- 7551, 7565, and 7595 120th Street (site location #1), and
- 7702-7740 119A Street (site location #2).

By 2028, the nearby developments may generate approximately 166 and 185 vehicle trips during the AM and PM peak hours respectively based on the approved Transportation Impact Studies.

For analysis purposes, the following methodology and assumptions were considered:

- The site traffic was assigned to Scott Rd (120 St) only, as no other study intersections aligned with this study.
- The combined site traffic was assumed to travel north-south only along the study intersection (ID #1, ID #2, ID #3, and ID #4) on Scott Rd (120 St). The site trips from the nearby proposed developments are shown in Appendix B.
- The site-generated traffic was provided for weekday AM and PM peaks only. Saturday site generated traffic was established based on the traffic data collected by Arcadis IBI.

Exhibit 3-10: Nearby Developments – Locations



Exhibit 3-11: Nearby Proposed Development - Statistics

Site	7551, 7565, and 7595 120th St (#1)	7702-7740 119A St (#2)
Location	South of the site	South of the site
Build-out year	2024 (As of August 4, 2021, TIA)	2025 (As of October 12, 2022, TIA)
Land Use	Low- and Mid-Rise Residential Development	Mid-rise Multi-Family Residential Development
Number of Units/ FRA	165	275
Vehicle Access	Via a new connecting laneway between 119A Street and 120 St	Via 119A St
AM Trips (veh/ hr)	64 (Obtained from TIA)	102 (Obtained from TIA)
PM Trips (veh/ hr)	77 (Obtained from TIA)	108 (Obtained from TIA)
SAT Trips (veh/ hr)	65 (Estimated)	91 (Estimated)

3.4.3 Future Background Traffic Volumes

To establish the future background traffic conditions, the following was considered:

- The 2023 existing traffic volumes at each study intersection were factored up at a 1.1% growth rate to 2028 and 2033, as recommended by the city, and
- Traffic generated by the nearby proposed developments was added (see Section 3.4.2).

The background traffic volumes (2028 & 2033) are illustrated in Appendices C and D.

3.4.4 Development Traffic Volumes

The following Trip Generation Methodology was applied:

- Use of the ITE vehicle trip-generation rates as a primary method:
    - As shown in Exhibit 3-12, the vehicle trips associated with the proposed development (noted in Section 2.1), were initially estimated based on the Institute of Transportation Engineers (ITE) 11th Edition standard trip rates. The ITE trip rates for the categories of Shopping Centre (land use code 820), Multifamily Housing – High Rise (code 222), and General Office Building (code 710) were selected. Based on this analysis, the proposed development could generate approximately 495, 737, and 739 vehicle trips in AM, PM, and Saturday peak hours, respectively.
    - An existing credit was applied to the existing development use (~75,000 ft^2 of commercial buildings) because it is currently active (see Section 3.4).
    - The existing developed component of the site will be replaced with the new ~80,000 ft^2 of commercial development. For analysis purposes, it is assumed the site is not going to experience change in “commercial” traffic volumes and patterns. As shown in Exhibit 3-13, the commercial development generates approximately 68, 275, and 356 vehicle trips in AM, PM, and Saturday peak hours, respectively.
    - As shown in Exhibit 3-14, once the proposed “commercial” site traffic has been removed from the network, the proposed development is estimated to generate 427 net new AM trips, 462 net new PM trips, and 383 net new SAT trips. The projected trips were applied to the “No Reduction” sub-scenario.
- Adjusting the ITE vehicle trip generation estimates for the local urban context.
    - The projected trips applied to the “No Reduction” sub-scenario were reduced by 20%, considering:
        - Proximity to a frequent transit network (the future R6 Scott Road RapidBus),
        - Parking space reduction for a building constructed on a lot within 125m of Scott Rd, as per the City of Delta’s Zoning Bylaw.
        - The developer's commitment to implementing a Transportation Demand Management Plan to maximize the utility of sustainable transportation choices.
    - As shown in Exhibit 3-15, the development could generate approximately 342, 370, and 306 vehicle trips in AM, PM, and Saturday peak hours, respectively.

Exhibit 3-12: Proposed Development - Trip Generation

Land Use	**Residential**			**Commercial / Retail**			**Office**		
Peak Hour	**AM**	**PM**	**Saturday**	**AM**	**PM**	**Saturday**	**AM**	**PM**	**Saturday**
ITE Code (11 Edition)	222			820			710		
Average Rate	0.27	0.32	0.36	0.84	3.4	4.4	1.52	1.44	0.53
Development (units or ft^2/1,000)	876	876	876	81	81	81	126	126	126
% Inbound	26%	62%	57%	62%	48%	52%	88%	17%	54%
In	61	174	180	42	132	185	168	31	36
Out	175	107	136	26	143	171	23	150	31
Total Traffic (veh/hr)	**236**	**281**	**316**	**68**	**275**	**356**	**191**	**181**	**67**

Exhibit 3-13: Existing Development - Trip Generation

Land Use	**Residential**			**Commercial / Retail**			**Office**		
Peak Hour	**AM**	**PM**	**Saturday**	**AM**	**PM**	**Saturday**	**AM**	**PM**	**Saturday**
ITE Code (11 Edition)				820					
Average Rate				0.84	3.4	4.4			
Development (units or ft^2/1,000)				81	81	81			
% Inbound				62%	48%	52%			
In				42	132	185			
Out				26	143	171			
Total Traffic (veh/hr)				**68**	**275**	**356**			

Exhibit 3-14: Net New Site Traffic (No Reduction)

(a) Proposed Development - Trip Generation			
	AM	**PM**	**Saturday**
In	271	337	401
Out	224	400	338
Total Traffic (veh/hr)	**495**	**737**	**739**
(b) Existing Development - Trip Generation			
	AM	PM	Saturday
In	42	132	185
Out	26	143	171
Total Traffic (veh/hr)	**68**	**275**	**356**
(b) Net New - Trip Generation			
	AM	PM	Saturday
In	229	205	216
Out	198	257	167
Total Traffic (veh/hr)	**427**	**462**	**383**

Exhibit 3-15: Net New Site Traffic (with 20% Reduction)

(b) Net New - Trip Generation (20% reduction)			
	AM	PM	Saturday
In	183	164	173
Out	158	206	134
Total Traffic (veh/hr)	**342**	**370**	**306**

3.4.4.1 Trip Distribution

Established site-generated traffic was distributed and assigned to the site access points and the roadway network in proportion to the distribution/directionality of the existing traffic patterns, obtained from the existing turning-movements counts (see Exhibit 3-16 below).

Exhibit 3-16: Site Trip Distribution

Peak Period	AM Peak Hour		PM Peak Hour		Saturday Midday	
Location	**To**	**From**	**To**	**From**	**To**	**From**
Scott Rd (120 St) North of Delta Shoppers Mall	24%	29%	22%	19%	22%	24%
80 Ave East of Scott Rd (120 St)	13%	9%	16%	16%	17%	15%
Scott Rd (120 St) South of 80 Ave	28%	24%	23%	29%	28%	29%
116 St South of 80 Ave	13%	10%	10%	13%	9%	10%
80 Ave West of 116 St	11%	12%	16%	13%	11%	11%
116 St North of 80 Ave	11%	15%	14%	11%	13%	11%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Note: Any apparent discrepancies in the subtotals are due to rounding of the numbers.

All inbound and outbound traffic was assigned to the available accesses as per the three scenarios analyzed.

The site traffic volumes at the study intersections are shown in Appendices E-1 to E-6.

3.4.5 Future Combined Traffic Volumes

The combined volumes were obtained by superimposing the future site traffic volumes over the 2028 and 2033 background volumes. The resulting combined volumes for all scenarios and sub-scenarios are given in Appendices F-1 to F-6 for the 2028 horizon, and in Appendices G-1 to G-6 for the 2033 horizon.

4 TRANSPORTATION ANALYSIS

This section presents the transportation analysis undertaken to obtain a clear understanding of both the transportation-related implications of the proposed development and the improvements necessary to ensure acceptable operating conditions.

The following transportation analyses were performed:

- Intersection Capacity Analysis,
- Sight Distance Analysis, and
- On-Site Vehicle Circulation Analysis.

4.1 Intersection Capacity Analysis

A capacity analysis was carried out by using the Highway Capacity Manual (HCM 2010) methodology and specifically the Synchro software.

The following intersection performance criteria were used to assess traffic operations under existing and future conditions:

- Overall Level of Services ‘D’ or better.
- Volume/capacity (v/c) ratio of 0.85 or less.
    - It is to be noted that as per Table 3-2 of Traffic Signal Timing Manual: Chapter 3 - FHWA Operations,
        - < 0.85 indicates the intersection is operating under capacity. Excessive delays are not experienced.
        - 0.85–0.95 indicates intersection is operating near its capacity. Higher delays may be expected, but continuously increasing queues should not occur.
        - 0.95–1.00 indicates unstable flow results in a wide range of delay. Intersection improvements will be required soon to avoid excessive delays.
        - 1.00 indicates the demand exceeds the available capacity of the intersection. Excessive delays and queuing are anticipated.
- Individual Level of Services ‘E’ or better.
- Individual Volume/Capacity (v/c) ratio of 0.90 or less.

This analysis covers the following scenarios for AM, PM, and Saturday peak hours:

- Background Traffic – 2023 Existing, 2028, 2033.
- Background + Site Traffic – 2028, 2033.
    - Scenario 1: Do Nothing (Minor Changes)
        - No Reduction in Site Traffic
        - 20% Reduction in Site Traffic
    - Scenario 2: Sharma Blvd Closed
        - No Reduction in Site Traffic
        - 20% Reduction in Site Traffic

- Scenario 3: Sharma Blvd Closed & Full Signalization Mid-Block 120 Street
  - No Reduction in Site Traffic
  - 20% Reduction in Site Traffic

Exhibits 4-1 to 4-8 summarize the overall intersection performance measures (LOS, maximum V/C, delays). Results exceeding the thresholds are shown in orange. The detailed capacity analysis results, showing the individual movements, are provided in Appendix H (H-1 to H-15) as Synchro outputs.

Key Observations by 2033

- Background Traffic (see Exhibit 4-1):
  - In Scenario 1 and Scenario 2,
    - All intersections perform acceptably (LOS, Delay, and V/C), except:
      - Scott Road (120 Street) @ Northeast Access (ID#2) exceeding V/C=0.85 but below 0.95.
      - Scott Road (120 Street) @ 80 Avenue (ID#4) exceeding V/C=0.85, but below 0.95.
  - In Scenario 3, ID #2 Scott Road (120 Street) @ Northeast Access will improve with full signalization.
- Background + Site Traffic
  - For combined conditions (Background + Site Traffic), intersection traffic signals operation has been optimized. The following results reflect the adjusted conditions.
  - In Scenario 1 (see Exhibit 4-2),
    - V/C ratio and delays increase marginally from “Background Traffic” to “Background + Site Traffic”, except for ID #4 Scott Road (120 Street) @ 80 Avenue and ID #5 Sharma Boulevard / Residential Access @ 80 Avenue.
    - By 2033, ID #4 is expected to be near the threshold (V/C>0.85 but remain lower than 0.95, in PM and Saturday peak. A 20% Reduction in traffic does not have any significant impact.
    - By 2033 ID #5 V/C nears the threshold but does not exceed capacity. The overall Level of service stays within an acceptable level of threshold (D or better), All intersections will continue to perform acceptably (LOS, Delay, and V/C), except:
      - Scott Road (120 Street) @ Northeast Access (ID#2) exceeding V/C=0.85 but remains lower than 0.95, in PM and Saturday peak.
      - Scott Road (120 Street) @ 80 Avenue (ID#4) exceeding V/C=0.85 but remaining lower than 0.95, in the PM peak only.
    - The impact of the site generated traffic is not anticipated to result in any significant operational concerns.
  - In Scenario 2 (see Exhibit 4-3),
    - Traffic will continue to perform similarly as in Scenario 1.
    - All intersections will continue to perform acceptably (LOS, Delay, and V/C) except:

- Scott Road (120 Street) @ Northeast Access (ID#2) exceeding city threshold V/C=0.85 in all peak hours, often >1.00 indicating demand exceeds the existing available capacity of the intersection. However, LOS remains C or above.
- Scott Road (120 Street) @ 80 Avenue (ID#4) exceeding V/C=0.85 but remain lower than 0.95, in PM and Saturday Peak. LOS is E and 20% of traffic does not make any significant impact.
- Sharma Blvd remains unchanged generally compared to Scenario 1

- In Scenario 3 (see Exhibit 4-4),
  - All intersections will continue to perform acceptably (LOS, Delay, and V/C):
    - Congestion at Scott Road (120 Street) @ Northeast Access (ID#2) lessens with full signalization, compared to Scenario 2. LOS is maintained at D or above. The proposed full signalization assumes NBL and SBL being protected movements.
    - Scott Road (120 Street) @ 80 Avenue (ID#4) will continue to perform similarly to Scenario 1 and Scenario 2 (exceeding V/C=0.85 but remaining lower than 0.95, in the PM peak only).
  - The impact of the site-generated traffic and re-routed traffic is not anticipated to result in any significant operational concerns for this scenario.
- In general, a 20% reduction in site trips does not have a significant impact on the performance of the intersections, except for ID#2 in Scenario 3.
- Scenario 3 appears to be the most favorable option when compared to Scenario 2. Scenario 1 is not a viable option as Sharma Blvd is a private road.
- Optimized signal timing and phasing plans will be finalized at a later stage.

Exhibit 4-1: Traffic Analysis Summary – Background Traffic

ID	Intersection	Peak Hour	2023 Existing			Scenario 1						Scenario 2	Scenario 3					
						2028 Background			2033 Background				2028 Background			2033 Background		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS		V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1	Scott Road (120 Street) @ 82 Avenue	AM	0.65	17	B	0.67	19	B	0.72	20	B	Background for all study intersections remains the same as Scenario 1	0.67	19	B	0.72	20	B
		PM	0.74	19	B	0.79	21	C	0.85	22	C		0.79	21	C	0.85	22	C
		SAT	0.68	19	B	0.70	23	C	0.76	26	C		0.70	23	C	0.76	26	C
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre[1]	AM	0.56	12	B	0.62	13	B	0.65	13	B		0.52	12	B	0.55	12	B
		PM	0.58	15	B	0.80	12	B	0.86	12	B		0.64	13	B	0.70	14	B
		SAT	0.63	14	B	0.86	11	B	0.91	12	B		0.77	13	B	0.84	15	B
3	Scott Road (120 Street) @ Southeast Access[2]	AM	0.28	0	A	0.31	0	A	0.33	0	A		0.31	0	A	0.33	0	A
		PM	0.34	1	A	0.37	0	A	0.39	0	A		0.37	0	A	0.39	0	A
		SAT	0.33	1	A	0.36	1	A	0.37	1	A		0.36	1	A	0.37	1	A
4	Scott Road (120 Street) @ 80 Avenue	AM	0.55	24	C	0.60	25	C	0.69	27	C		0.60	25	C	0.69	27	C
		PM	0.83	38	D	0.87	44	D	0.89	50	D		0.87	44	D	0.89	50	D
		SAT	0.71	32	C	0.77	35	C	0.82	37	D		0.77	35	C	0.82	37	D
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	0.26	11	B	0.28	12	B	0.30	14	B		0.28	12	B	0.30	14	B
		PM	0.51	22	C	0.56	24	C	0.59	27	C		0.56	24	C	0.59	27	C
		SAT	0.61	20	B	0.63	21	C	0.64	25	C		0.63	21	C	0.64	25	C
6	116 Street @ 80 Avenue	AM	0.60	15	B	0.63	16	B	0.66	16	B		0.63	16	B	0.66	16	B
		PM	0.84	19	B	0.85	20	B	0.85	21	C		0.85	20	B	0.85	21	C
		SAT	0.78	18	B	0.82	20	B	0.83	20	C		0.82	20	B	0.83	20	C

1. This intersection (ID #2) is controlled by a half-signal with east-west accesses being stop-controlled.

2. The existing intersection (ID #3) is relocated further south in the future horizons and operates as a Right-in/Right-out.

Exhibit 4-2: Traffic Analysis Summary – Background + Site Traffic – Scenario 1

ID	Intersection	Peak Hour	2028 Combined						2033 Combined					
			No Reduction			20% Reduction			No Reduction			20% Reduction		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1	Scott Road (120 Street) @ 82 Avenue	AM	0.70	20	B	0.70	20	B	0.74	20	C	0.74	20	C
		PM	0.79	21	C	0.79	21	C	0.81	23	C	0.81	23	C
		SAT	0.70	24	C	0.70	24	C	0.81	27	C	0.80	27	C
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre	AM	0.77	12	B	0.70	12	B	0.81	12	B	0.74	12	B
		PM	0.76	16	B	0.75	15	B	0.78	16	B	0.77	16	B
		SAT	0.72	16	B	0.70	16	B	0.73	16	B	0.72	16	B
3	Scott Road (120 Street) @ Southeast Access	AM	0.36	0	A	0.35	0	A	0.37	0	A	0.36	0	A
		PM	0.40	0	A	0.39	0	A	0.42	0	A	0.41	0	A
		SAT	0.38	1	A	0.37	1	A	0.39	1	A	0.39	1	A
4	Scott Road (120 Street) @ 80 Avenue	AM	0.66	28	C	0.66	28	C	0.79	30	C	0.77	30	C
		PM	0.89	60	E	0.89	52	D	0.92	62	E	0.92	57	E
		SAT	0.84	42	D	0.82	40	D	0.90	45	D	0.85	43	D
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	0.62	18	B	0.56	17	B	0.63	20	B	0.57	18	B
		PM	0.84	31	C	0.80	31	C	0.85	41	D	0.79	37	D
		SAT	0.83	23	C	0.79	22	C	0.85	27	C	0.81	25	C
6	116 Street @ 80 Avenue	AM	0.74	18	B	0.72	17	B	0.77	19	B	0.75	18	B
		PM	0.85	23	C	0.85	22	C	0.85	25	C	0.85	24	C
		SAT	0.85	21	C	0.85	21	C	0.85	22	C	0.85	22	C

Exhibit 4-3: Traffic Analysis Summary – Background + Site Traffic – Scenario 2

ID	Intersection	Peak Hour	2028 Combined						2033 Combined					
			No Reduction			20% Reduction			No Reduction			20% Reduction		
			V/C	Delays (sec)	V/C	V/C	Delays (sec)	V/C	V/C	Delays (sec)	V/C	V/C	Delays (sec)	LOS
1	Scott Road (120 Street) @ 82 Avenue	AM	0.67	19	B	0.67	19	B	0.72	20	B	0.72	20	B
		PM	0.79	21	C	0.79	21	C	0.81	22	C	0.81	22	C
		SAT[1]	0.70	24	C	0.70	23	C	0.79	27	C	0.79	26	C
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre	AM	1.01	16	B	0.94	13	B	1.07	18	B	0.96	14	B
		PM	1.02	16	B	0.97	14	B	1.11	20	C	1.00	15	B
		SAT	1.19	27	C	1.07	19	B	1.28	32	C	1.16	23	C
3	Scott Road (120 Street) @ Southeast Access	AM	0.36	1	A	0.35	1	A	0.38	1	A	0.37	1	A
		PM	0.43	1	A	0.42	1	A	0.44	1	A	0.43	1	A
		SAT	0.39	1	A	0.39	1	A	0.41	1	A	0.40	1	A
4	Scott Road (120 Street) @ 80 Avenue	AM	0.74	28	C	0.71	28	C	0.84	32	C	0.82	31	C
		PM	0.94	51	D	0.89	48	D	0.95	66	E	0.94	60	E
		SAT	0.85	46	D	0.85	40	D	0.90	50	D	0.89	48	D
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	0.34	11	B	0.32	11	B	0.36	13	B	0.35	13	B
		PM	0.65	19	B	0.63	19	B	0.68	31	C	0.66	29	C
		SAT	0.63	18	B	0.63	18	B	0.65	21	C	0.65	20	C
6	116 Street @ 80 Avenue	AM	0.76	18	B	0.74	18	B	0.78	19	B	0.76	18	B
		PM	0.85	23	C	0.85	22	C	0.85	25	C	0.85	24	C
		SAT	0.85	21	C	0.84	20	C	0.85	21	C	0.85	21	C

1. At ID #1 NBL provided Protected+Permissive Phase for Saturday Peak.

Exhibit 4-4: Traffic Analysis Summary – Background + Site Traffic – Scenario 3

ID	Intersection	Peak Hour	2028 Combined						2033 Combined					
			No Reduction			20% Reduction			No Reduction			20% Reduction		
			V/C	Delays (sec)	LOS	V/C	Delays (sec)	LOS	V/C	Delays (sec)	LOS	V/C	Delays (sec)	LOS
1	Scott Road (120 Street) @ 82 Avenue	AM	0.70	20	B	0.70	20	B	0.74	21	C	0.74	20	C
		PM	0.79	22	C	0.79	22	C	0.84	23	C	0.83	23	C
		SAT	0.72	24	C	0.70	24	C	0.77	27	C	0.77	26	C
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre	AM	0.84	25	C	0.74	17	B	0.85	25	C	0.83	17	B
		PM	0.90	37	D	0.83	29	C	0.97	34	C	0.87	27	C
		SAT	0.91	35	D	0.85	31	C	0.94	37	D	0.90	31	C
3	Scott Road (120 Street) @ Southeast Access	AM	0.36	1	A	0.35	0	A	0.38	1	A	0.37	0	A
		PM	0.41	1	A	0.40	1	A	0.43	1	A	0.42	1	A
		SAT	0.38	1	A	0.38	1	A	0.40	1	A	0.39	1	A
4	Scott Road (120 Street) @ 80 Avenue	AM	0.68	27	C	0.67	27	C	0.79	30	C	0.75	28	C
		PM	0.87	52	D	0.87	50	D	0.90	53	D	0.89	50	D
		SAT	0.84	40	D	0.82	37	D	0.85	49	D	0.85	47	D
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	0.32	11	B	0.31	11	B	0.35	13	B	0.34	13	B
		PM	0.63	25	C	0.62	26	C	0.66	20	B	0.64	20	B
		SAT	0.63	18	B	0.63	15	B	0.65	20	C	0.65	20	B
6	116 Street @ 80 Avenue	AM	0.73	18	B	0.71	17	B	0.75	18	B	0.73	18	B
		PM	0.85	23	C	0.85	22	C	0.85	25	C	0.85	24	C
		SAT	0.84	21	C	0.84	20	C	0.85	21	C	0.85	21	C

Exhibit 4-5: Left Turn Queue Analysis Summary – Background Traffic 2033

ID	Intersection	Peak Period	Eastbound		Westbound		Northbound		Southbound	
			95%-ile Queue (m)	Available Storage (m)	95%-ile Queue (m)	Available Storage (m)	95%-ile Queue (m)	Available Storage (m)	95%-ile Queue (m)	Available Storage (m)
1	Scott Road (120 Street) @ 82 Avenue	AM	13	65	24	54	22	40	#37.2	33
		PM	12.0		36		#56.6		26	
		SAT	13		34		#62.6		27	
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre	AM	-	-	-	-	9	40	12	60
		PM	-		-		#64.1		9	
		SAT	-		-		53		116	
4	Scott Road (120 Street) @ 80 Avenue	AM	30	55	29	70	23	60	15	45
		PM	m36.8		#59.0		#51.5		#56.7	
		SAT	27		#46.7		#58.6		#51.5	
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	7	23	m9.7	50	-	-	10	26
		PM	39		m3.7		-		39	
		SAT	27		m4.7		-		40	
6	116 Street @ 80 Avenue	AM	18	70	6	60	15	50	11	65
		PM	14		14		17		#33.3	
		SAT	14		11		10		30	

The 95th percentile volume modeled exceed capacity.
m Upstream metering is in effect, i.e., the upstream signal is controlling the arrival of vehicles at the downstream intersection, thus limiting the queue length.

Exhibit 4-6: Left Turn Queue Analysis Summary – Background + Site Traffic 2033 – Scenario 1

ID	Intersection	Peak Period	Eastbound			Westbound			Northbound			Southbound		
			95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)
			No Reduction	20% Reduction		No Reduction	20% Reduction		No Reduction	20% Reduction		No Reduction	20% Reduction	
1	Scott Road (120 Street) @ 82 Avenue	AM	15	15	65	31	30	54	24	24	40	#38.7	#38.1	33
		PM	10	10		36	35		#65.6	#64.6		28	28	
		SAT	13	13		39	38		#66.5	#65.6		28	28	
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre	AM	-	-	-	-	-	-	17	15	40	9	9	60
		PM	-	-		-	-		45	41		18	18	
		SAT	-	-		-	-		47	43		32	31	
4	Scott Road (120 Street) @ 80 Avenue	AM	44	41	55	27	28	70	29	28	60	18	17	45
		PM	m#63.3	m#56.3		#67.6	#67.6		#79.5	#73.8		#71.8	#69.4	
		SAT	47	43		49	49		#84.2	#76.6		#69.6	#69.0	
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	19	16	23	m7.8	m7.6	50	-	-	-	41	35	26
		PM	#83.8	#73.4		m3.0	m0.0		-	-		#84.5	#72.3	
		SAT	50	43		6	6		-	-		64	60	
6	116 Street @ 80 Avenue	AM	20	19	70	9	8	60	15	15	50	15	14	65
		PM	15	14		#26.6	#24.3		18	18		#48.5	#46.8	
		SAT	16	16		14	14		12	11		#49.3	41	

The 95th percentile volume modeled exceed capacity. For further detail, please see page 37.

m Upstream metering is in effect i.e., the upstream signal is controlling the arrival of vehicles at the downstream intersection, thus limiting the queue length.

Exhibit 4-7: Left Turn Queue Analysis Summary – Background + Site Traffic 2033 – Scenario 2

ID	Intersection	Peak Period	Eastbound			Westbound			Northbound			Southbound		
			95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)
			No Reduction	20% Reduction		No Reduction	20% Reduction		No Reduction	20% Reduction		No Reduction	20% Reduction	
1	Scott Road (120 Street) @ 82 Avenue	AM	13	13	65	29	28	54	22	22	40	#37.2	#37.2	33
		PM	10	10		36	35		#60.5	#60.1		27	27	
		SAT	13	13		39	38		#62.4	#62.4		27	27	
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre	AM	-	-	-	-	-	-	37	28	40	8	8	60
		PM	-	-		-	-		#71.7	#123.4		9	9	
		SAT	-	-		-	-		#74.2	#134.1		15	15	
4	Scott Road (120 Street) @ 80 Avenue	AM	49	44	55	29	29	70	23	23	60	#39.6	32	45
		PM	#69.9	#59.6		#70.6	#70.4		#73.2	#70.6		#100.7	#97.9	
		SAT	53	49		58	59		#61.9	#57.5		#93.2	#77.1	
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	7	7	23	m7.0	m7.4	50	-	-	-	10	10	26
		PM	48	45		m2.7	m3.0		-	-		39	39	
		SAT	28	28		6	6		-	-		41	41	
6	116 Street @ 80 Avenue	AM	21	20	70	9	8	60	15	15	50	15	14	65
		PM	15	15		#26.6	#24.3		18	18		#48.5	#46.8	
		SAT	14	14		13	13		11	10		#47.0	#43.1	

The 95th percentile volume modeled exceed capacity. For further detail, please see page 37.

m Upstream metering is in effect. . i. e, the upstream signal is controlling the arrival of vehicles at the downstream intersection, thus limiting the queue length.

Exhibit 4-8: Left Turn Queue Analysis Summary – Background + Site Traffic 2033 – Scenario 3

ID	Intersection	Peak Period	Eastbound			Westbound			Northbound			Southbound		
			95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)	95%-ile Queue (m)		Available Storage (m)
			No Reduction	20% Reduction		No Reduction	20% Reduction		No Reduction	20% Reduction		No Reduction	20% Reduction	
1	Scott Road (120 Street) @ 82 Avenue	AM	15	15	65	31	30	54	26	25	70[1]	#38.7	#38.1	70[1]
		PM	11	10		38	35		#70.9	#68.1		27	28	
		SAT	15	15		#46.7	#44.0		#59.7	#56.6		29	29	
2	Scott Road (120 Street) @ Northeast Access / Access to Scott Road Centre	AM	-		-	-		-	25	16	50[1]	18	13	74[1]
		PM	-			-			#104.4	#81.8		20	19	
		SAT	-			-			#110.1	86		41	40	
4	Scott Road (120 Street) @ 80 Avenue	AM	49	46	55	28	29	70	24	23	67[1]	19	17	109[1]
		PM	#66.5	#59.3		#67.7	#66.7		#73.6	#71.2		#78.2	#75.9	
		SAT	48	46		51	54		#79.6	#69.4		#81.8	#71.5	
5	Sharma Boulevard / Residential Access @ 80 Avenue	AM	7	7	23	m7.0	m7.7	50	-		-	10	10	26
		PM	45	43		m2.0	m2.3		-			39	39	
		SAT	27	27		6	6		-			41	41	
6	116 Street @ 80 Avenue	AM	20	19	70	9	8	60	15	15	50	15	14	65
		PM	14	14		#26.6	#24.3		18	18		#48.5	#46.8	
		SAT	15	14		14	13		10	10		#43.1	#37.2	

The 95th percentile volume modeled exceed capacity. For further detail, please see page 37.

m Upstream metering is in effect. i.e., the upstream signal is controlling the arrival of vehicles at the downstream intersection, thus limiting the queue length.

[1] The NB and SB storage lengths in Exhibit 4-8 has been updated to reflect the City's long-term goal, in coordination with TransLink's future projects. (However, for analysis purposes of this TIA, a conservative approach was adopted by maintaining the existing available storage for the assessment).

- Left-turn Queue Storage Analysis:
    - In Scenario 1 (Exhibit 4-6),
        - The following queues (95th percentile) may spillback during the PM peak and Saturday peaks:
            - the northbound-left turn and southbound-left turn at intersection ID #1,
            - the northbound-left turn at intersection ID #2
            - the eastbound-left turn (PM Peak only), northbound-left turn, and southbound-left turn at intersection ID #4, and
            - the eastbound and southbound left-turn queues at ID #5.
    - In Scenario 2 (Exhibit 4-7),
        - Impacted queue lengths remain similar to Scenario 1 for PM and Saturday peak. Queues are getting much longer at ID #2 and ID #4.
        - Sharma Blvd, now with no site traffic, experiences much shorter queues than in Scenario 1, though eastbound and southbound left turns still exceed storage.
    - In Scenario 3 (Exhibit 4-8),
        - With the projected storage lengths, at ID #1 the northbound-left turn queues are only marginally exceeding the storage length, but will be contained with 20% reduction of sight traffic. Southbound left-turn queues will be well accommodated too.
        - At ID #2, northbound-left turn queues are exceeding capacity, but are expected to be relatively shorter (in the range of ~35% less) when a 20% reduction is considered,
        - With projected storage lengths, the southbound-left turn queues at ID #4 will be accommodated in the storage bay.
        - At ID #4, opportunities to extend the EB and NB left-turn bays will be explored during the civil engineering submission.
        - Storage lengths along 120 St between 80 Ave and the 82 Ave will be as per TransLink's R6 design.
        - All other impacted queues stay similar to Scenarios 1 and 2.
        - In general, a 20% reduction in site trips does not have a significant impact on the length of queues except for a few as shown in Exhibits 4-5 to 4-8.
    - All the remaining left turn storages, in every scenario, should accommodate left turn queues for all study intersections.
    - It is of general understanding (as is also noted in Synchro User Guide) that in practice, the 95th percentile queue reported by the model, is expected to be rarely exceeded and hence, the queues shown with the # footnote are regarded as acceptable for the design of storage bays. 95th percentile is essentially the worst-case scenario, while in reality drivers will likely find an easier and less congested route, which in turn, could shorten the queue lengths.
    - Comparing with Background Scenario (Exhibit 4-5)

- When Scenario 1 is compared to the 2033 Background Scenario, those observed to have exceeded the storage length appear to be carried forward from background condition, except for the eastbound and northbound left at Scott Rd (120 St) @ 80 Ave (ID #4). The NBL queue at ID #4 on Saturday is very close to utilizing the whole of the available storage under background conditions.
- In Scenario 2 all left-turn queues in all directions exceed storage at ID #4 when compared to the background condition.
- Scenario 3 shared a similar comparison with the background condition as was observed for Scenario 2 but with the addition of an eastbound left turn at ID #4.

4.2 Sight Distance Analysis

Exhibit 4-9 illustrates the minimum sight distance requirements for a passenger car at the following vehicle access locations:

- ID #2 -120 Street and Northeast Access (half-signalized access)
- ID #3 - 120 Street and Southeast Access (unsignalized access).
- ID #5 - 80 Avenue and Sharma Blvd Access (fully signalized access).

In general, no approach or departure sight triangles are needed for signalized intersections, according to TAC's Geometric Design Guide for Canadian Road. However, since right turns on red are permitted at both ID#2 and ID #5 for the eastbound and southbound approaches respectively, departure triangles to the left were analyzed to ensure safe right turn movements.

Departure sight triangles show adequate sight distance is available for a stopped driver on all three accesses to depart from the intersections and enter 120 Street and 80 Avenue (see Appendix I).

In addition, any landscaping within the critical visibility areas will be limited to ensure adequate sight distance.

Exhibit 4-9: Sight Distance Requirements

Location #	Traffic Control	Posted Speed (km/h)	Design Speed (km/h)	Required Sight Distance[1] (m)
120 Street and Northeast Access	Half-signalized[2]	60	70	130
120 Street and Southeast Access	Right-In/Right-Out	60	70	130
80 Avenue and Sharma Blvd Access	Signalized[2]	60	70	130

1. See TAC's Geometric Design Guide for Canadian Road, Table 9.9.6 (applicable for Case B2 - Right Turn from Stop).
2. Being a Signalized intersection, adequacy was analyzed for the right turn movements, which are allowed in Red, following Case B2 as per TAC.

4.3 On-Site Vehicle Circulation Analysis

A swept path analysis was carried out illustrating vehicle maneuverability within constrained portions of the site:

- Passenger vehicles at the parking entrances,
- Jitney vehicles at the parking entrances,
- SU-9 loading vehicles at the loading bays,
- Garbage trucks at the loading bays,
- Fire truck, and
- WB-15 at the Proposed Southeast Access (As the largest design vehicle expected).

The circulation analysis is summarized in Exhibit 4-10. Drawings of the vehicle-swept paths are provided in Appendix J (Turning templets will be updated once the design is finalized).

Exhibit 4-10: Circulation Analysis Summary

Design Vehicle Name	Vehicle Activity/ Operation	Turning Movement	Exhibit Number	Turning Analysis Results
Passenger Car[1]	Parking Access	In / Out	Appendix J – Exhibit 1.1 to Exhibit 1.4	No Impact
Jitney Vehicle[1]	Waste Management Operation	In / Out	Appendix J – Exhibit 2.1 to Exhibit 2.4	No Impact
SU-9 Vehicle[1]	Loading	In / Out	Appendix J – Exhibit 3.1 to Exhibit 3.9	No Impact
Garbage Truck[1]	Waste Management Operation	In / Out	Appendix J – Exhibit 4.1 to Exhibit 4.7	No Impact
WB-15[1]	Loading	In / Out	Appendix J – Exhibit 5. 1 and Exhibit 5.2	Any Impacts to columns and walls would be addressed at a later stage
Fire Truck[2]	Emergency Operation	In / Out	Appendix J– Exhibit 6.1 and Exhibit 6.2	No Impact

1. *Design Vehicles as per the Approved Preliminary Traffic Impact report prepared by Arcadis IBI Group, dated October 21, 2022.*
2. *As requested by the City and using the templet provided by the City on April 13, 2023.*

Based on this analysis, it appears all design vehicles are capable of safely maneuvering the turning movements from public streets to the proposed site as well as the parking, loading, and garbage accesses without interfering with other objects (e.g., poles, walls, etc.).

It is to be noted, that trucks (for loading and emergency vehicle access) have been assigned on routes through the accesses along Scott Rd (120 St), and not on Sharma Blvd, due to its load restriction. Assuming these routes to operate, these allow trucks coming in and going out from

the south to operate efficiently. A truck coming in from the north can also operate, looping inside the property. However, a truck going out towards the north will have an issue, as none of the accesses on Scott Rd (120 St) would allow for all-turn movements. Therefore, in this case, Scenario 3 would be the feasible option where the half-signal at the Delta Shopping Mall Access (ID#2) at Scott Rd (120 St) is converted into a full signal, along with modifying the island to accommodate an eastbound-left turn movement. Such an upgrade may require an upgrade to traffic signal infrastructure as well. If such changes are considered, then trucks can go back north, and Sharma Blvd can remain completely unimpacted by loading and emergency vehicles.

Appendix K provides a preliminary concept of the modified intersection layout suggested above. This design will be finalized at a later stage with discussion with the City of Surrey.

5 PARKING AND LOADING REQUIREMENTS

This section presents an estimate of the minimum number of required motor vehicle parking, bicycle parking, and loading space for the proposed development based on the off-street parking regulation per City of Delta Zoning Bylaw No. 7600, 2017.

5.1 Motor Vehicle Parking Spaces

As shown in Exhibit 5-1, the City of Delta Zoning Bylaw specifies a minimum requirement of 1885 parking spaces for the proposed development.

Exhibit 5-1: Motor Vehicle Parking Requirements (Bylaw)

Land Use	Units	GLFA (m^2)	Bylaw Parking Rate	Min. Required Stalls	Provided
Residential - Condo	87 1-bedroom	-	1.3 per unit	114	1004
	556 2 or more bedroom	-	1.5 per unit	834	
	0 Townhouse	-	2.0 per unit	0	
Residential – Rental	64 1-bedroom	-	1.0 per unit	64	
	161 2 or more bedroom	-	1.0 per unit	161	
	8 Townhouse	-	1.0 per unit	8	
Residential - Visitors	876 units	-	0.1 per unit	88	
Commercial \ Retail	-	7,178[2]	4 per 100 m^2 of Gross Leasable Floor Area	288	310
Office		10,572[2]	3 per 100 m^2 of Gross Leasable Floor Area	318	255
Childcare	5[2] employees	-	0.75 per employee	4	8
	60 children	-	1 per 10 children	6	
Total				**1885**	**1577**

1. *The number of employees has been assumed based on the BC's Community Care and Assisted Living Act, Child Care Licensing Regulation requirements for the Supervision of Children.*
2. *Gross Leasable Floor Area as provided by the latest development statistics.*

As discussed in Section 6, Translink's Frequent Transit Network (FTN) will be introducing R6 Rapid Bus in the Scott Road corridor later in the year 2023. Due to its proximity to FTN, the City's zoning bylaw allows the required minimum number of parking spaces to be reduced by 20% for a building constructed on a lot within 125m of Scott Rd. This reduction rate decreases the requirement for this development to 1,566 stalls. As shown in Exhibit 5-1, currently, the developer is claiming a ~20% parking reduction by providing1,577 spaces, exceeding the minimum requirement.

5.2 Bicycle Parking Spaces

Exhibit 5-2 below tabulates the number of bike parking spaces that are required under the bylaw. As shown, the City of Delta's Zoning Bylaw specifies a requirement for 945 bike spaces for the proposed development.

Exhibit 5-2: Bicycle Parking Requirements (Bylaw)

Land Use	Bylaw Code	Units	Buildings	Bylaw Parking Rate	Min. Required Stalls
Residential	Apartment building	876	-	1 per unit	876
Residential Visitors	Apartment building	-	4	5 per building	20
Commercial \ Retail	Retail sales	28	-	1 space per commercial retail unit or 5 spaces per building, whichever is the greater number	28
Office	Office operation	21	-		21
Total					**945**

Currently, the developer is aiming for 1,073 bicycle parking spaces, exceeding the Bylaw requirements.

5.3 Loading Spaces

Exhibit 5-3 below indicates the required loading spaces as per section 9.2 of the City of Delta's Zoning Bylaw. The developer is aiming to provide 4 loading spaces meeting the Bylaw requirements.

Exhibit 5-3: Loading Space Requirements (Bylaw)

Land Use	Bylaw Code	Buildings	Parking Rate	Min. Required Loading Spaces
Residential	Residential	4	1 per building with more than 80 dwelling units	4
Commercial \ Retail	Non-residential	_	1 space per overhead loading door or shipping and receiving door, Or, 1 space per principal building, whichever is the greater number	0
Office	Non-residential	_		0
Total				**4**

6 TRANSPORTATION DEMAND MANAGEMENT (TDM)

The Scott Road Corridor is included in TransLink's Frequent Transit Network (FTN), where the R6 Rapid Bus is scheduled to start later in the year 2023. With this increased transit capacity in place, which should curb the use of private vehicles, the City is allowing for a parking stall reduction of 20%.

In line with the new direction from the city, to support a ~20% parking relaxation, the developer is considering the following:

- Additional bicycle spaces, exceeding the bylaw requirement to encourage the use of other modes.
- End-of-trip facilities are to be provided in the two high-rise buildings (Tower North and Tower South.

A Transportation Demand Management (TDM) plan is to be finalized at a later stage.

7 CONCLUSIONS AND RECOMMENDATIONS

Site Access and Intersection Upgrades:

- Vehicle access to the property will be provided from Scott Road (120 Street).
- The proposed development does not require access to Sharma Blvd with full signalization of Scott Road (120 Street) & Northeast Access (Mid-Block) ID#2.
- Upgrade Scott Road (120 Street) & Northeast Access (Mid-Block) ID#2:
    - Permit eastbound left turn,
    - Modify northbound left turn storage according to the TransLink's R6 project upgrades, and
    - Upgrade traffic signal infrastructure (to a full-signalized intersection), traffic signs, and pavement markings.
- Upgrade Scott Road (120 Street) & Southeast Access ID#3:
    - Relocate ~30m south,
    - Restrict eastbound left turn and northbound left turn (to be a Right-in/ Right-out.)
- Scott Road (120 Street) & 80 Avenue ID#4 to be updated as part of the TransLink's R6 project. Opportunities to extend the EB and NB left-turn bays will be explored during the civil engineering submission.
- Signalized intersections to optimize traffic signal timings/ phasing plans.
- Note: The proposed upgrades have been acknowledged by Binnie (the R6 civil consultant) and shared with the City of Surrey (a nearby stakeholder) and will be finalized at a later stage.

Active Modes Network

- Opportunities are being explored by the developer to provide a bicycle connection through the proposed development to connect 80 Ave and 82 Ave. To achieve this, coordination will be taking place with the adjacent properties.

Traffic Demand

- The proposed development may generate, during peak hours, a net traffic volume of
    - Sub-Scenario "No-Reduction"
        - AM – 427
        - PM – 462
        - Saturday – 383
    - Sub-Scenario "20%-Reduction"
        - AM – 342
        - PM – 370
        - Saturday – 306

Traffic Analysis

- The current network operates reasonably well.
- Scenario 1 is not desirable due to Sharma Blvd being a private road.

- Scenario 2 is not desirable since eastbound traffic is not allowed to use the Scott Road & Northeast Access intersection (ID#2) to make a left turn to go northbound. Thus, the proposed development traffic will be rerouted thru neighbourhood.
- Scenario 3 is desirable since eastbound traffic is allowed to use the Scott Road & Northeast Access intersection (ID#2) to make a left turn to go northbound directly.
- Comparing Scenario 2 and 3, Scenario 3 performs better by providing the least congestion and delay.
- 20%-reduction of site trips provides relief to some extent for certain instances, but overall, the impact is not significant when compared with the no-reduction scenarios.
- Adjustment of cycle lengths and phasing are expected to mitigate most of the capacity issues, where observed.
- In terms of overall intersection performance (LOS, v/c and delays), compared to background condition, the site traffic is expected to have minimal impacts on the surrounding network, in all three scenarios.

Sight Distance along Road Network Serving the Development

- Adequate sight distances will be available in order to conduct safe maneuvering.
- Landscaping will be limited to ensure adequate sight distance.

On-site Circulation

- All design vehicles can safely maneuver the proposed accesses.

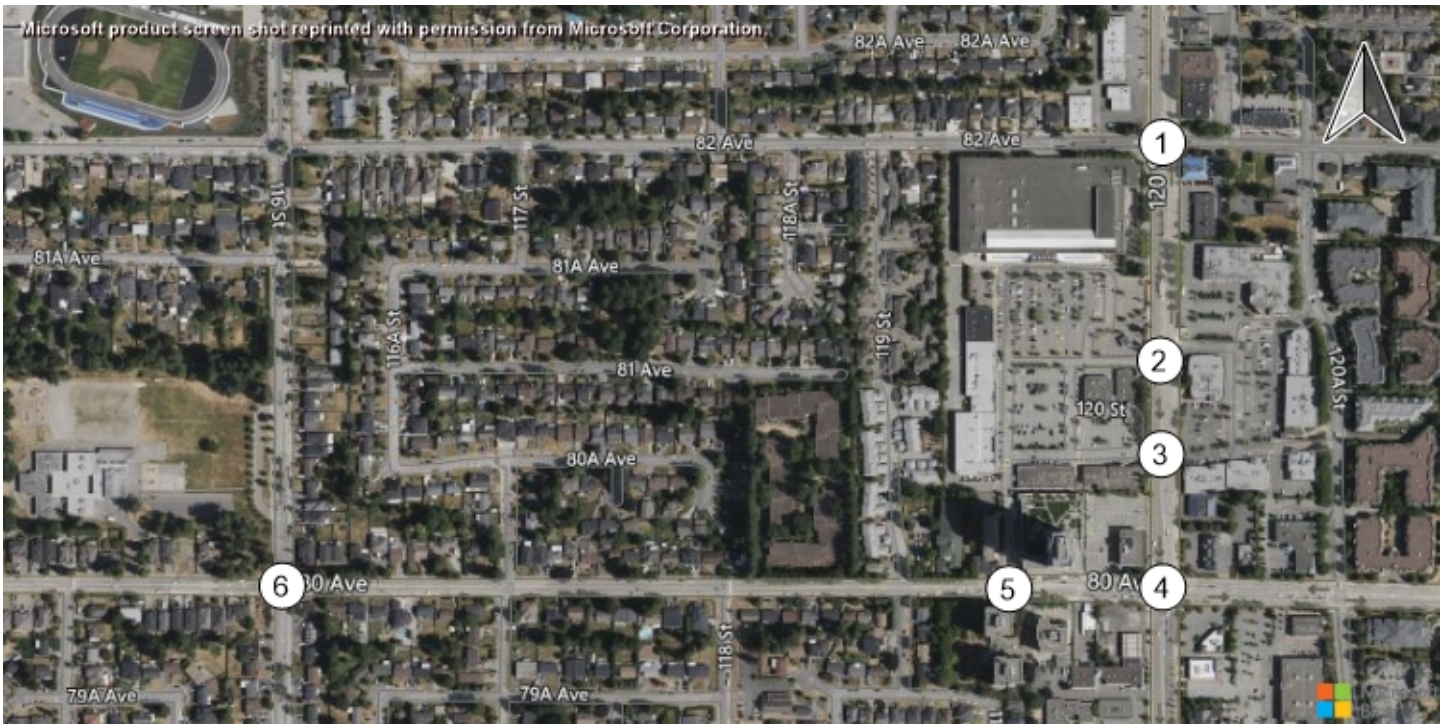
Parking, Loading, and TDM

- The developer will provide:
  - 1577 vehicle parking spaces, meeting the bylaw ~20% parking reduction,
  - 1073 bicycle parking spaces, exceeding the bylaw requirements.
  - 4 loading spaces, meeting the bylaw requirements.
- Transportation Demand Management Plan will be provided.

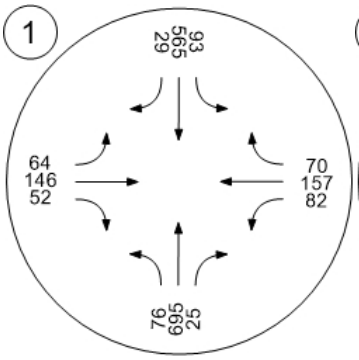
Appendix A

Existing Traffic Volumes (2023)

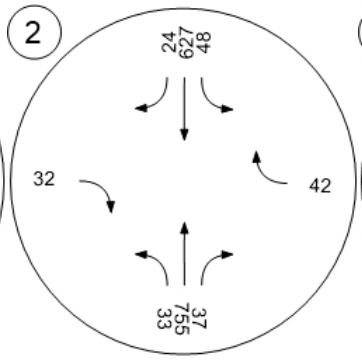
Report Figure 0a: Traffic Volume - Base Volume



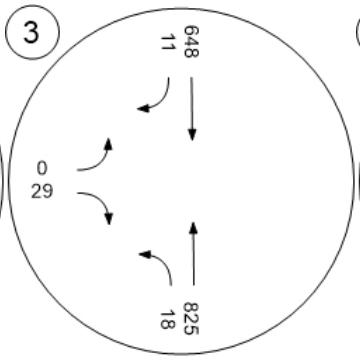
Scott Rd/82 Ave



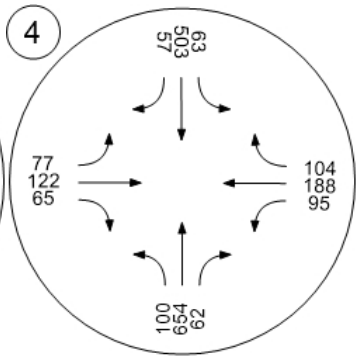
Scott Rd/Northeast Accs



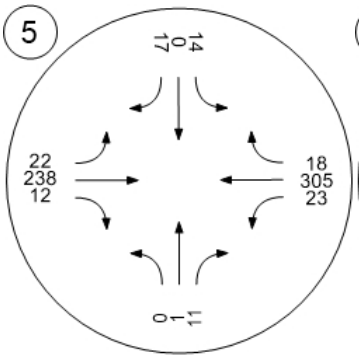
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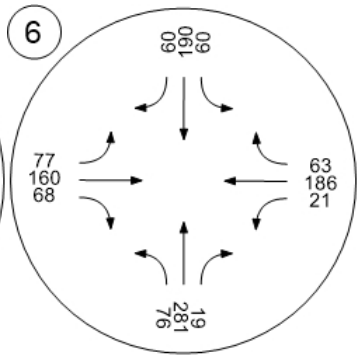
Scott Rd/80 Ave



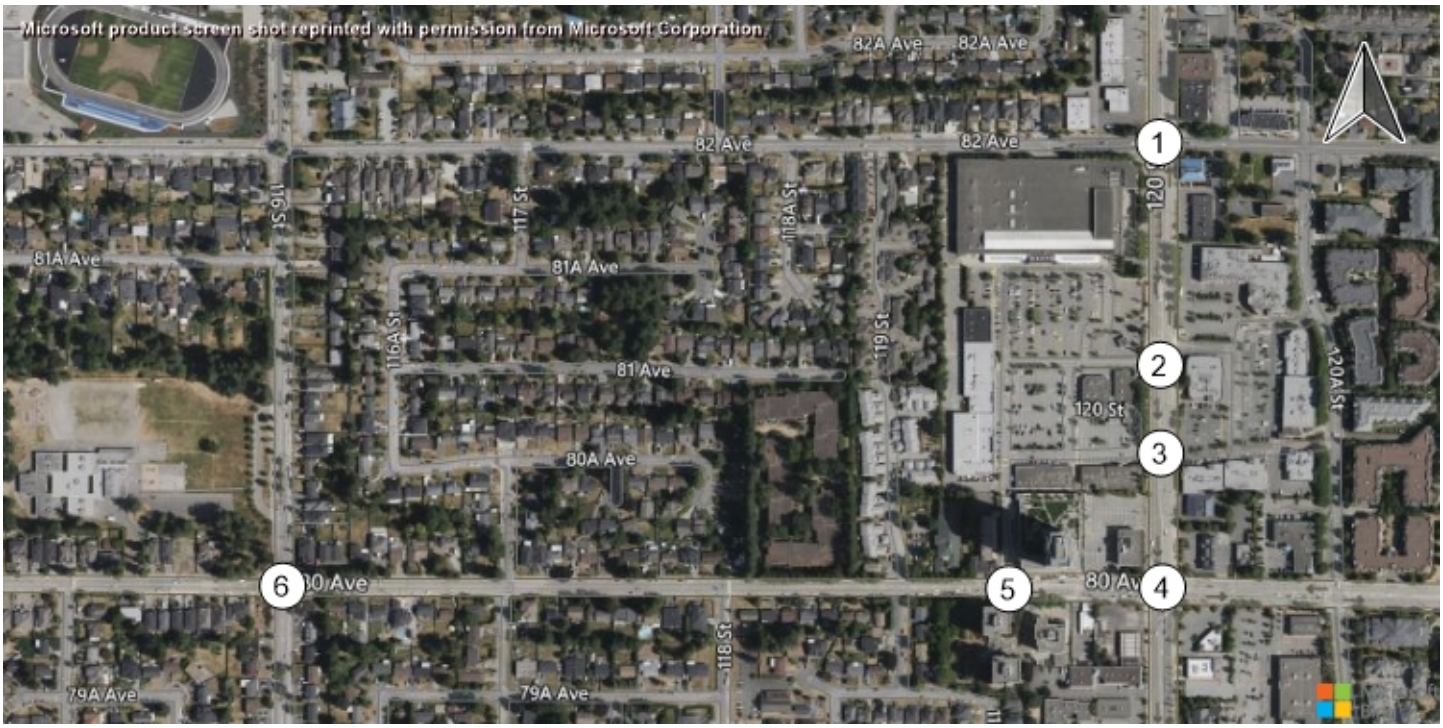
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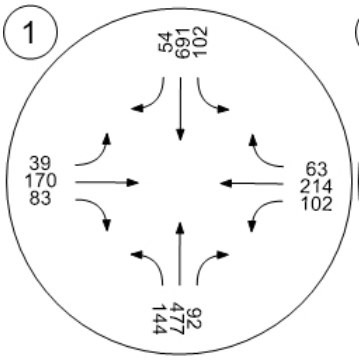
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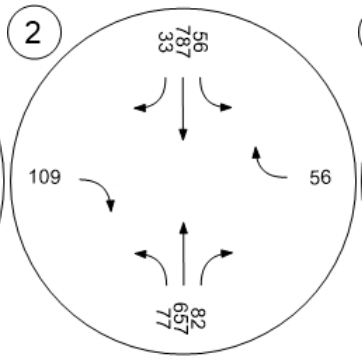
Report Figure 0a: Traffic Volume - Base Volume



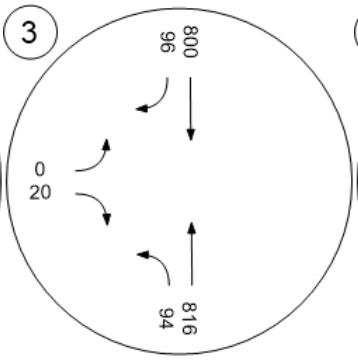
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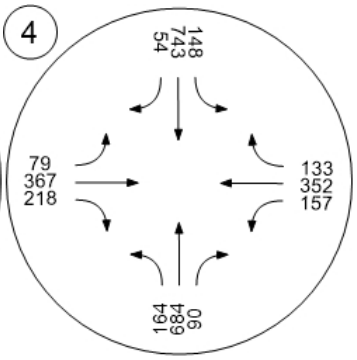
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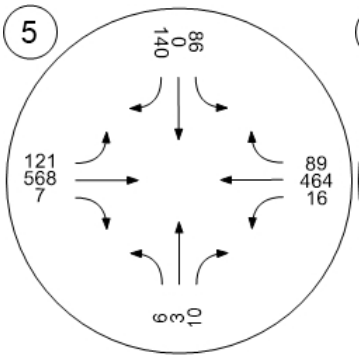
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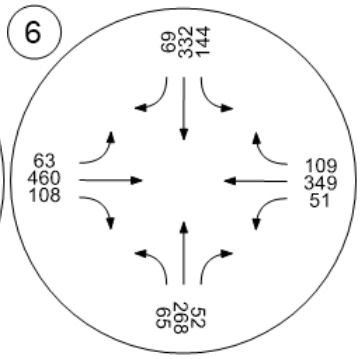
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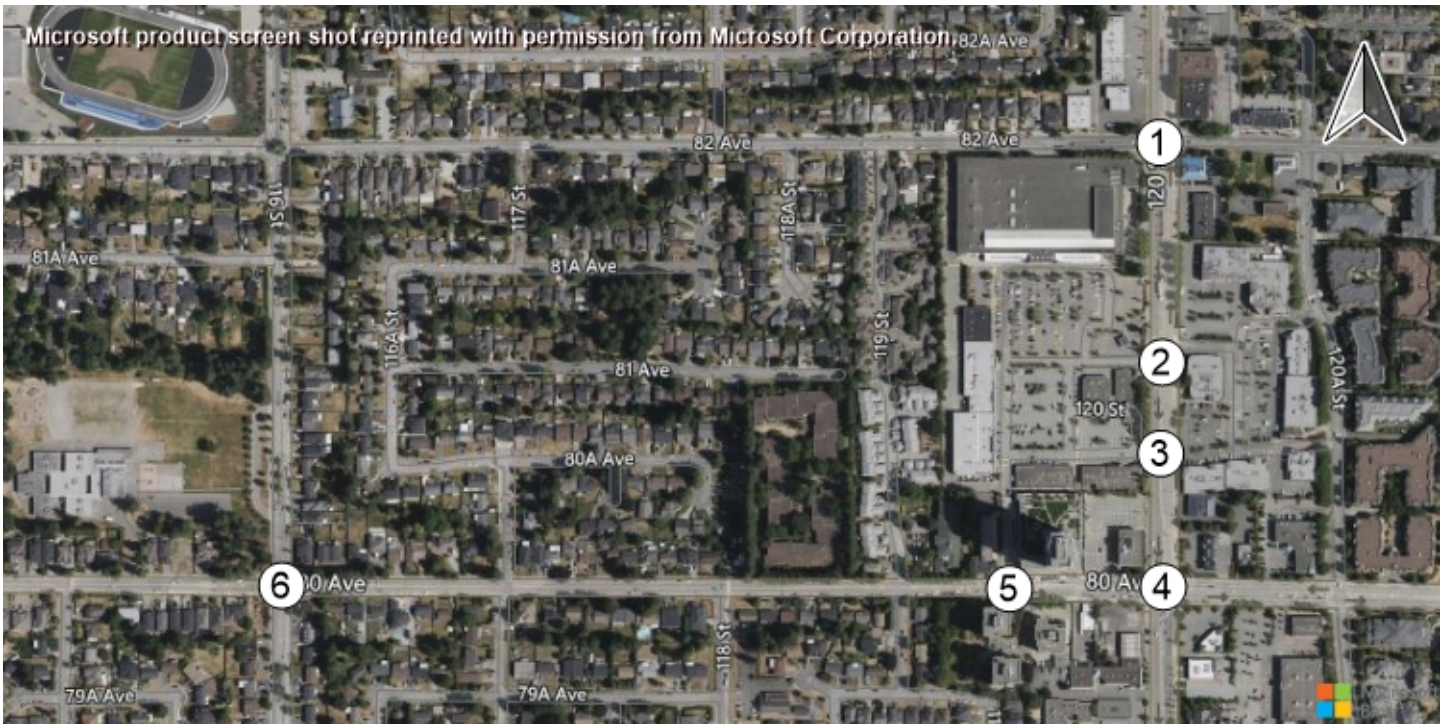
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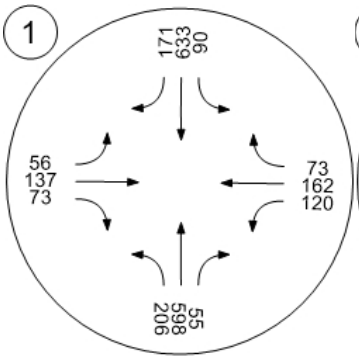
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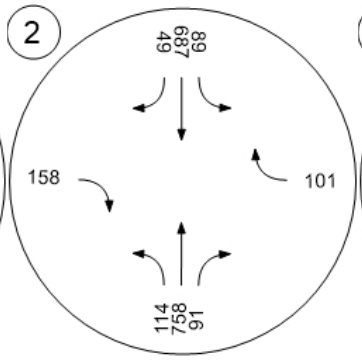
Report Figure 0a: Traffic Volume - Base Volume



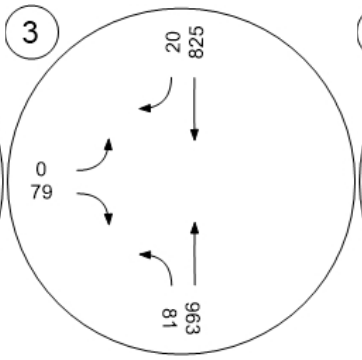
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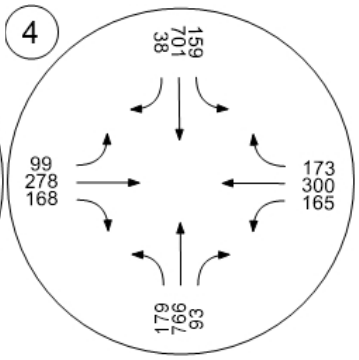
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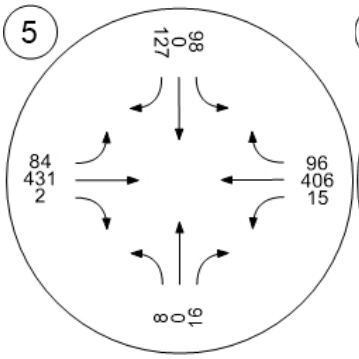
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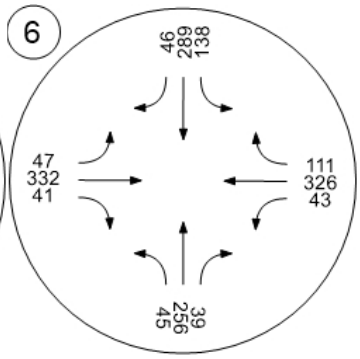
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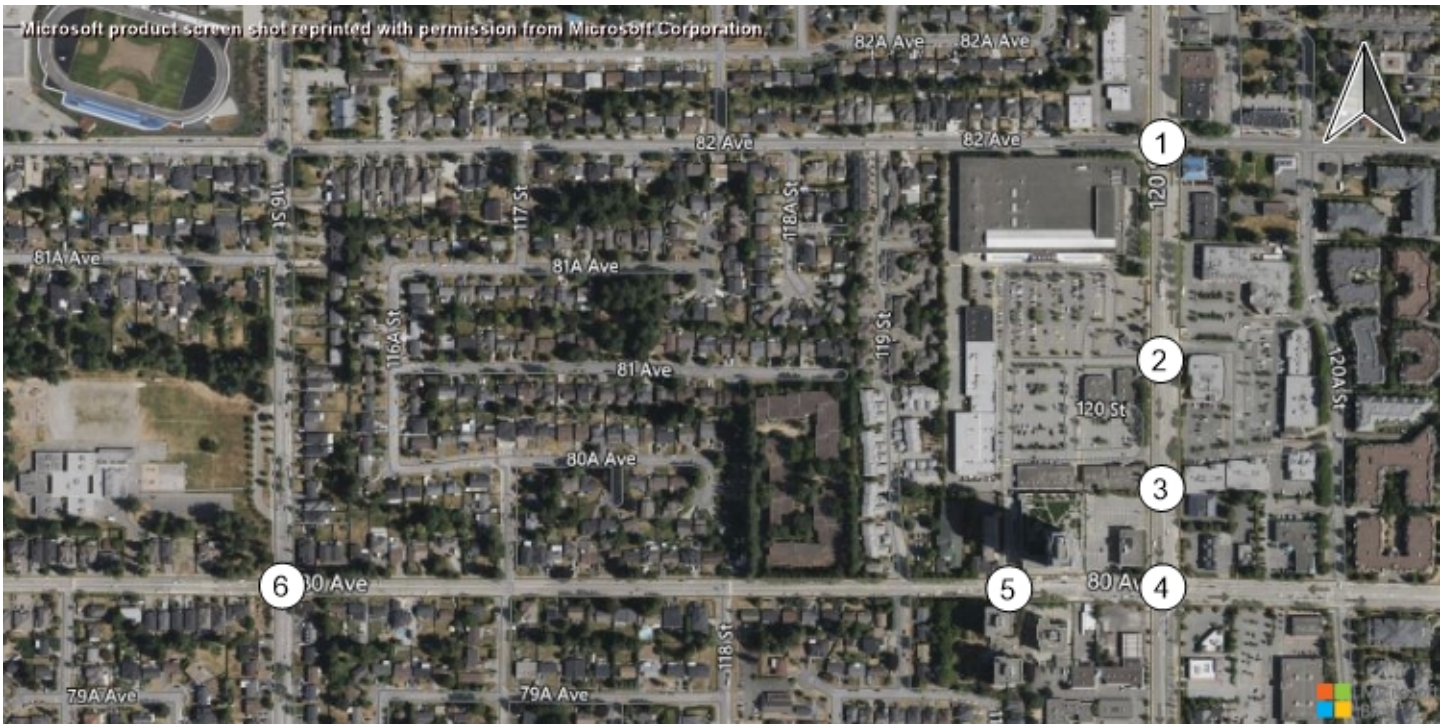
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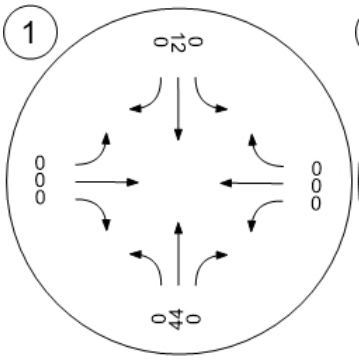
Appendix B

Near-by Proposed Development Site Traffic

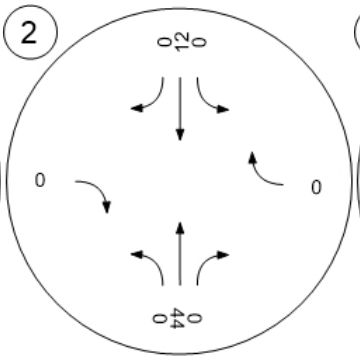
Report Figure 0b: Traffic Volume - In-Process Volume



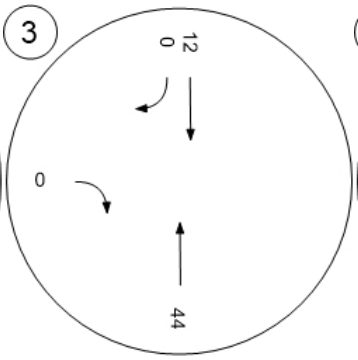
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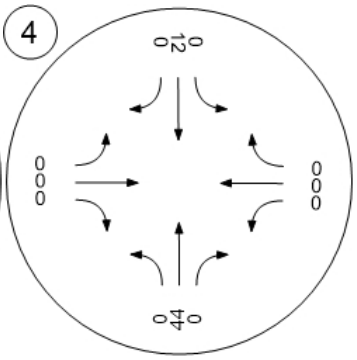
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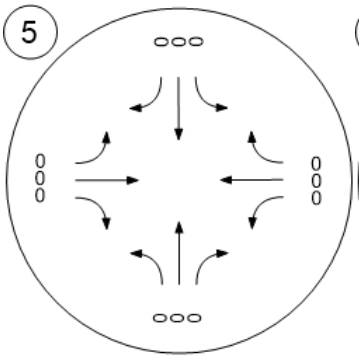
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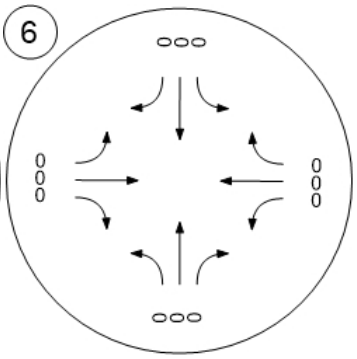
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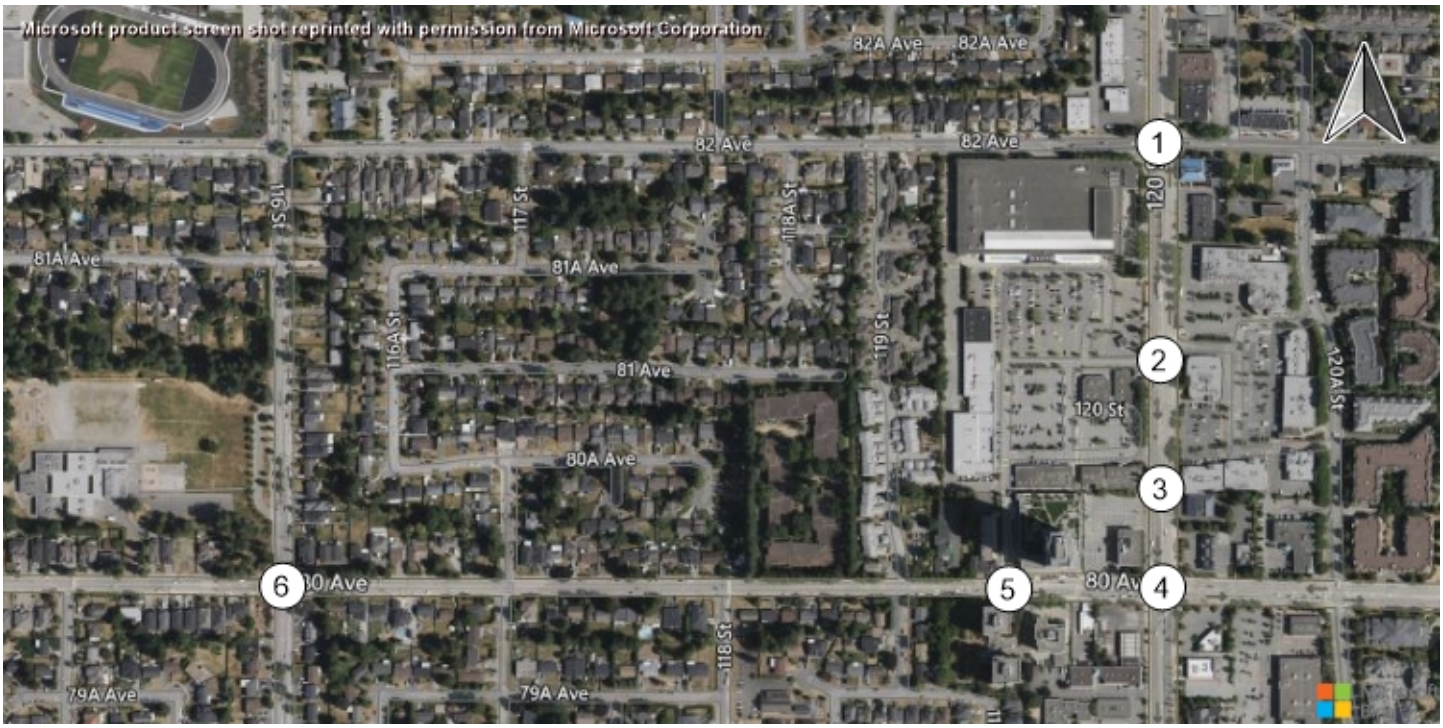
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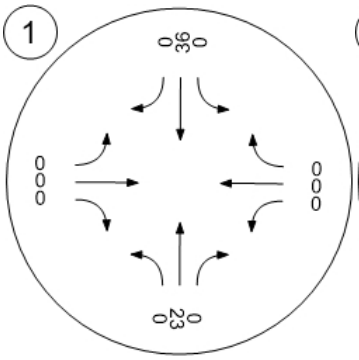
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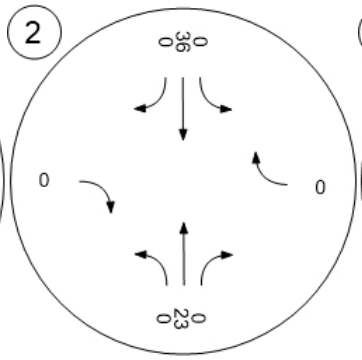
Report Figure 0b: Traffic Volume - In-Process Volume



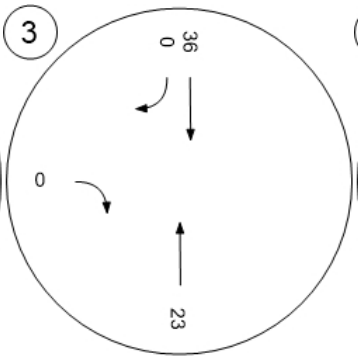
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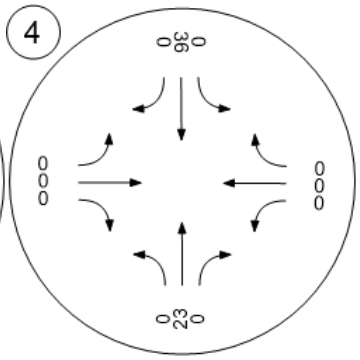
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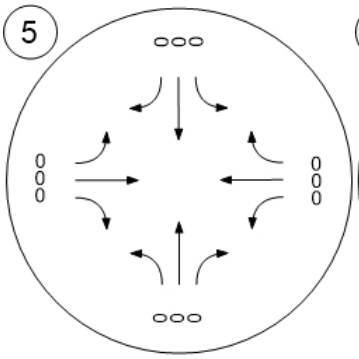
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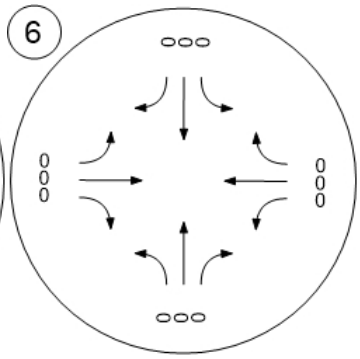
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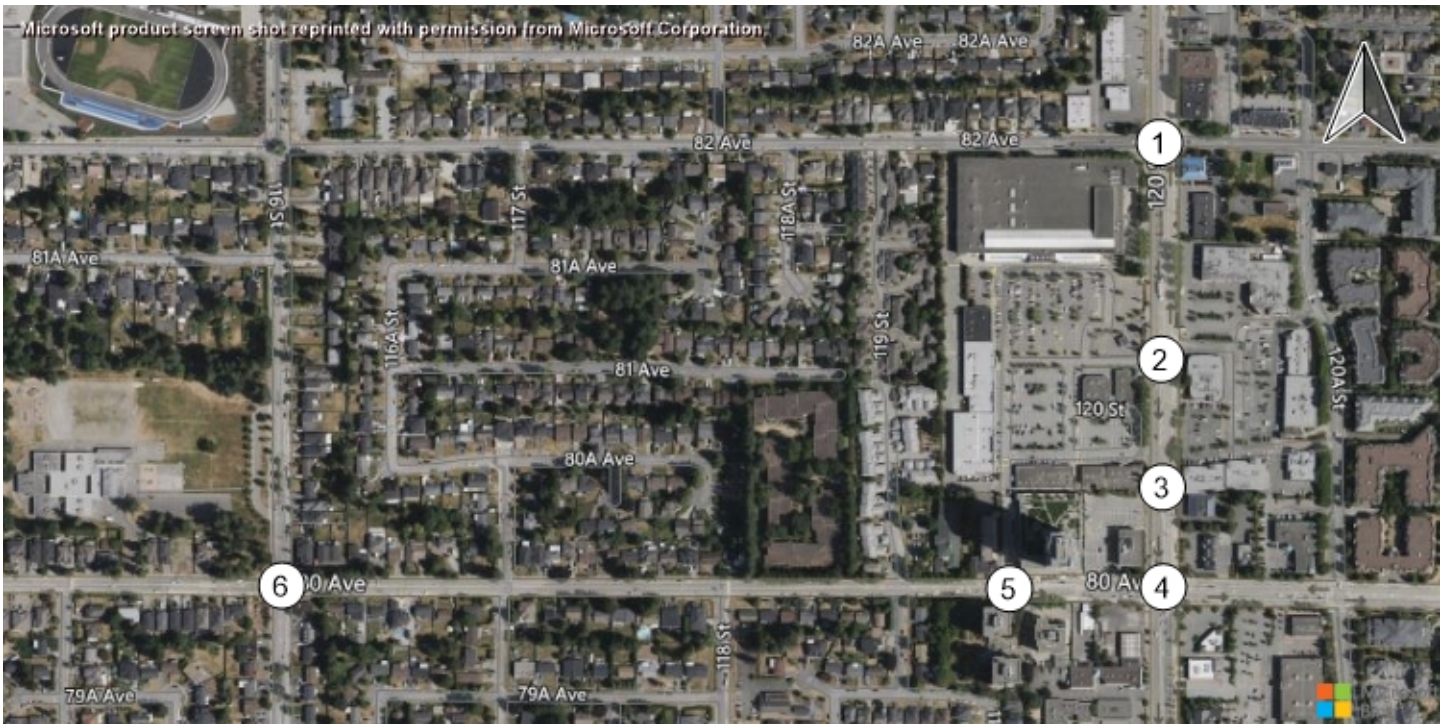
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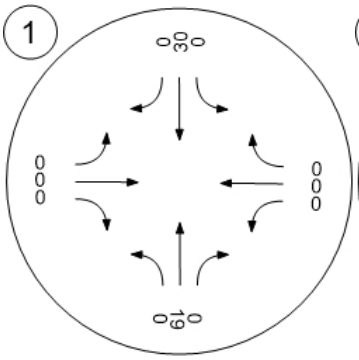
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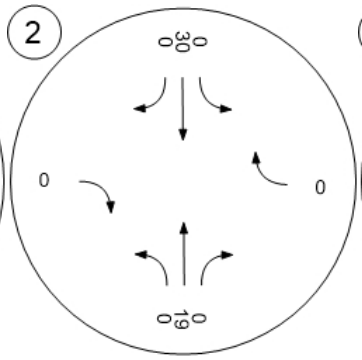
Report Figure 0b: Traffic Volume - In-Process Volume



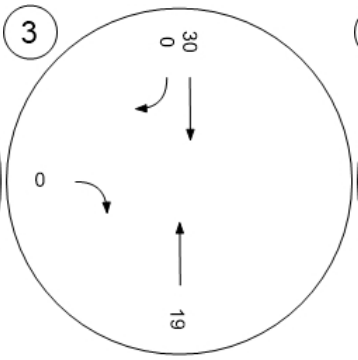
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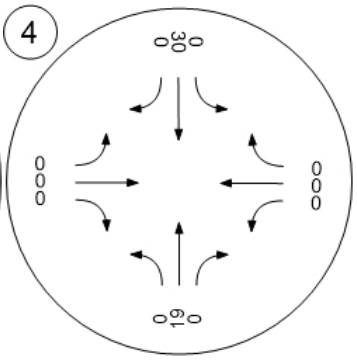
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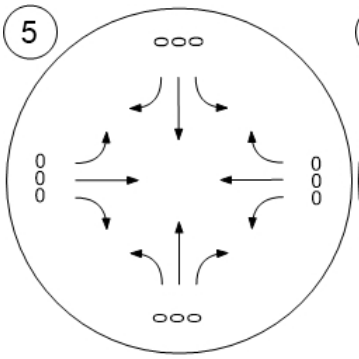
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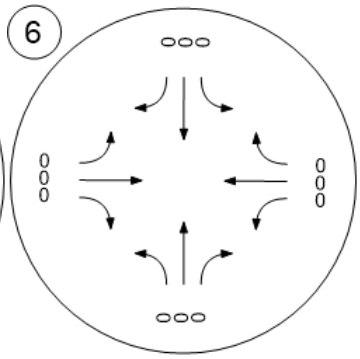
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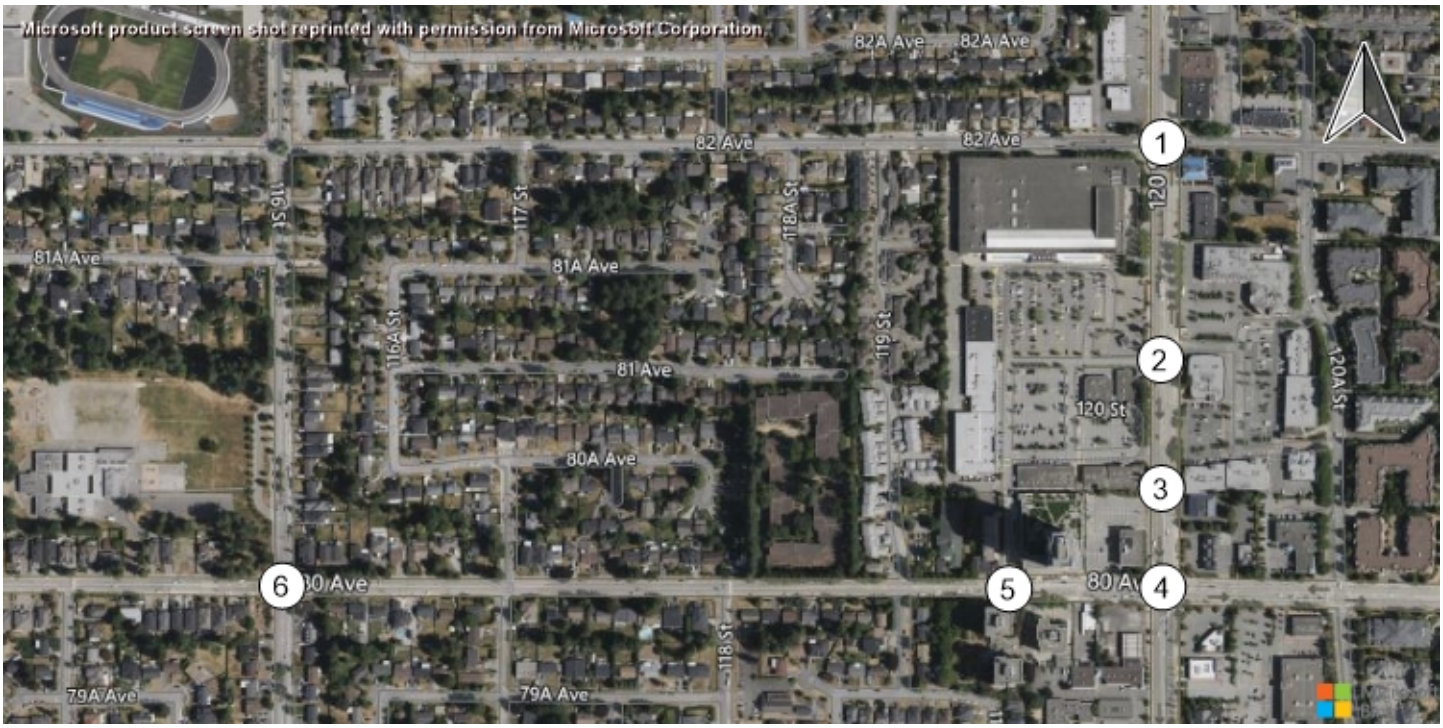
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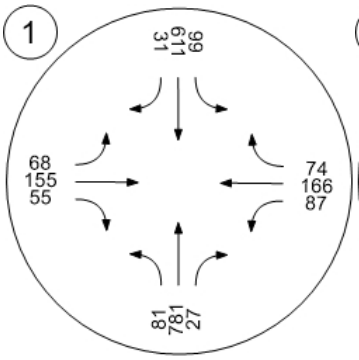
Appendix C

Background Traffic Volumes (2028)

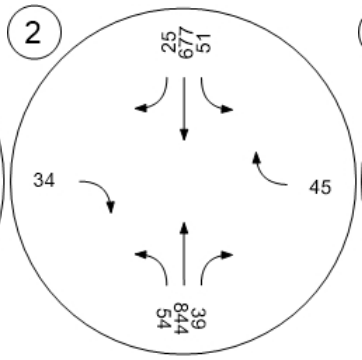
Report Figure 0f: Traffic Volume - Future Total Volume



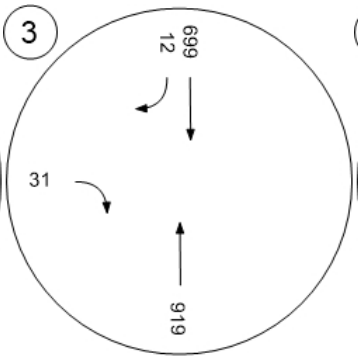
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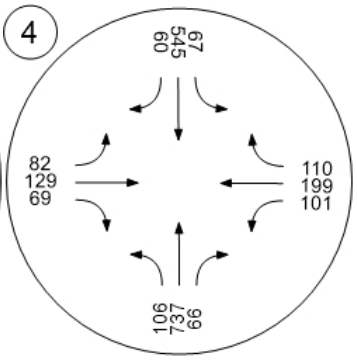
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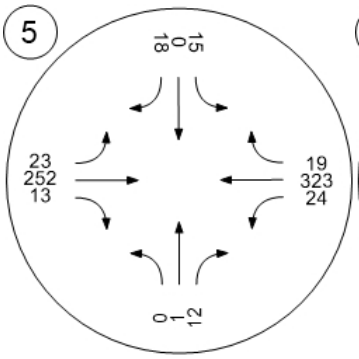
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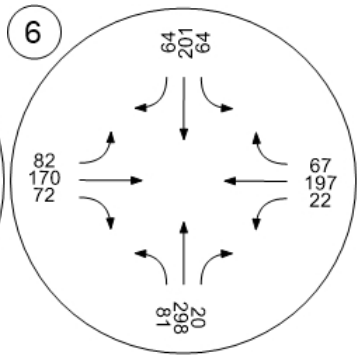
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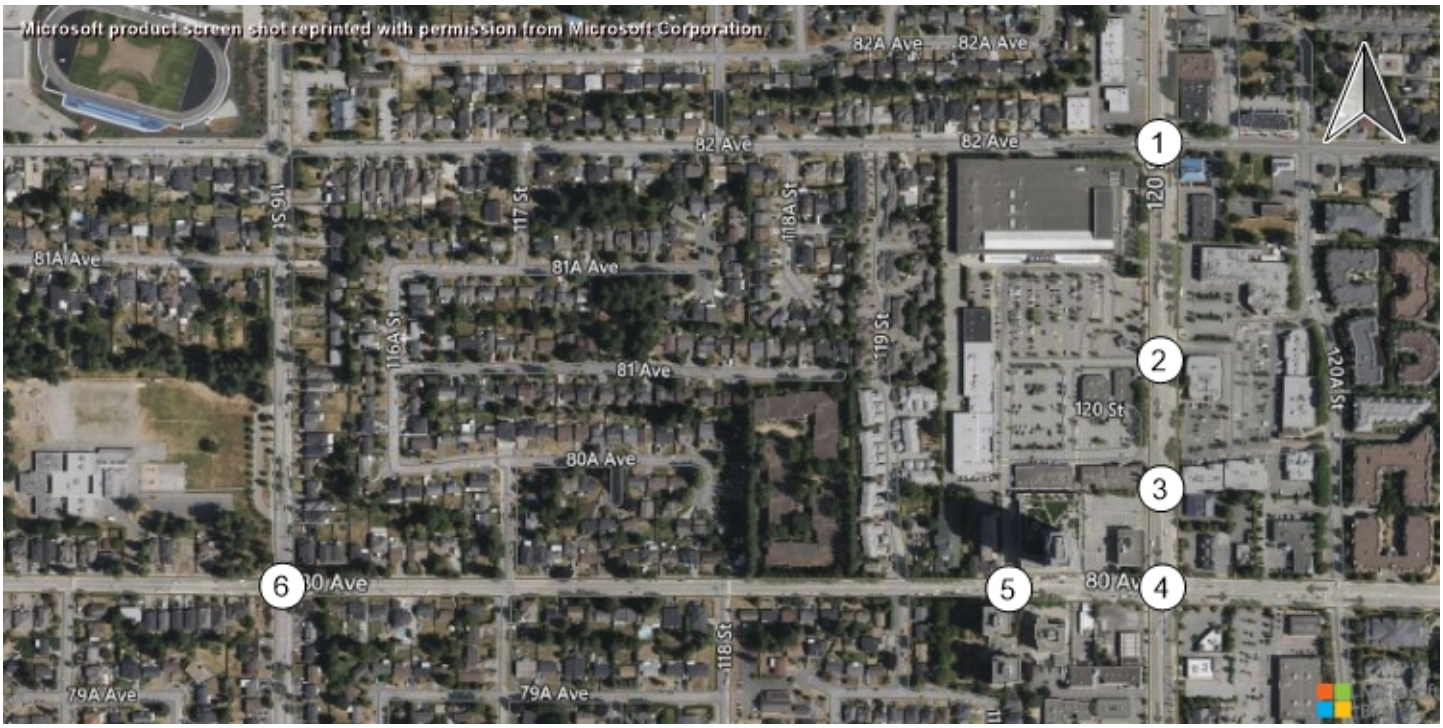
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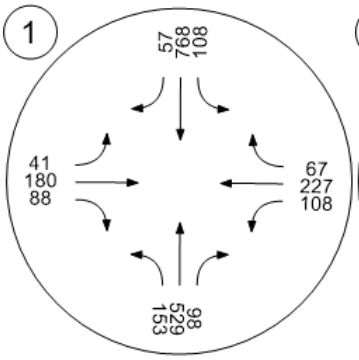
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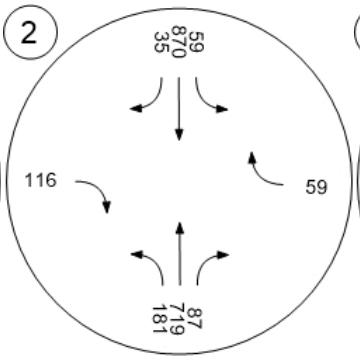
Report Figure 0f: Traffic Volume - Future Total Volume



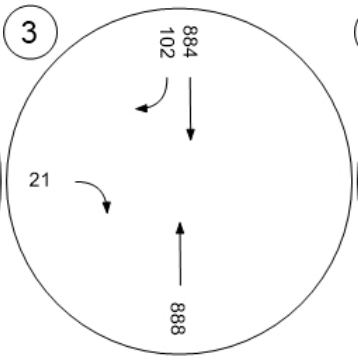
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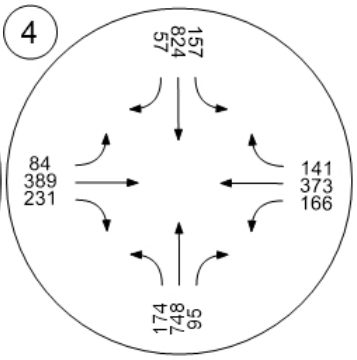
Scott Rd/Northeast Accs



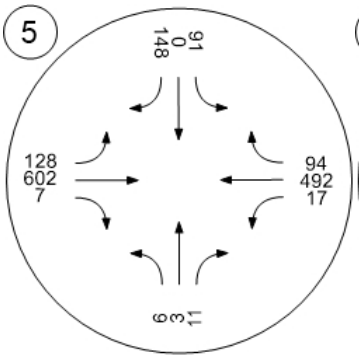
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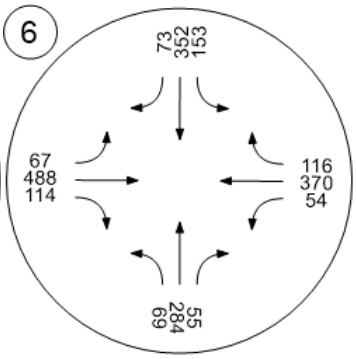
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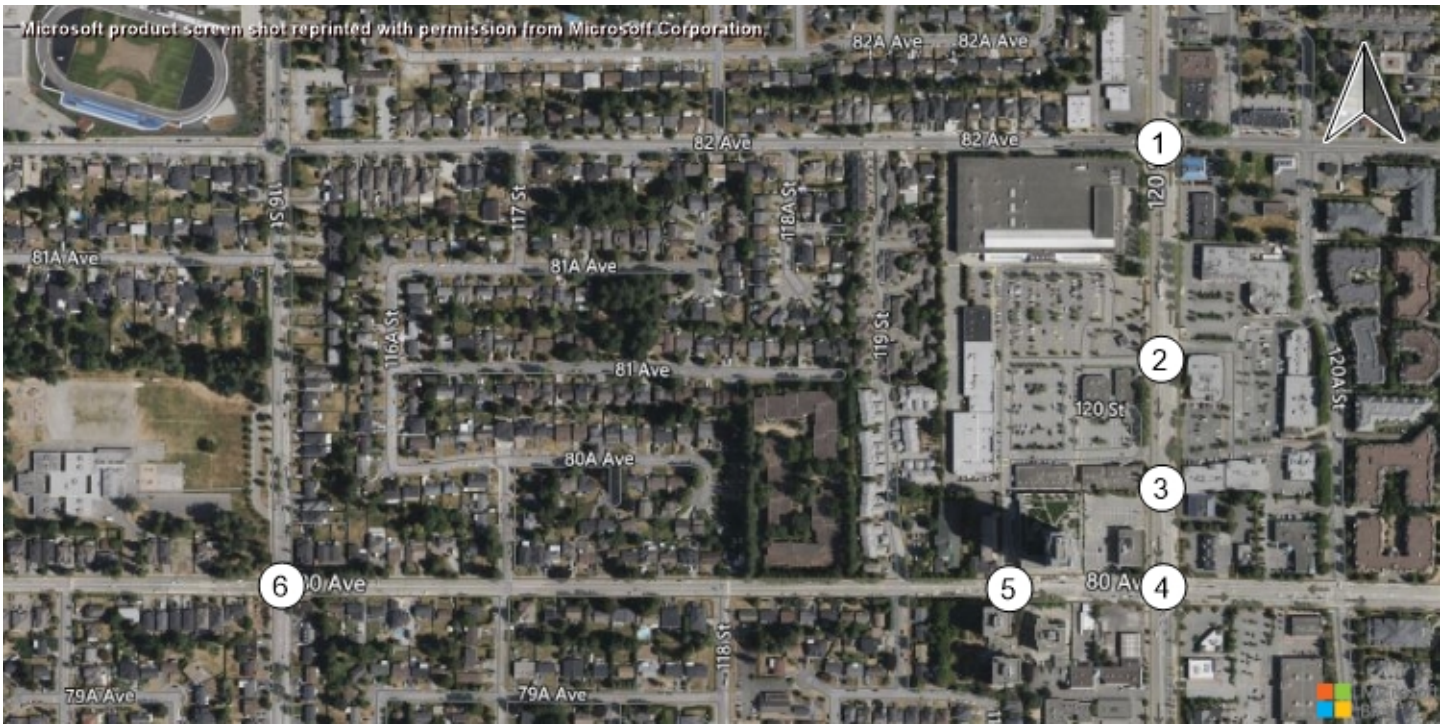
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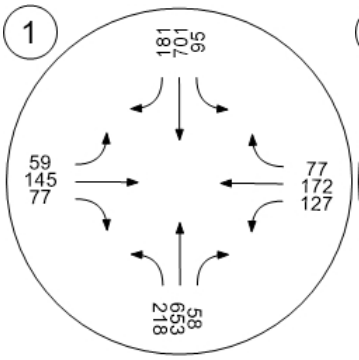
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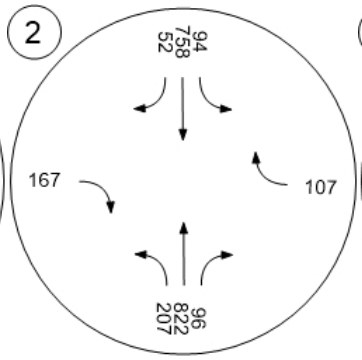
Report Figure 0f: Traffic Volume - Future Total Volume



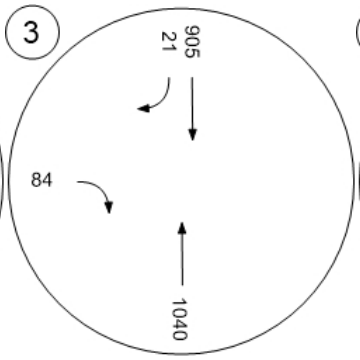
Scott Rd/82 Ave



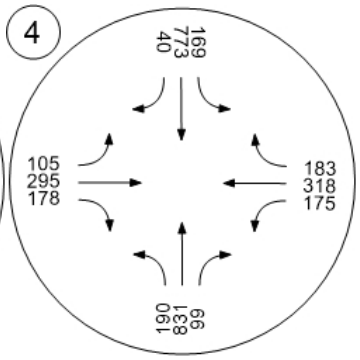
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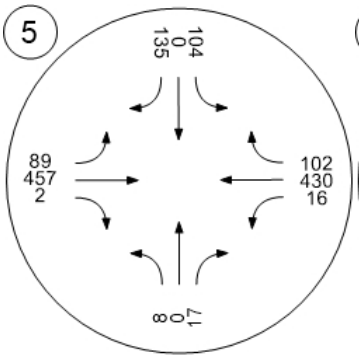
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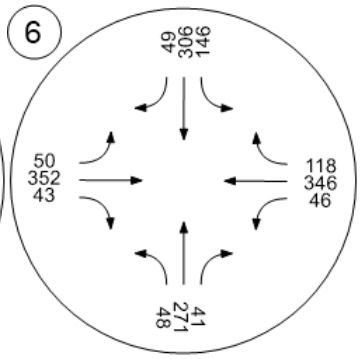
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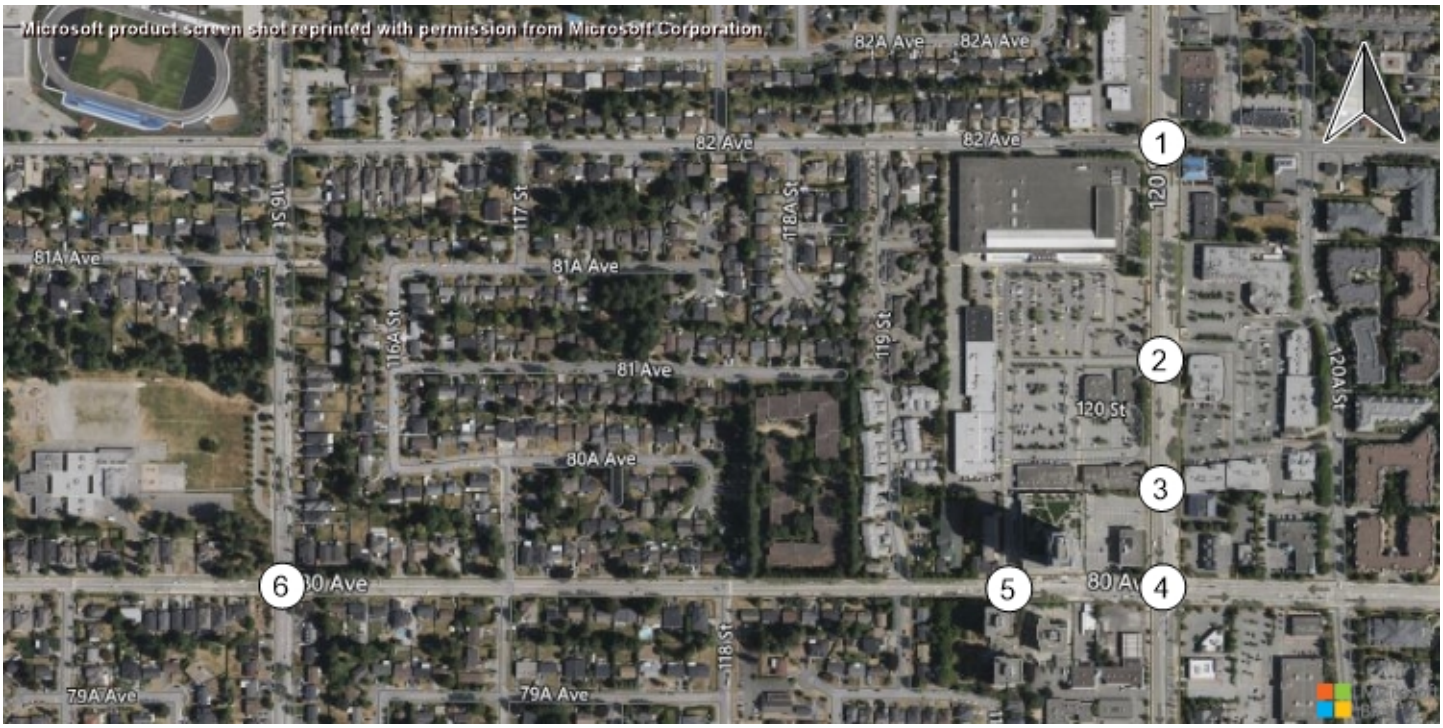
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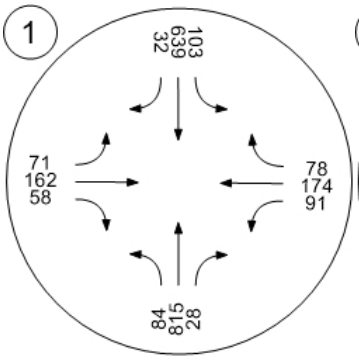
Appendix D

Background Traffic Volumes (2033)

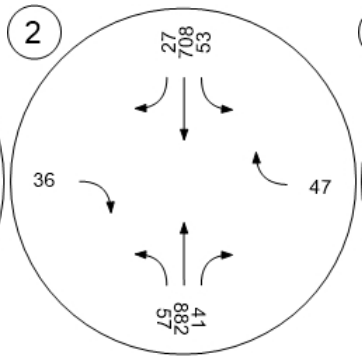
Report Figure 0f: Traffic Volume - Future Total Volume



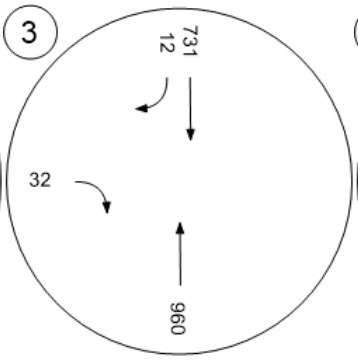
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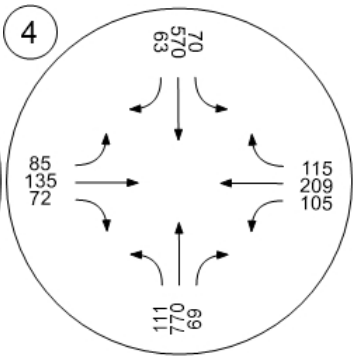
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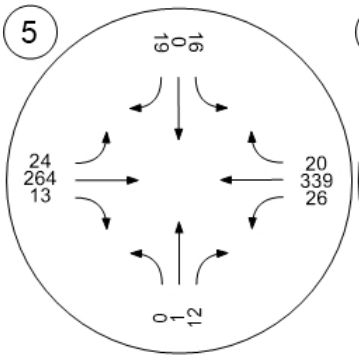
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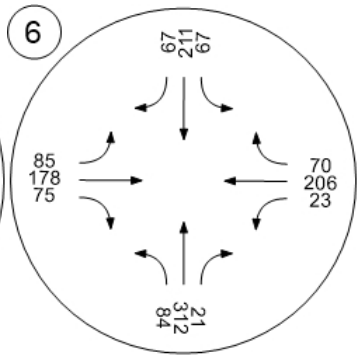
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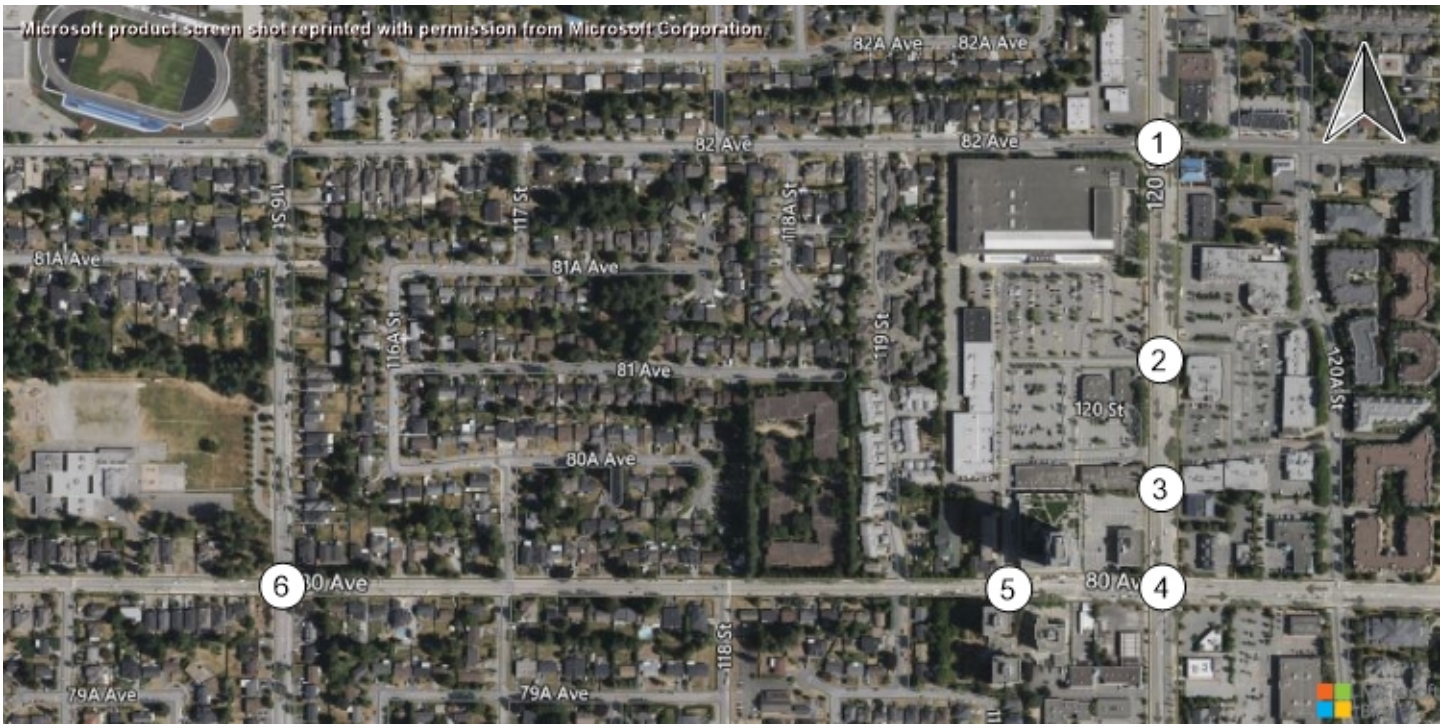
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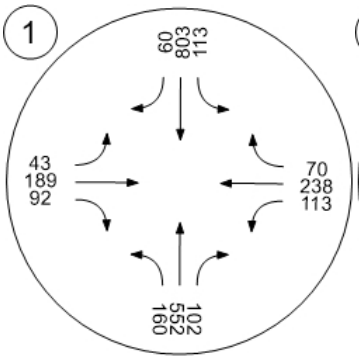
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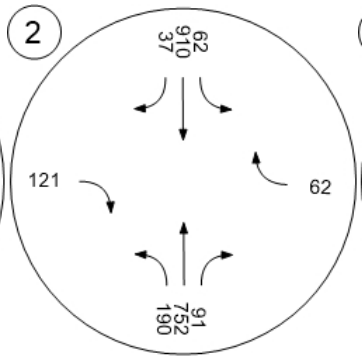
Report Figure 0f: Traffic Volume - Future Total Volume



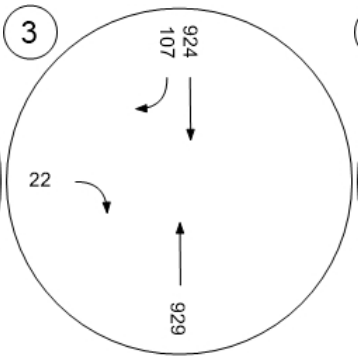
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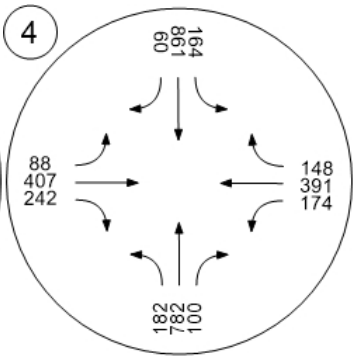
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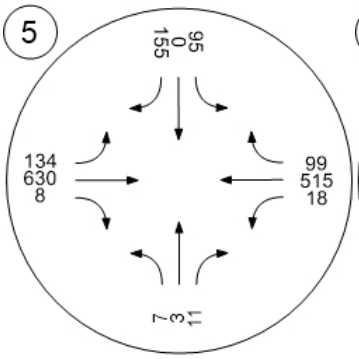
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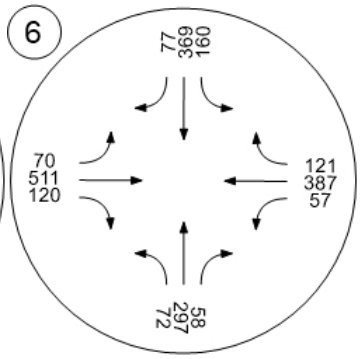
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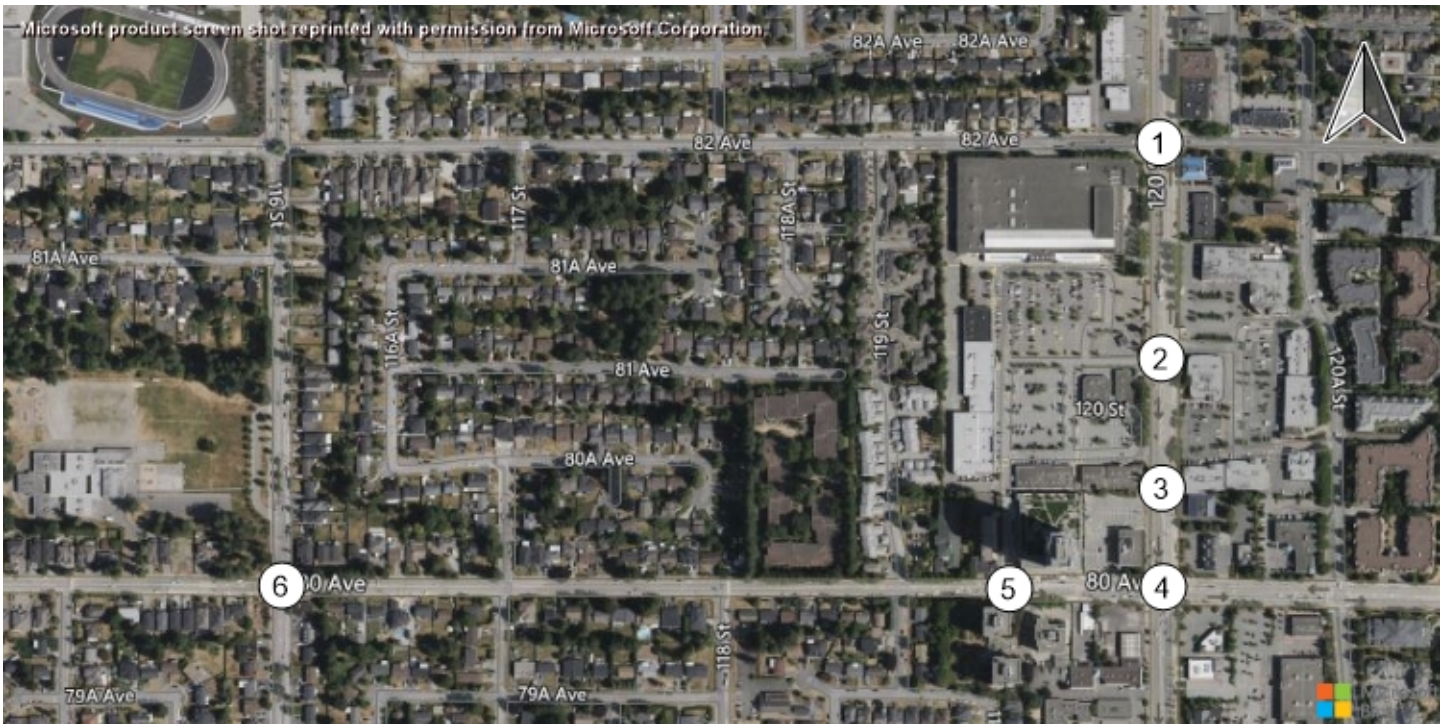
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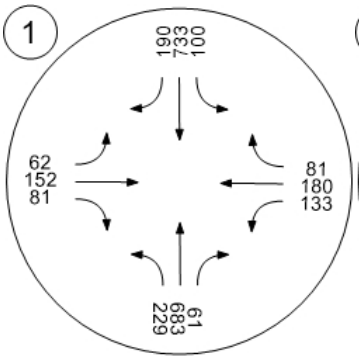
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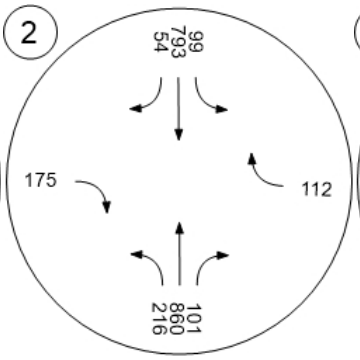
Report Figure 0f: Traffic Volume - Future Total Volume



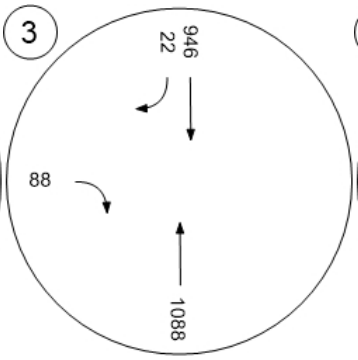
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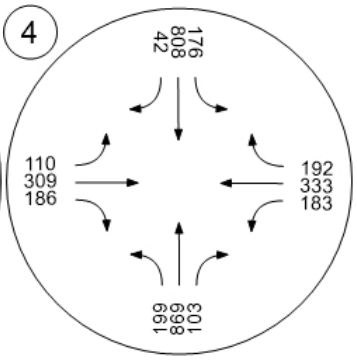
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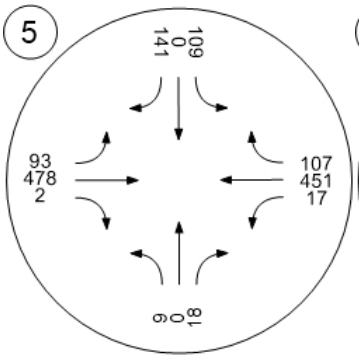
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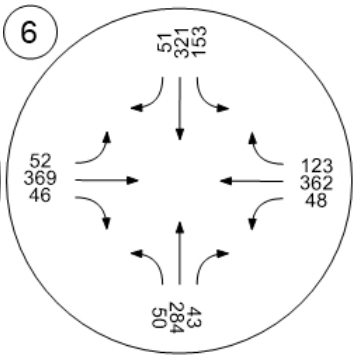
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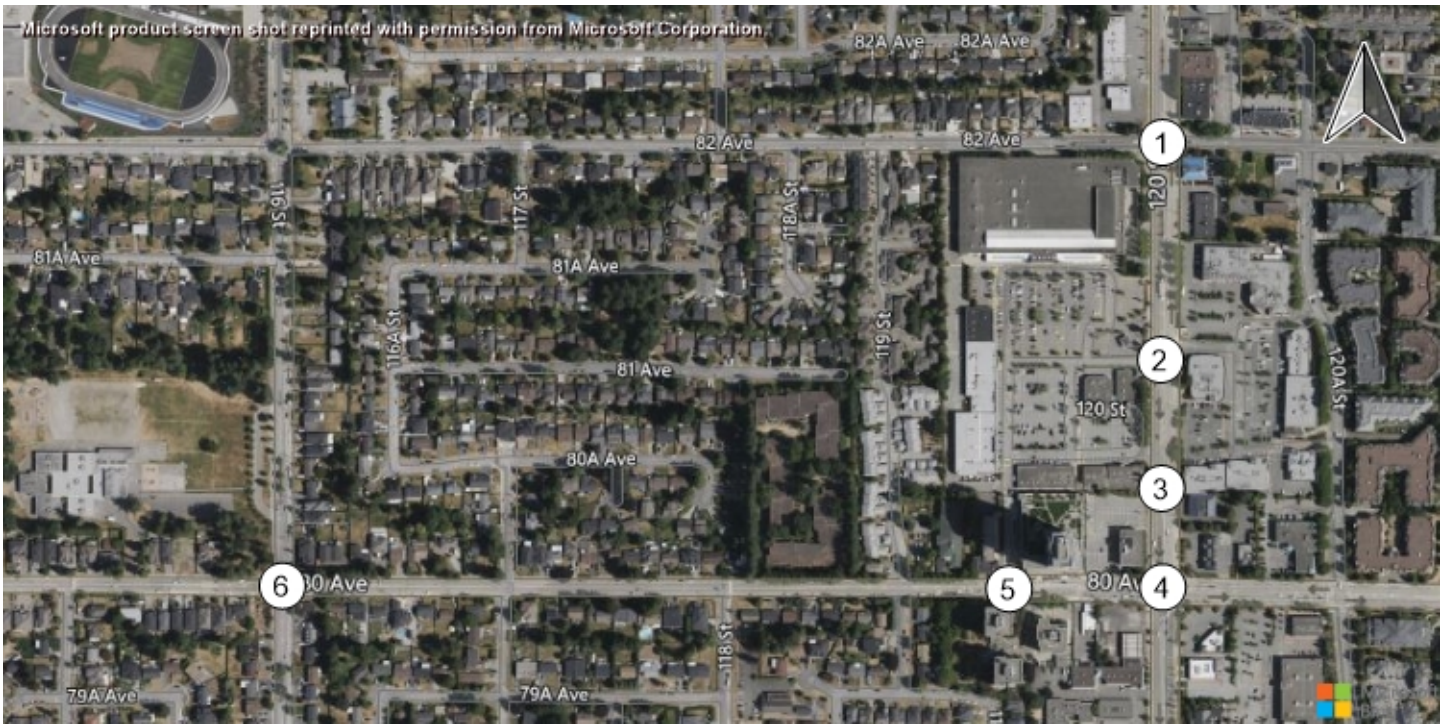
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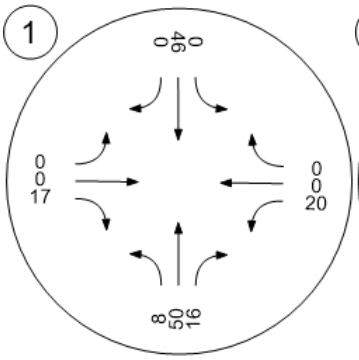
Appendix E-1

Site Traffic Volumes - Scenario 1: No Reduction of Site Traffic

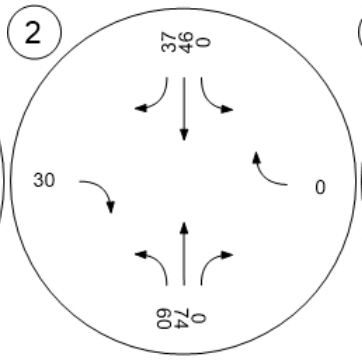
Report Figure 0d: Traffic Volume - Net New Site Trips



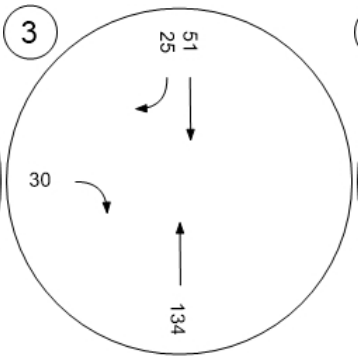
Scott Rd/82 Ave



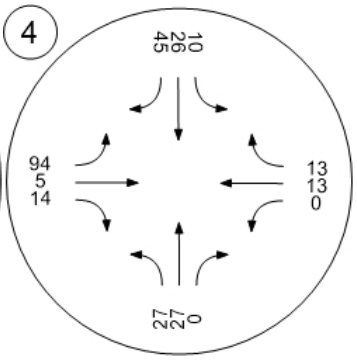
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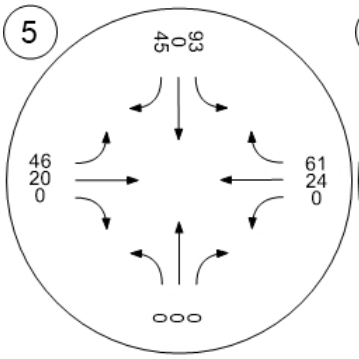
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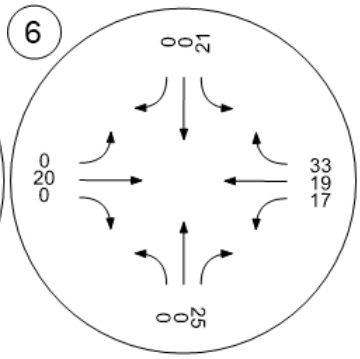
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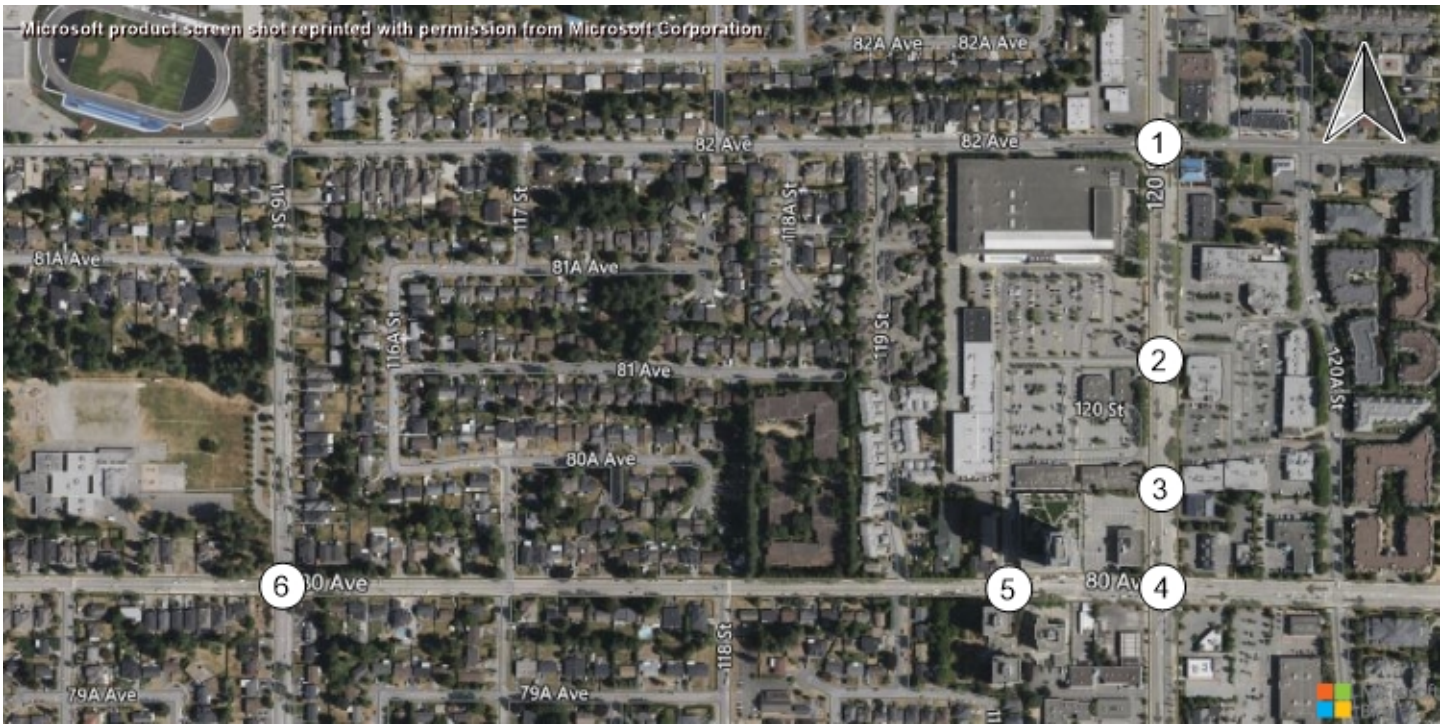
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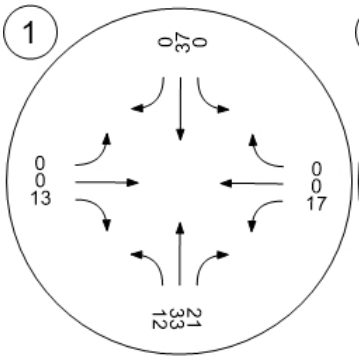
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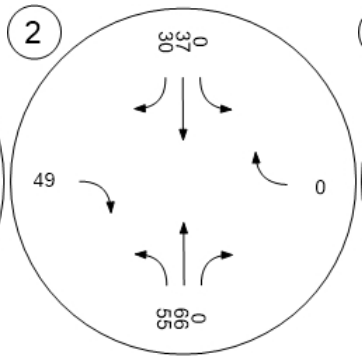
Report Figure 0d: Traffic Volume - Net New Site Trips



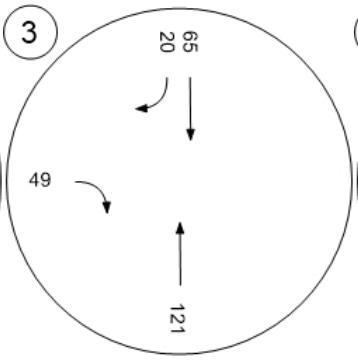
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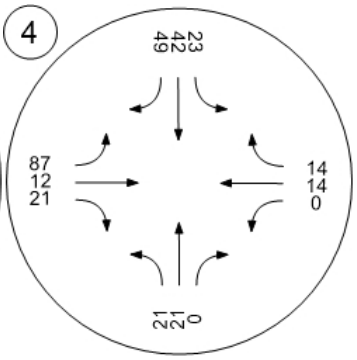
Scott Rd/Northeast Accs



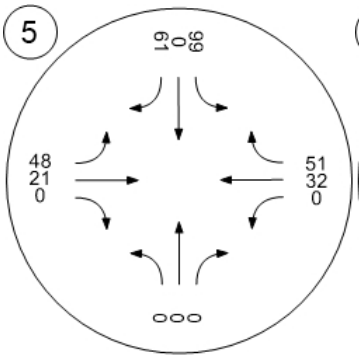
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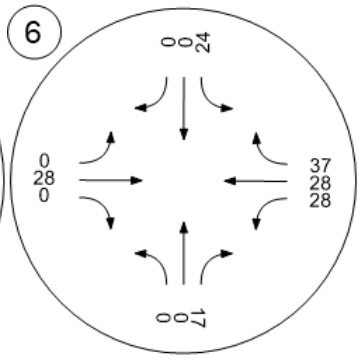
Scott Rd/80 Ave



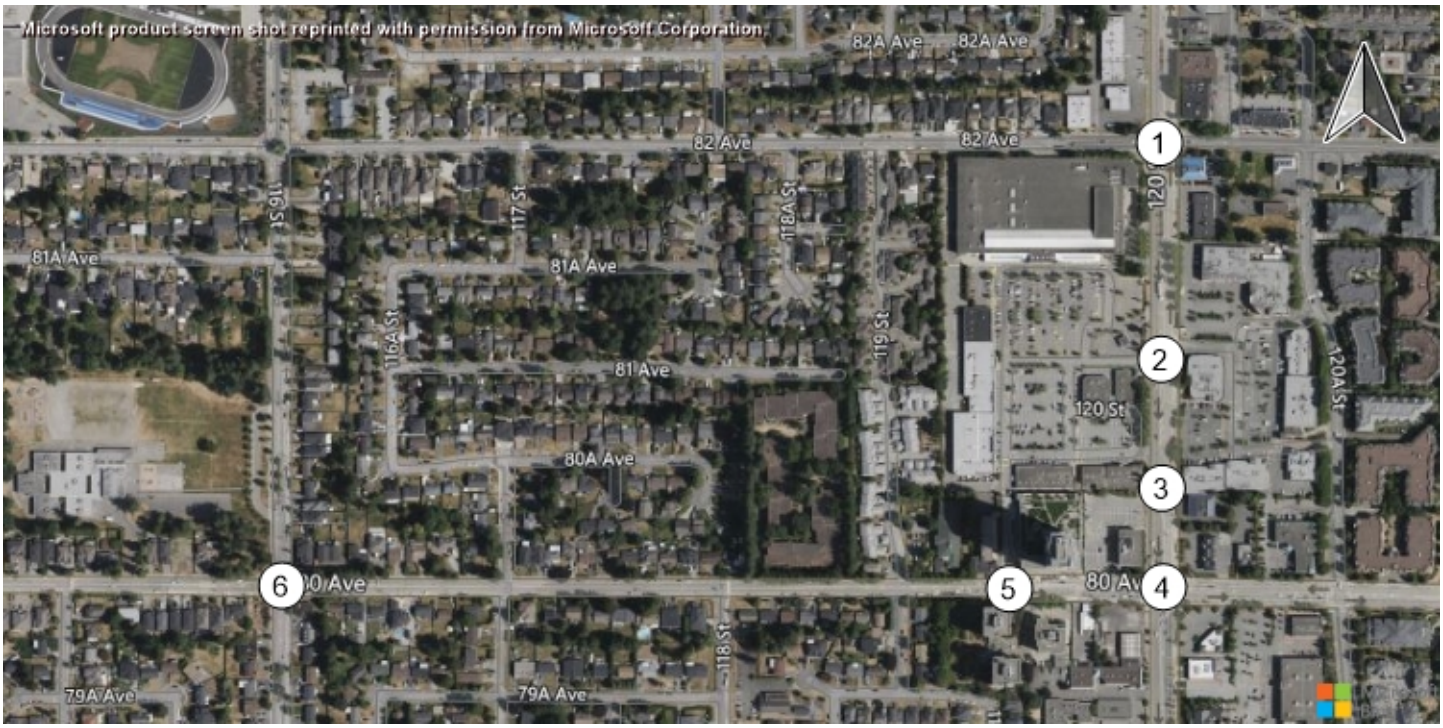
80 Ave/Sharma Blvd



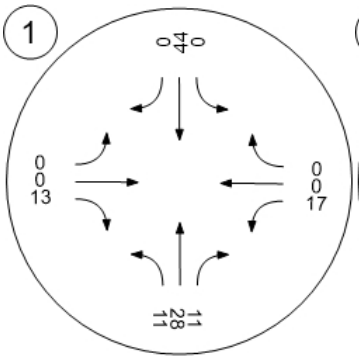
80 Ave/116 St



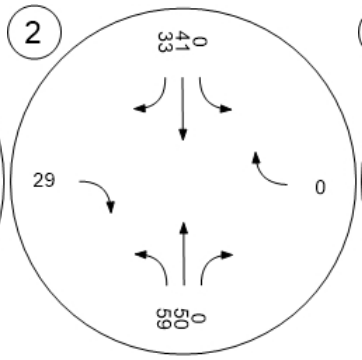
Report Figure 0d: Traffic Volume - Net New Site Trips



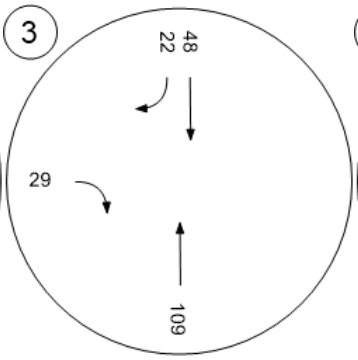
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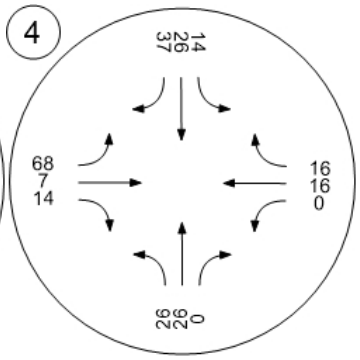
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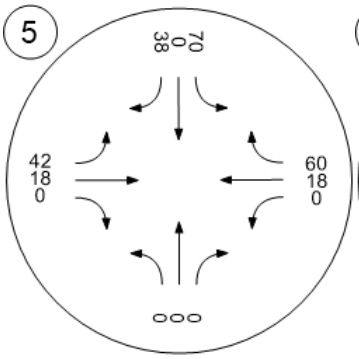
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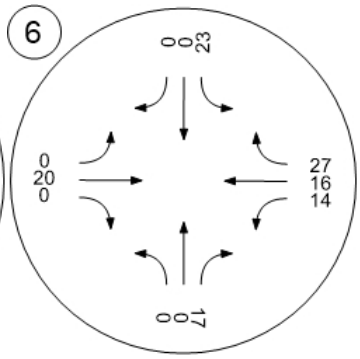
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80 Ave/Sharma Blvd



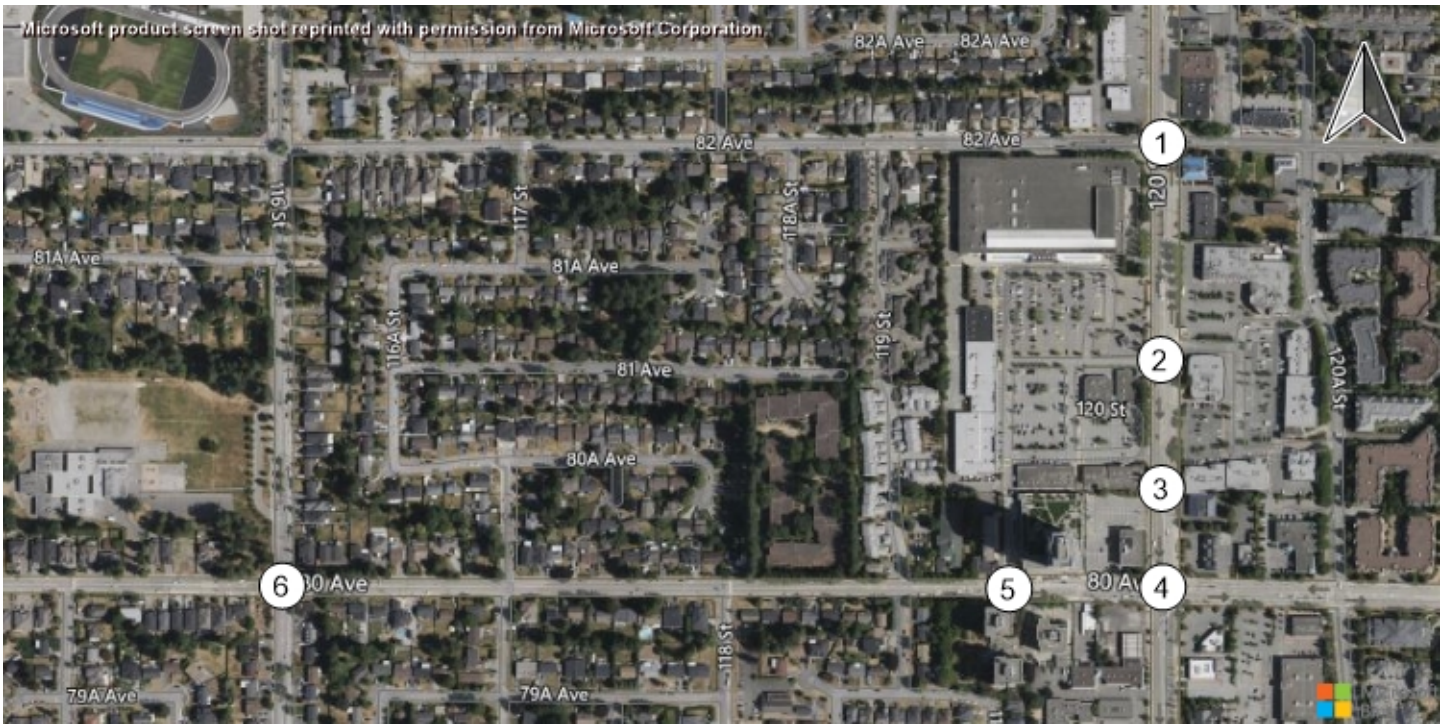
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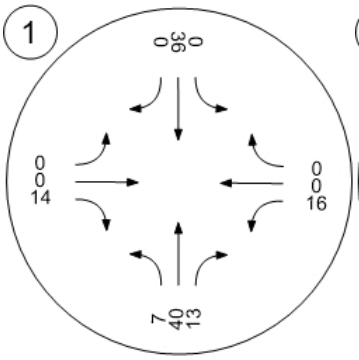
Appendix E-2

Site Traffic Volumes - Scenario 1: 20% Reduction of Site Traffic

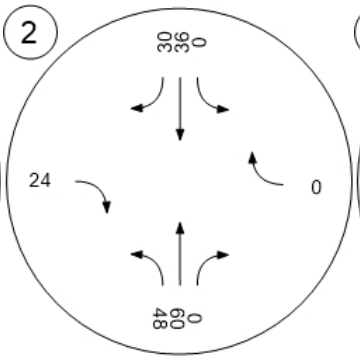
Report Figure 0d: Traffic Volume - Net New Site Trips



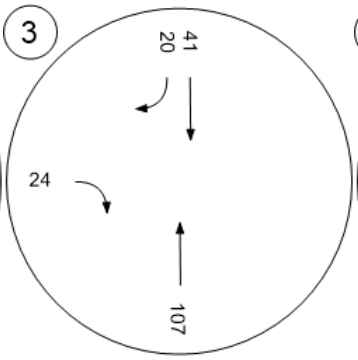
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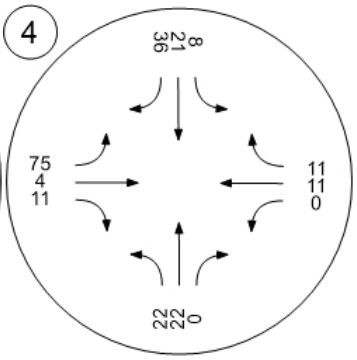
Scott Rd/Northeast Accs



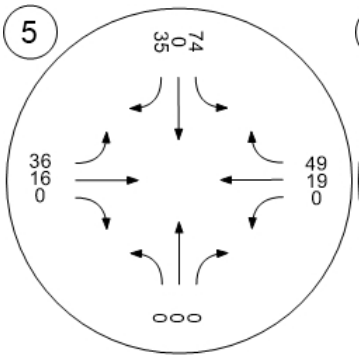
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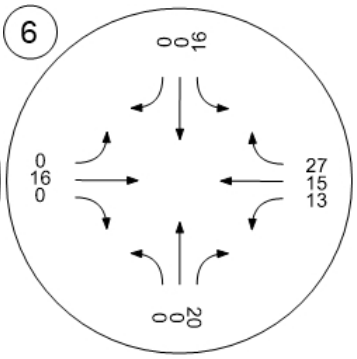
Scott Rd/80 Ave



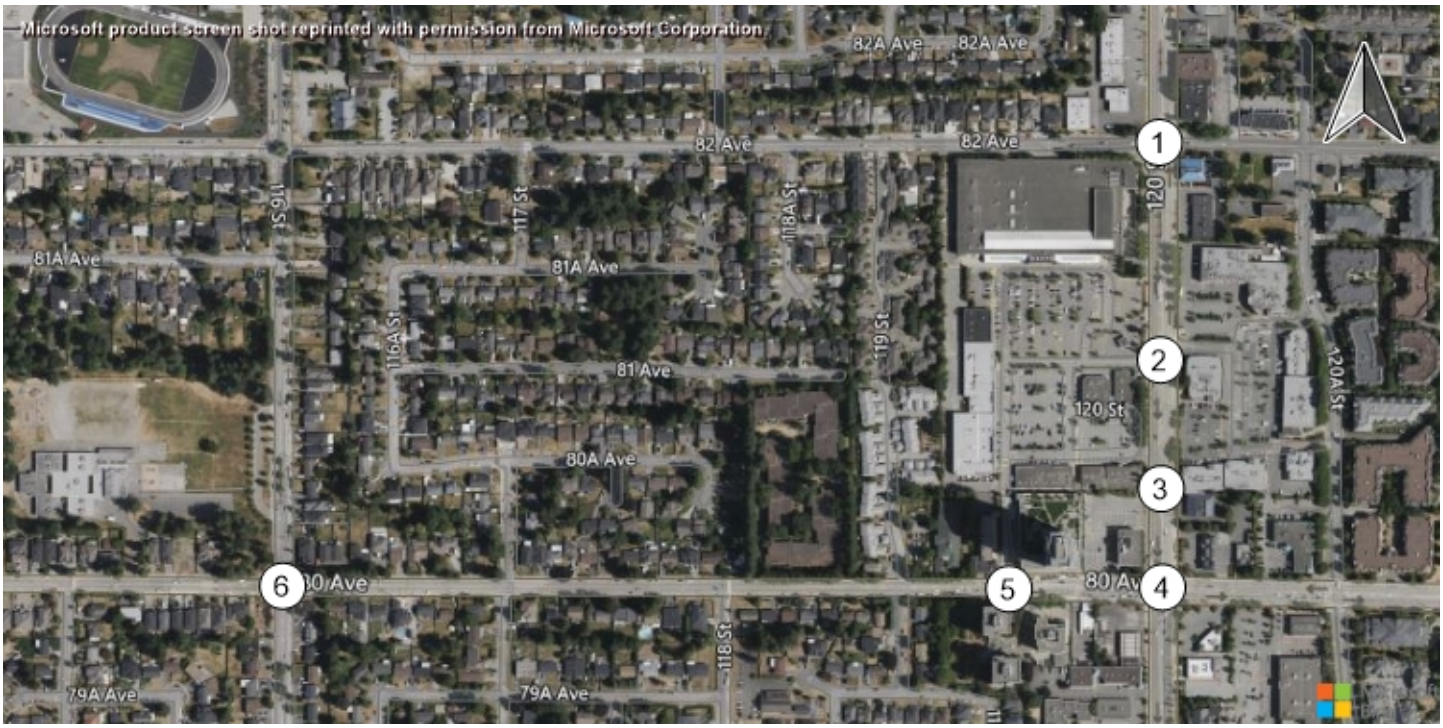
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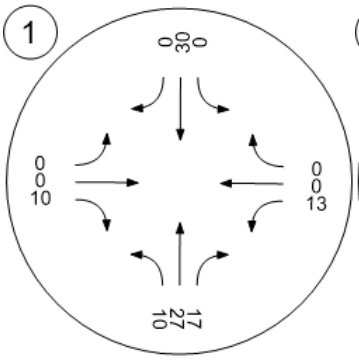
80 Ave/116 St



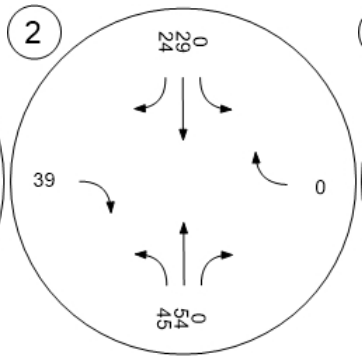
Report Figure 0d: Traffic Volume - Net New Site Trips



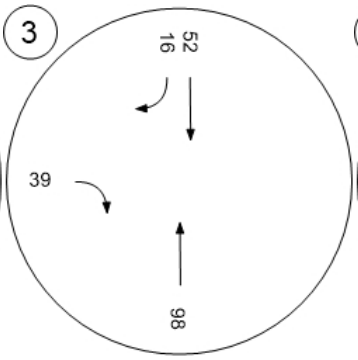
Scott Rd/82 Ave



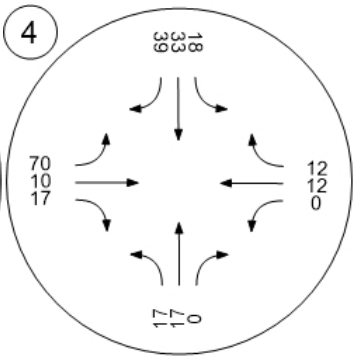
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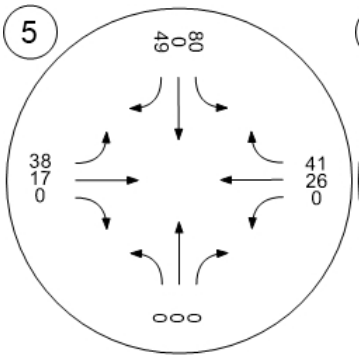
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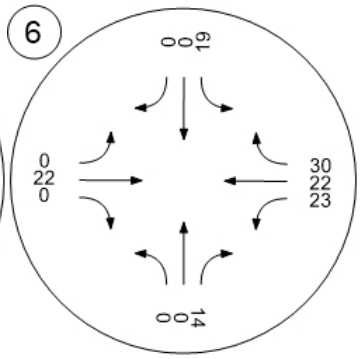
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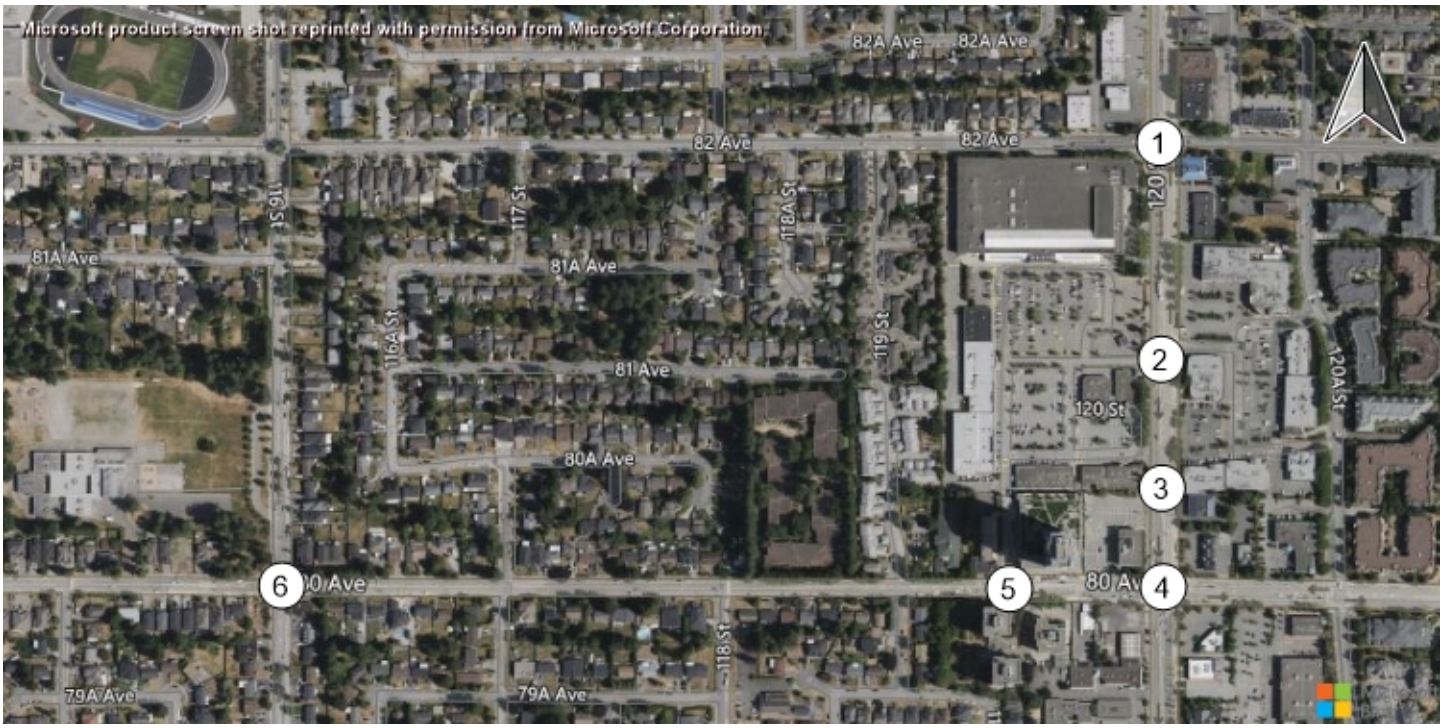
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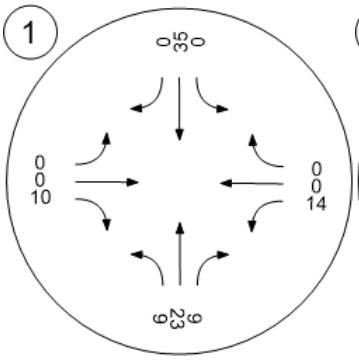
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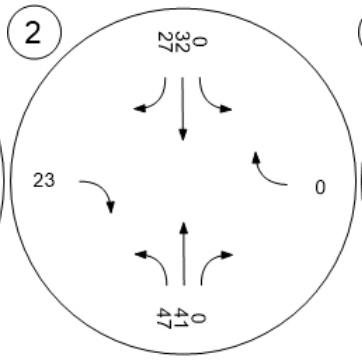
Report Figure 0d: Traffic Volume - Net New Site Trips



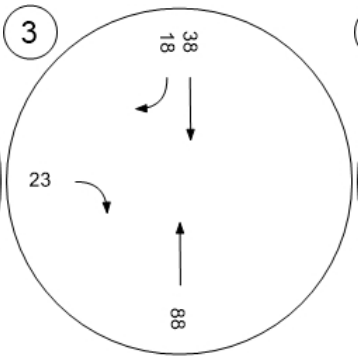
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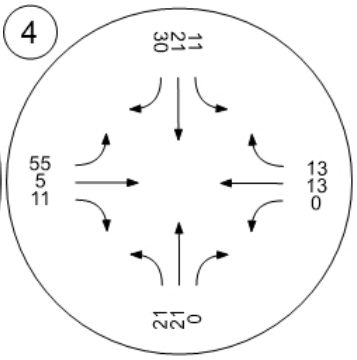
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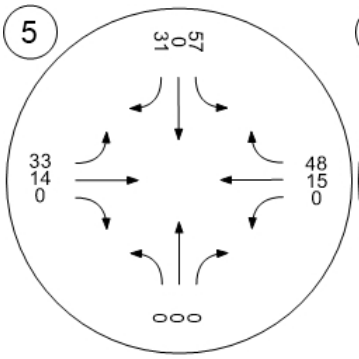
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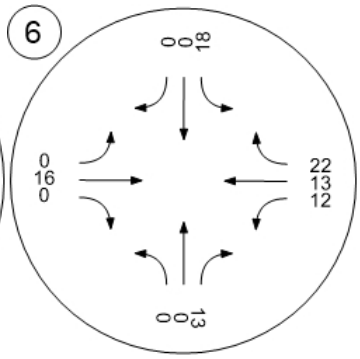
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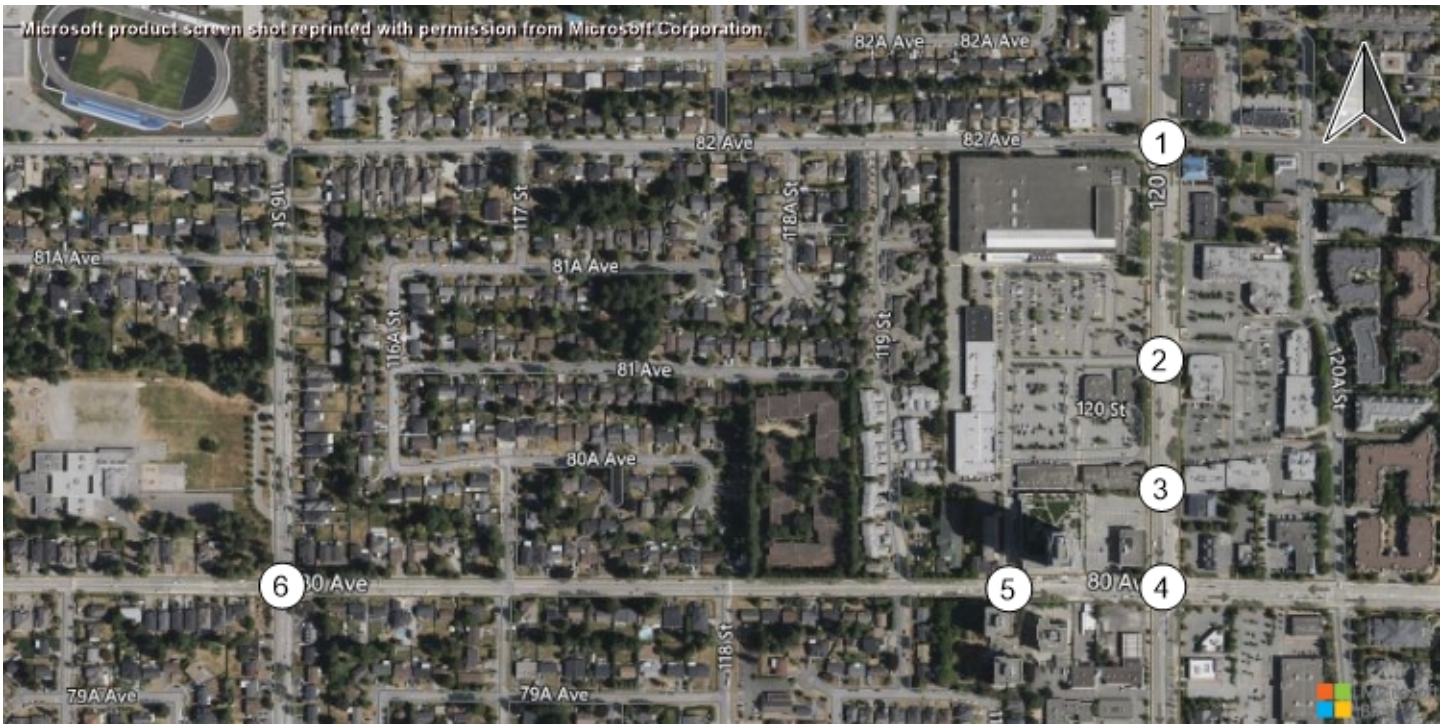
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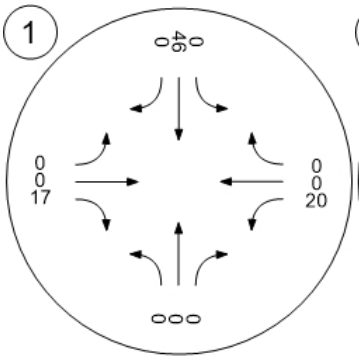
Appendix E-3

Site Traffic Volumes - Scenario 2: No Reduction of Site Traffic

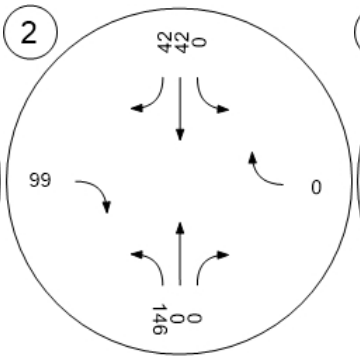
Report Figure 0d: Traffic Volume - Net New Site Trips



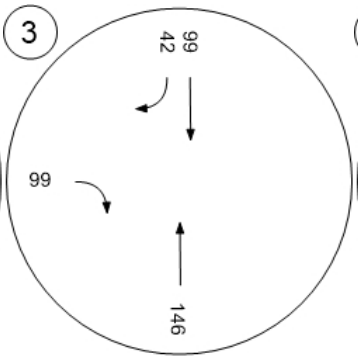
Scott Rd/82 Ave



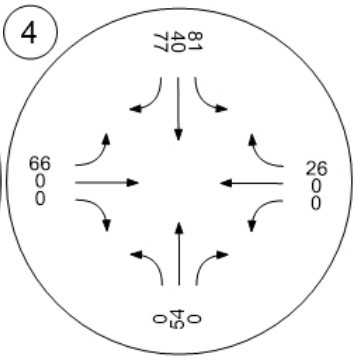
Scott Rd/Northeast Accs



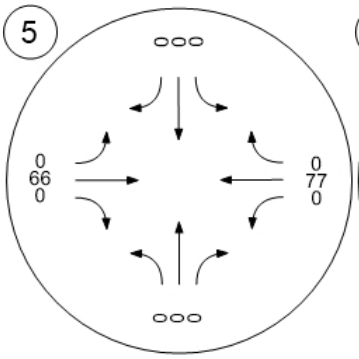
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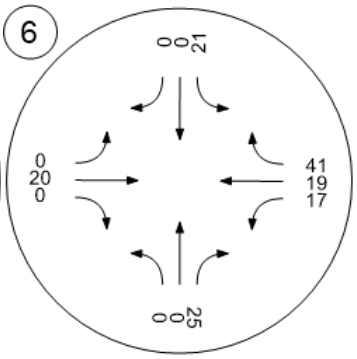
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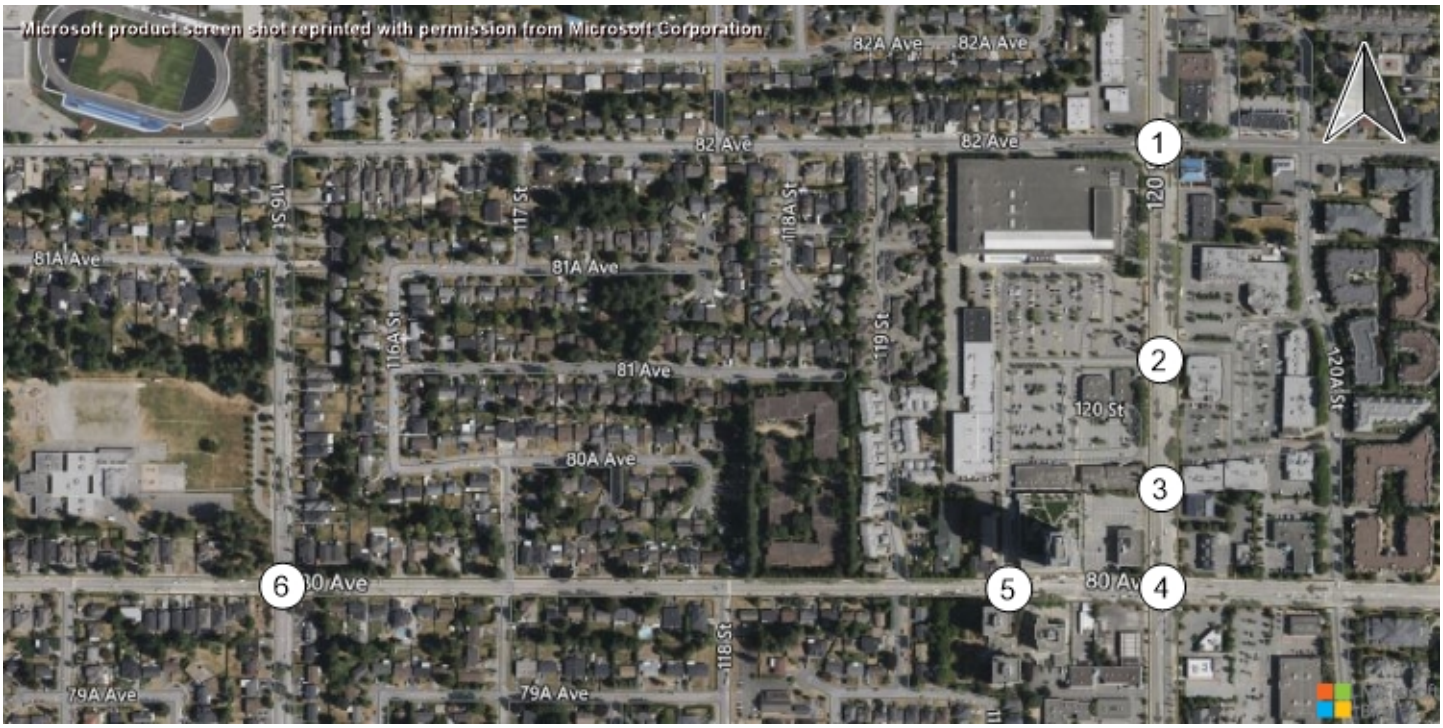
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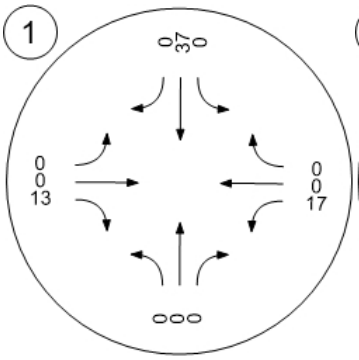
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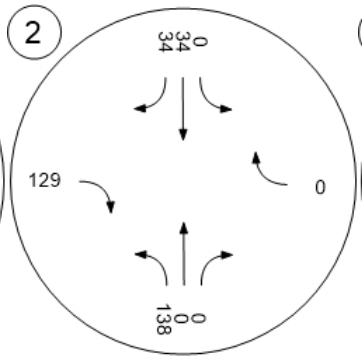
Report Figure 0d: Traffic Volume - Net New Site Trips



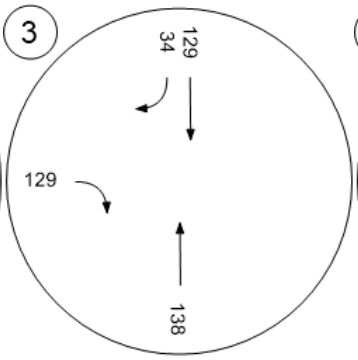
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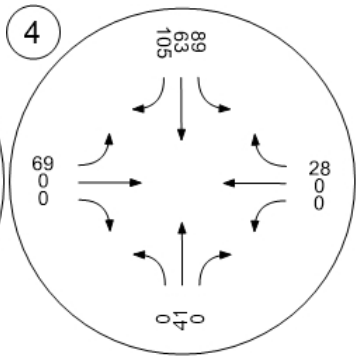
Scott Rd/Northeast Accs



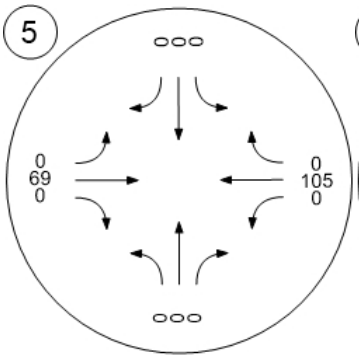
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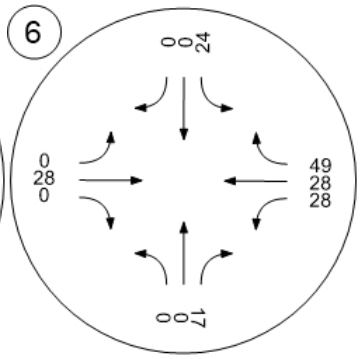
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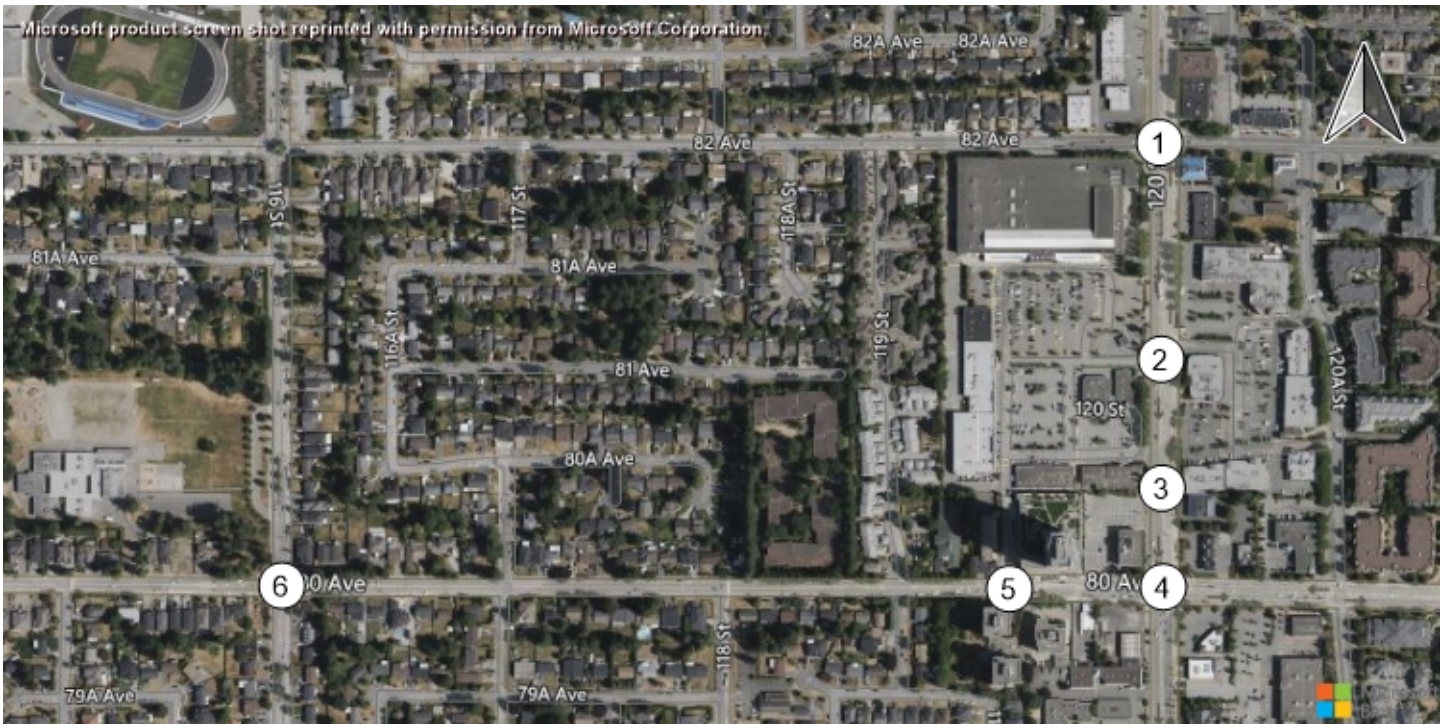
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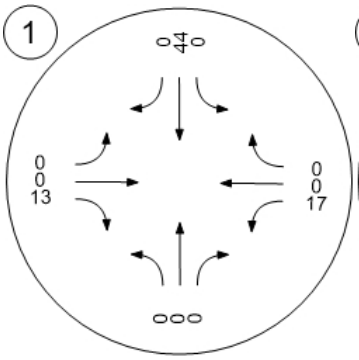
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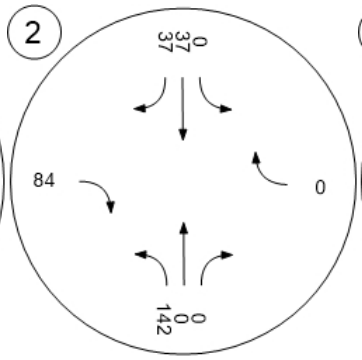
Report Figure 0d: Traffic Volume - Net New Site Trips



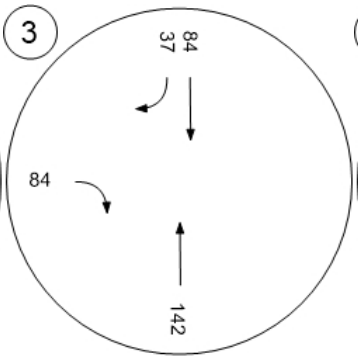
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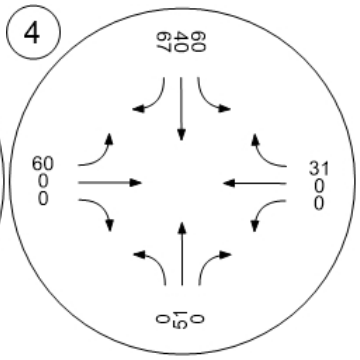
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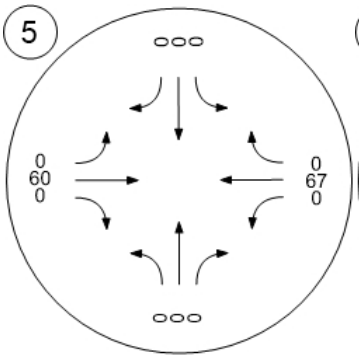
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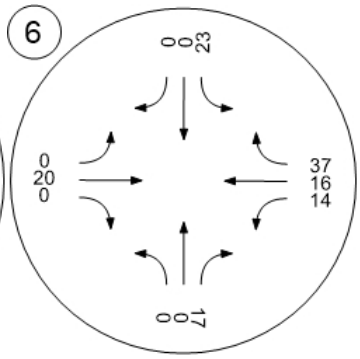
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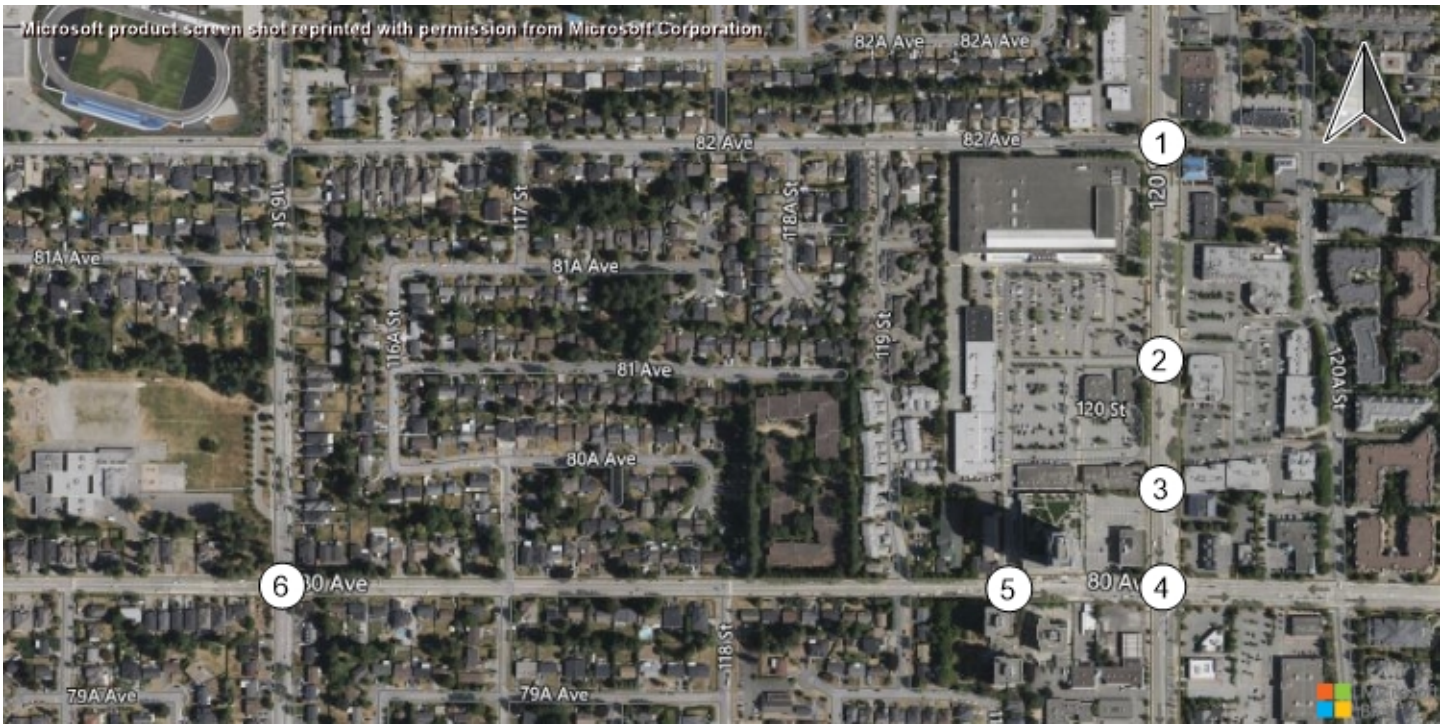
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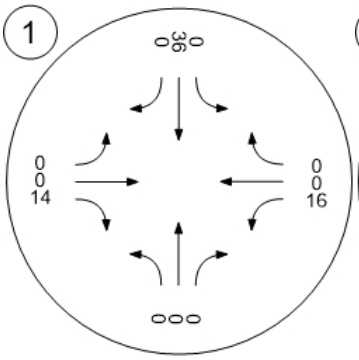
Appendix E-4

Site Traffic Volumes - Scenario 2: 20% Reduction of Site Traffic

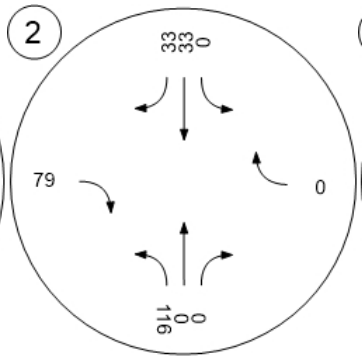
Report Figure 0d: Traffic Volume - Net New Site Trips



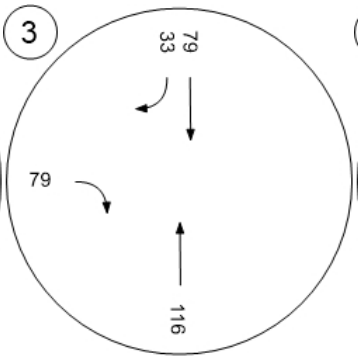
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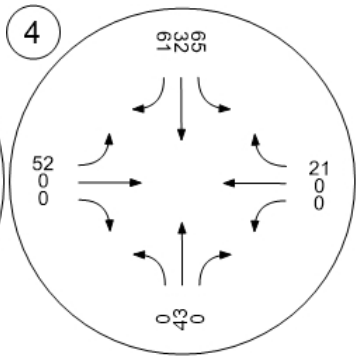
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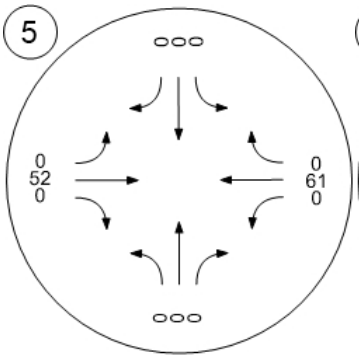
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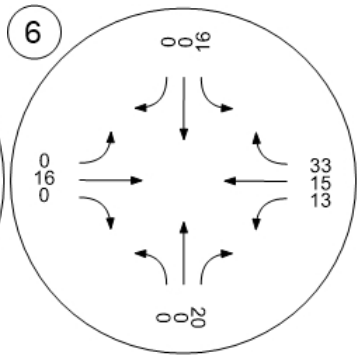
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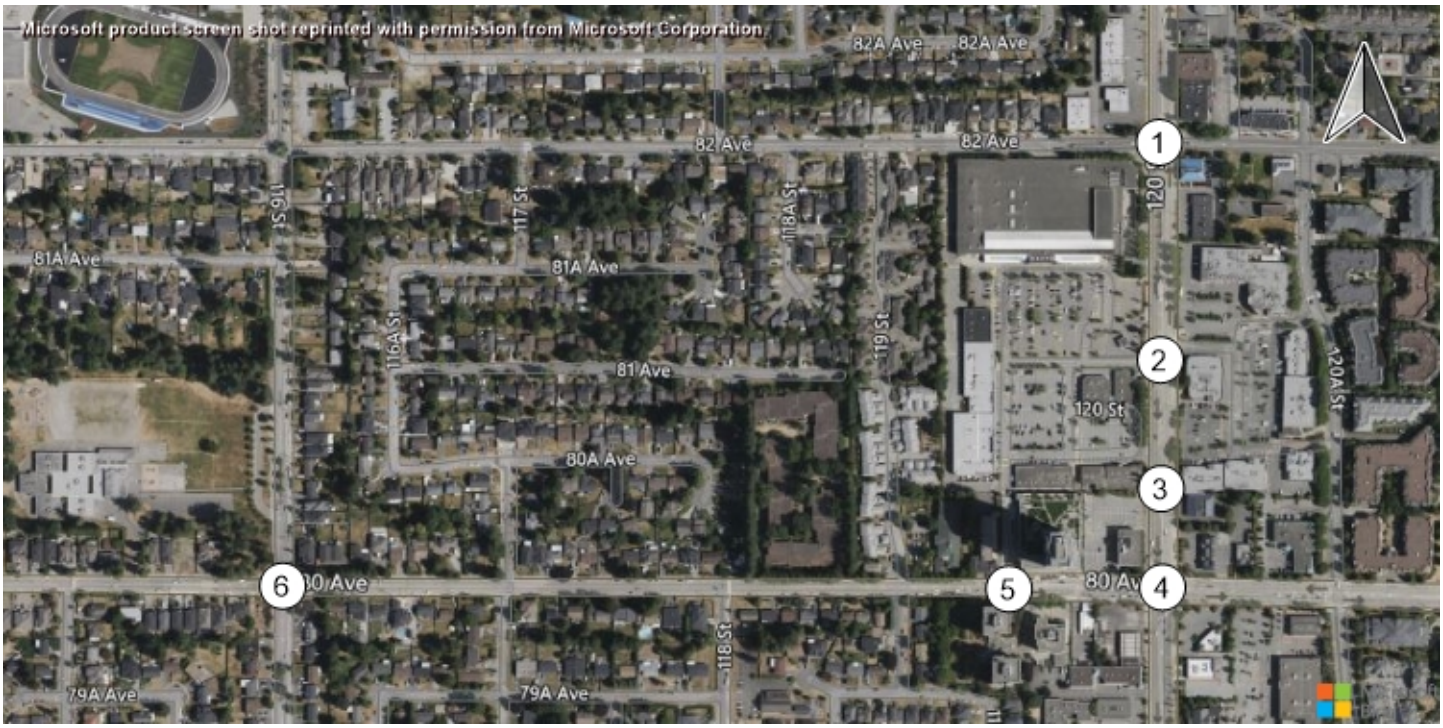
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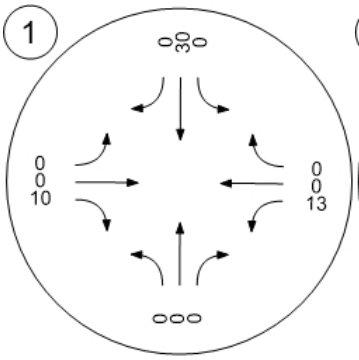
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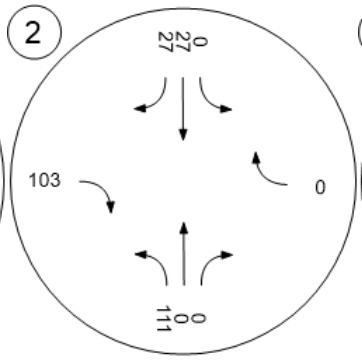
Report Figure 0d: Traffic Volume - Net New Site Trips



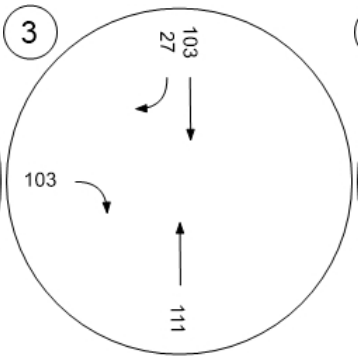
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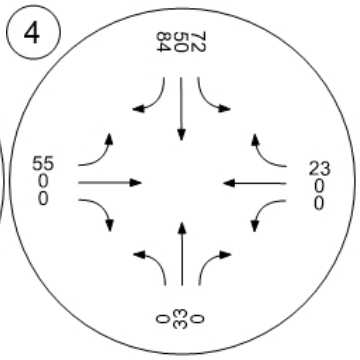
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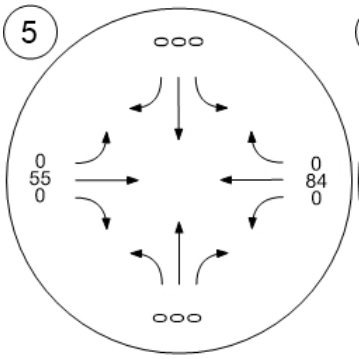
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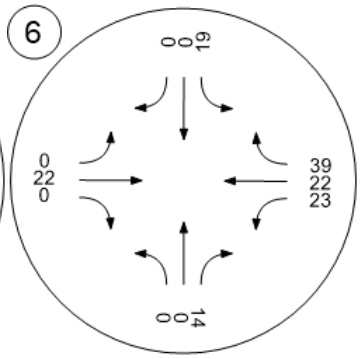
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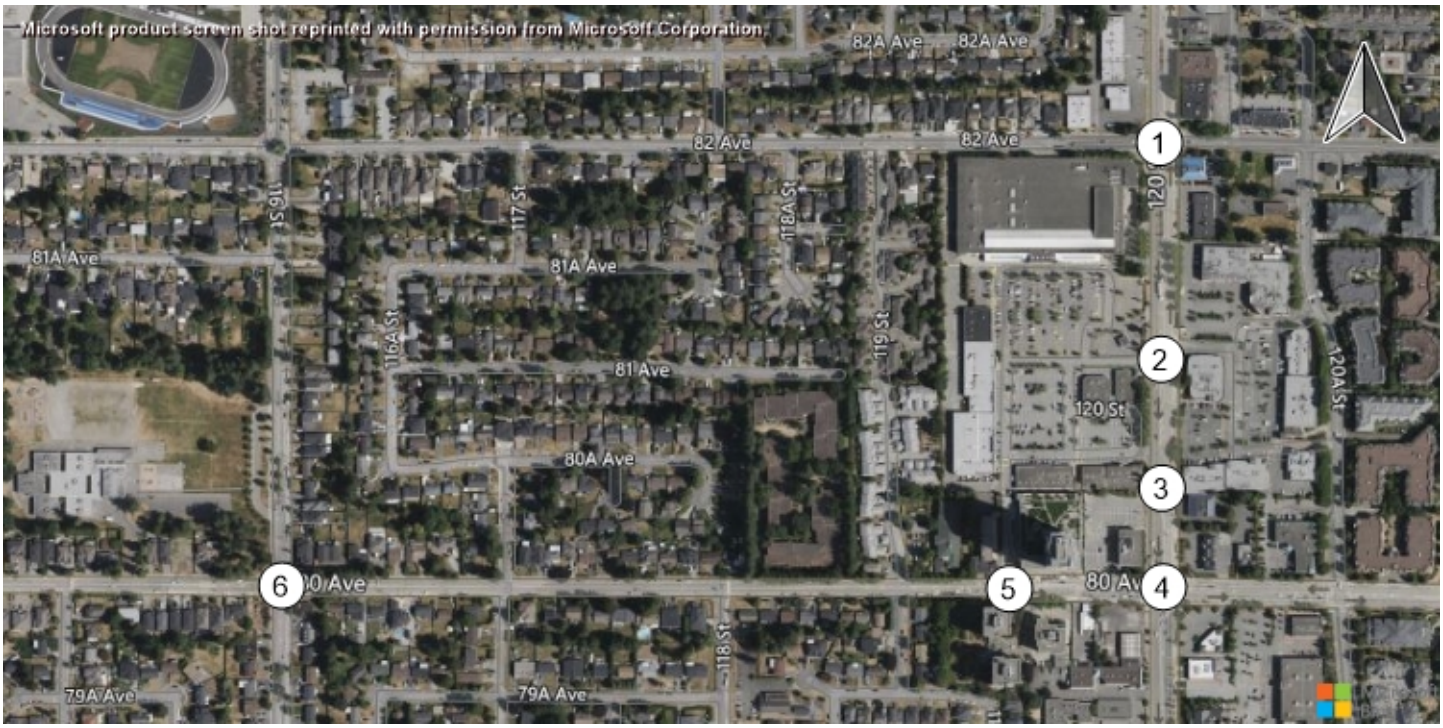
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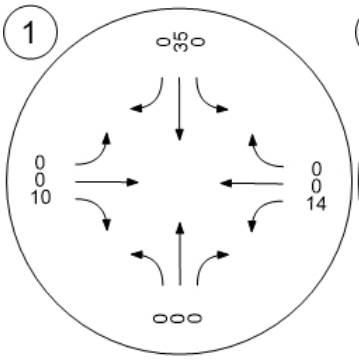
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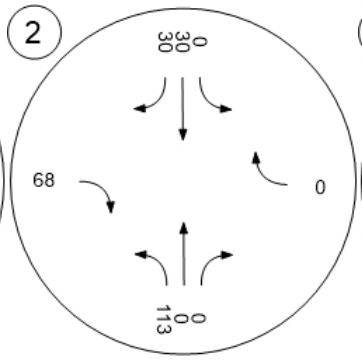
Report Figure 0d: Traffic Volume - Net New Site Trips



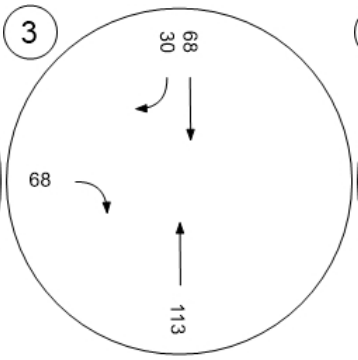
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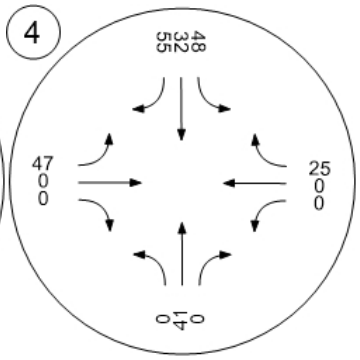
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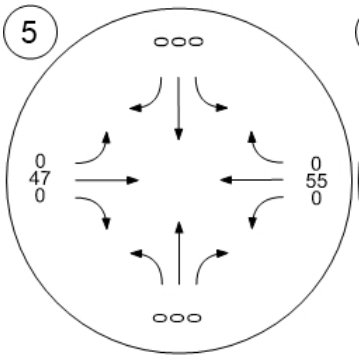
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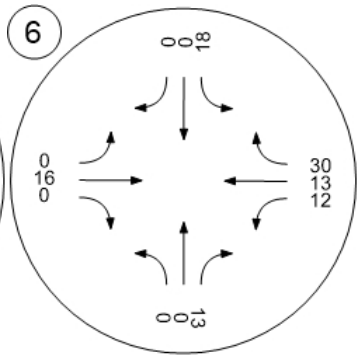
Scott Rd/80 Ave



80 Ave/Sharma Blvd



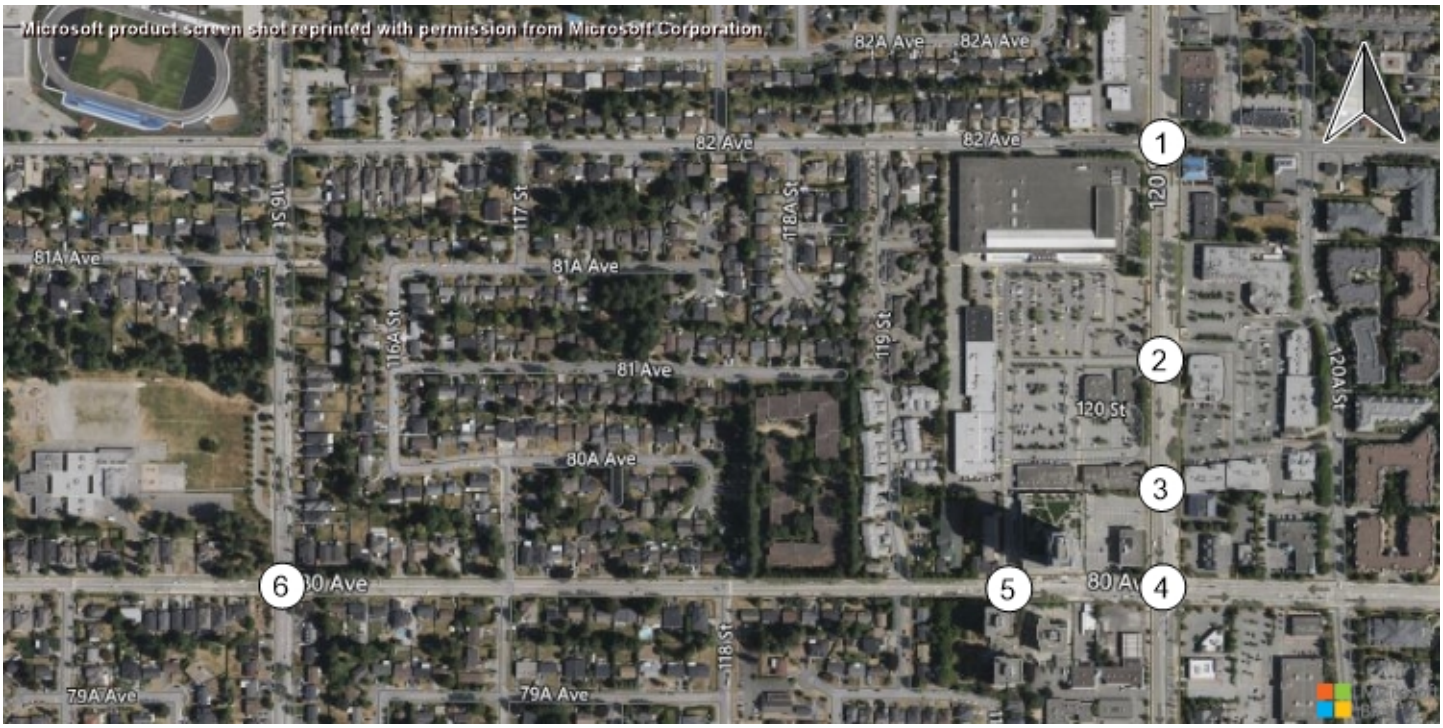
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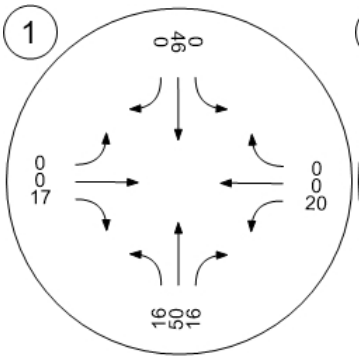
Appendix E-5

Site Traffic Volumes - Scenario 3: No Reduction of Site Traffic

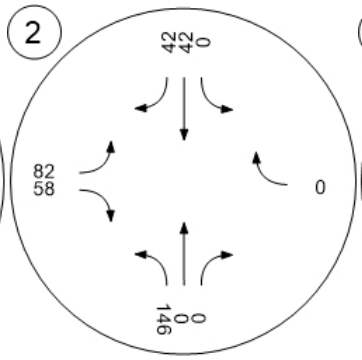
Report Figure 0d: Traffic Volume - Net New Site Trips



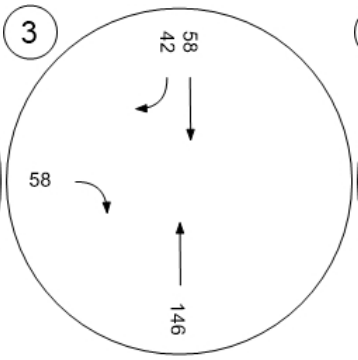
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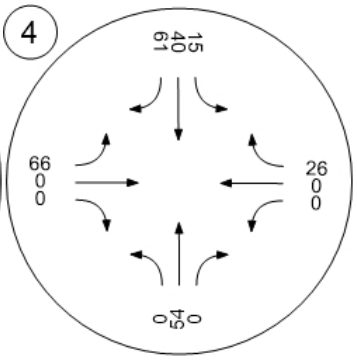
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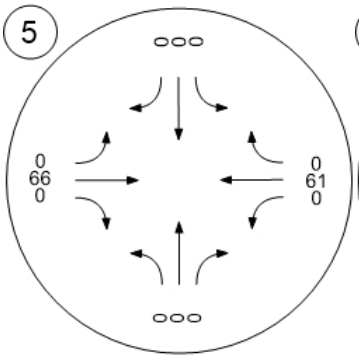
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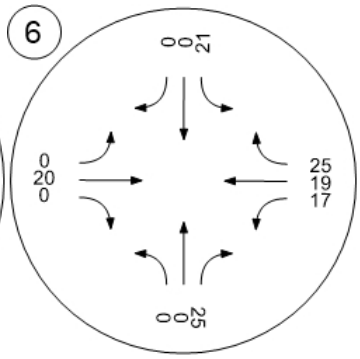
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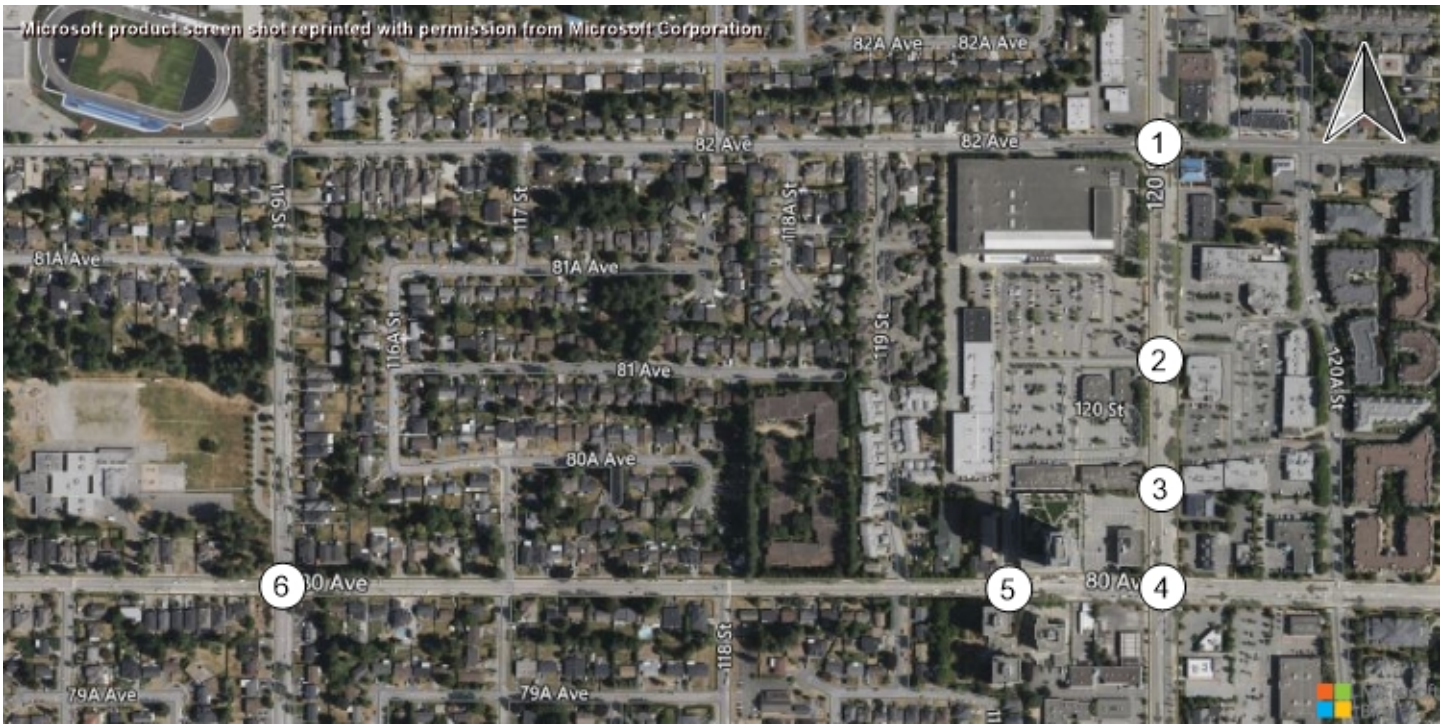
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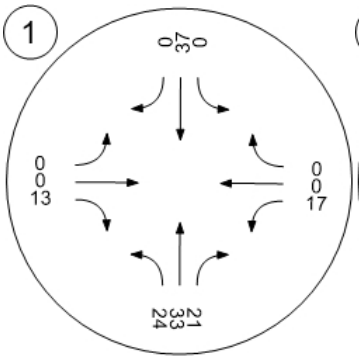
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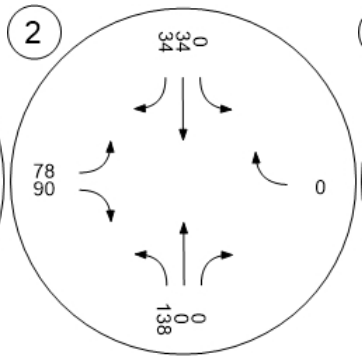
Report Figure 0d: Traffic Volume - Net New Site Trips



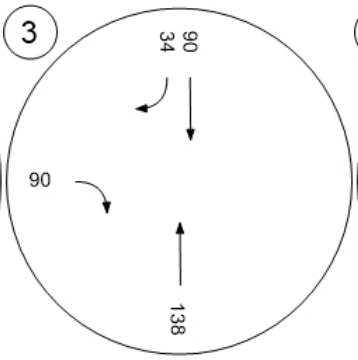
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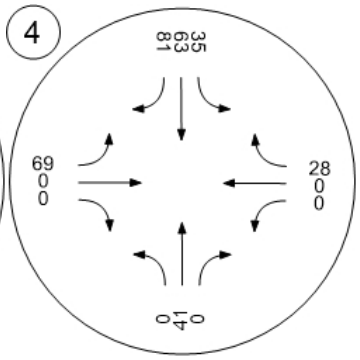
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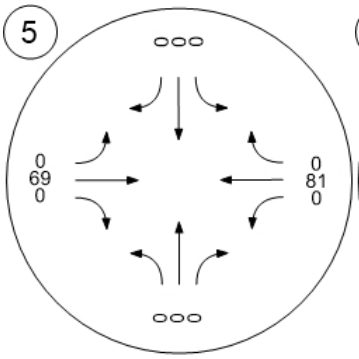
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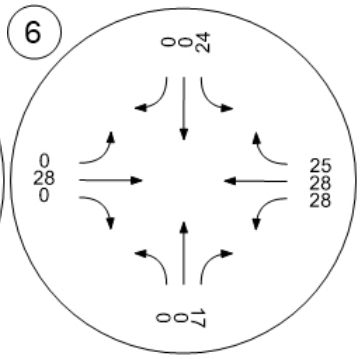
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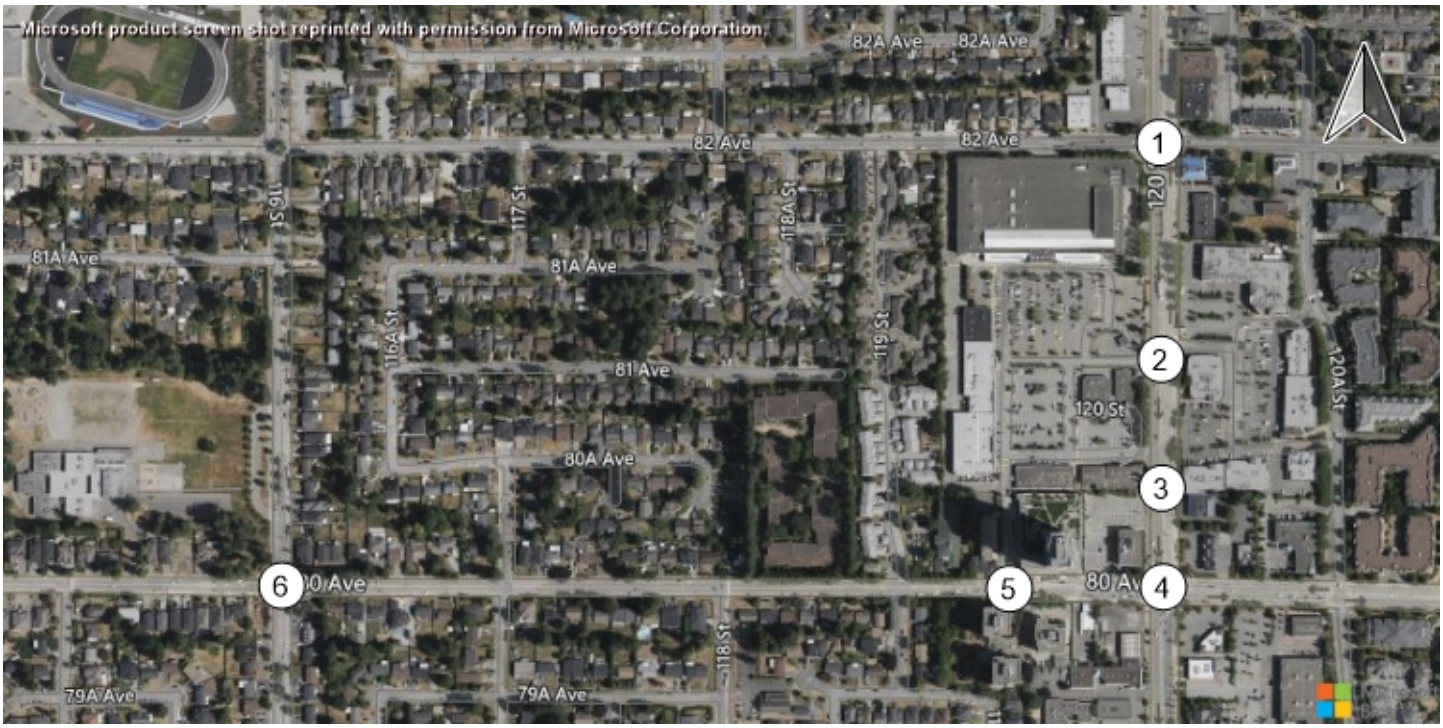
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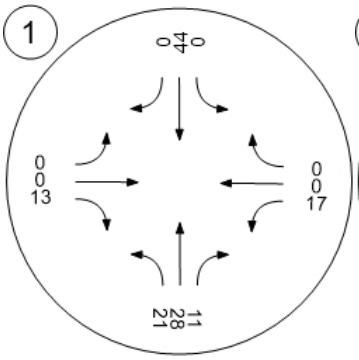
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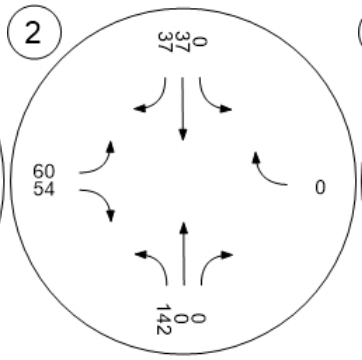
Report Figure 0d: Traffic Volume - Net New Site Trips



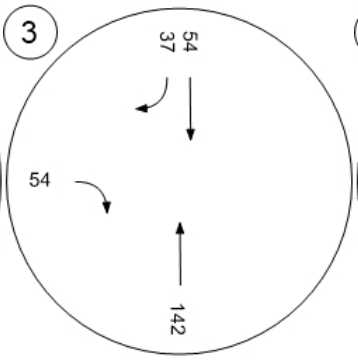
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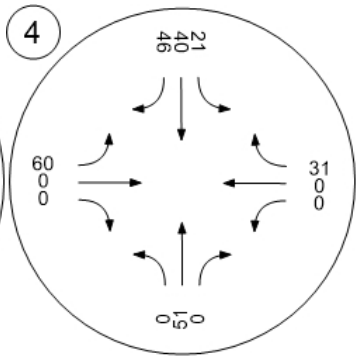
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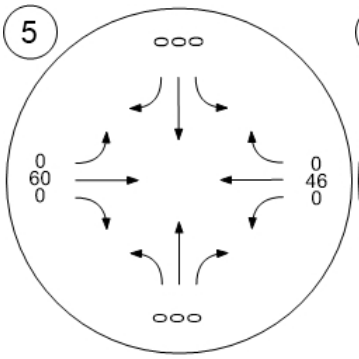
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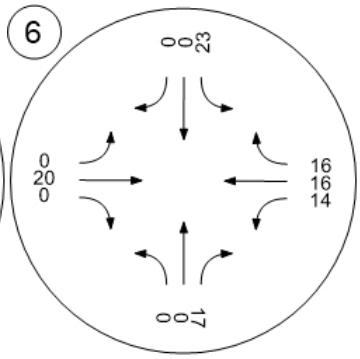
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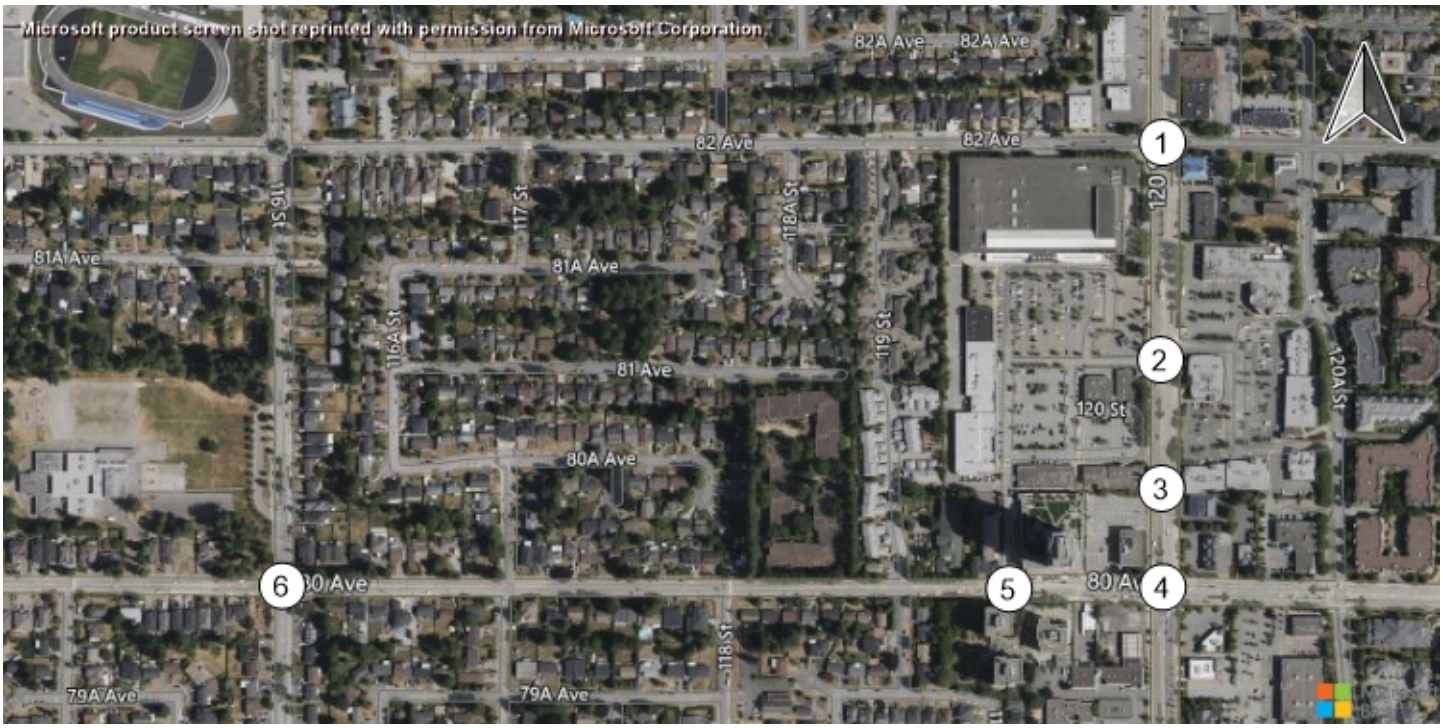
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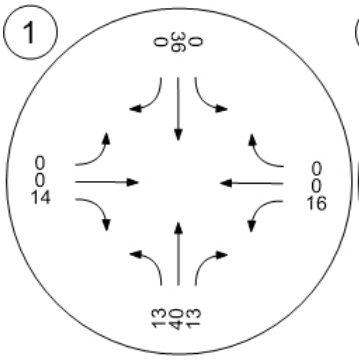
Appendix E-6

Site Traffic Volumes - Scenario 3: 20% Reduction of Site Traffic

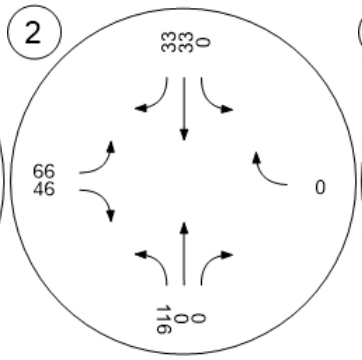
Report Figure 0d: Traffic Volume - Net New Site Trips



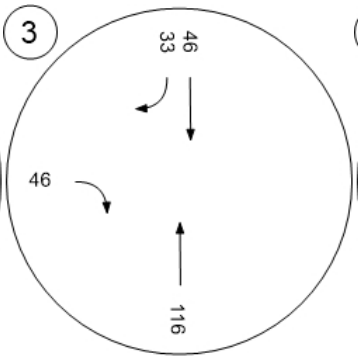
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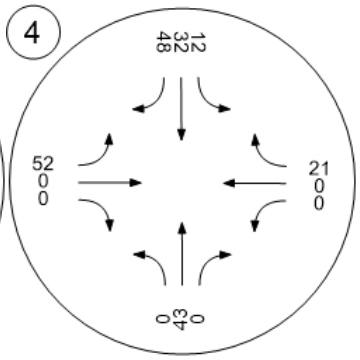
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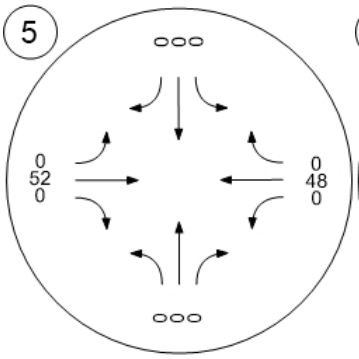
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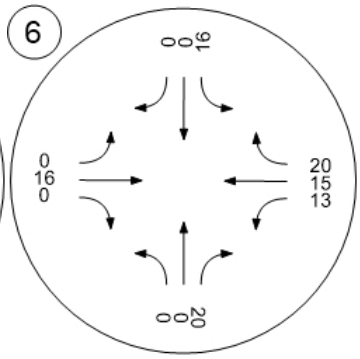
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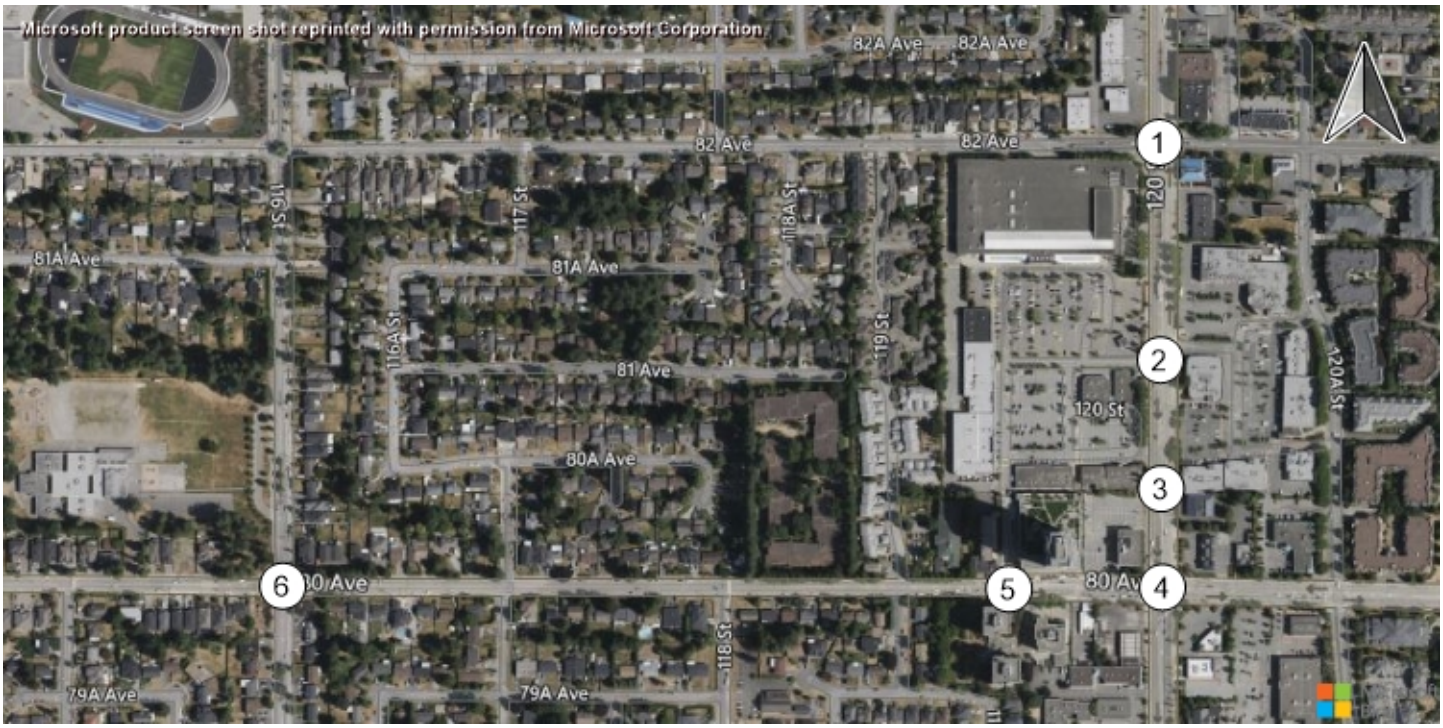
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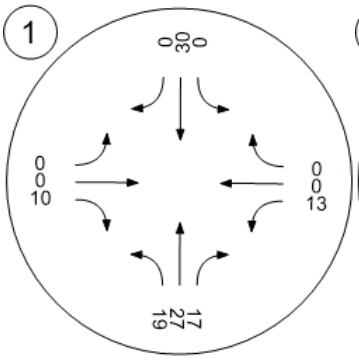
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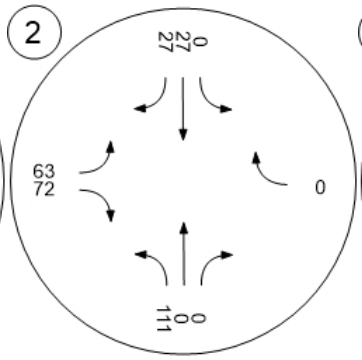
Report Figure 0d: Traffic Volume - Net New Site Trips



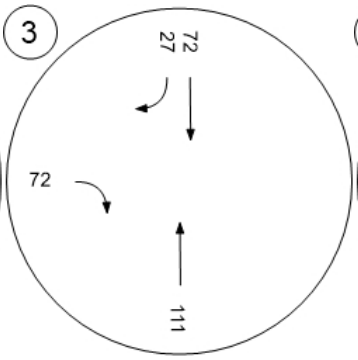
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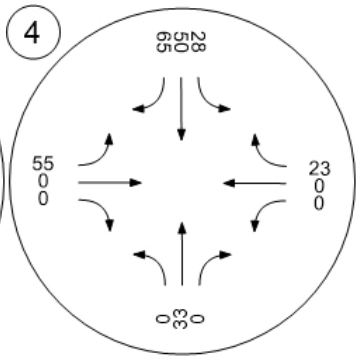
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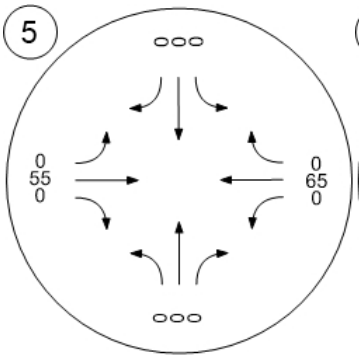
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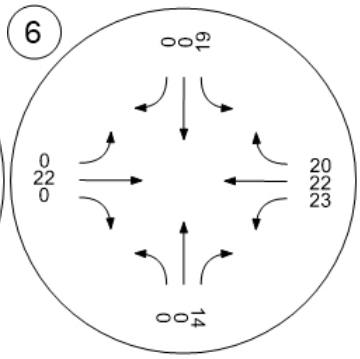
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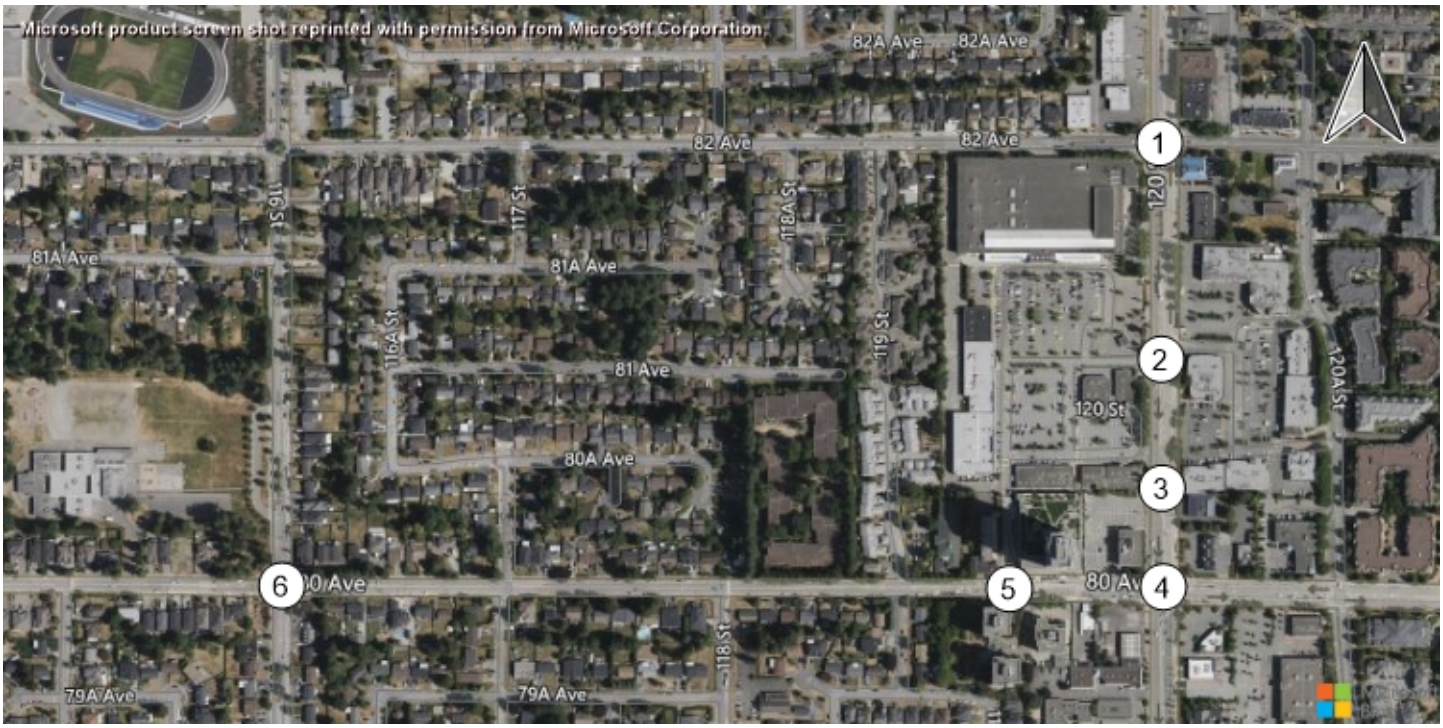
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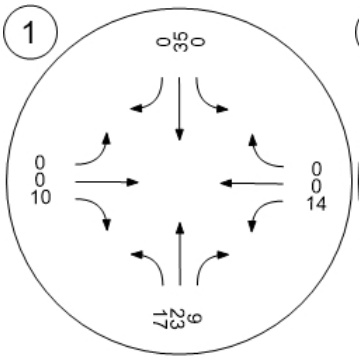
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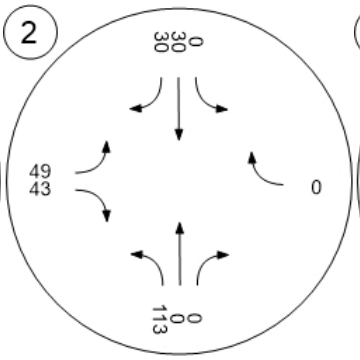
Report Figure 0d: Traffic Volume - Net New Site Trips



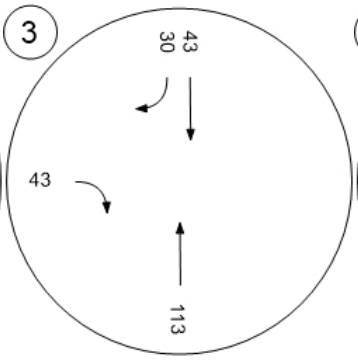
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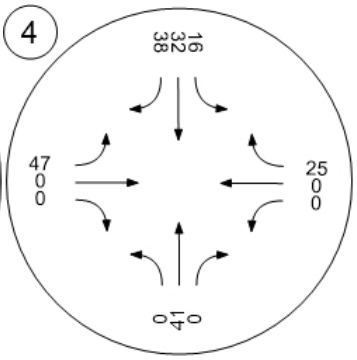
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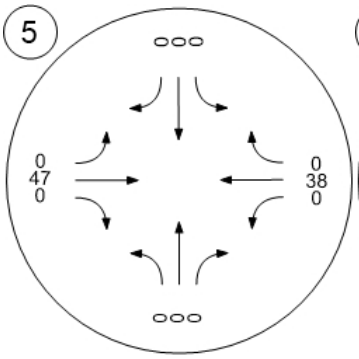
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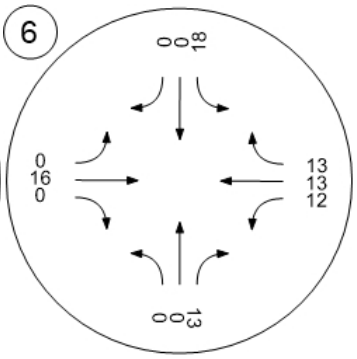
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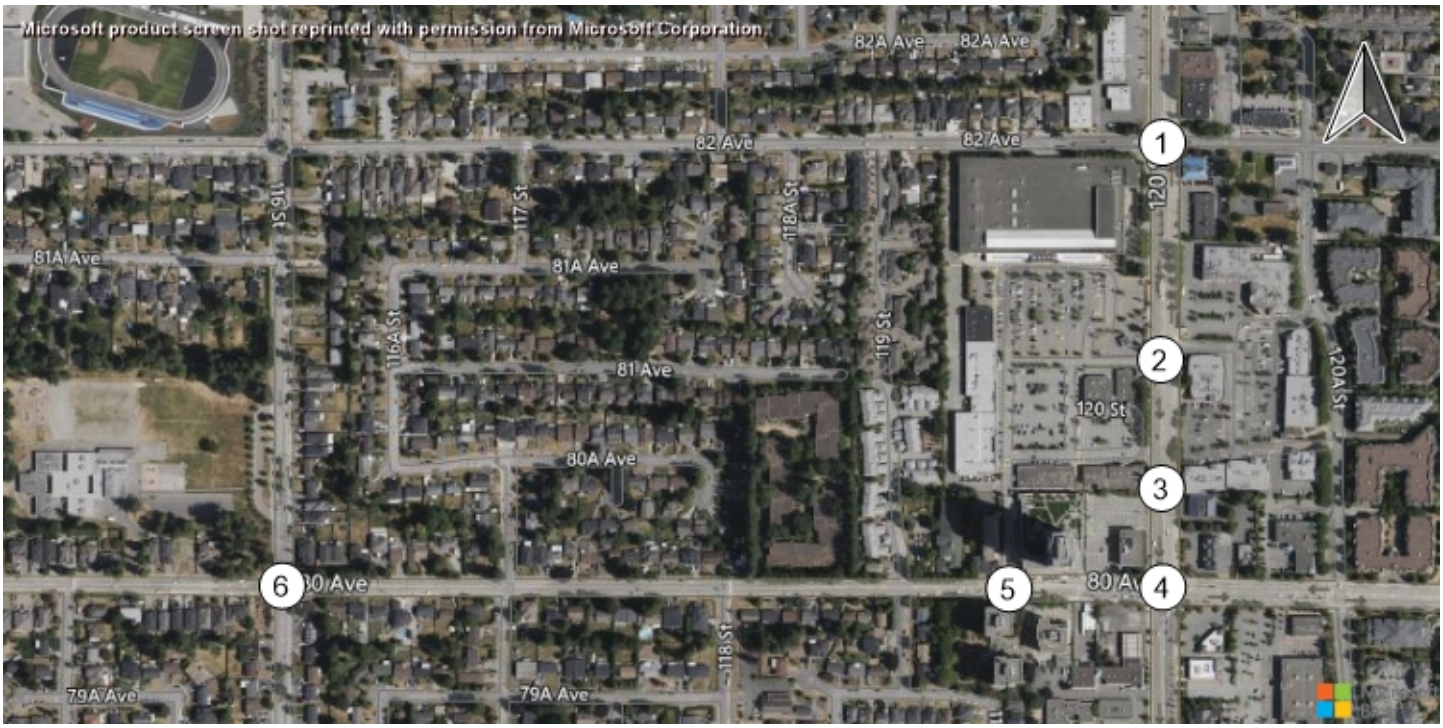
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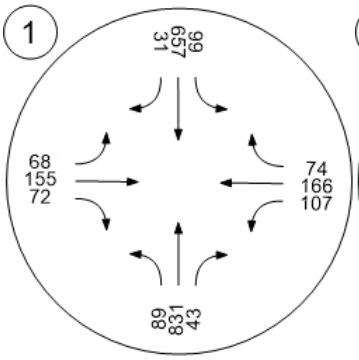
Appendix F-1

Combined Traffic Volumes (2028) - Scenario 1: No Reduction of Site Traffic

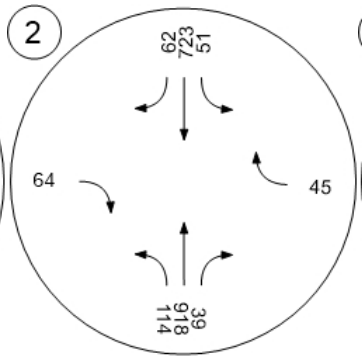
Report Figure 0f: Traffic Volume - Future Total Volume



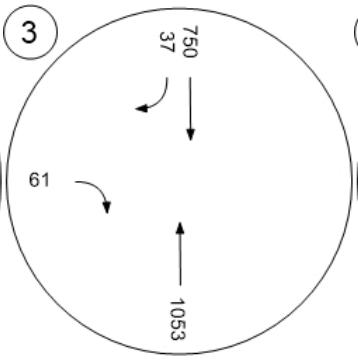
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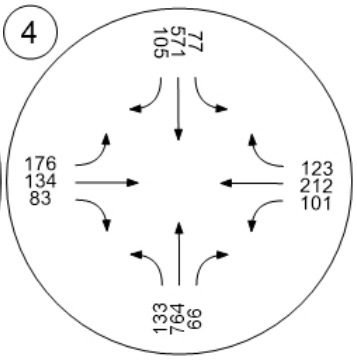
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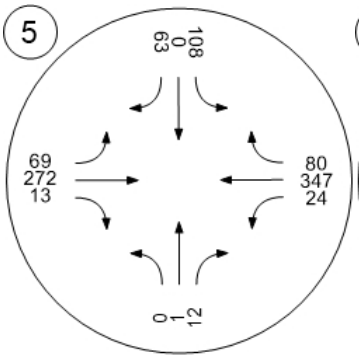
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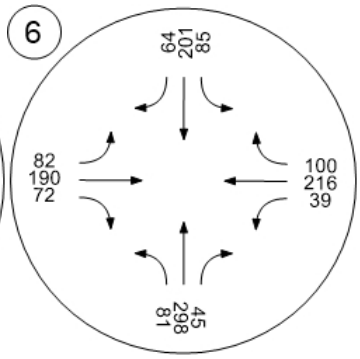
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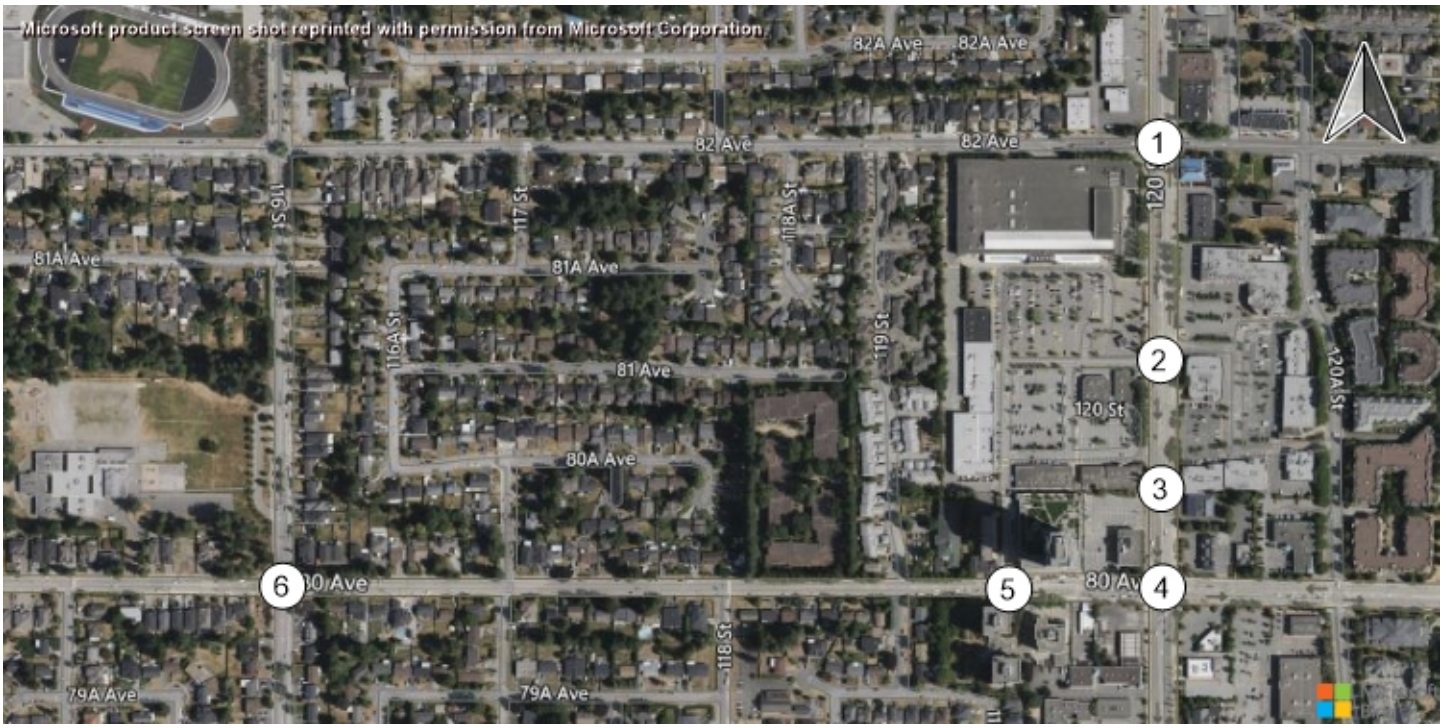
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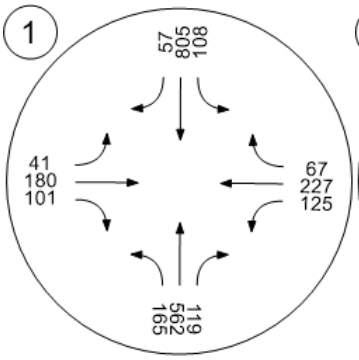
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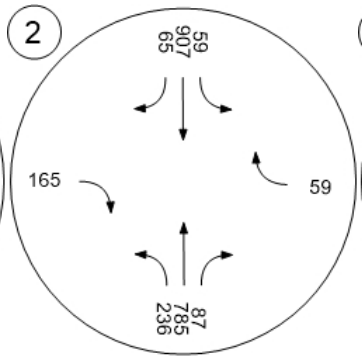
Report Figure 0f: Traffic Volume - Future Total Volume



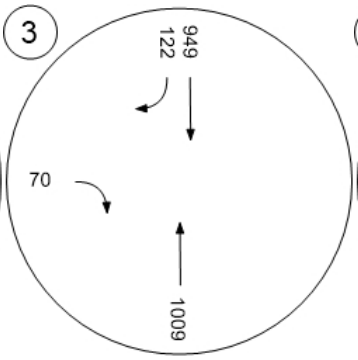
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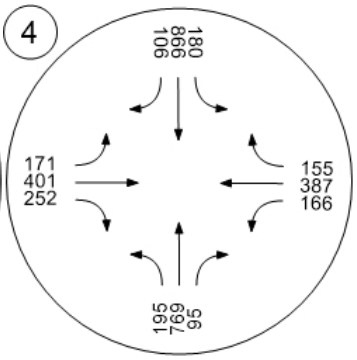
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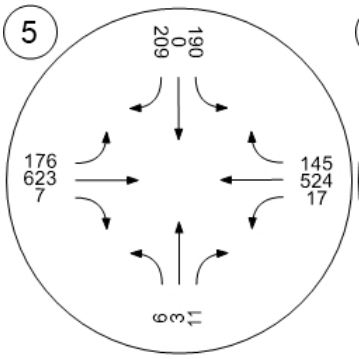
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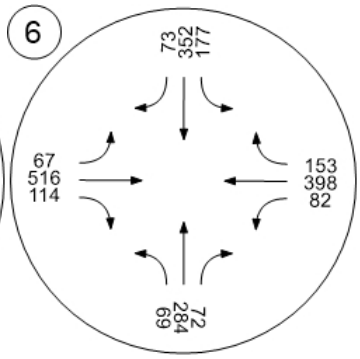
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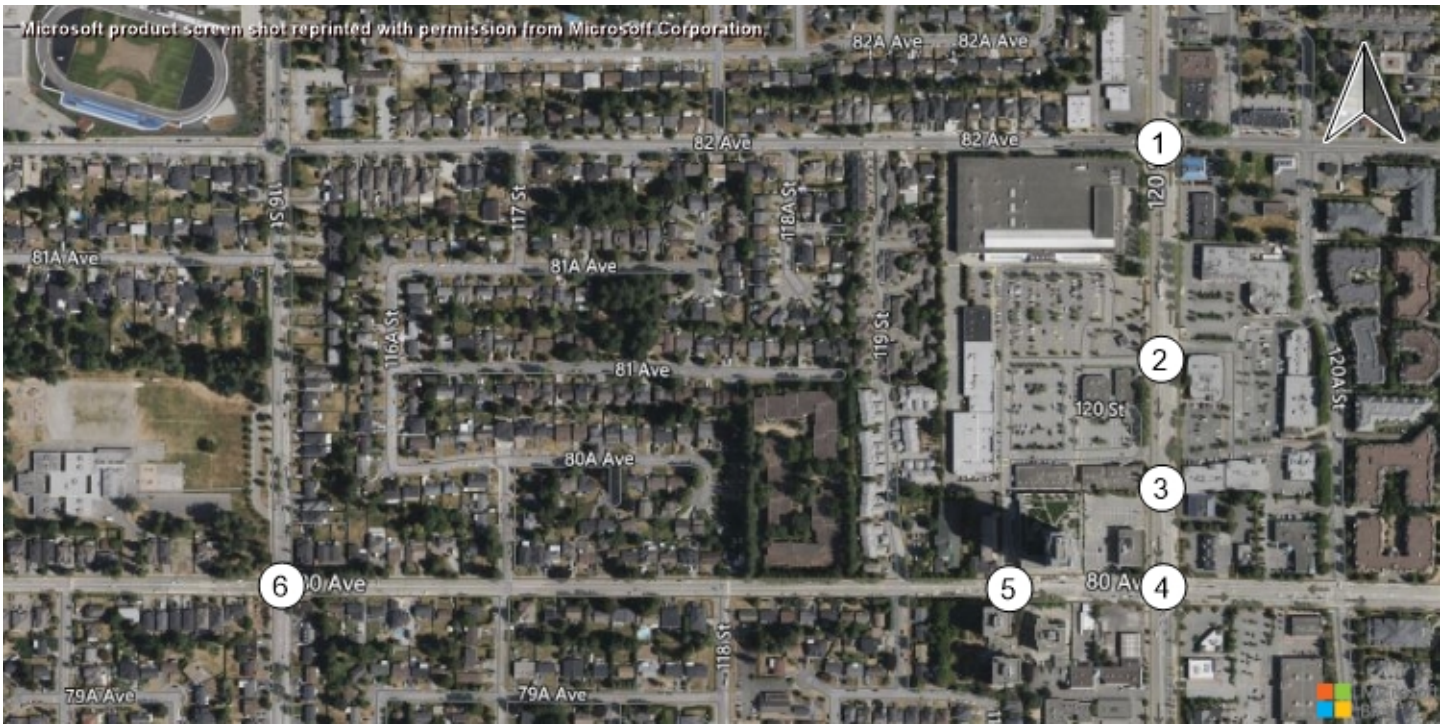
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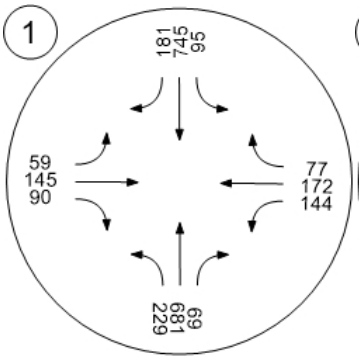
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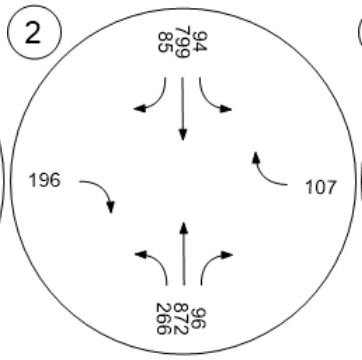
Report Figure 0f: Traffic Volume - Future Total Volume



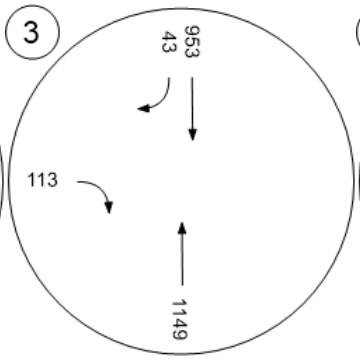
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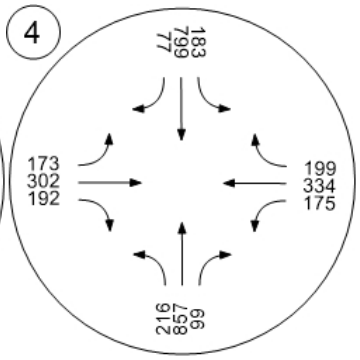
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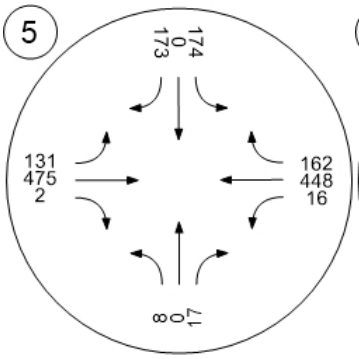
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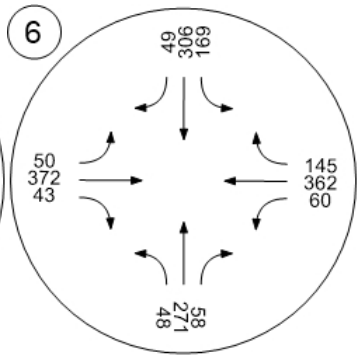
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80 Ave/Sharma Blvd



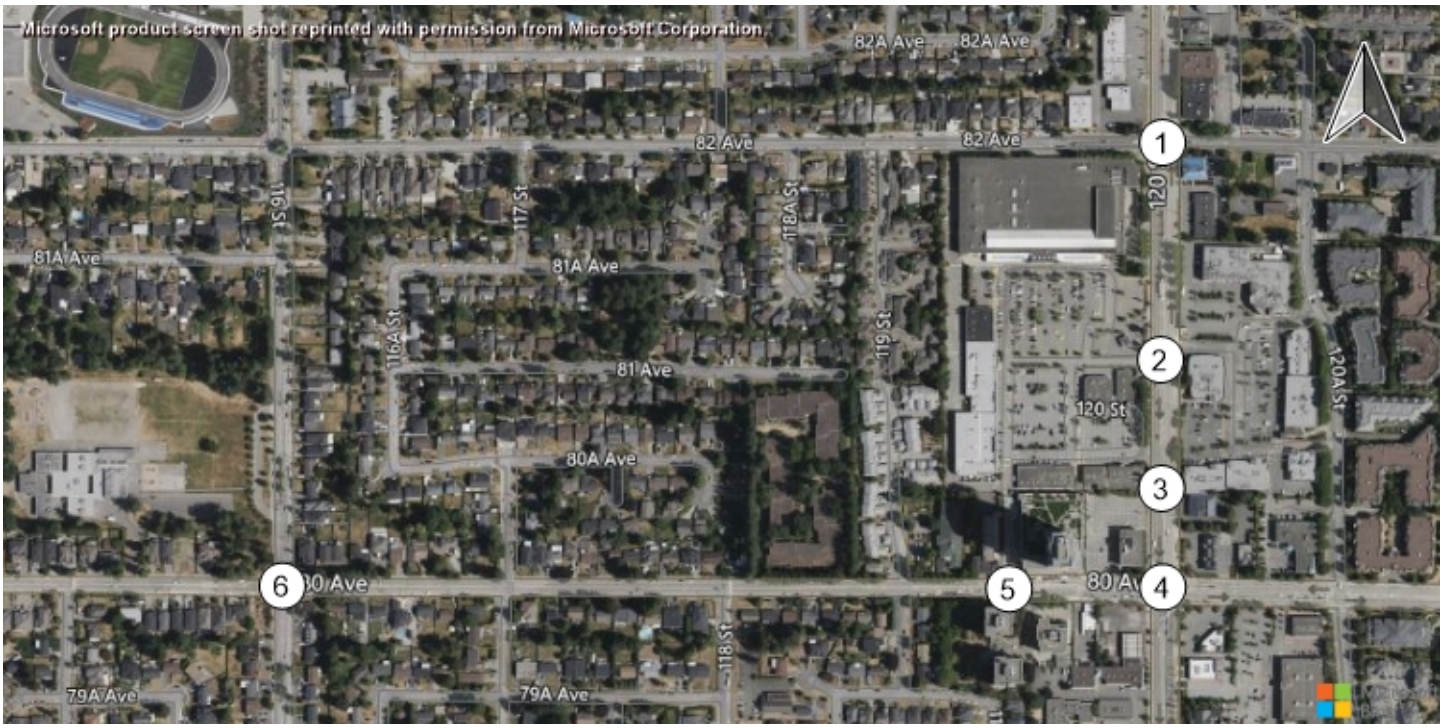
80 Ave/116 St



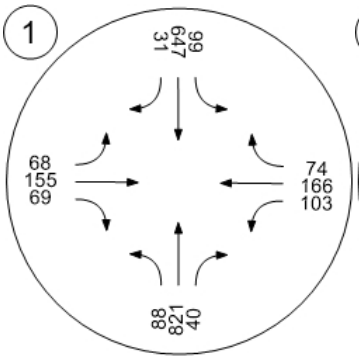
Appendix F-2

Combined Traffic Volumes (2028) – Scenario 1: 20% Reduction of Site Traffic

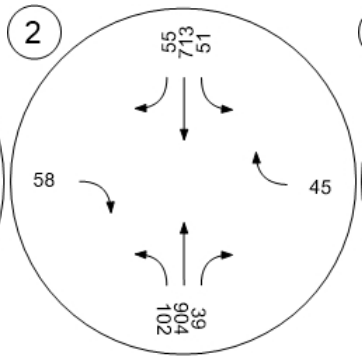
Report Figure 0f: Traffic Volume - Future Total Volume



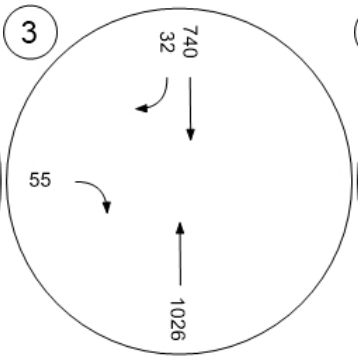
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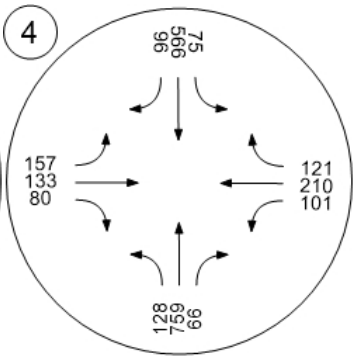
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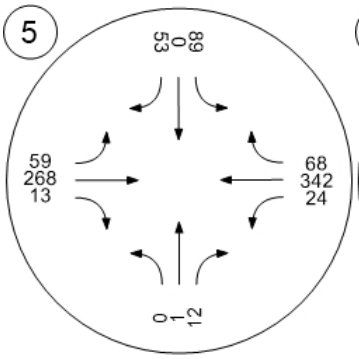
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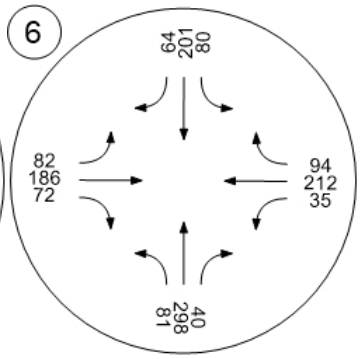
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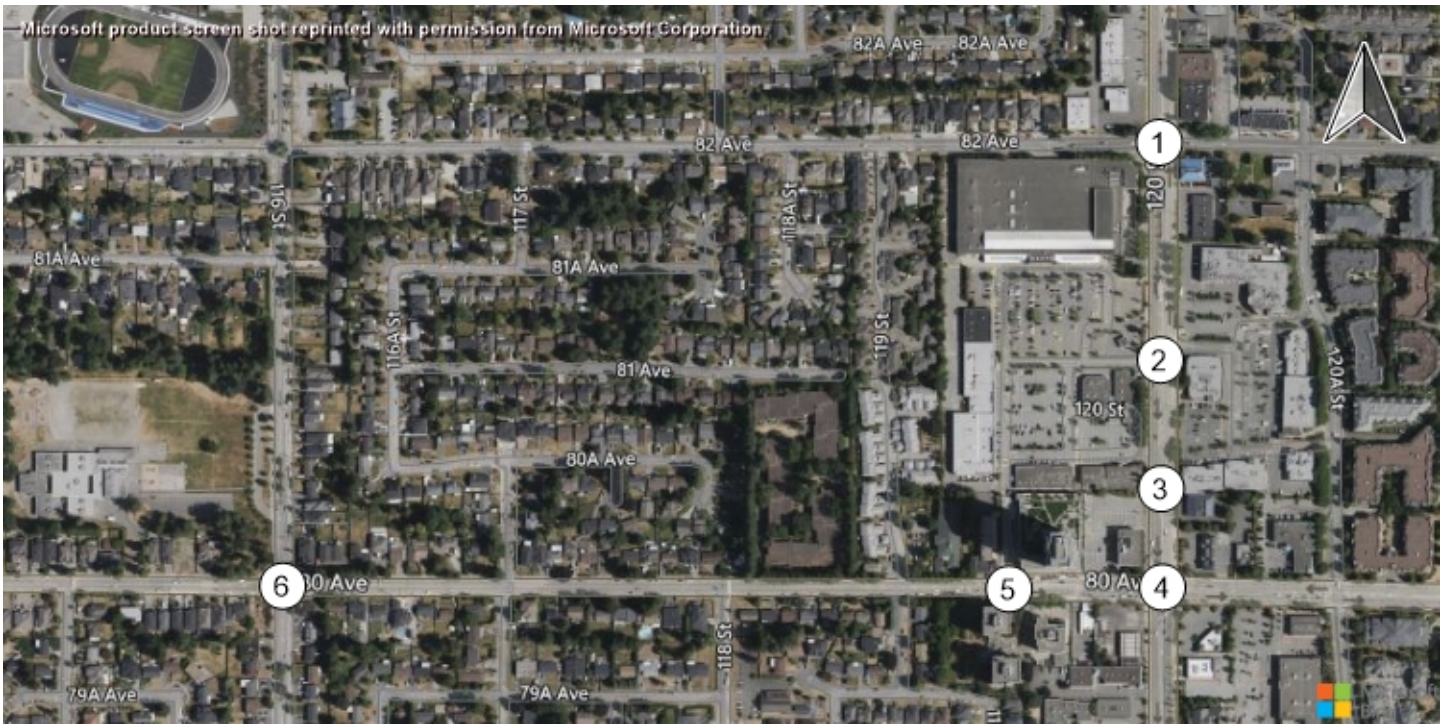
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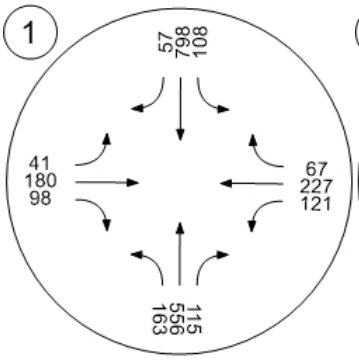
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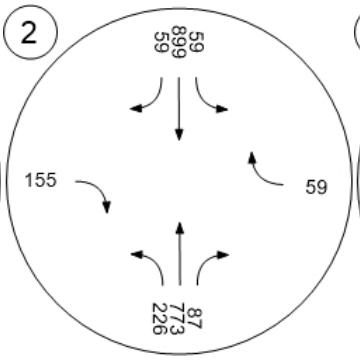
Report Figure 0f: Traffic Volume - Future Total Volume



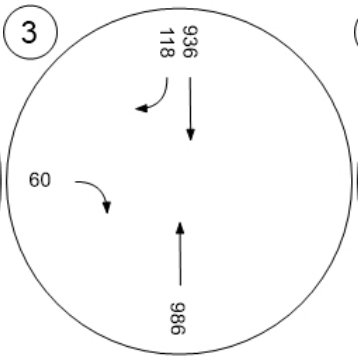
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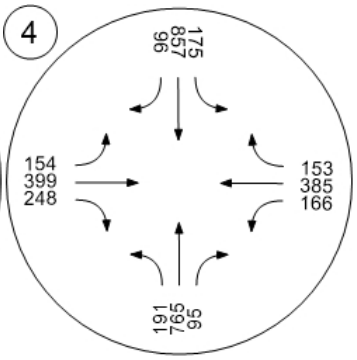
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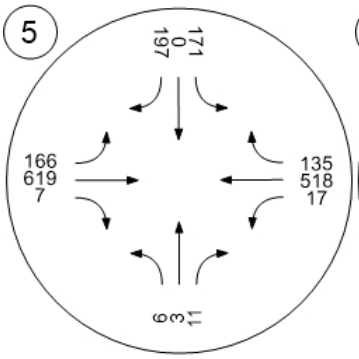
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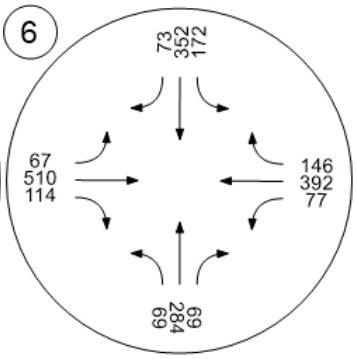
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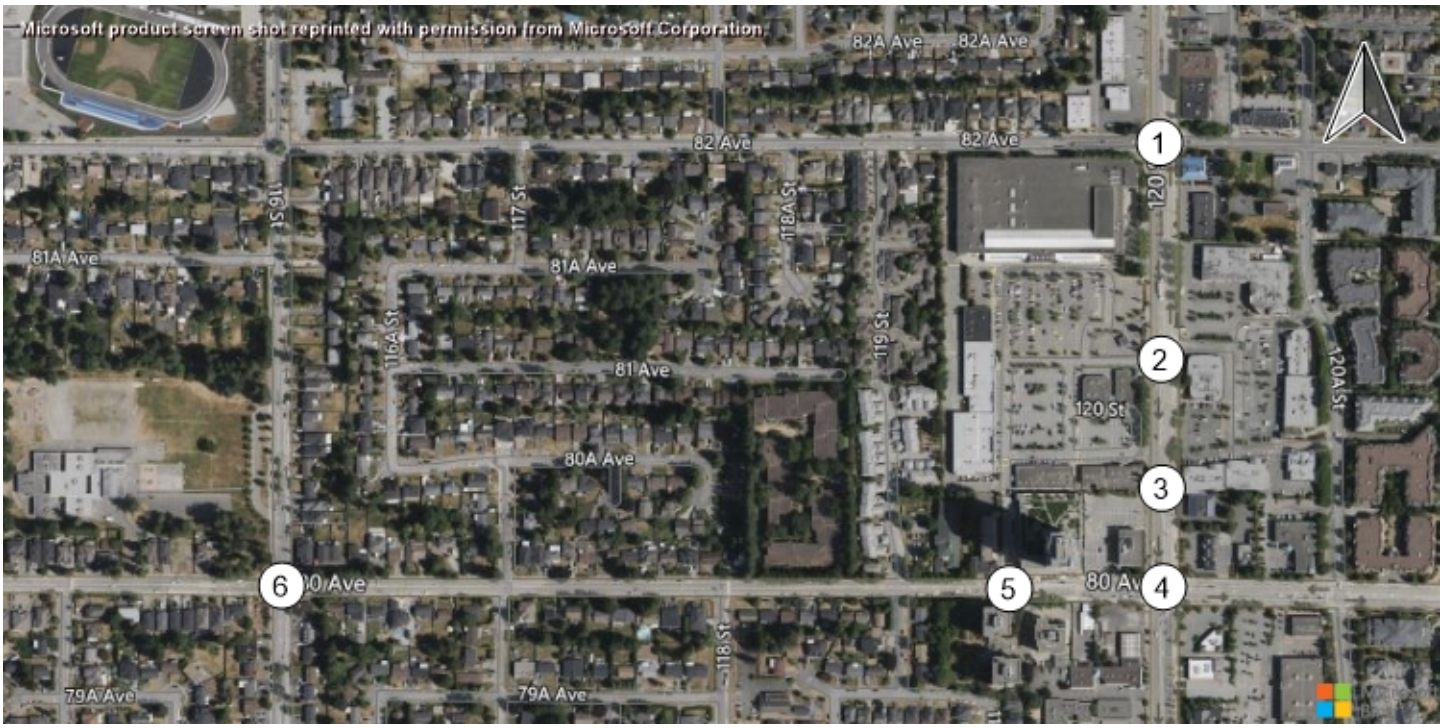
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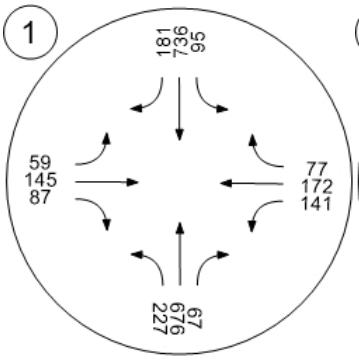
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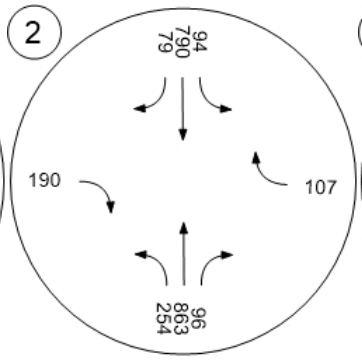
Report Figure 0f: Traffic Volume - Future Total Volume



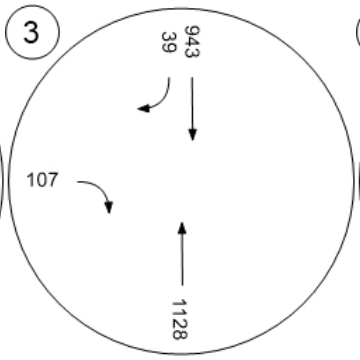
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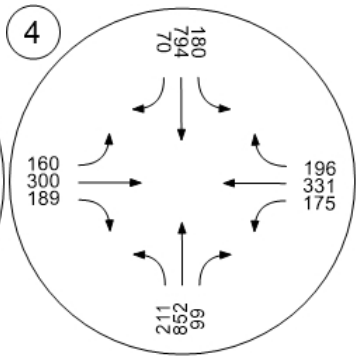
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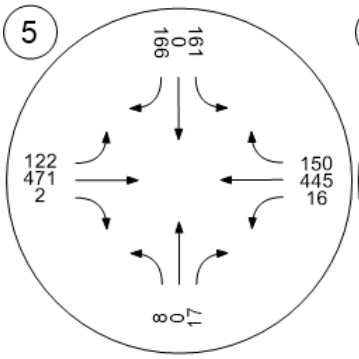
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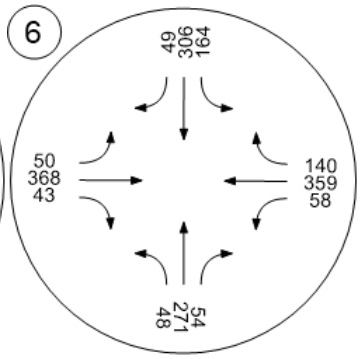
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80 Ave/Sharma Blvd



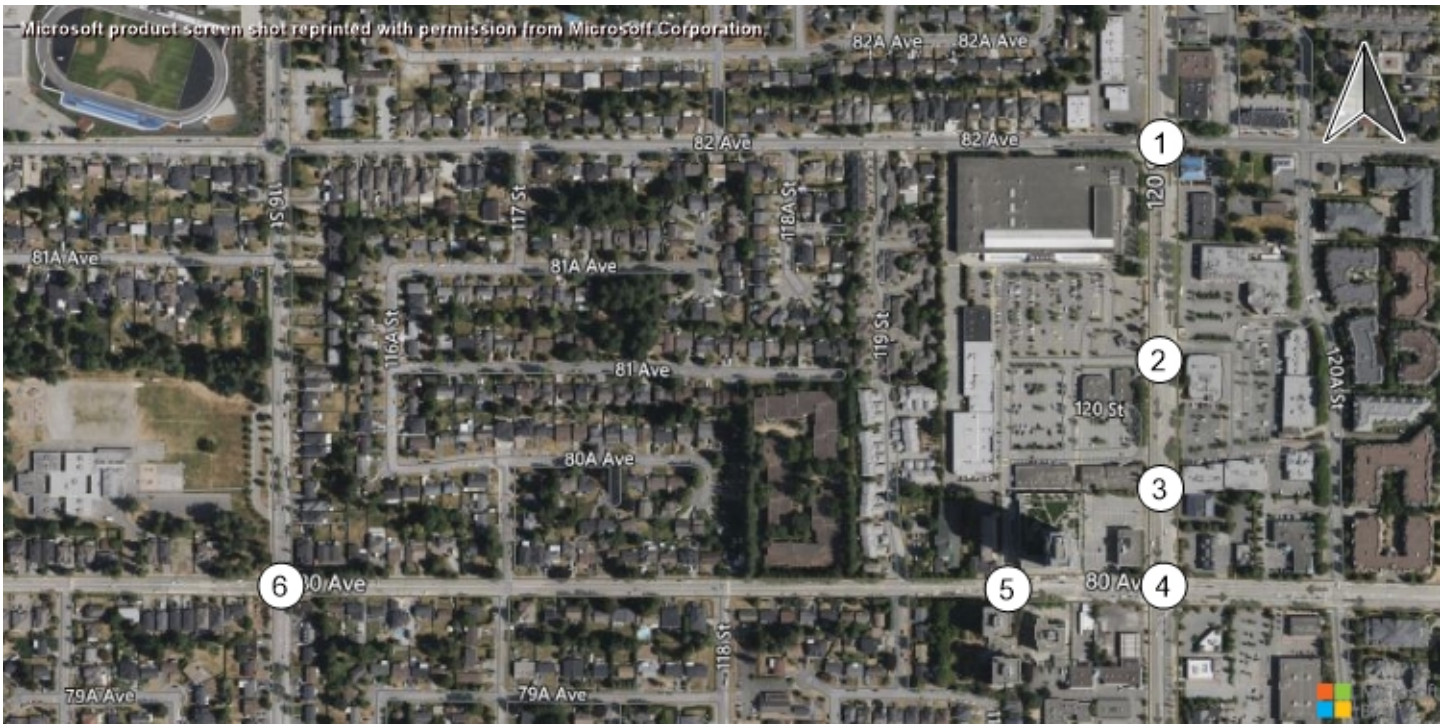
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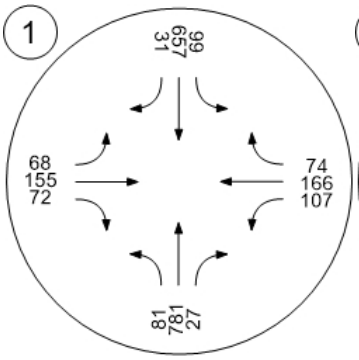
Appendix F-3

Combined Traffic Volumes (2028) – Scenario 2: No Reduction of Site Traffic

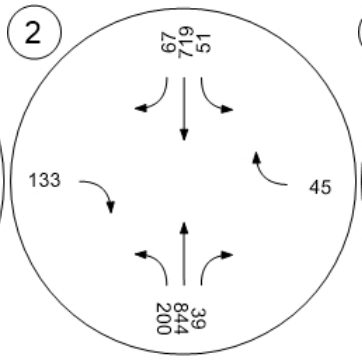
Report Figure 0f: Traffic Volume - Future Total Volume



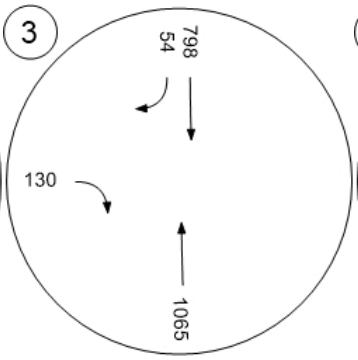
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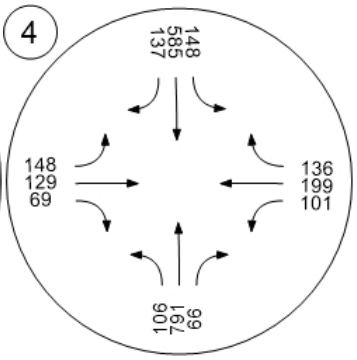
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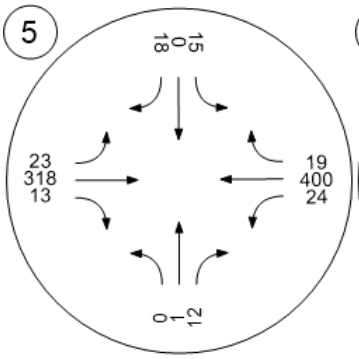
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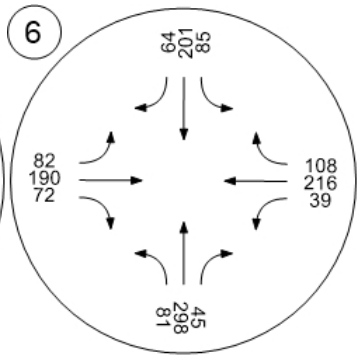
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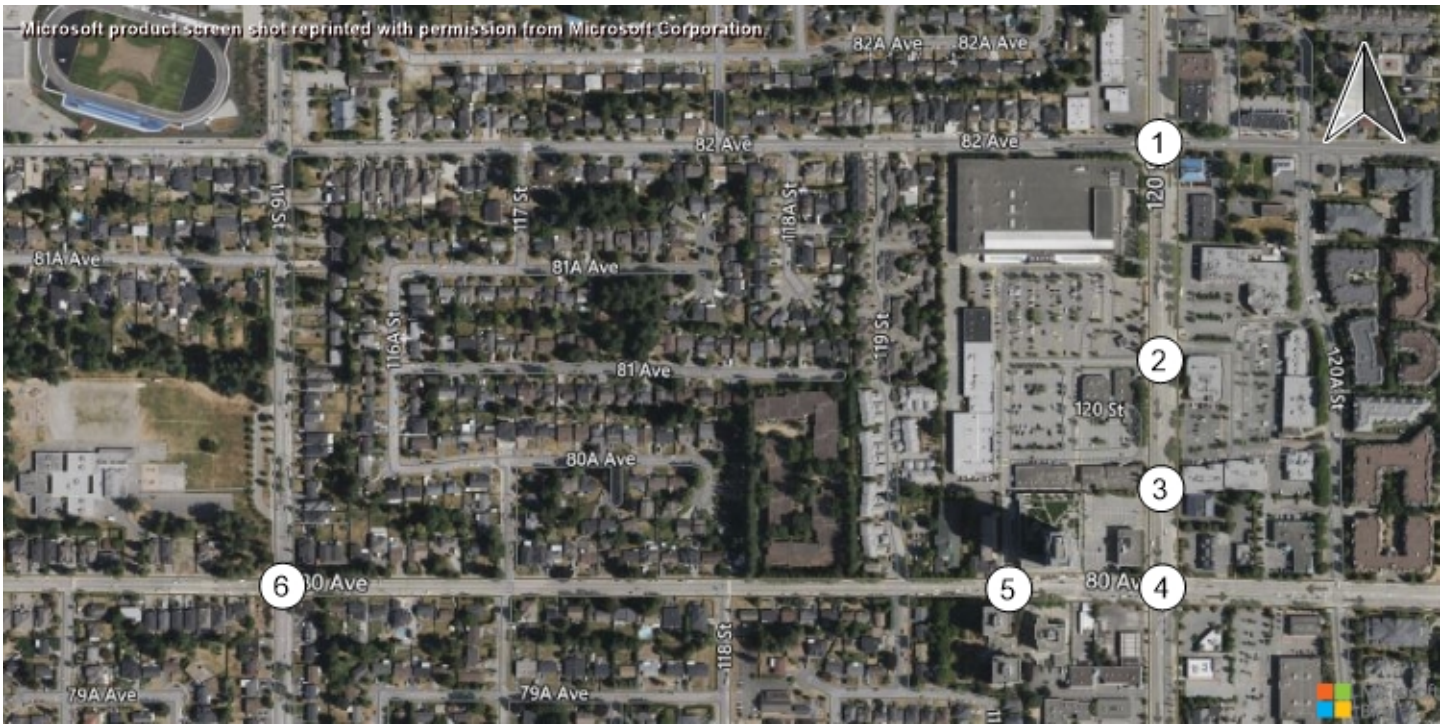
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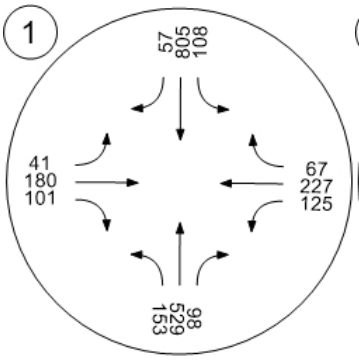
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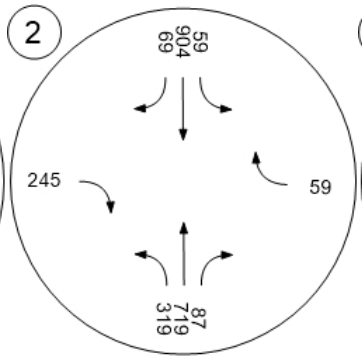
Report Figure 0f: Traffic Volume - Future Total Volume



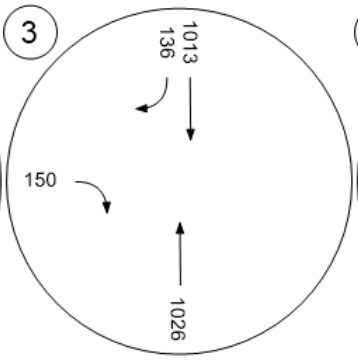
Scott Rd/82 Ave



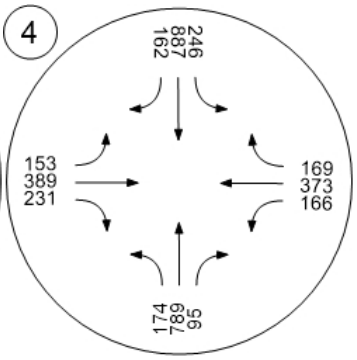
Scott Rd/Northeast Accs



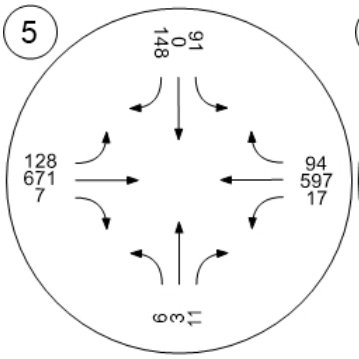
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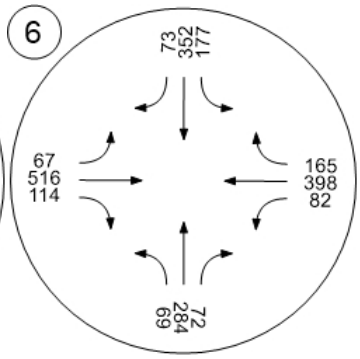
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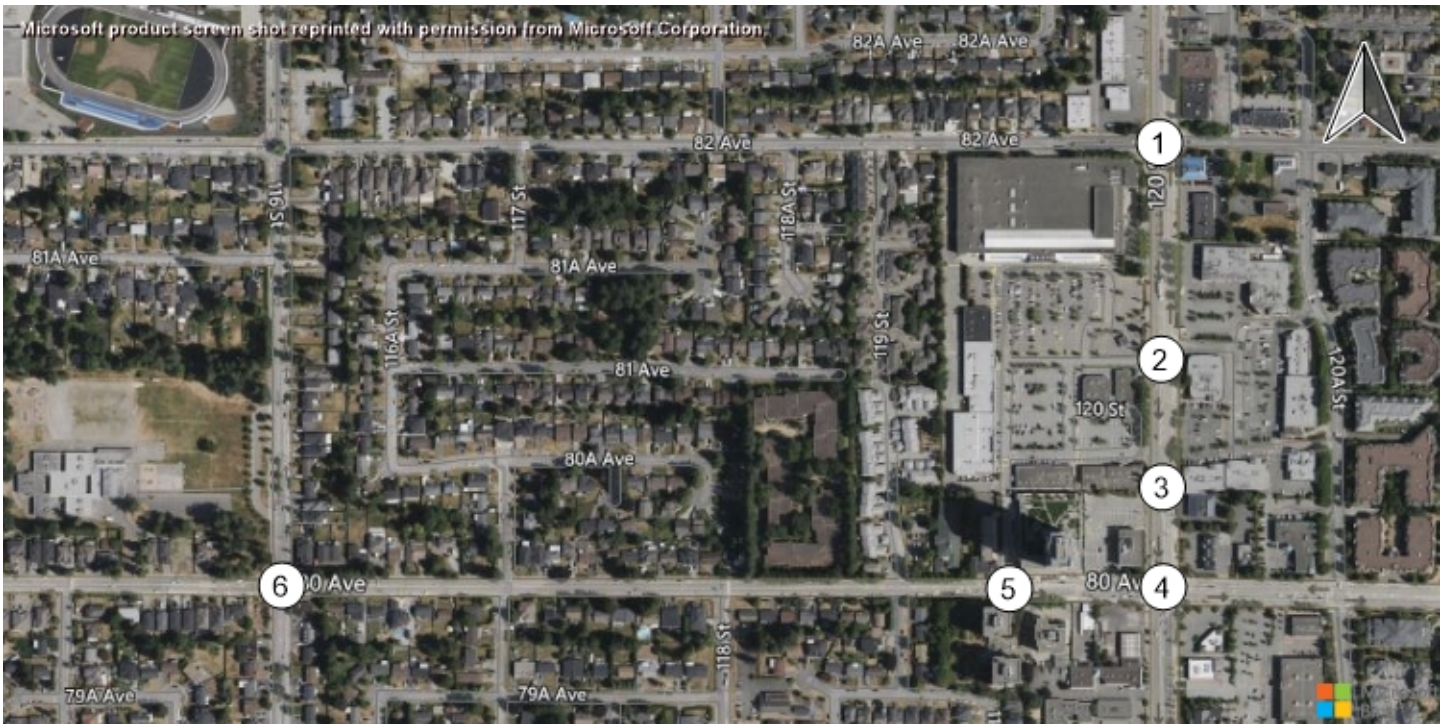
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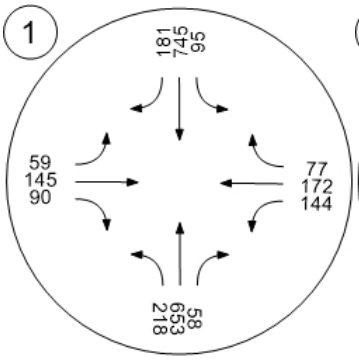
80 Ave/116 St



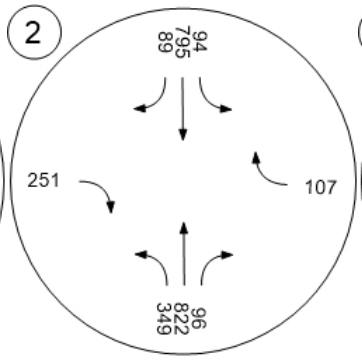
Report Figure 0f: Traffic Volume - Future Total Volume



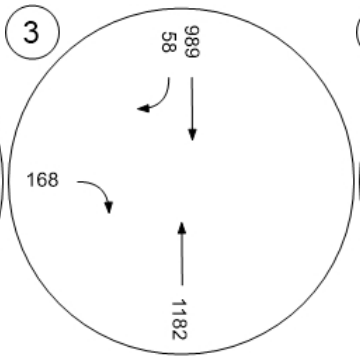
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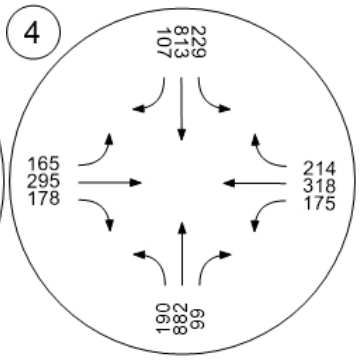
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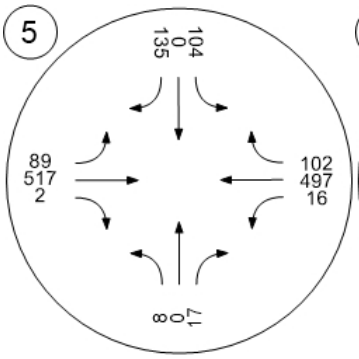
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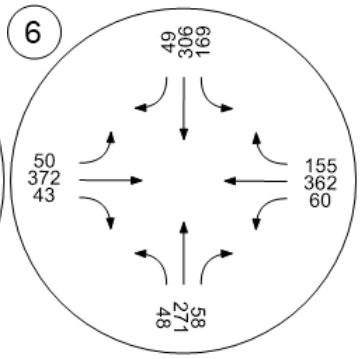
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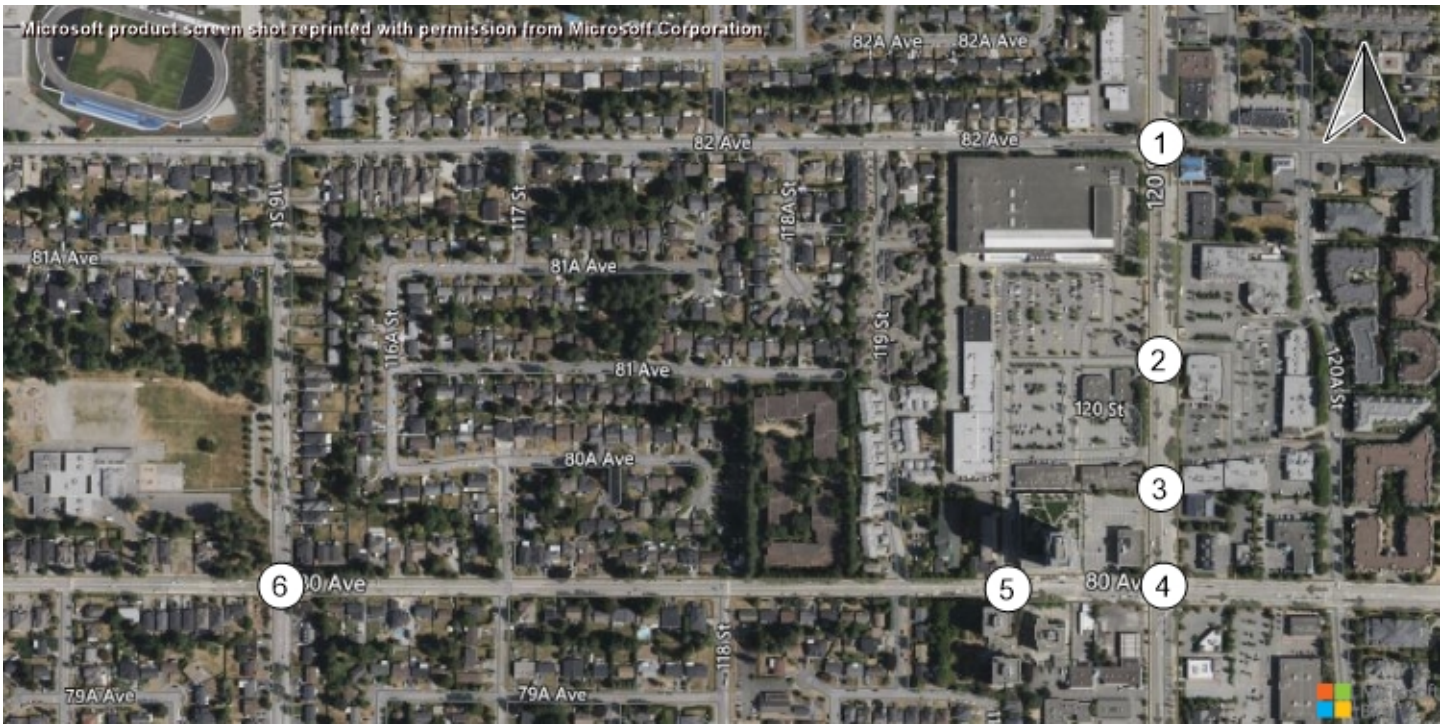
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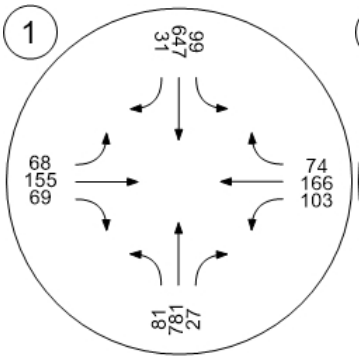
Appendix F-4

Combined Traffic Volumes (2028) – Scenario 2: 20% Reduction of Site Traffic

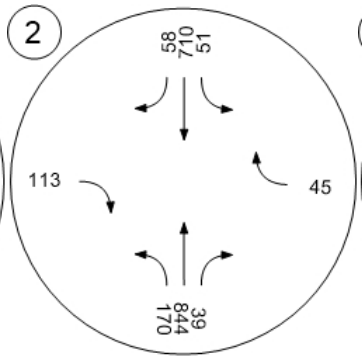
Report Figure 0f: Traffic Volume - Future Total Volume



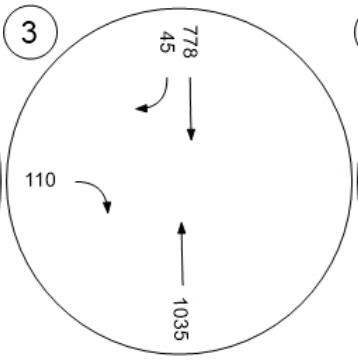
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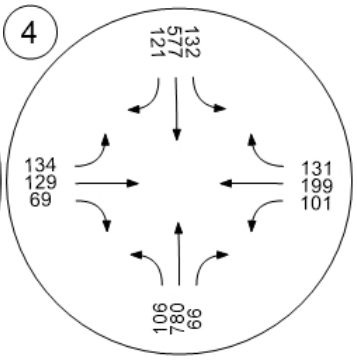
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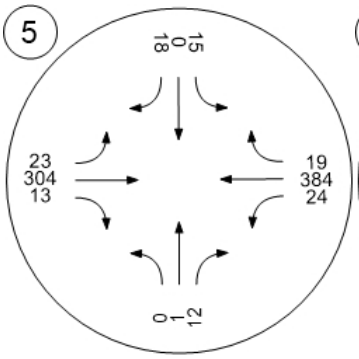
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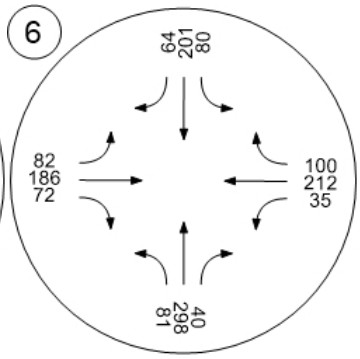
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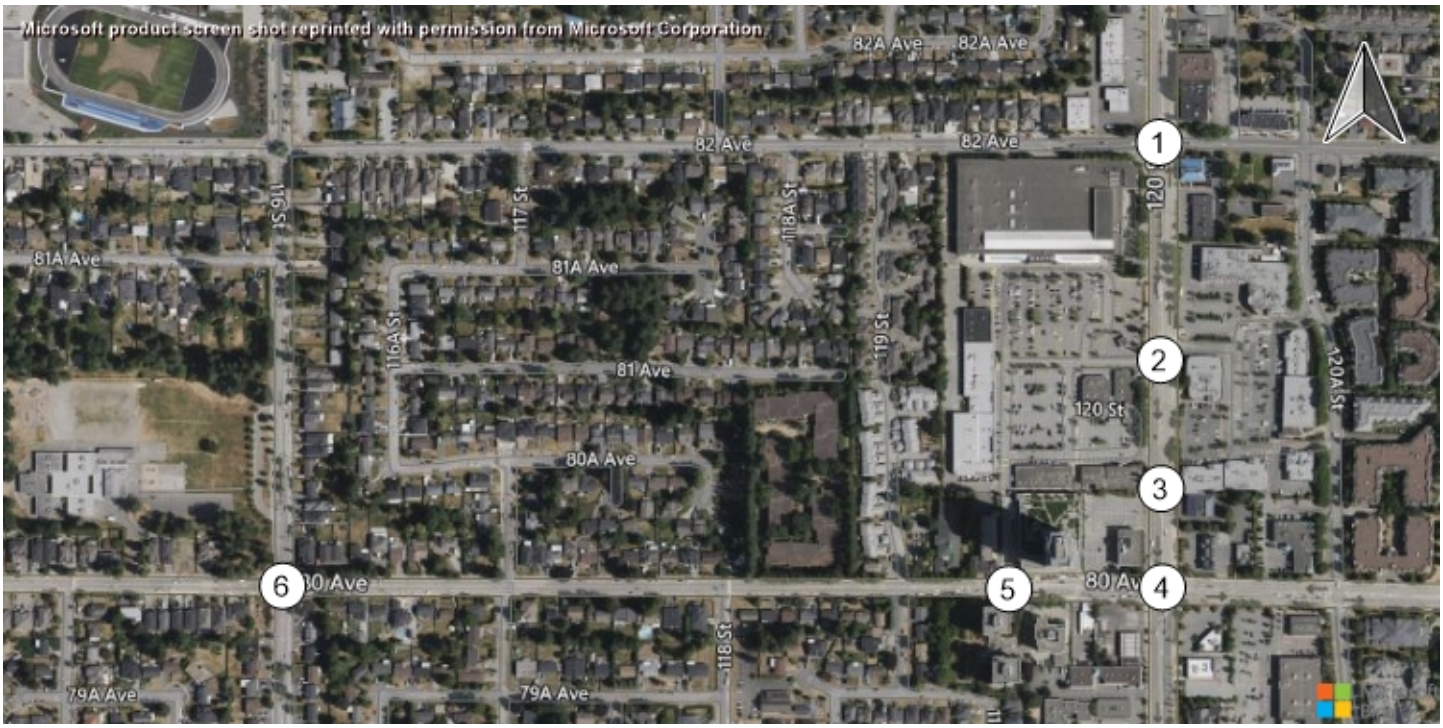
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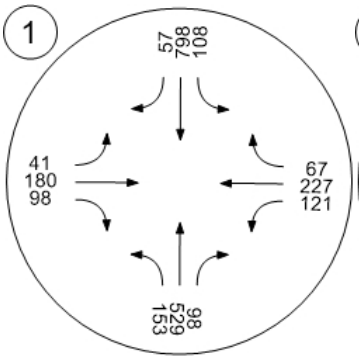
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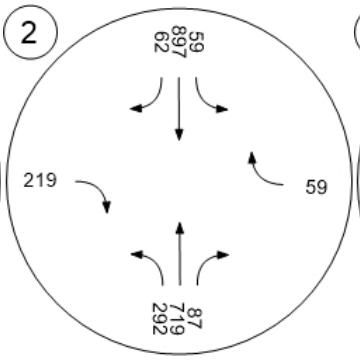
Report Figure 0f: Traffic Volume - Future Total Volume



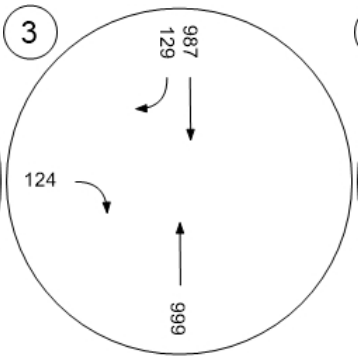
Scott Rd/82 Ave



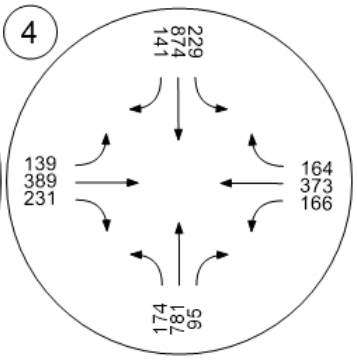
Scott Rd/Northeast Accs



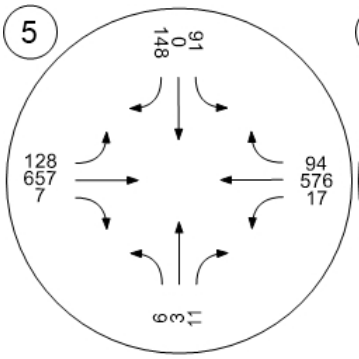
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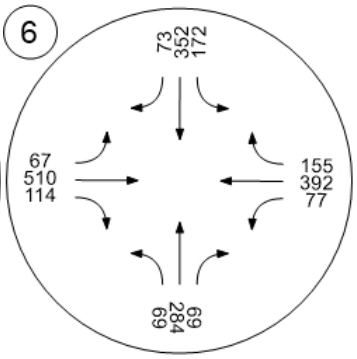
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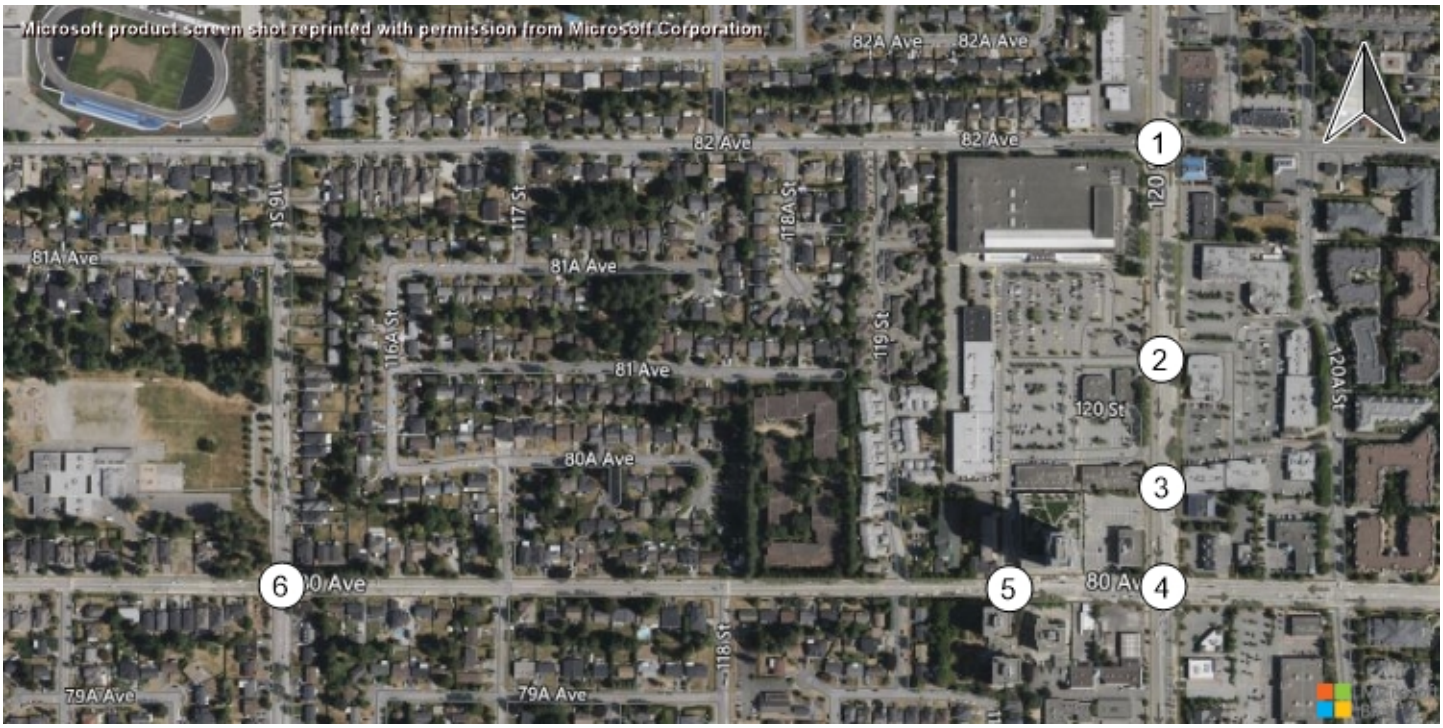
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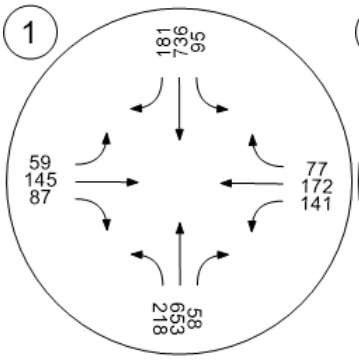
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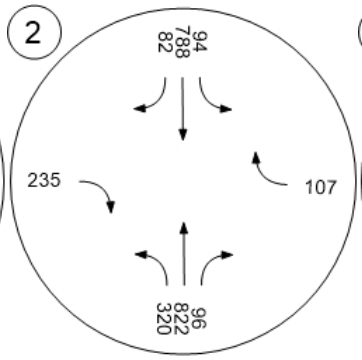
Report Figure 0f: Traffic Volume - Future Total Volume



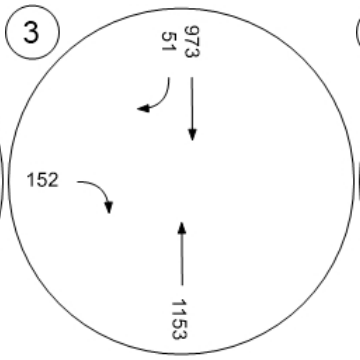
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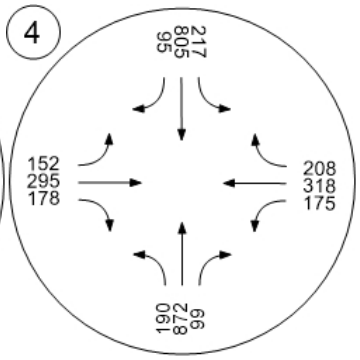
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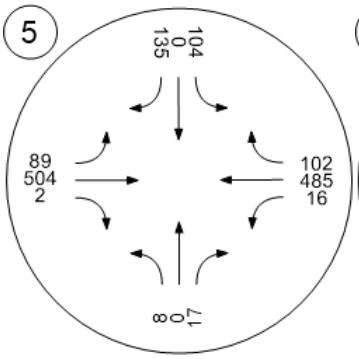
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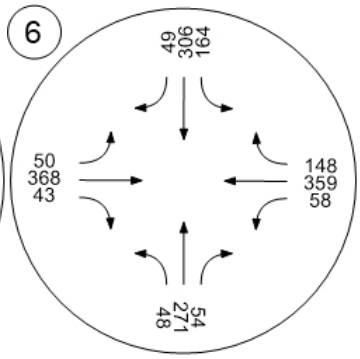
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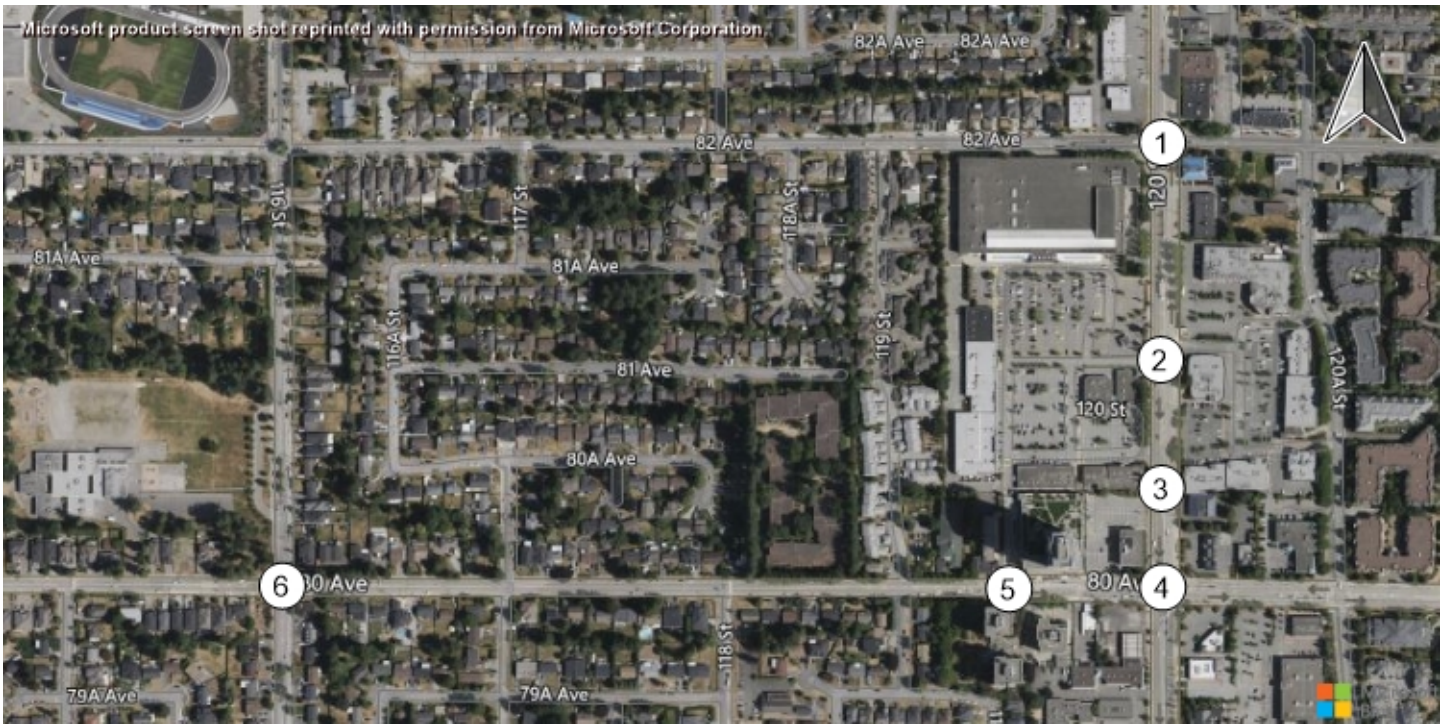
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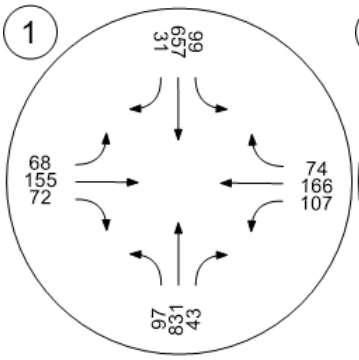
Appendix F-5

Combined Traffic Volumes (2028) – Scenario 3: No Reduction of Site Traffic

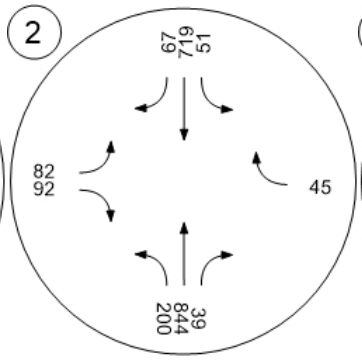
Report Figure 0f: Traffic Volume - Future Total Volume



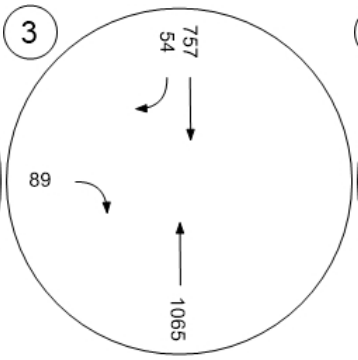
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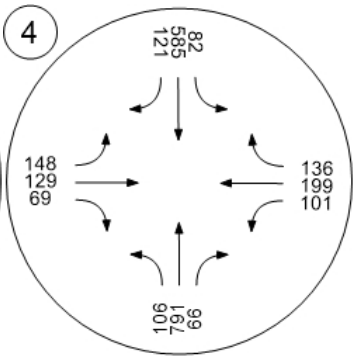
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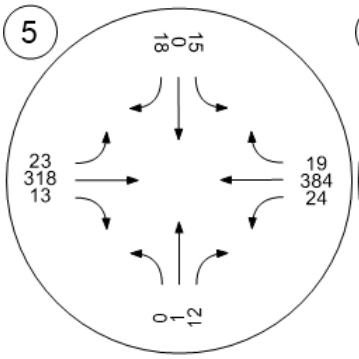
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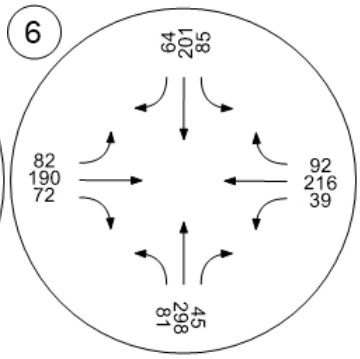
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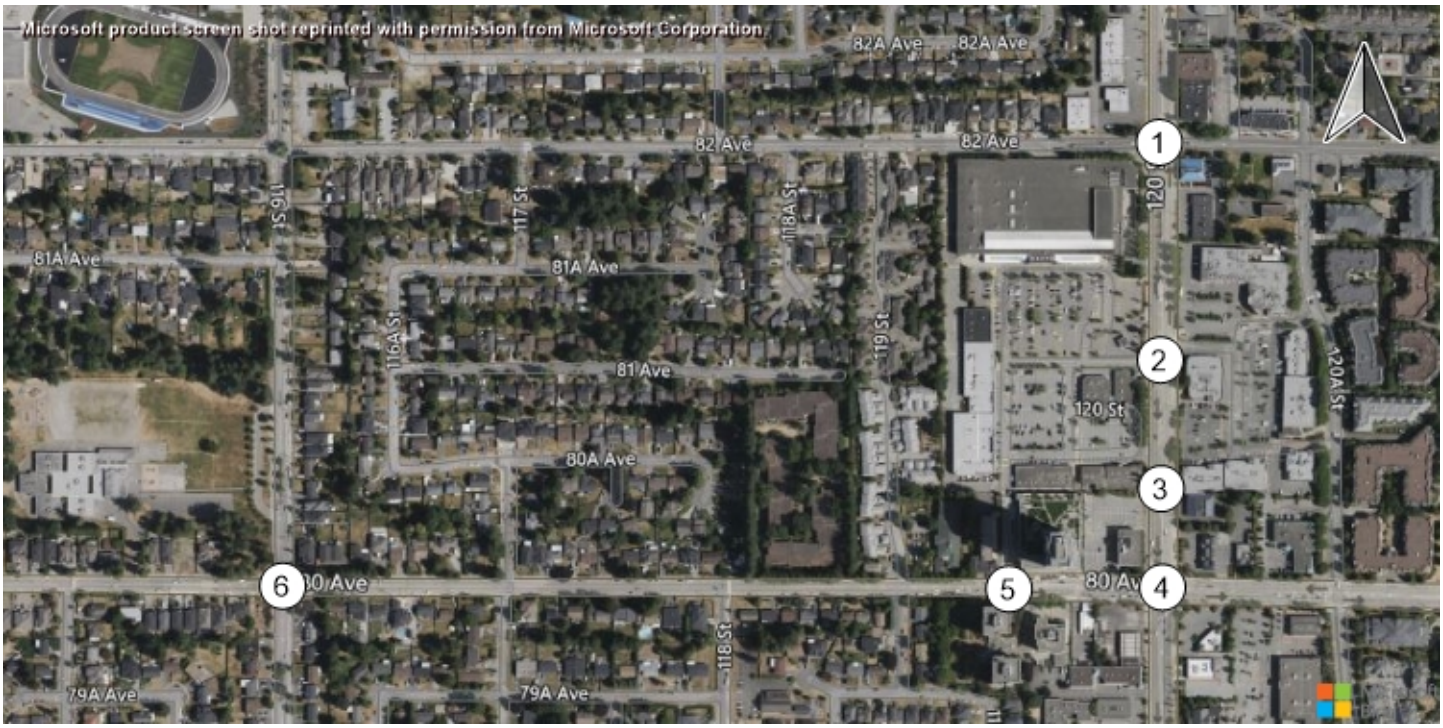
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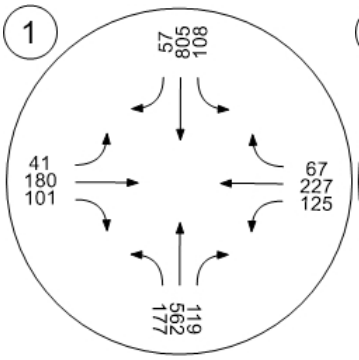
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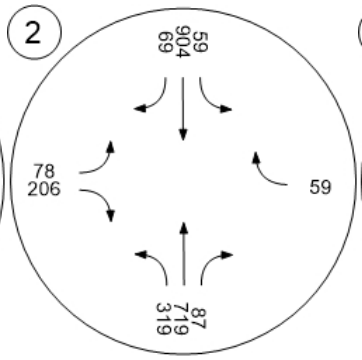
Report Figure 0f: Traffic Volume - Future Total Volume



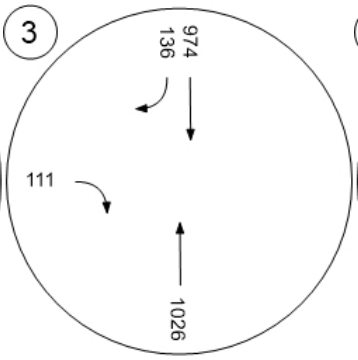
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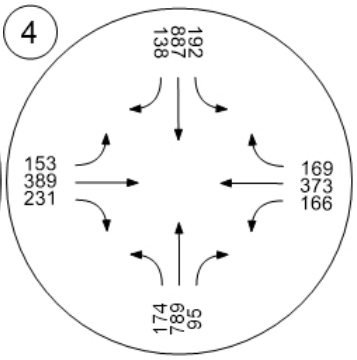
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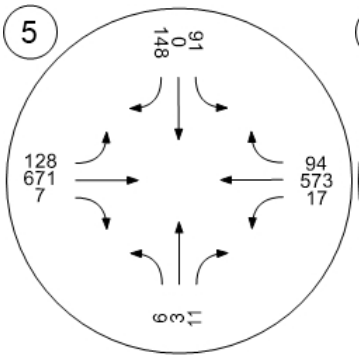
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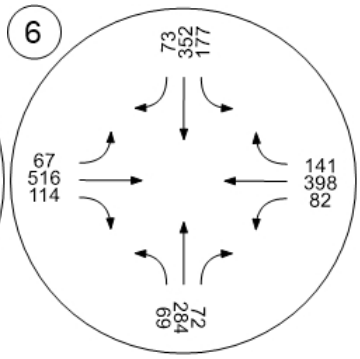
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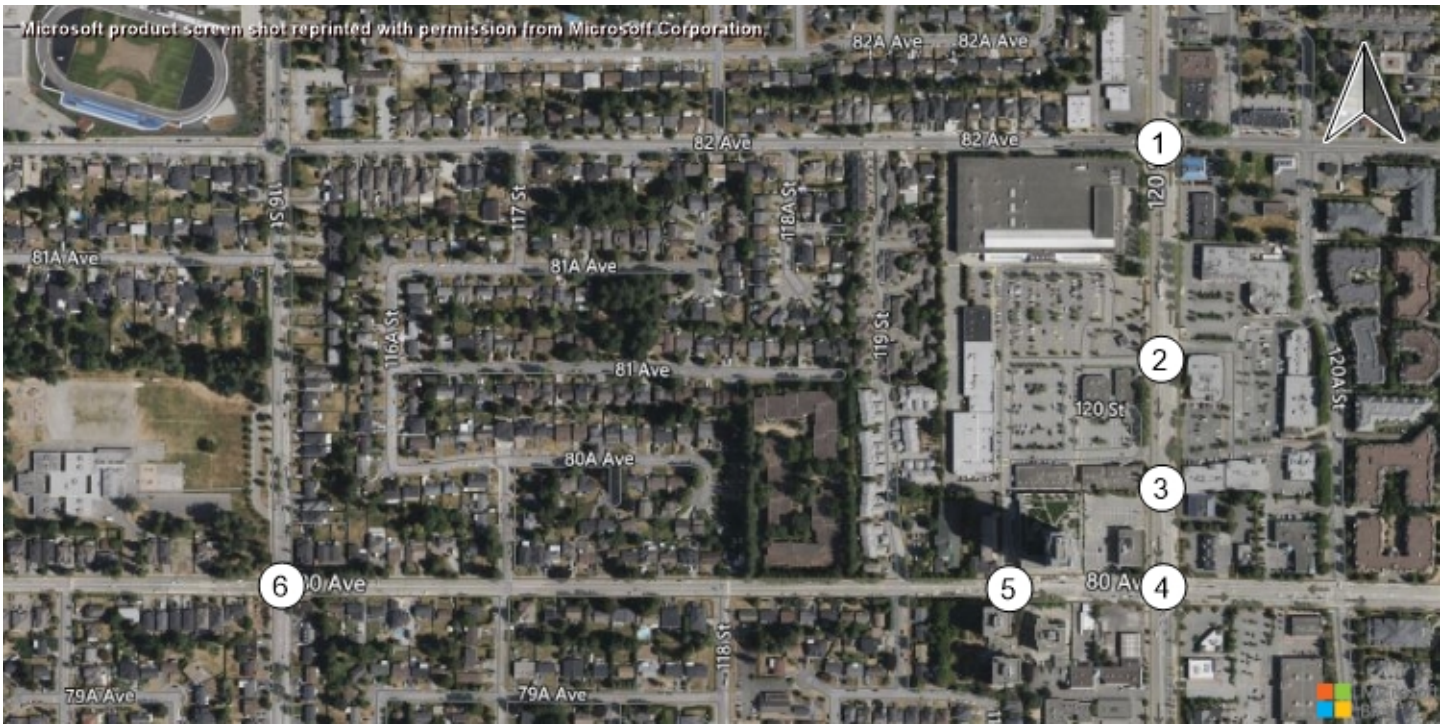
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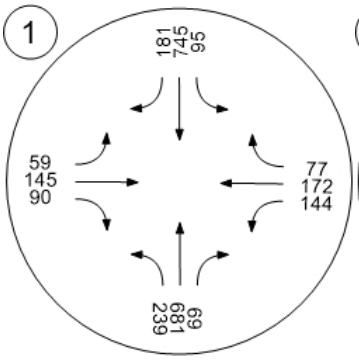
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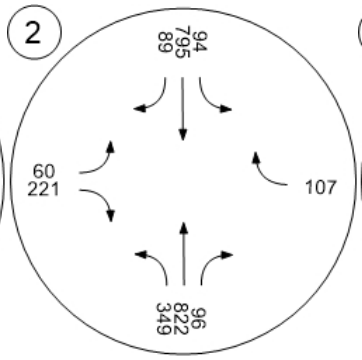
Report Figure 0f: Traffic Volume - Future Total Volume



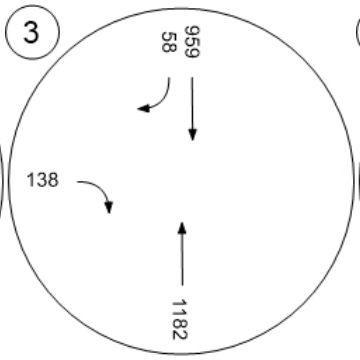
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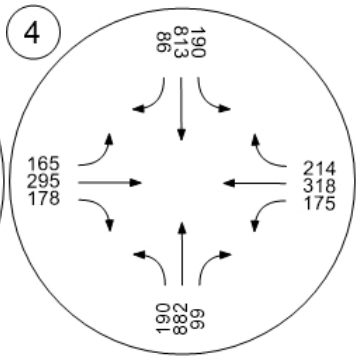
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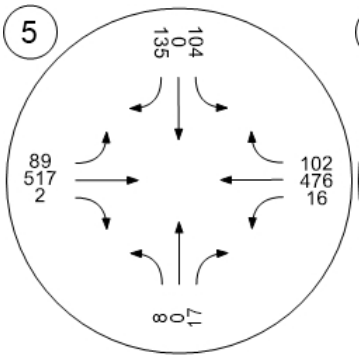
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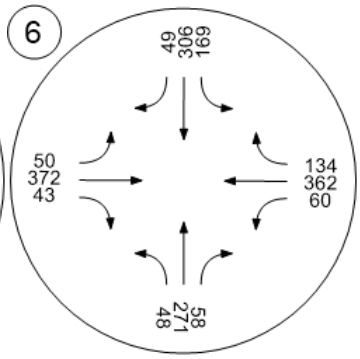
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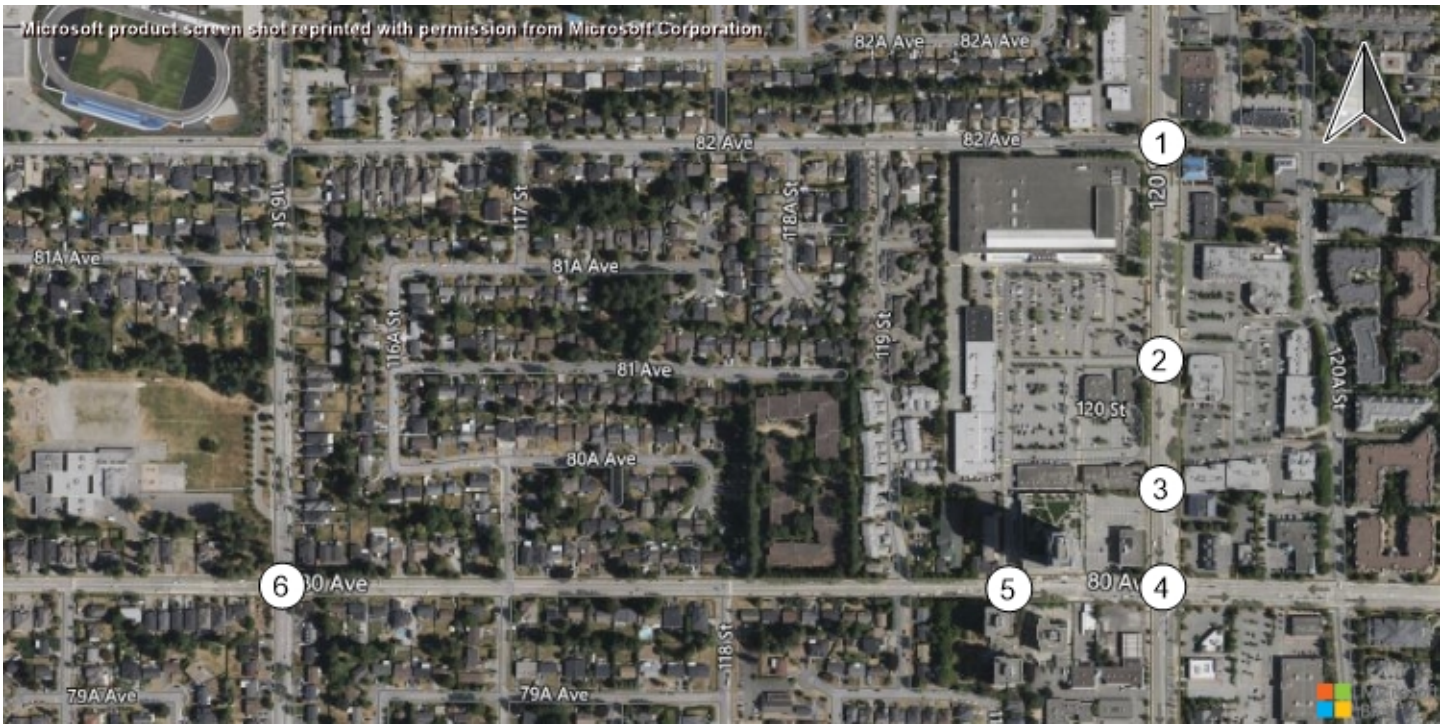
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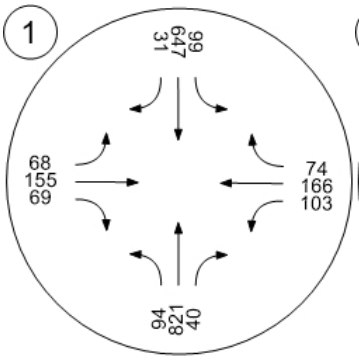
Appendix F-6

Combined Traffic Volumes (2028) – Scenario 3: 20% Reduction of Site Traffic

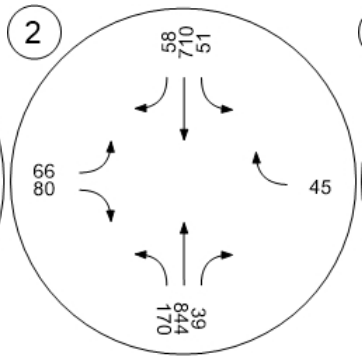
Report Figure 0f: Traffic Volume - Future Total Volume



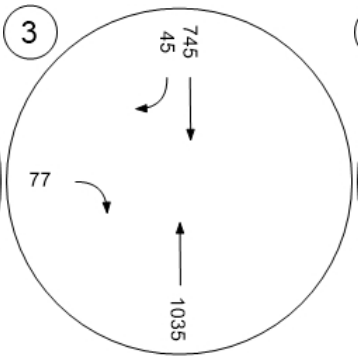
Scott Rd/82 Ave



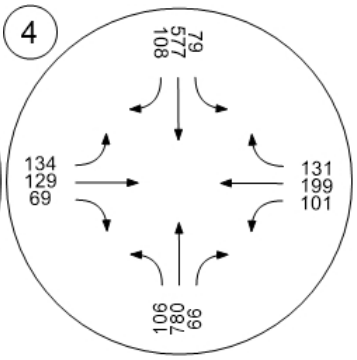
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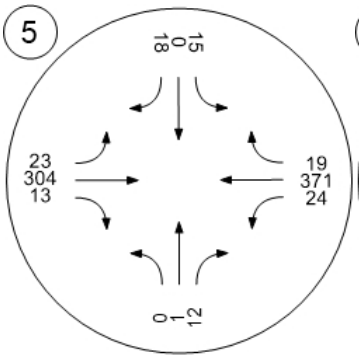
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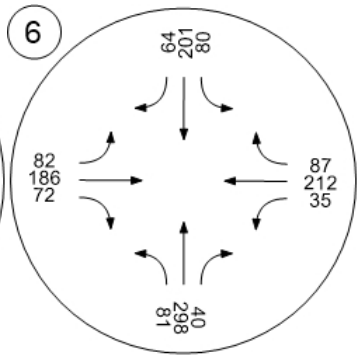
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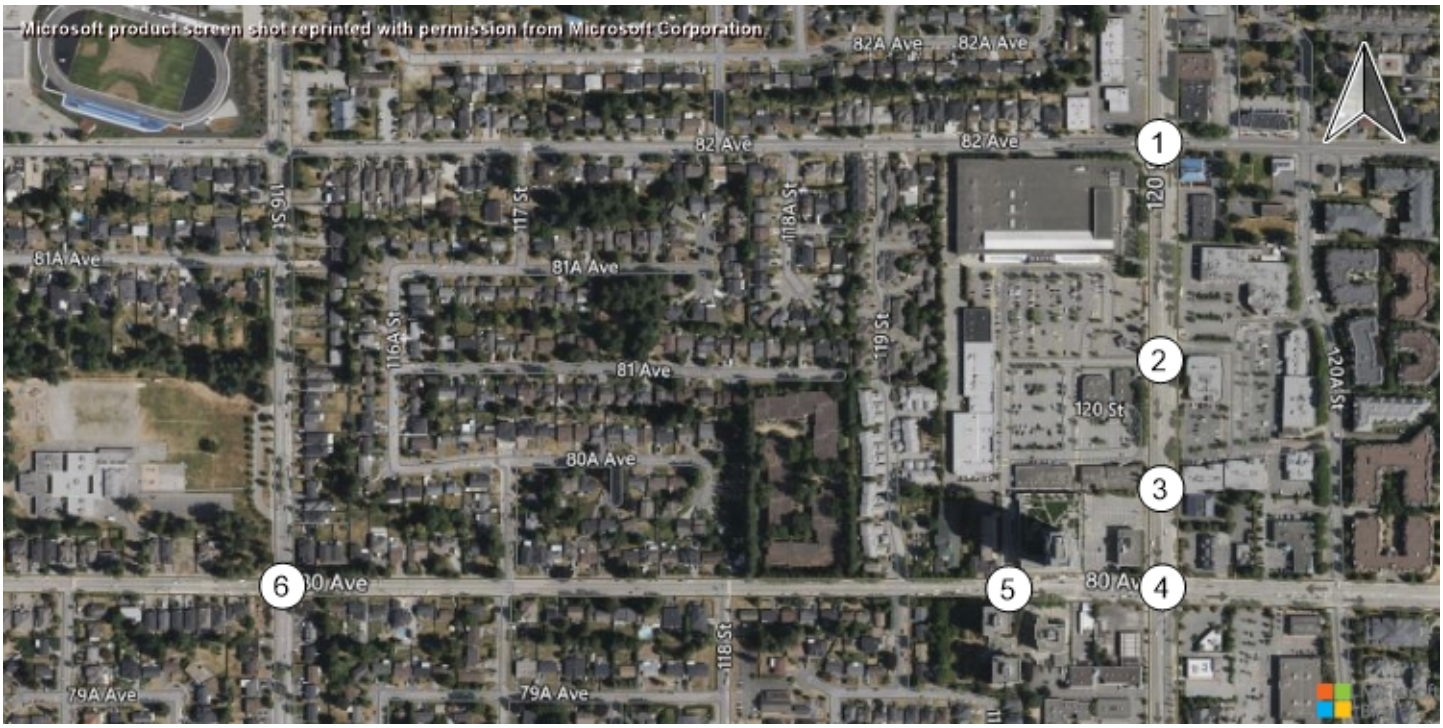
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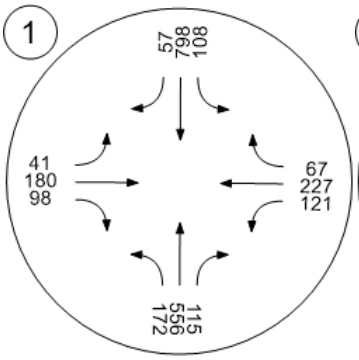
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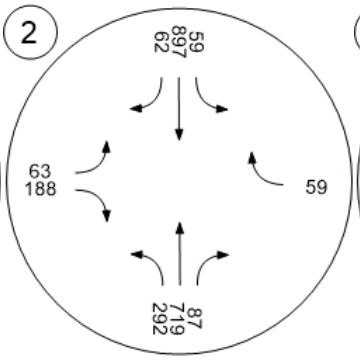
Report Figure 0f: Traffic Volume - Future Total Volume



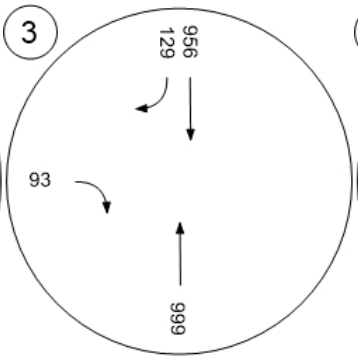
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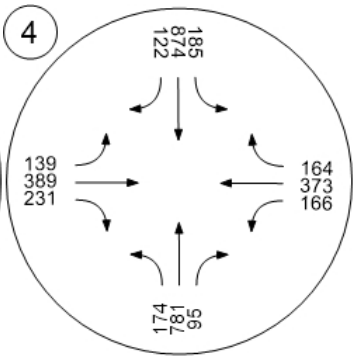
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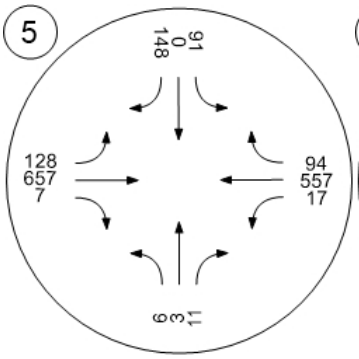
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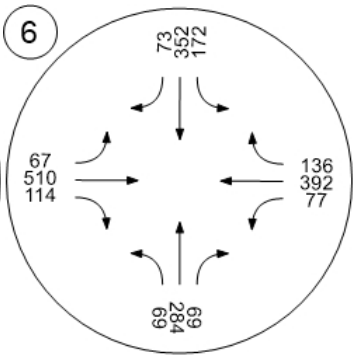
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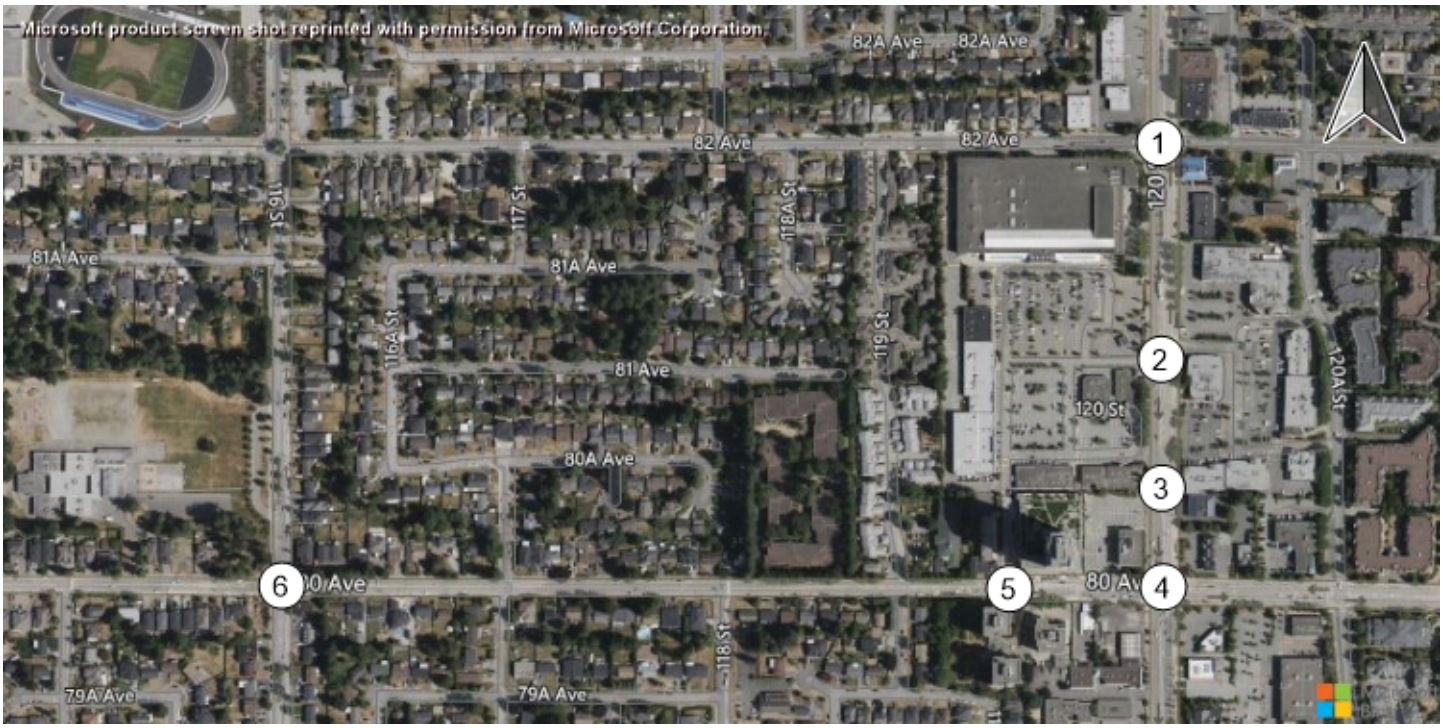
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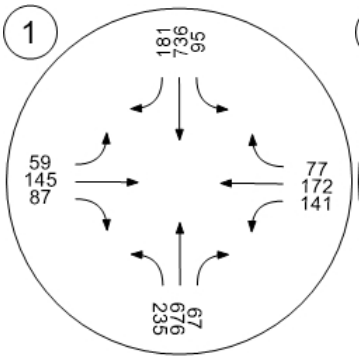
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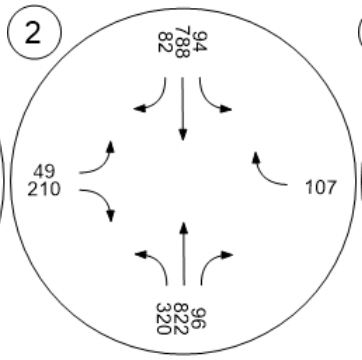
Report Figure 0f: Traffic Volume - Future Total Volume



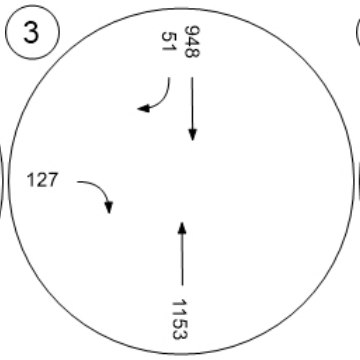
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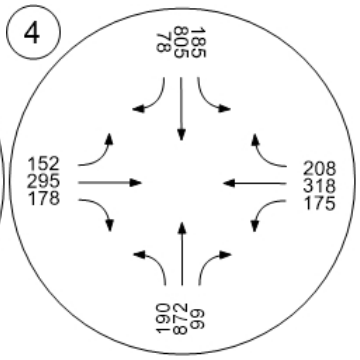
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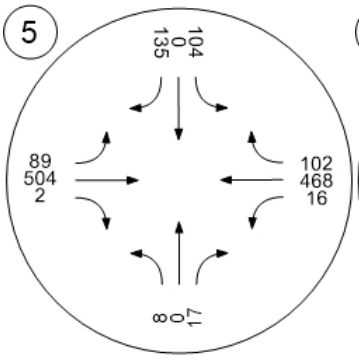
Scott Rd/Southeast Accs



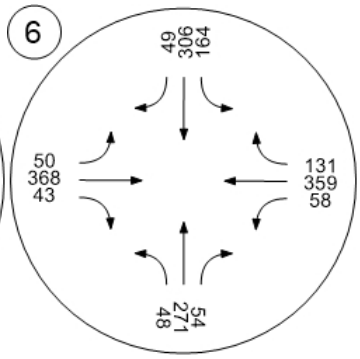
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80 Ave/Sharma Blvd



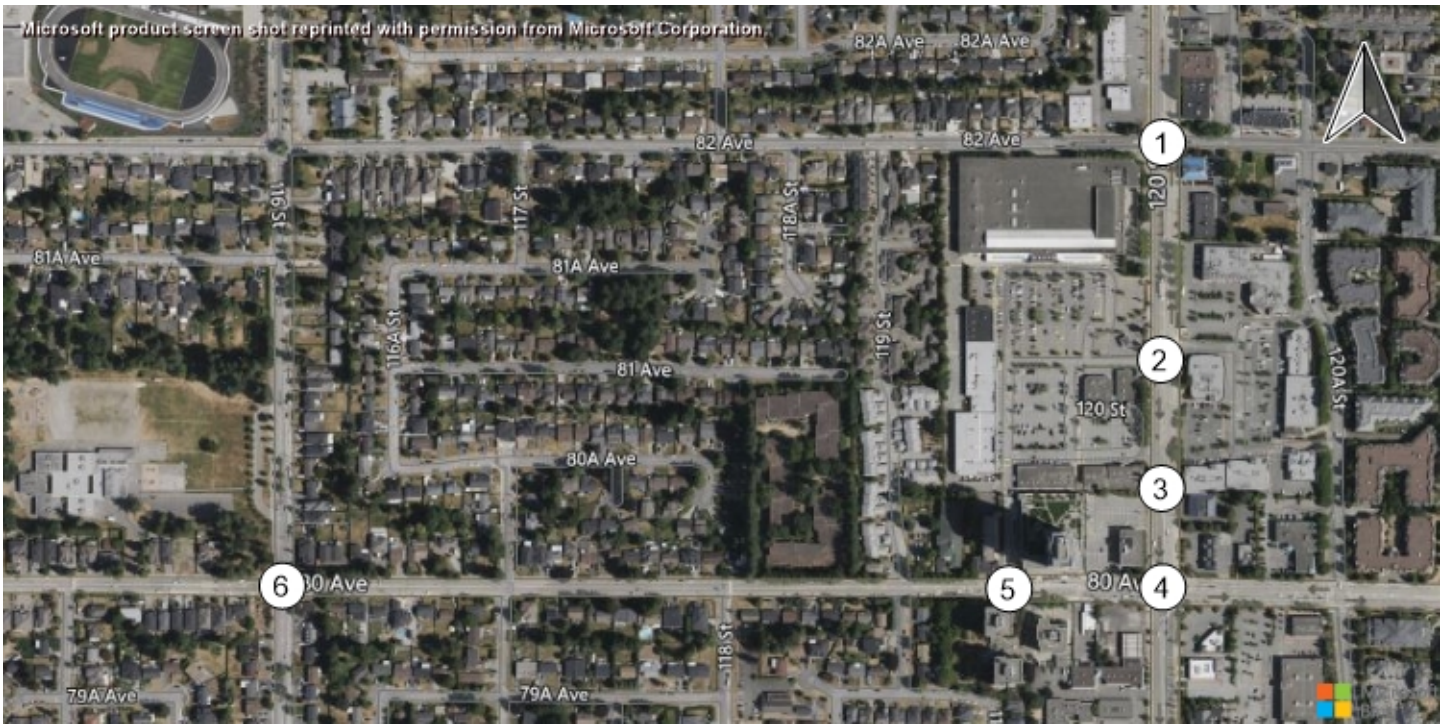
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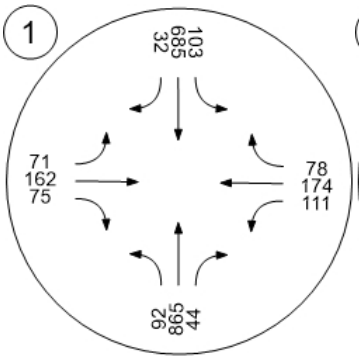
Appendix G-1

Combined Traffic Volumes (2033) – Scenario 1: No Reduction of Site Traffic

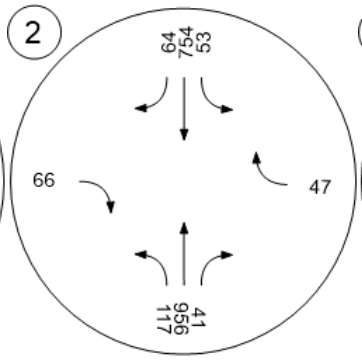
Report Figure 0f: Traffic Volume - Future Total Volume



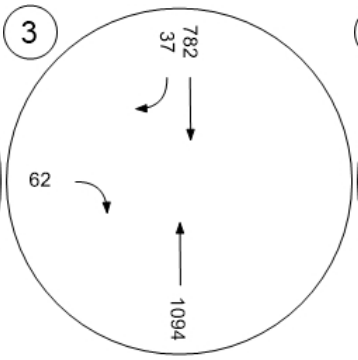
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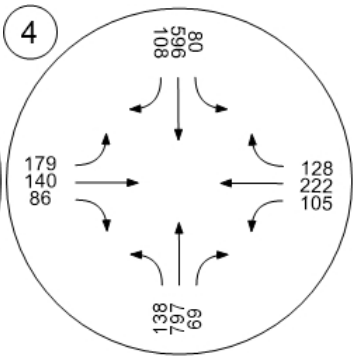
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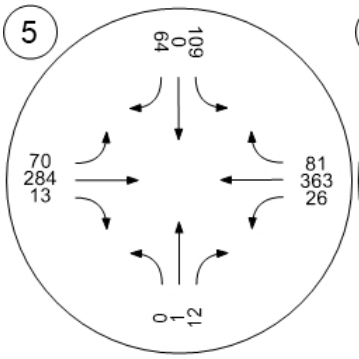
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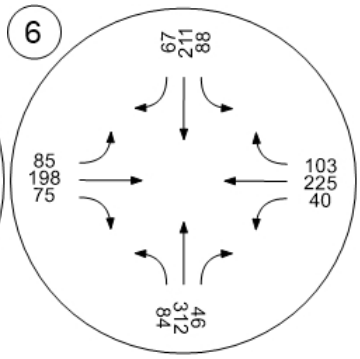
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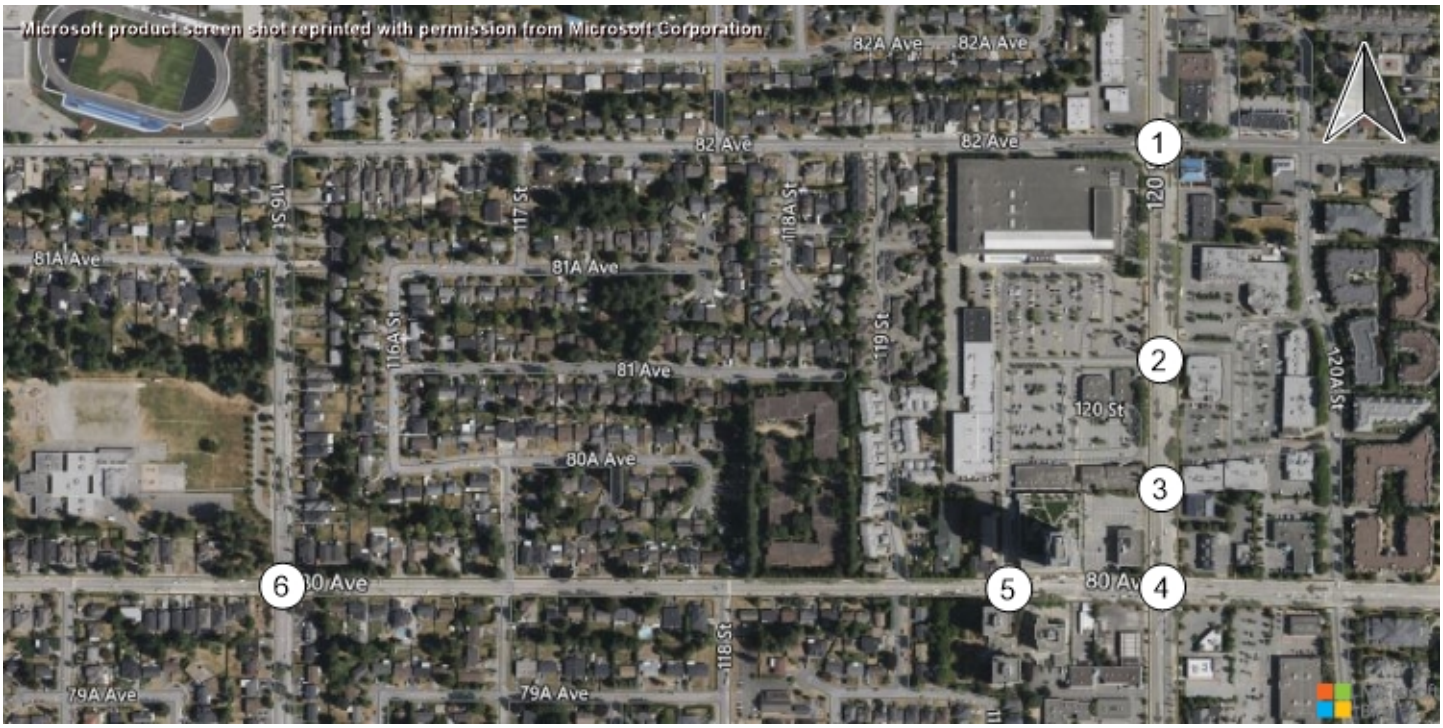
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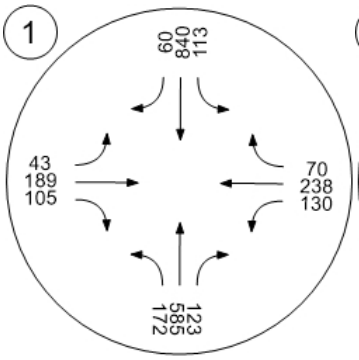
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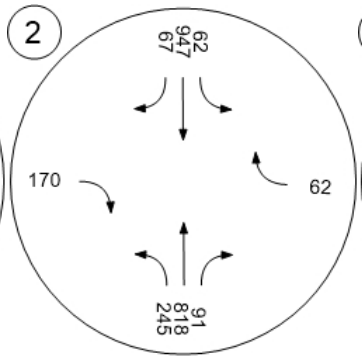
Report Figure 0f: Traffic Volume - Future Total Volume



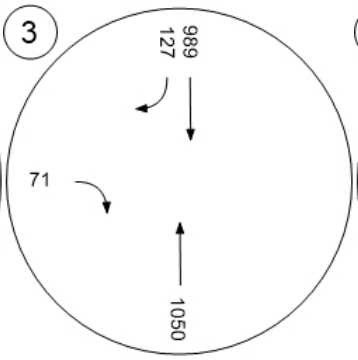
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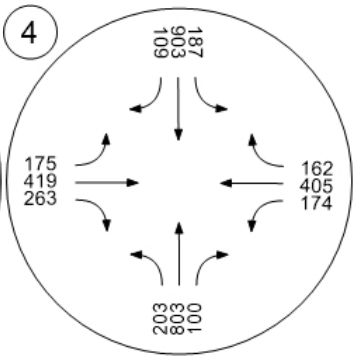
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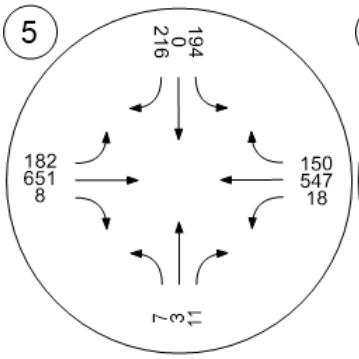
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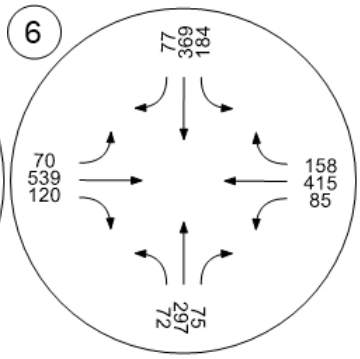
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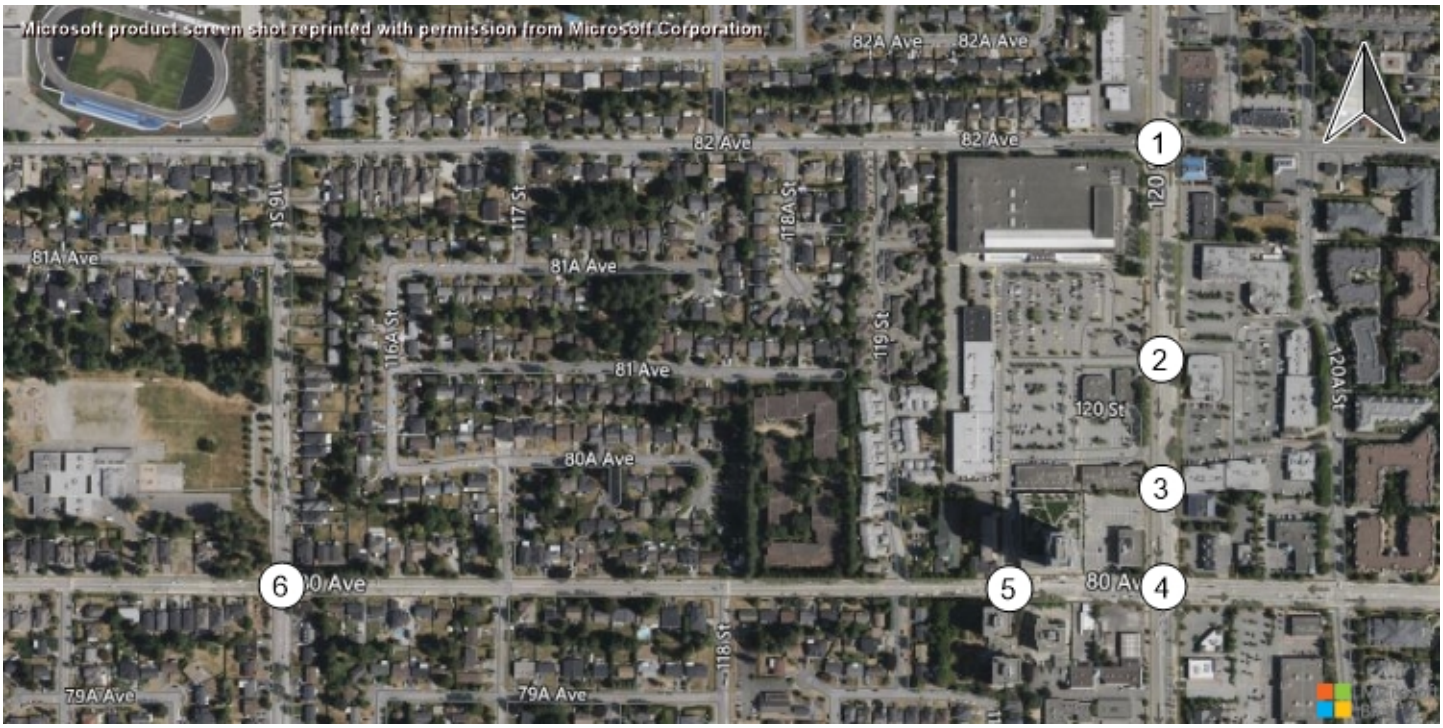
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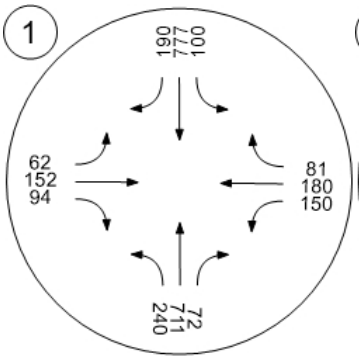
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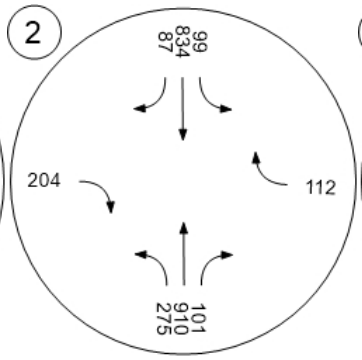
Report Figure 0f: Traffic Volume - Future Total Volume



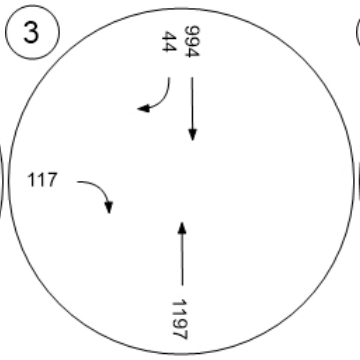
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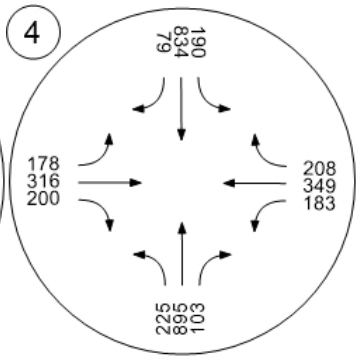
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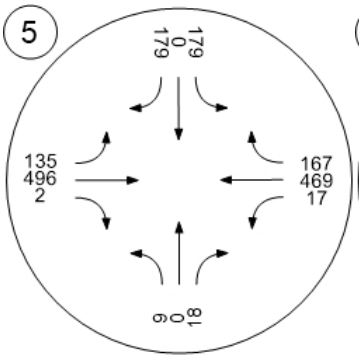
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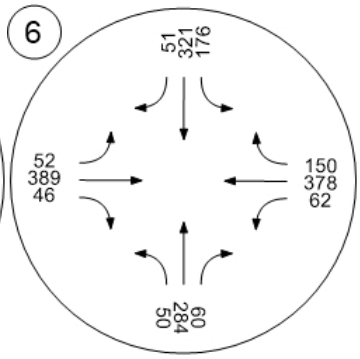
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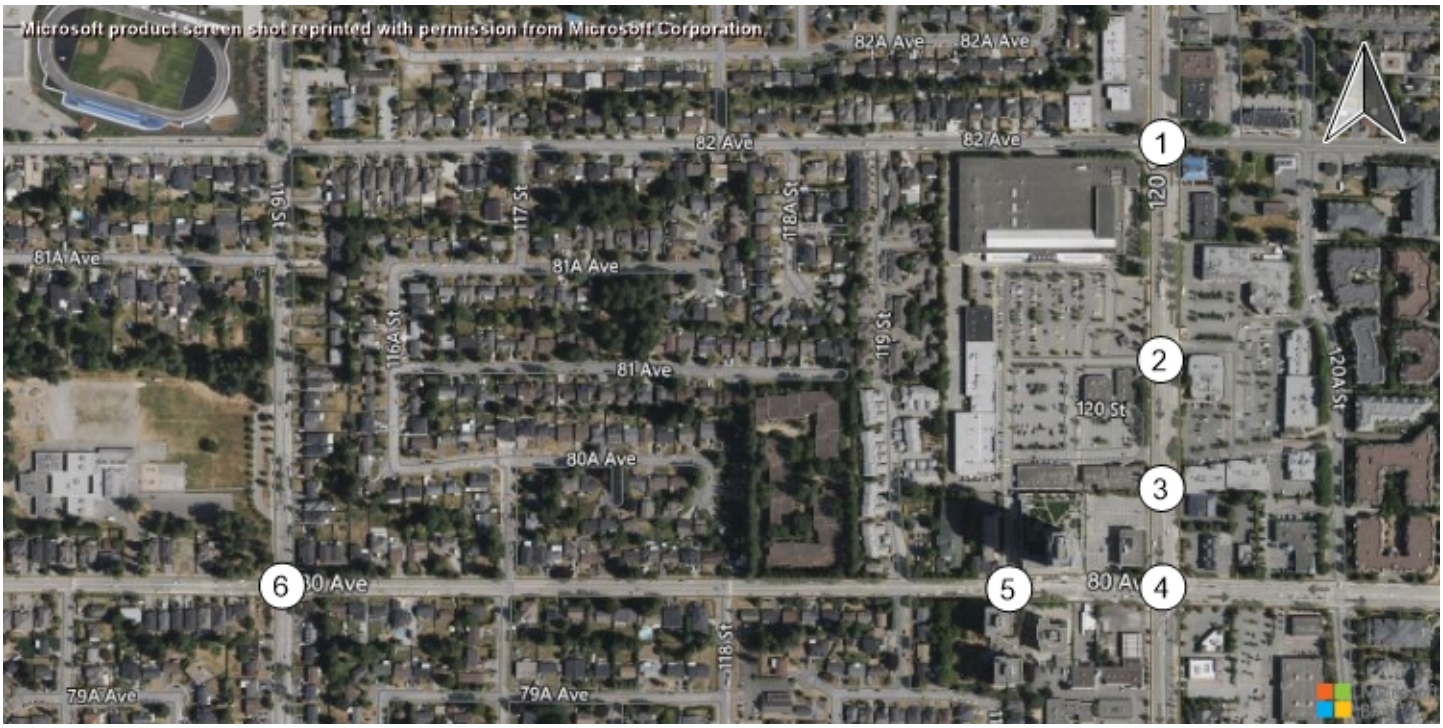
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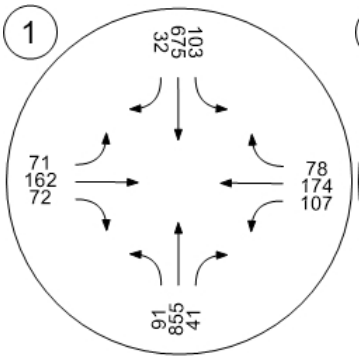
Appendix G-2

Combined Traffic Volumes (2033) – Scenario 1: 20% Reduction of Site Traffic

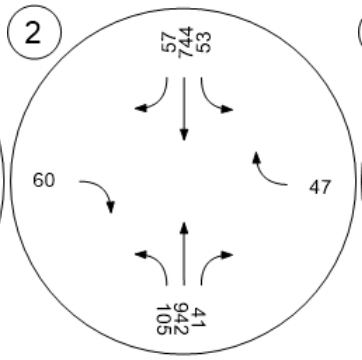
Report Figure 0f: Traffic Volume - Future Total Volume



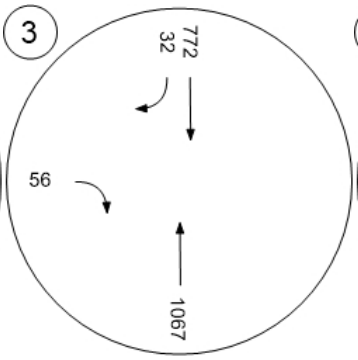
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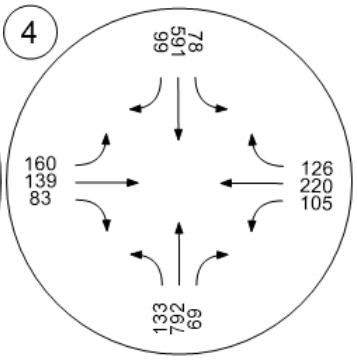
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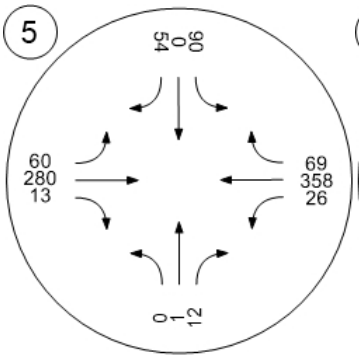
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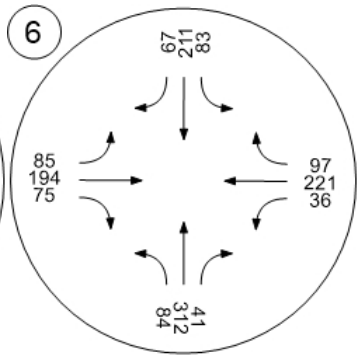
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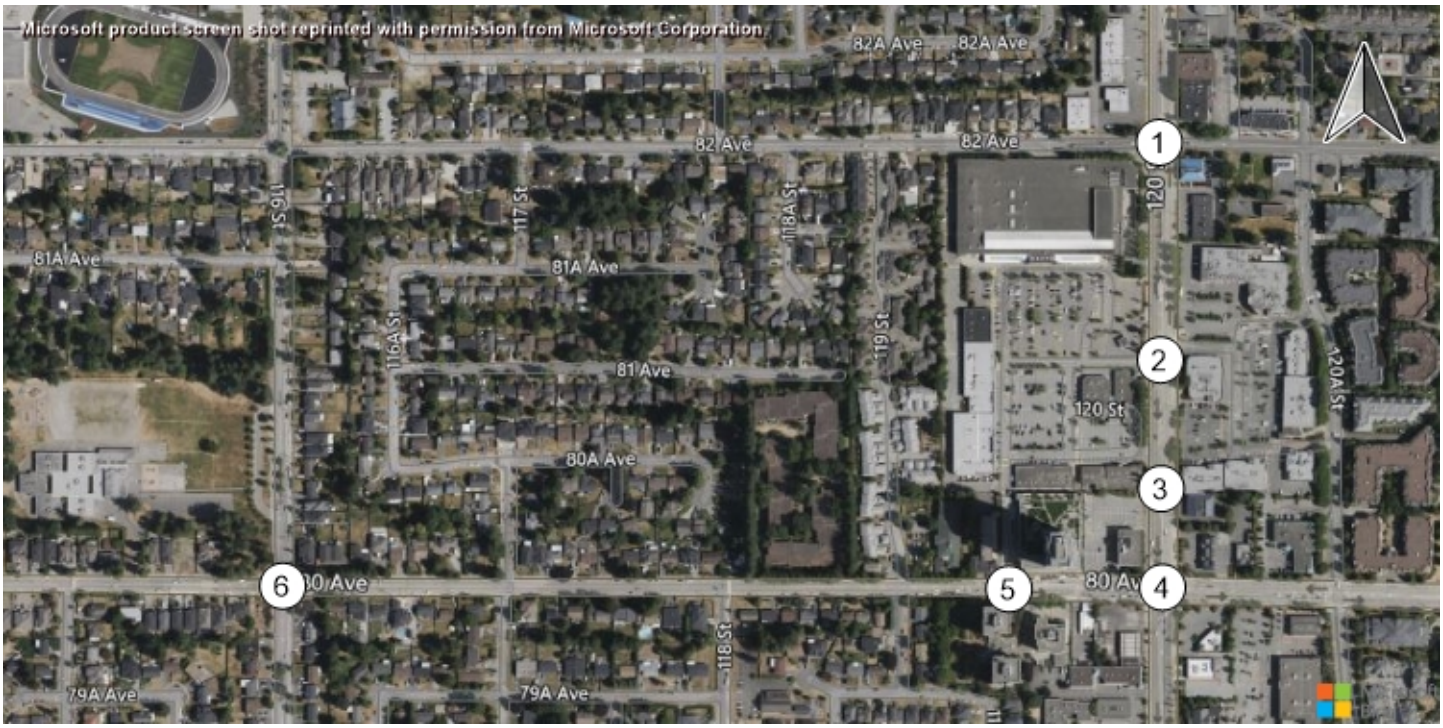
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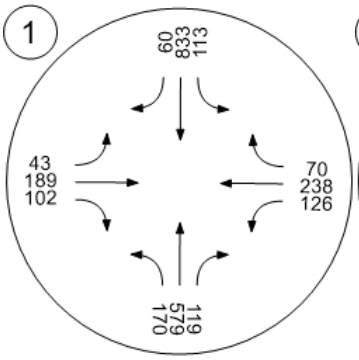
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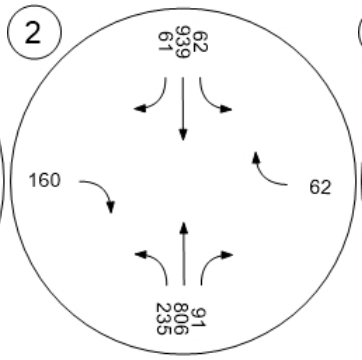
Report Figure 0f: Traffic Volume - Future Total Volume



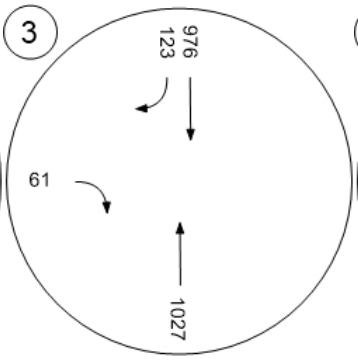
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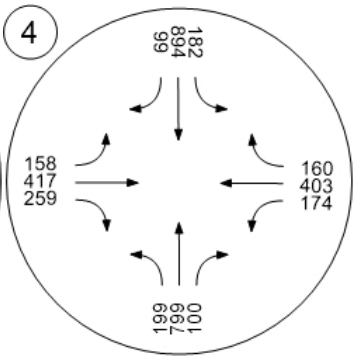
Scott Rd/Northeast Accs



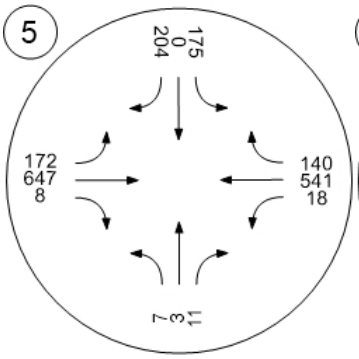
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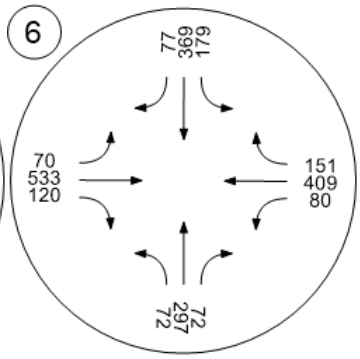
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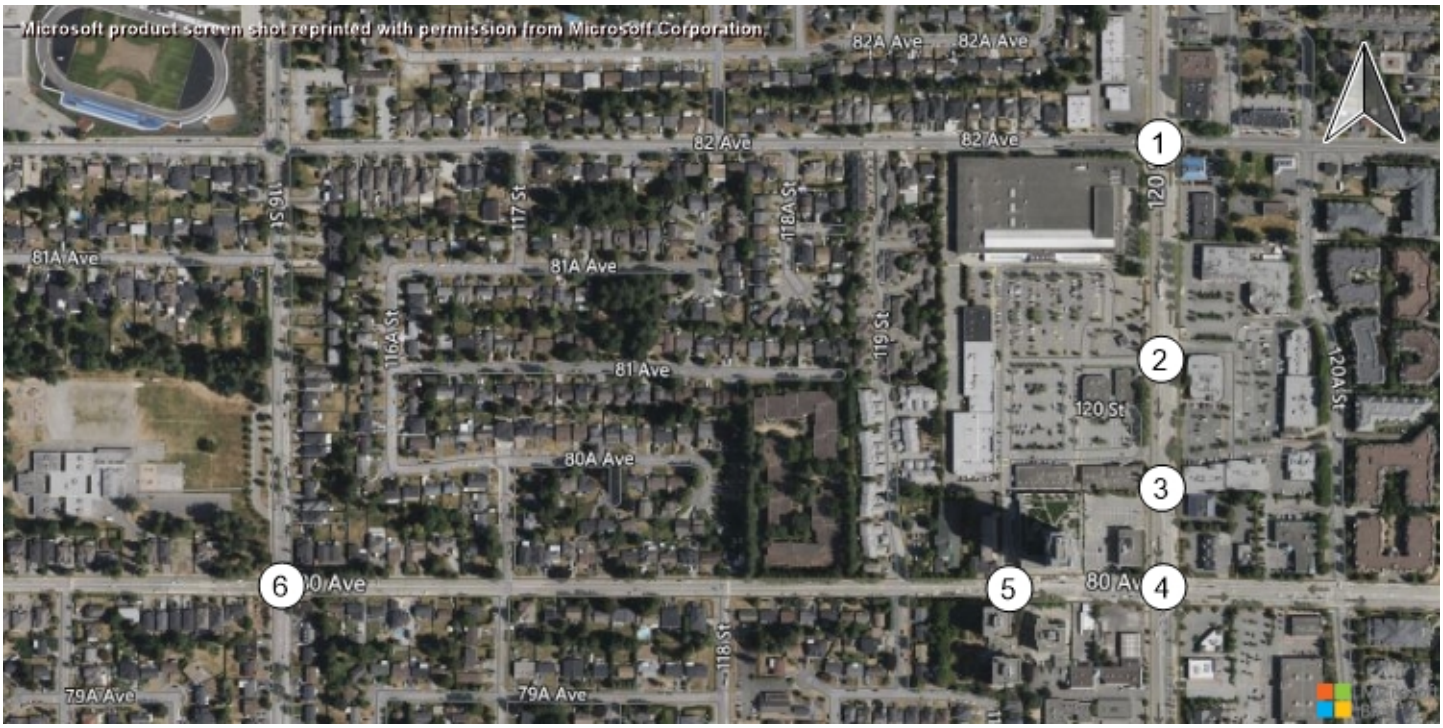
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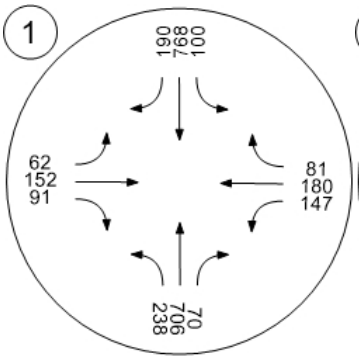
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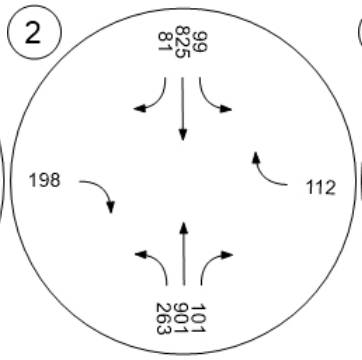
Report Figure 0f: Traffic Volume - Future Total Volume



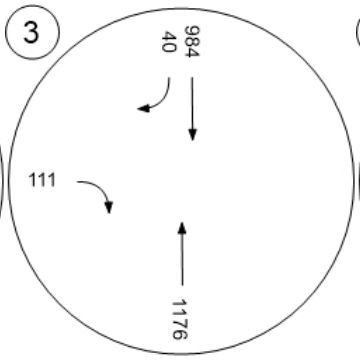
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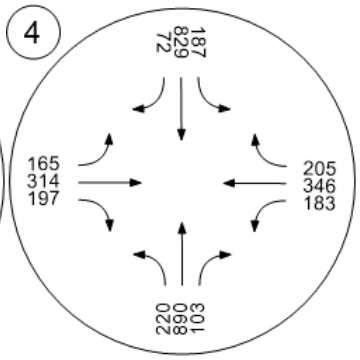
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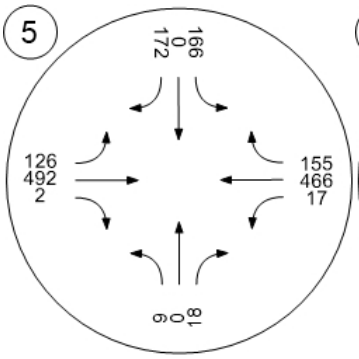
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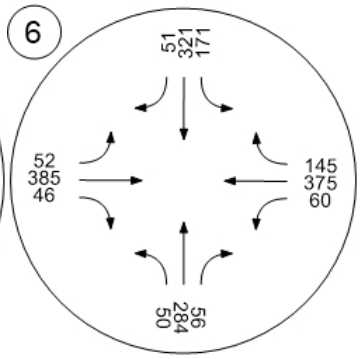
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80 Ave/Sharma Blvd



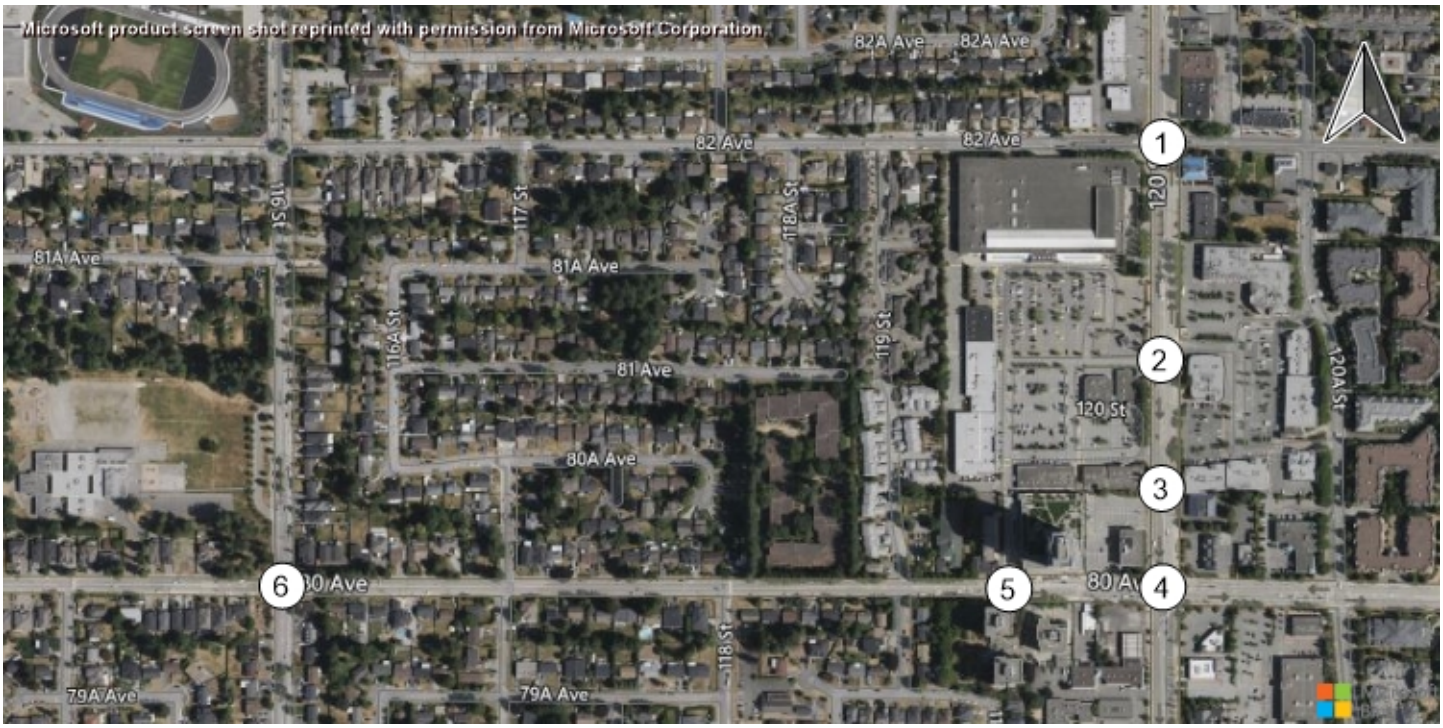
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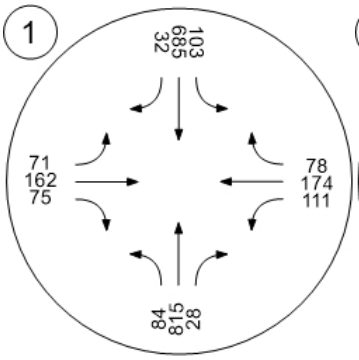
Appendix G-3

Combined Traffic Volumes (2033) – Scenario 2: No Reduction of Site Traffic

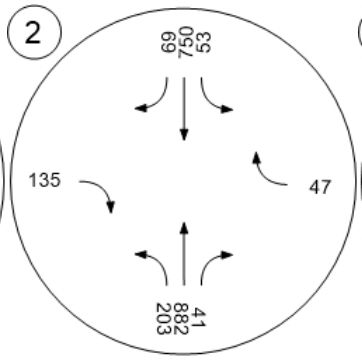
Report Figure 0f: Traffic Volume - Future Total Volume



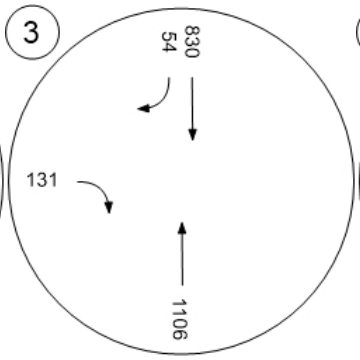
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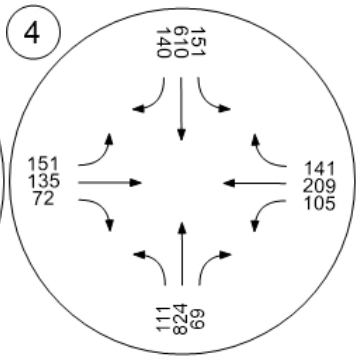
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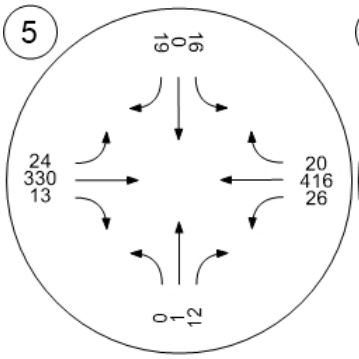
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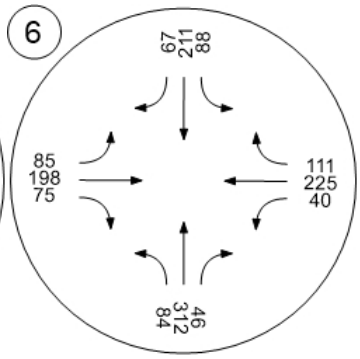
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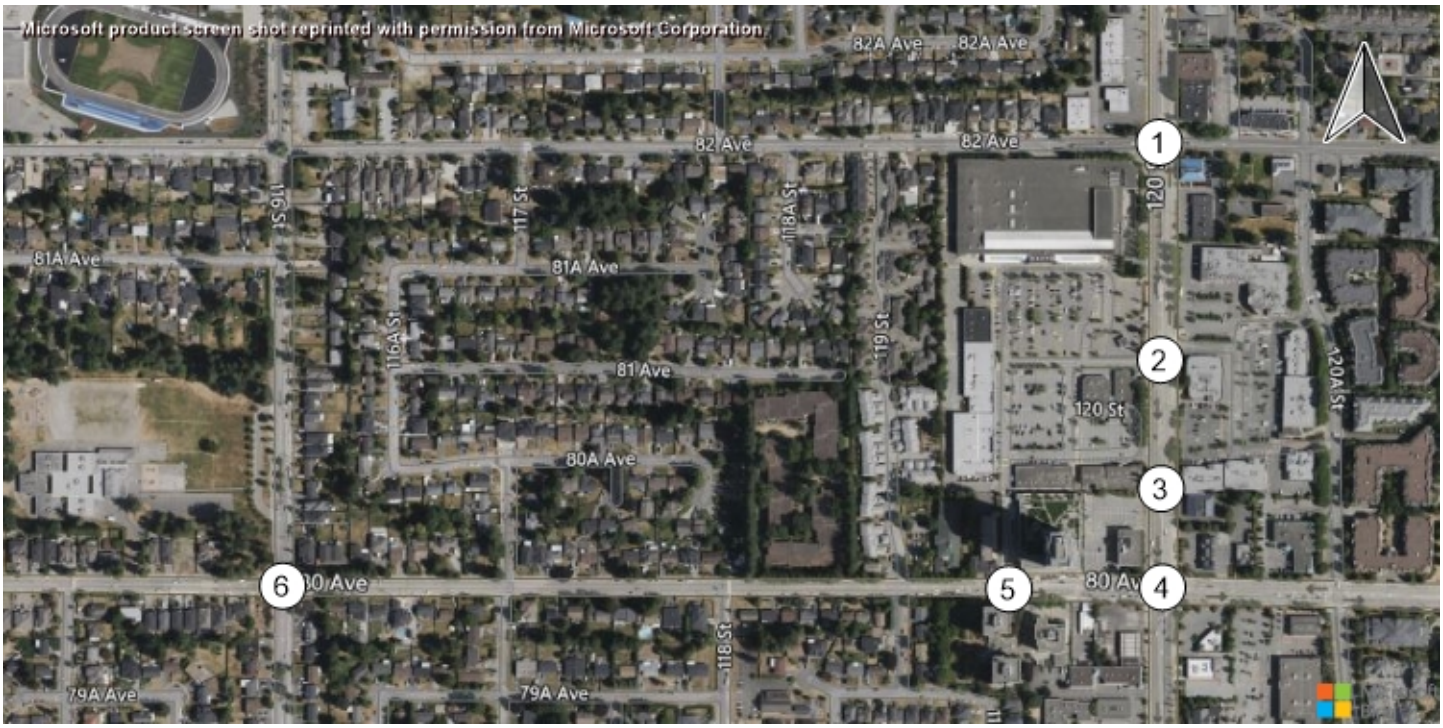
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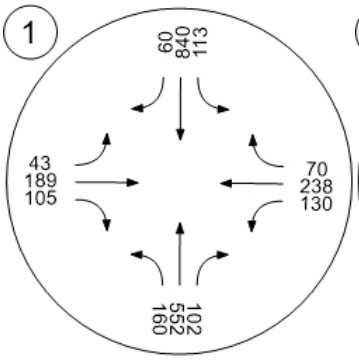
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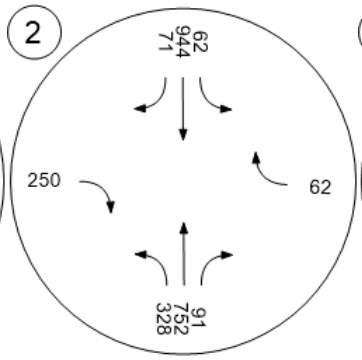
Report Figure 0f: Traffic Volume - Future Total Volume



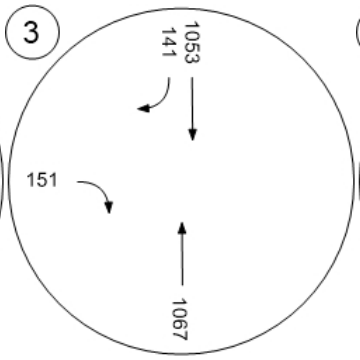
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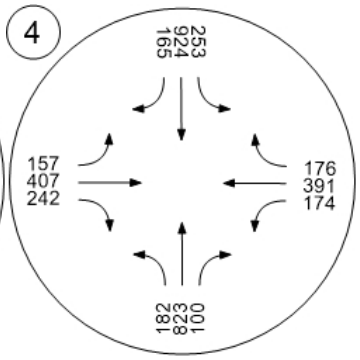
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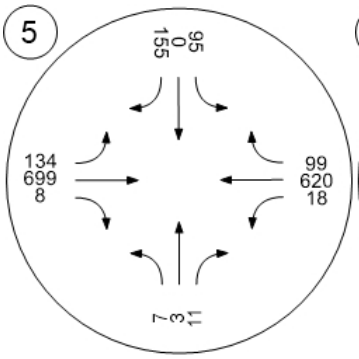
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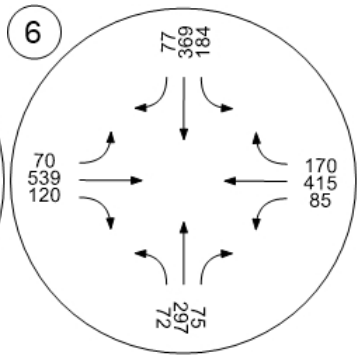
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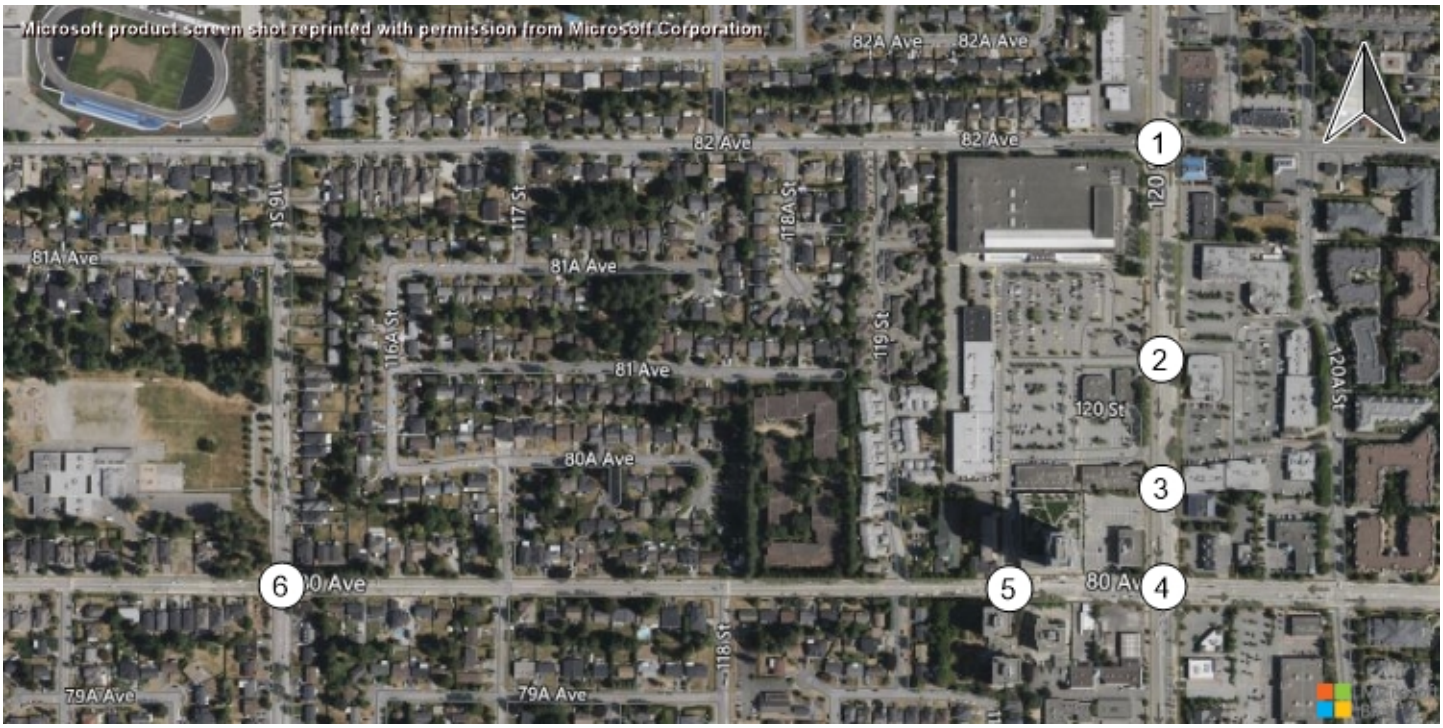
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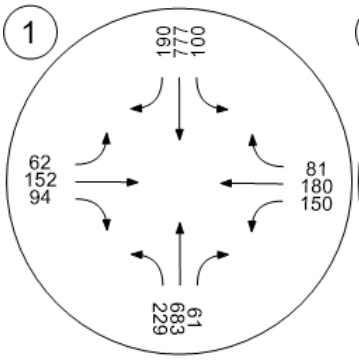
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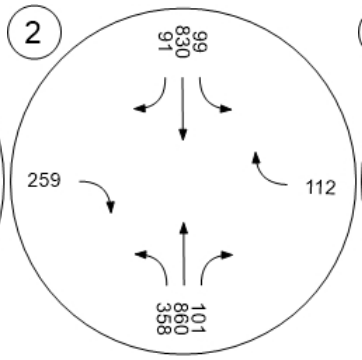
Report Figure 0f: Traffic Volume - Future Total Volume



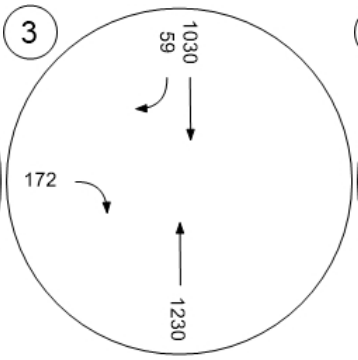
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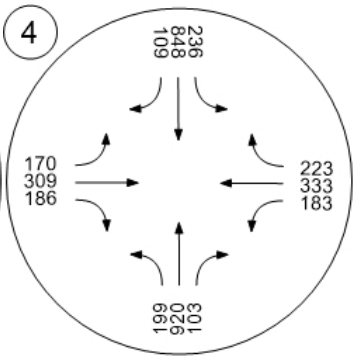
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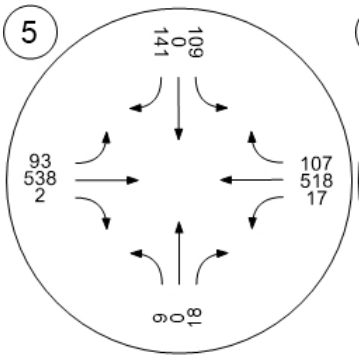
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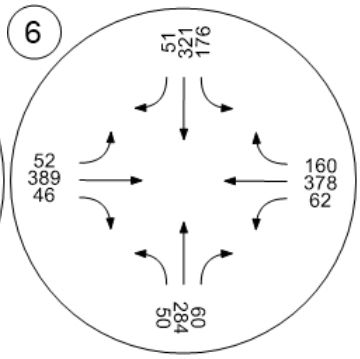
Scott Rd/80 Ave



80 Ave/Sharma Blvd



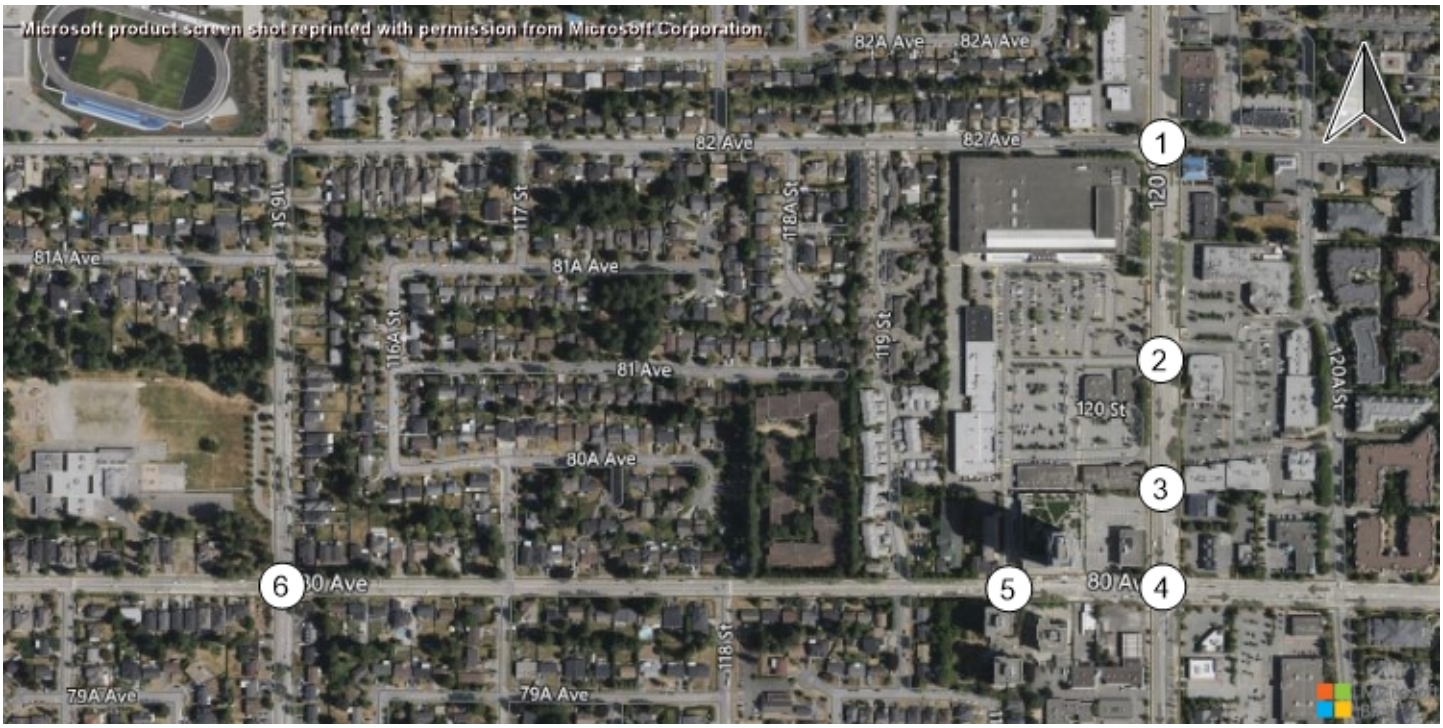
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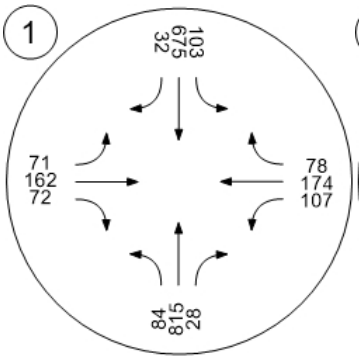
Appendix G-4

Combined Traffic Volumes (2033) – Scenario 2: 20% Reduction of Site Traffic

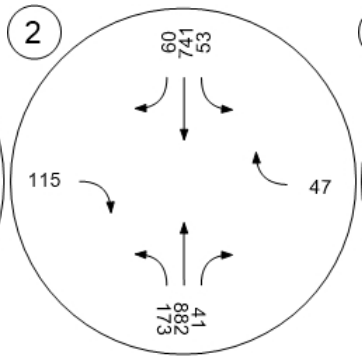
Report Figure 0f: Traffic Volume - Future Total Volume



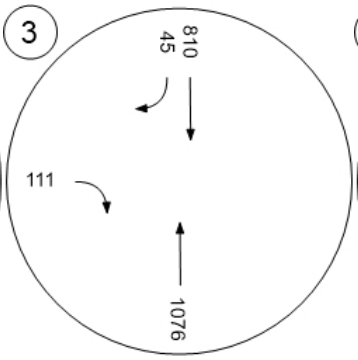
Scott Rd/82 Ave



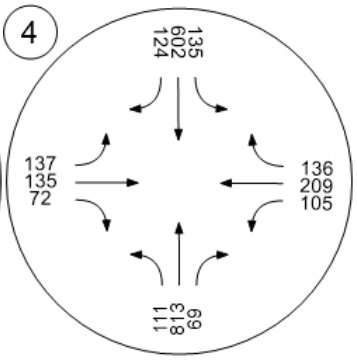
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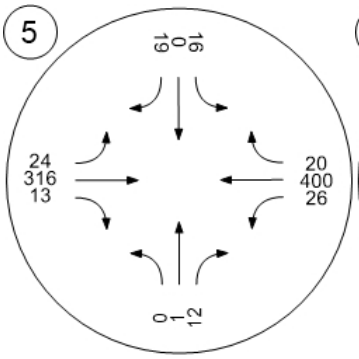
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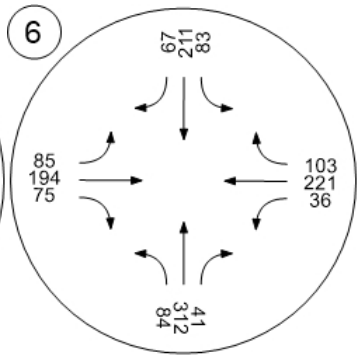
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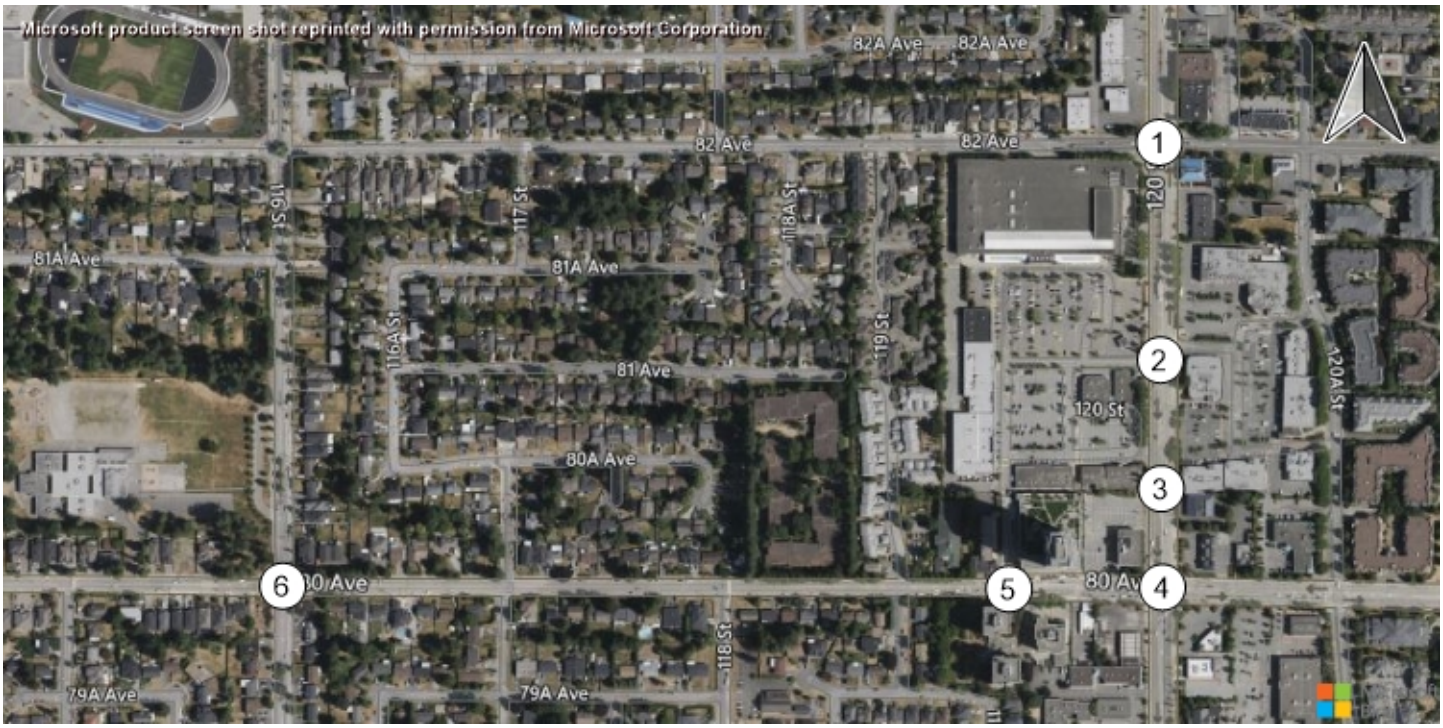
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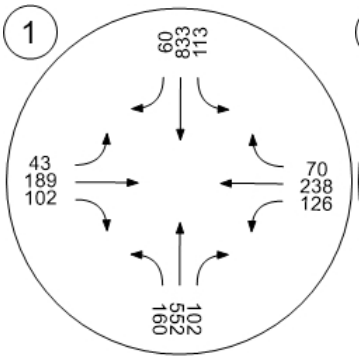
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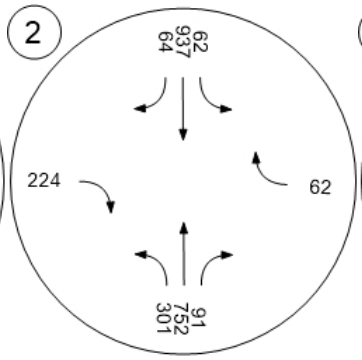
Report Figure 0f: Traffic Volume - Future Total Volume



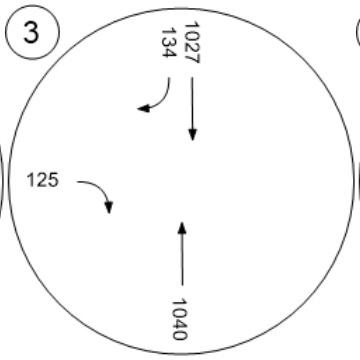
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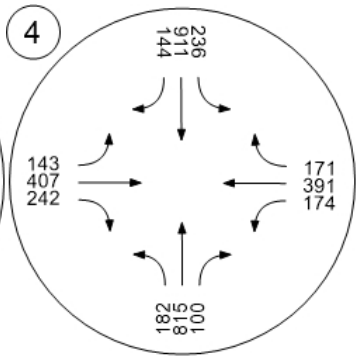
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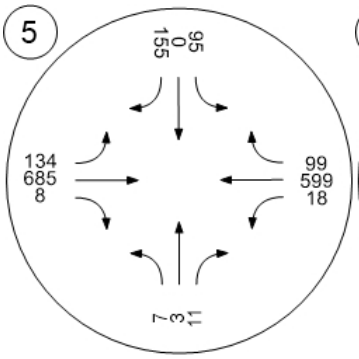
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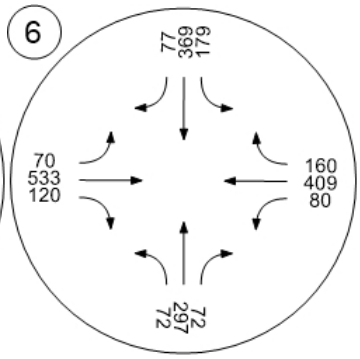
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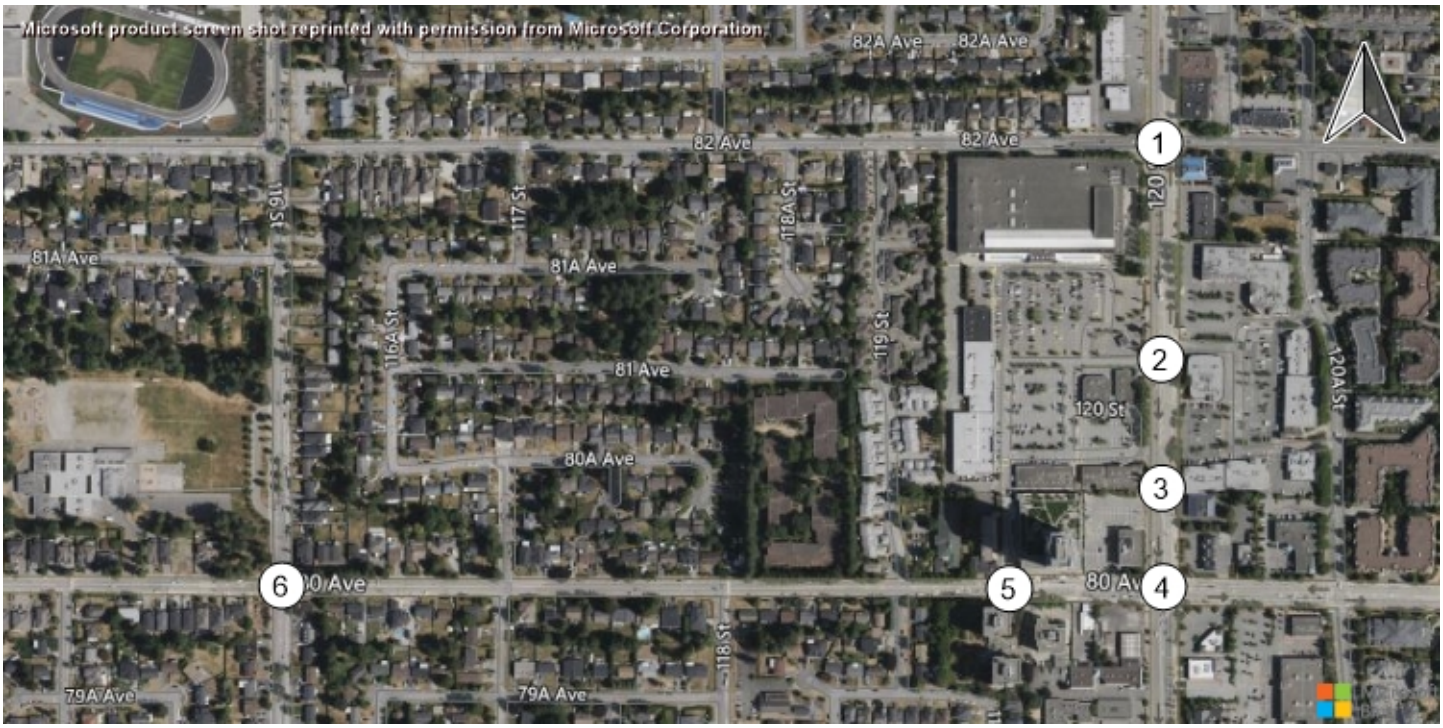
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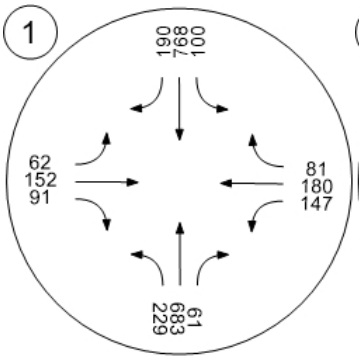
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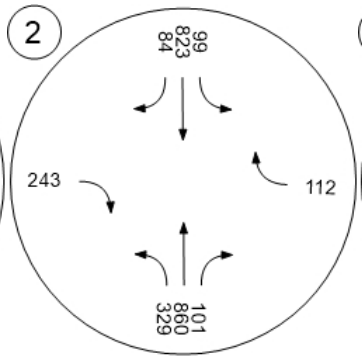
Report Figure 0f: Traffic Volume - Future Total Volume



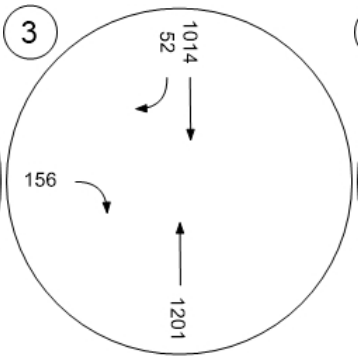
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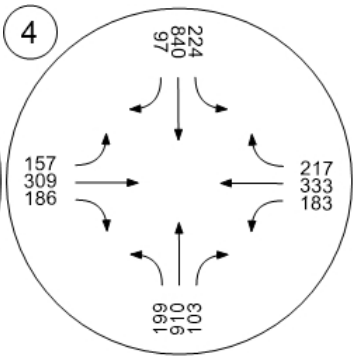
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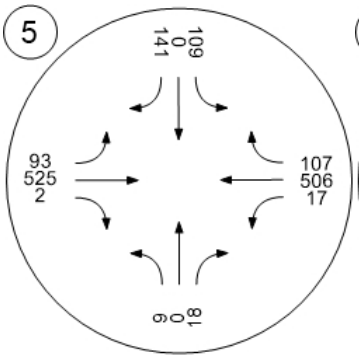
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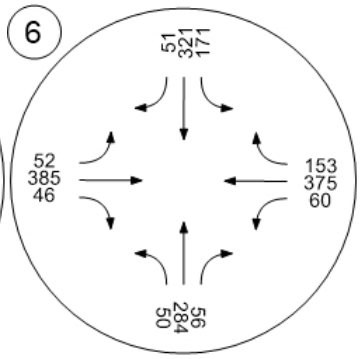
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80 Ave/Sharma Blvd



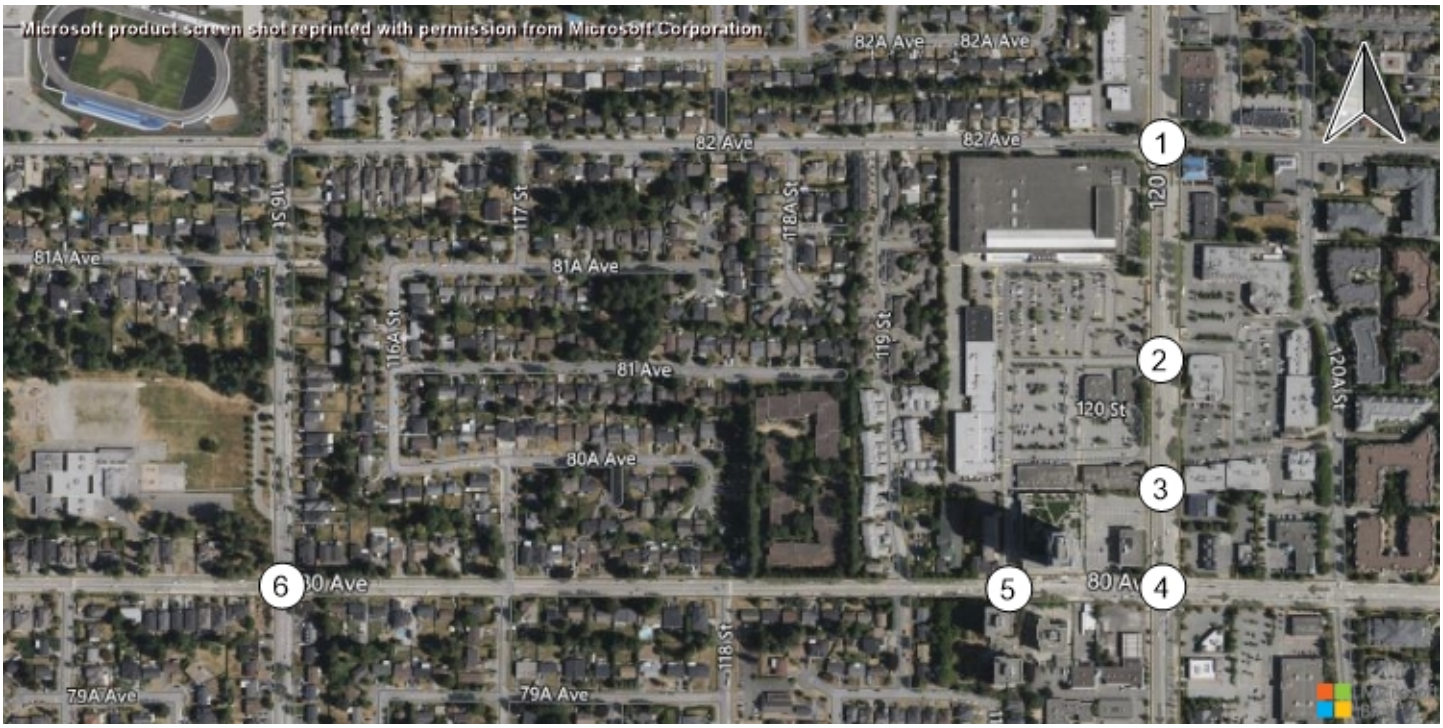
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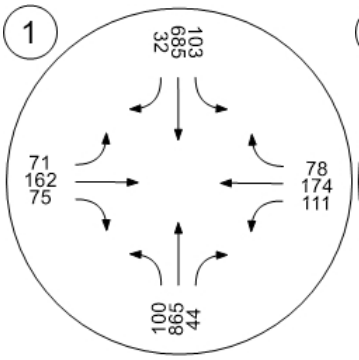
Appendix G-5

Combined Traffic Volumes (2033) – Scenario 3: No Reduction of Site Traffic

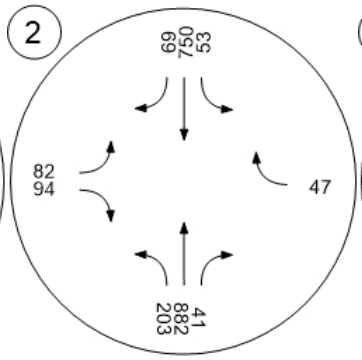
Report Figure 0f: Traffic Volume - Future Total Volume



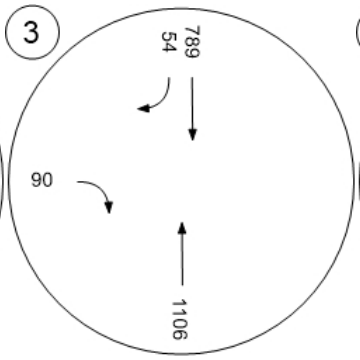
Scott Rd/82 Ave



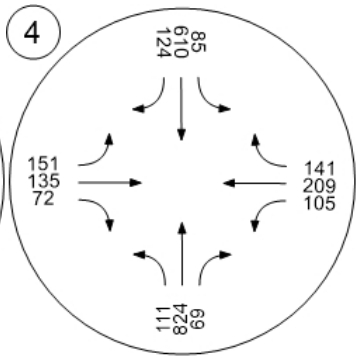
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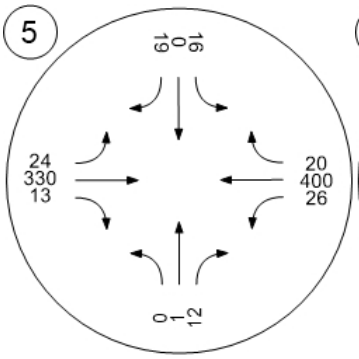
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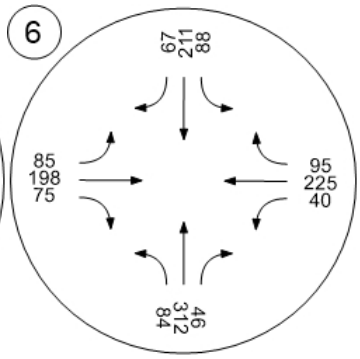
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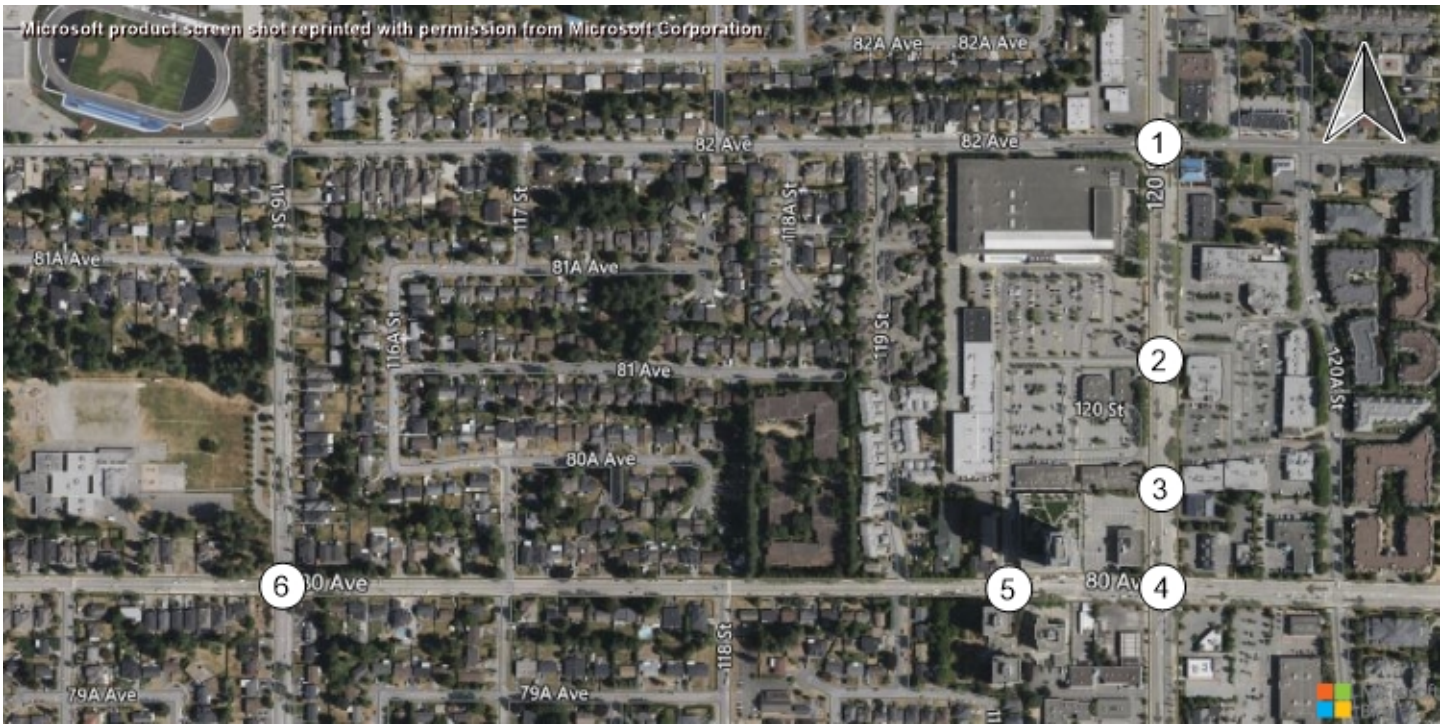
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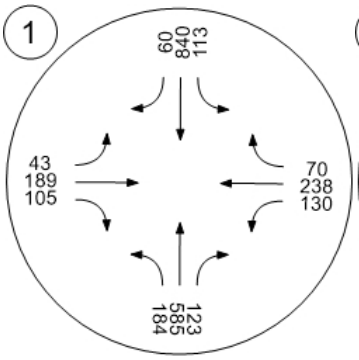
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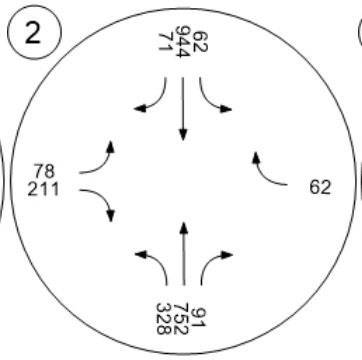
Report Figure 0f: Traffic Volume - Future Total Volume



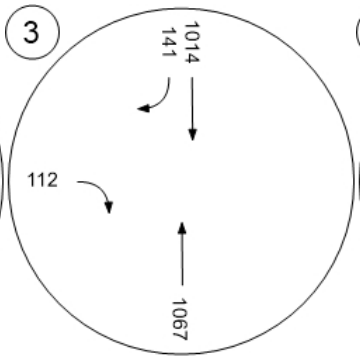
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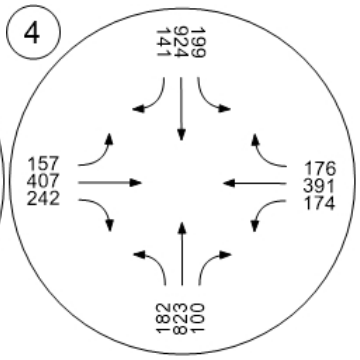
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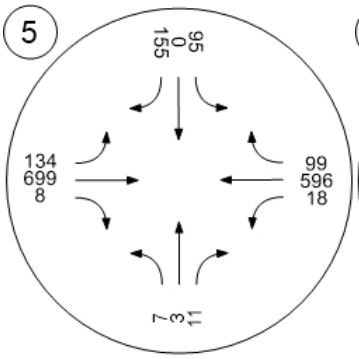
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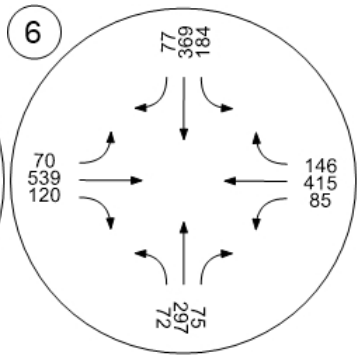
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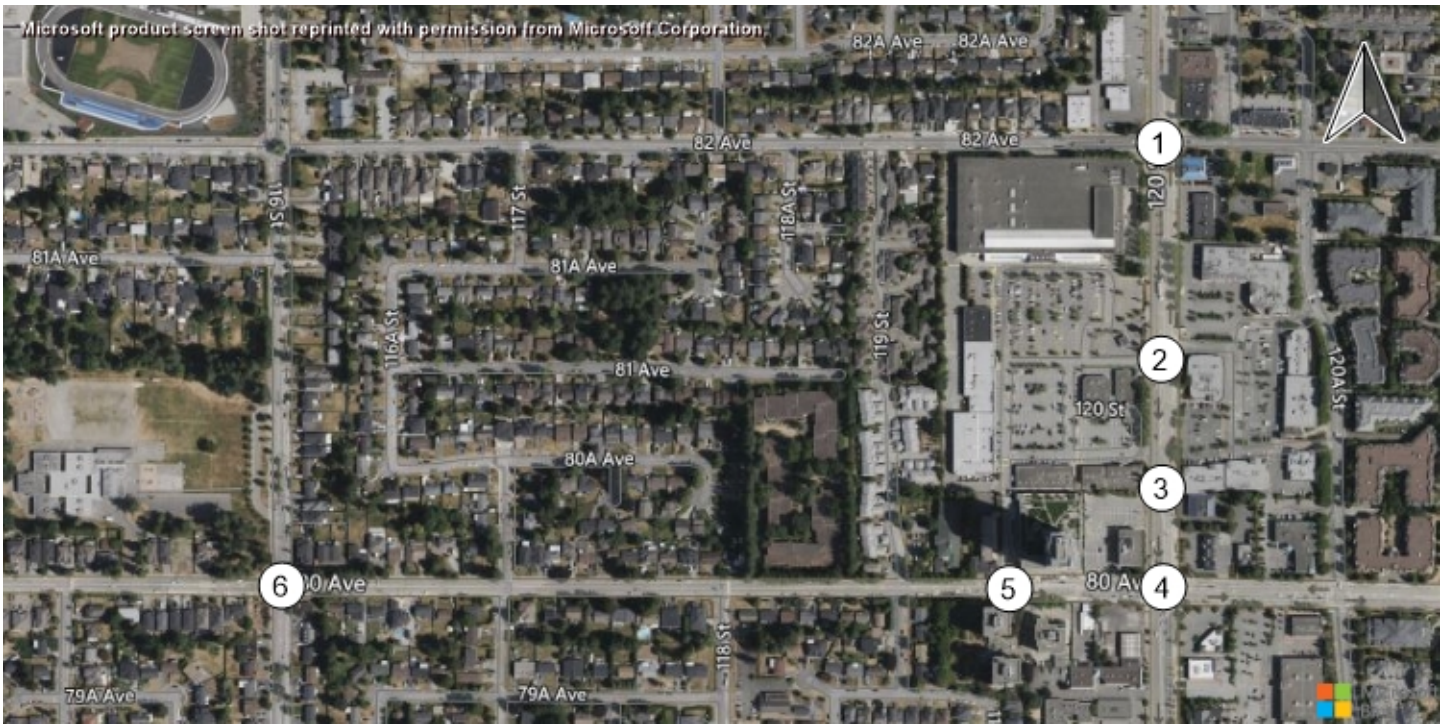
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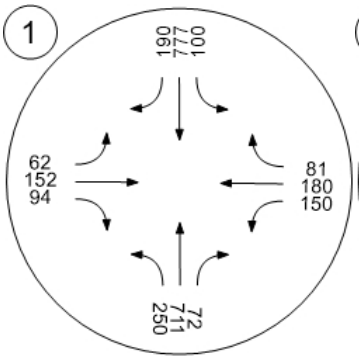
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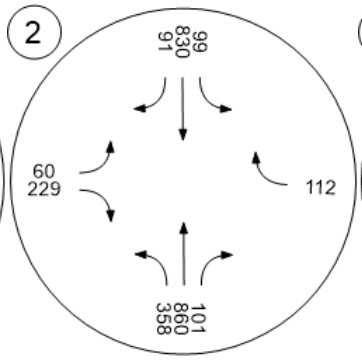
Report Figure 0f: Traffic Volume - Future Total Volume



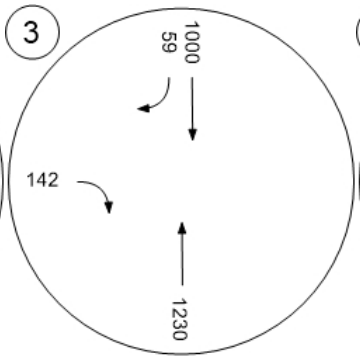
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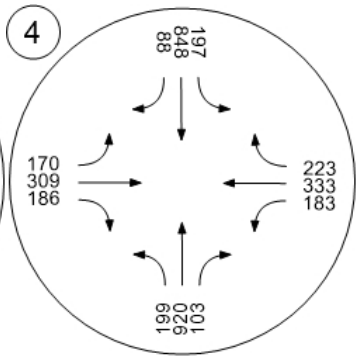
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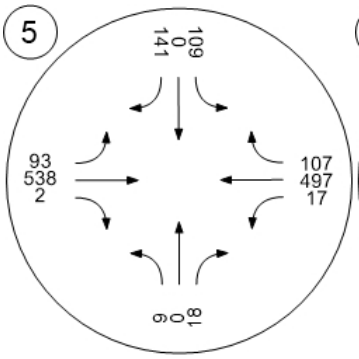
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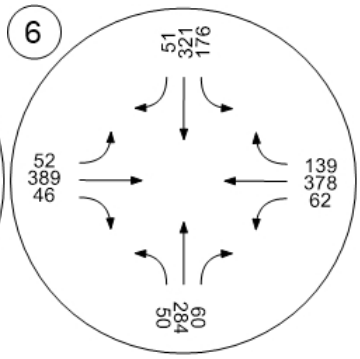
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80 Ave/Sharma Blvd



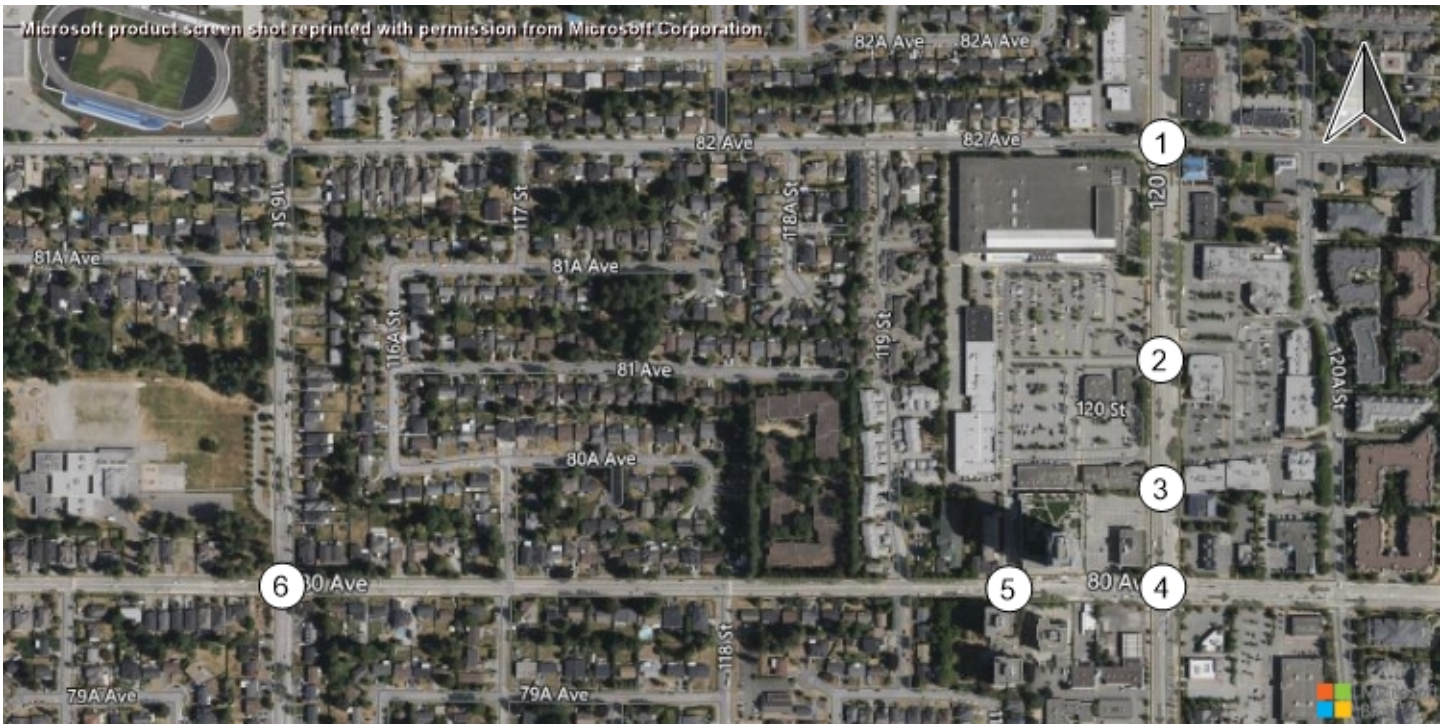
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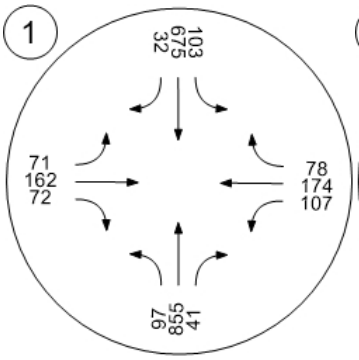
Appendix G-6

Combined Traffic Volumes (2033) – Scenario 3: 20% Reduction of Site Traffic

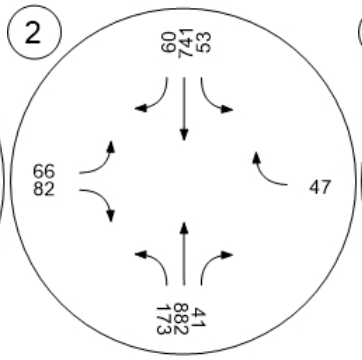
Report Figure 0f: Traffic Volume - Future Total Volume



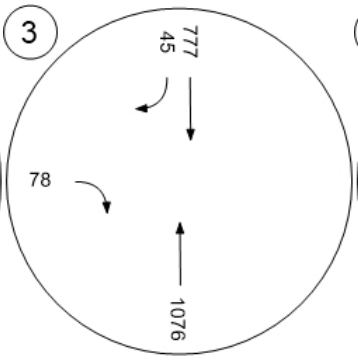
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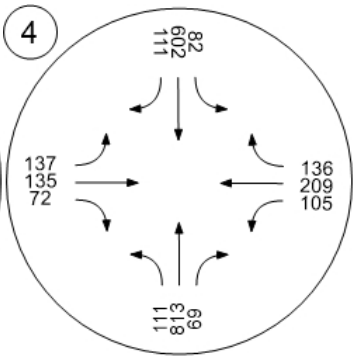
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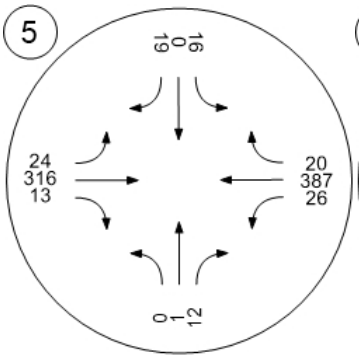
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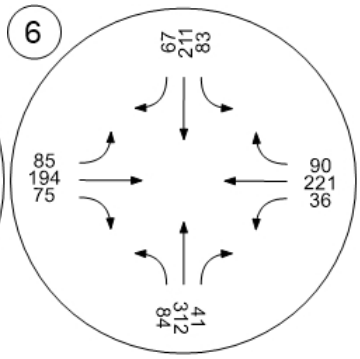
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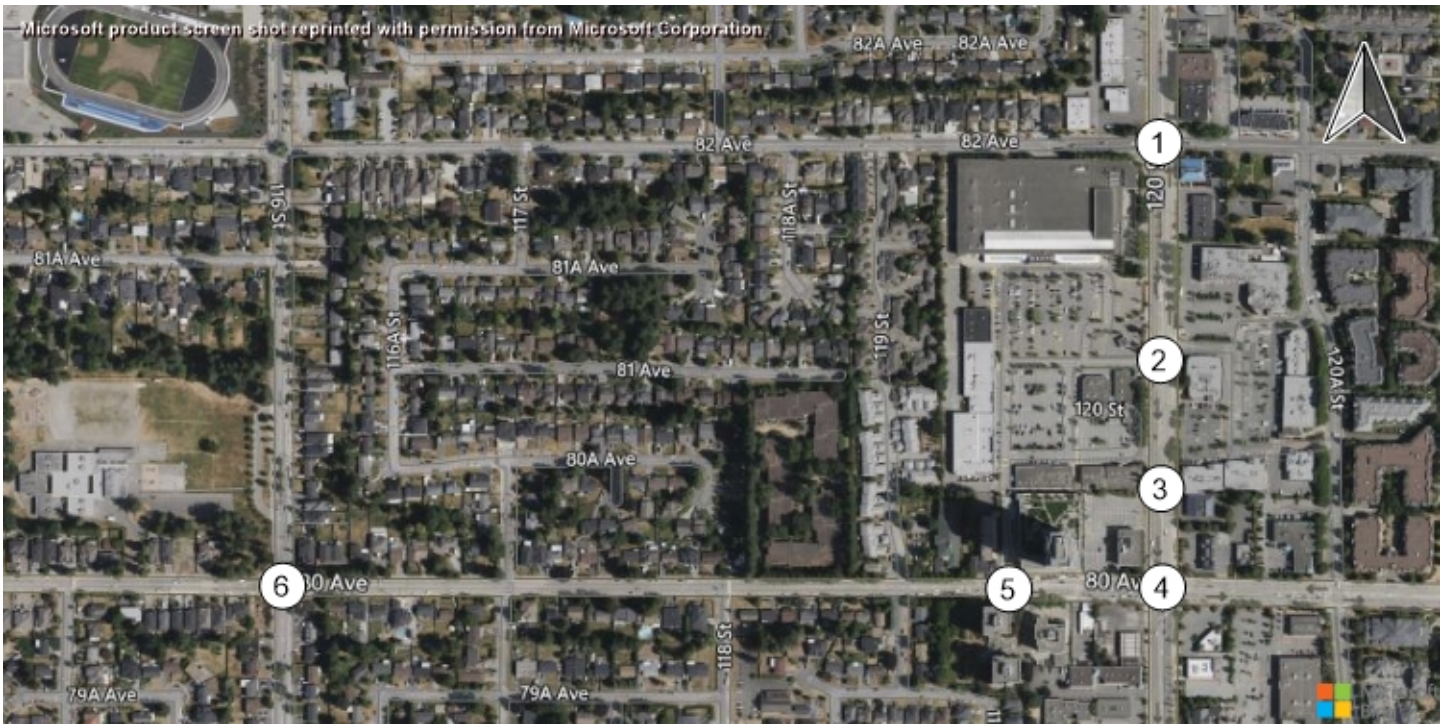
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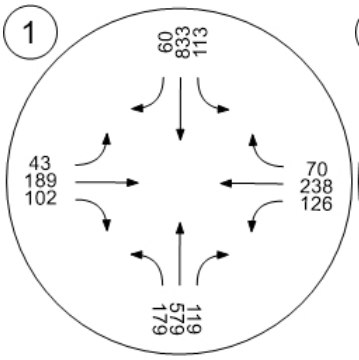
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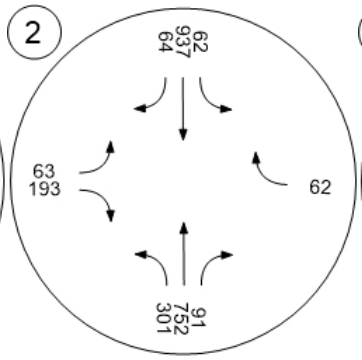
Report Figure 0f: Traffic Volume - Future Total Volume



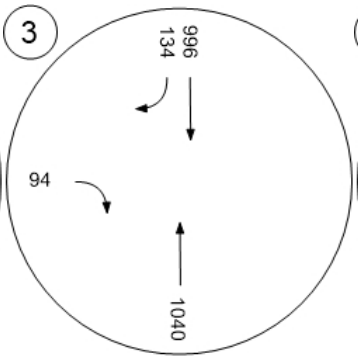
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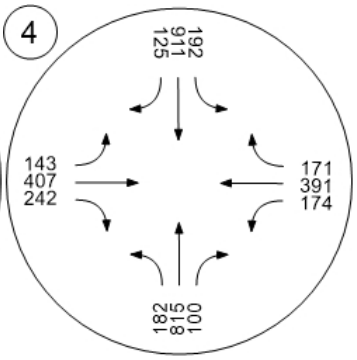
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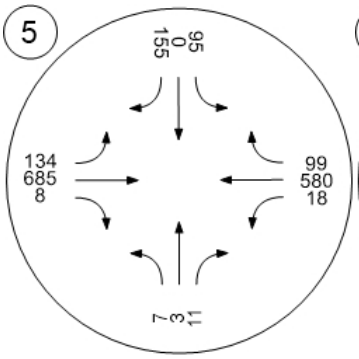
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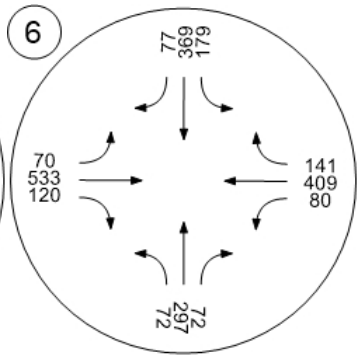
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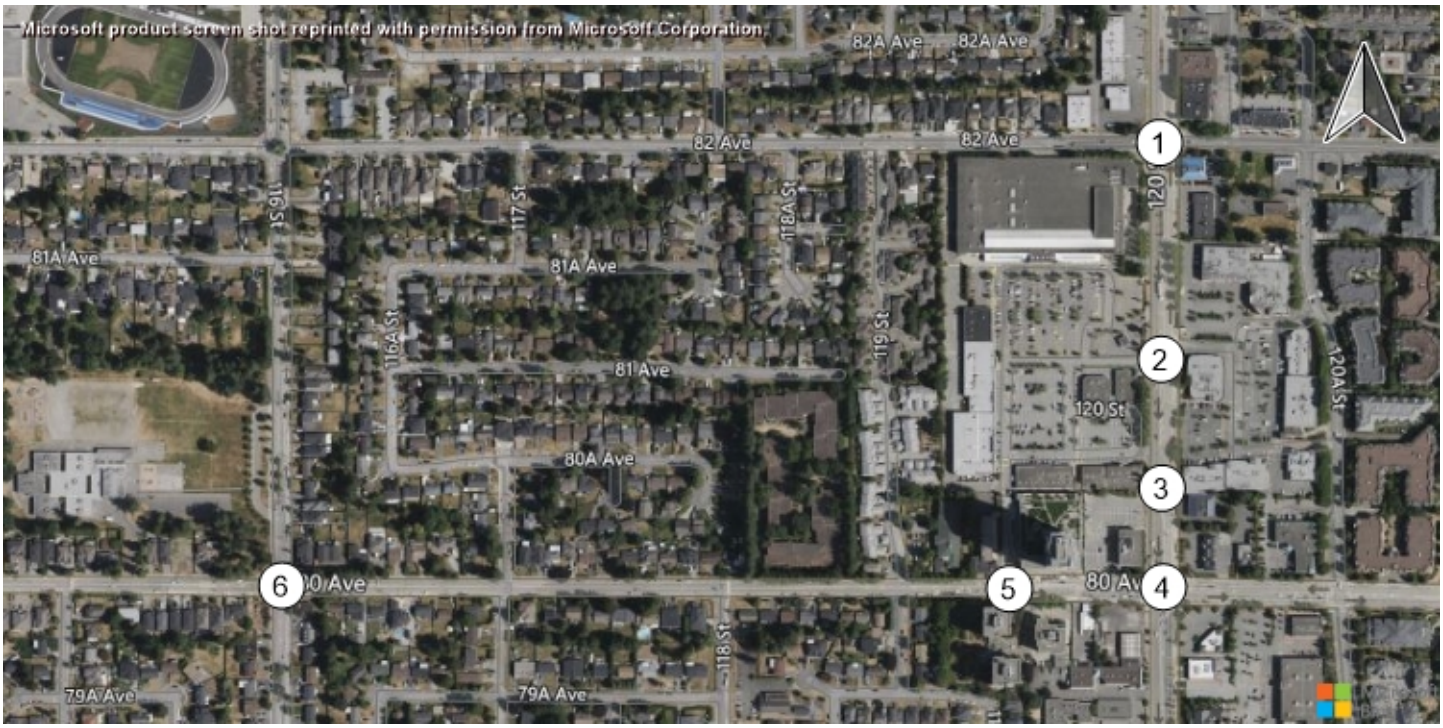
80 Ave/Sharma Blvd



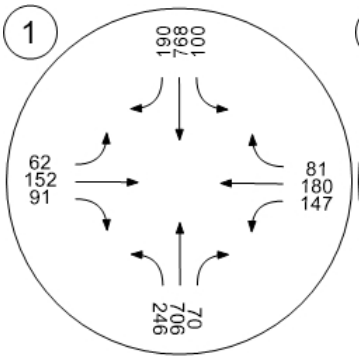
80 Ave/116 St



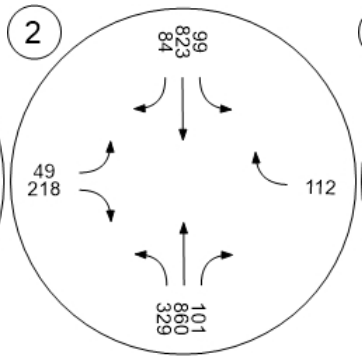
Report Figure 0f: Traffic Volume - Future Total Volume



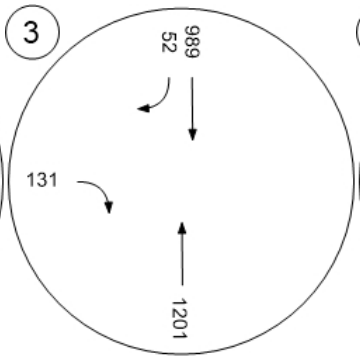
Scott Rd/82 Ave



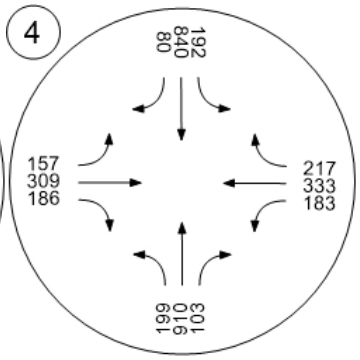
Scott Rd/Northeast Accs



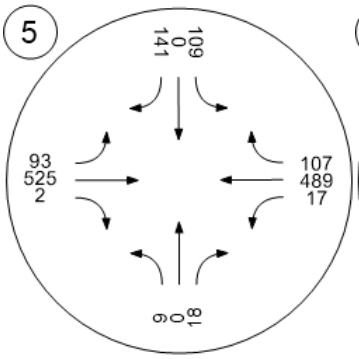
Scott Rd/Southeast Accs



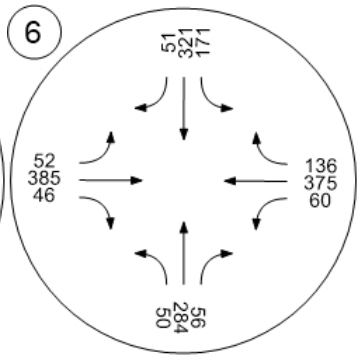
Scott Rd/80 Ave



80 Ave/Sharma Blvd



80 Ave/116 St



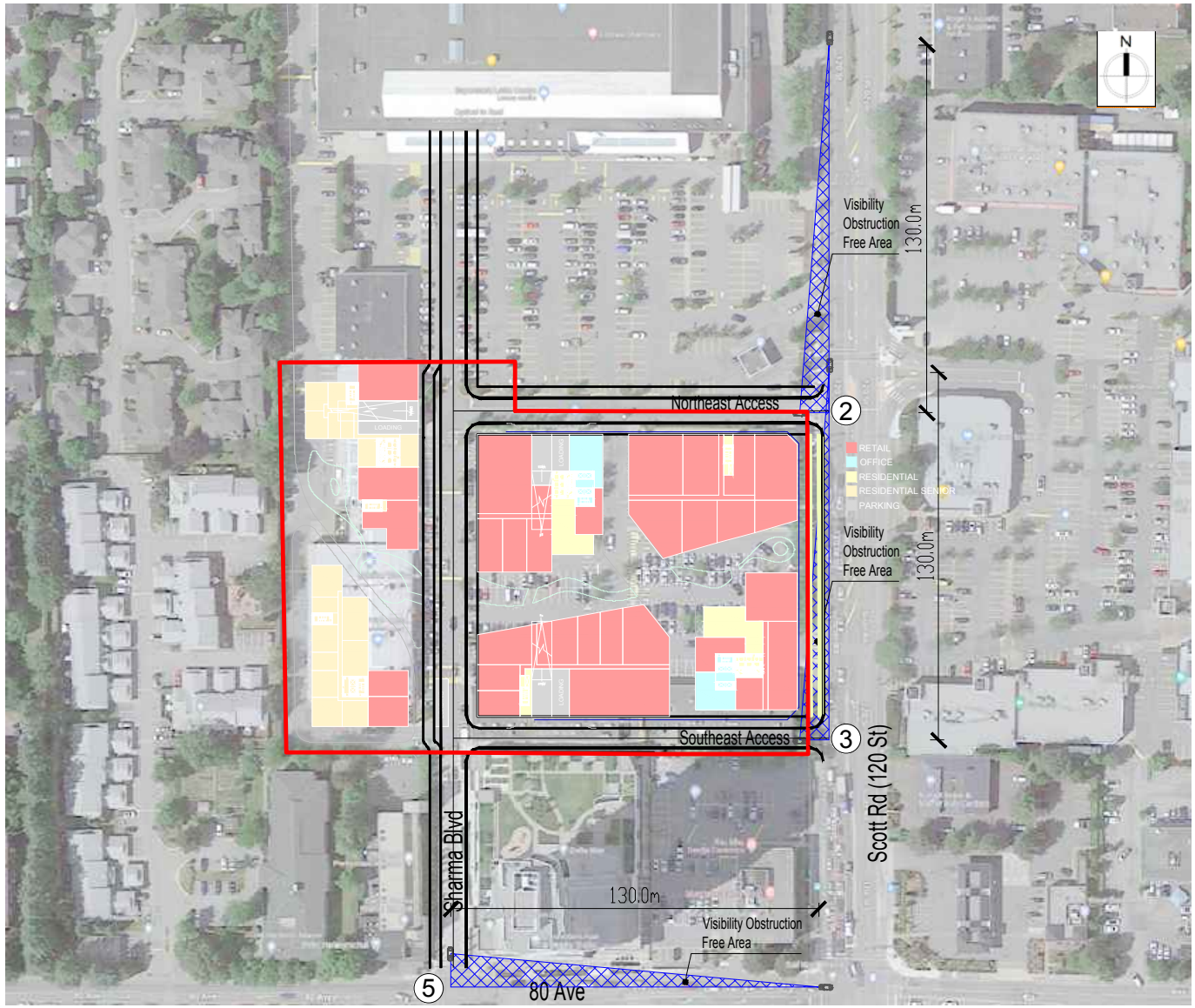
Appendix H

Synchro Reports

[Provided separately]

Appendix I

Sight Distance Analysis Drawings



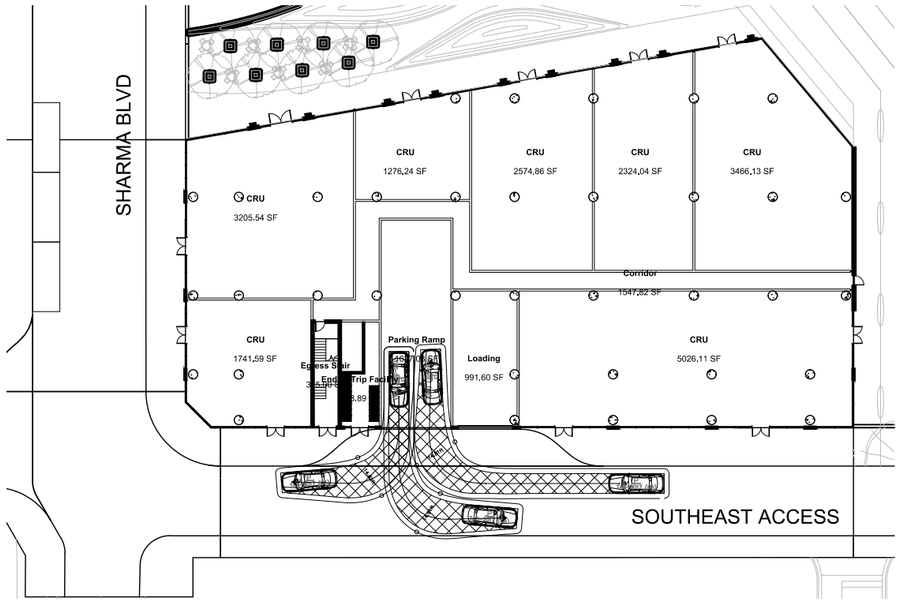
8037-8087 Scott Road (120 Street), City of Delta, BC
Departure Sight Triangles from the proposed ingress/egress intersections

Appendix J

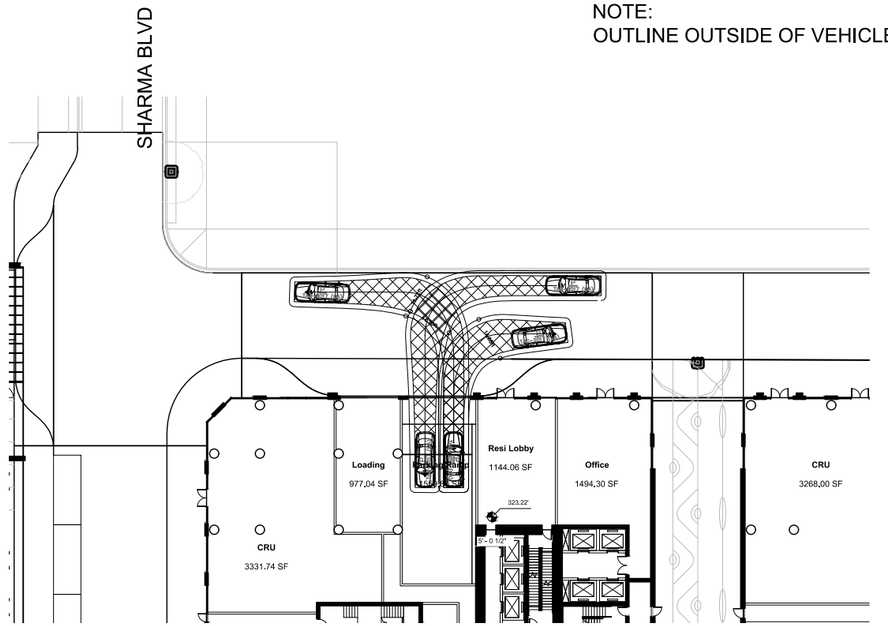
On-site Vehicular Circulation Analysis Drawings

8037-8087 SCOTT ROAD
PASSENGER CAR CIRCULATION

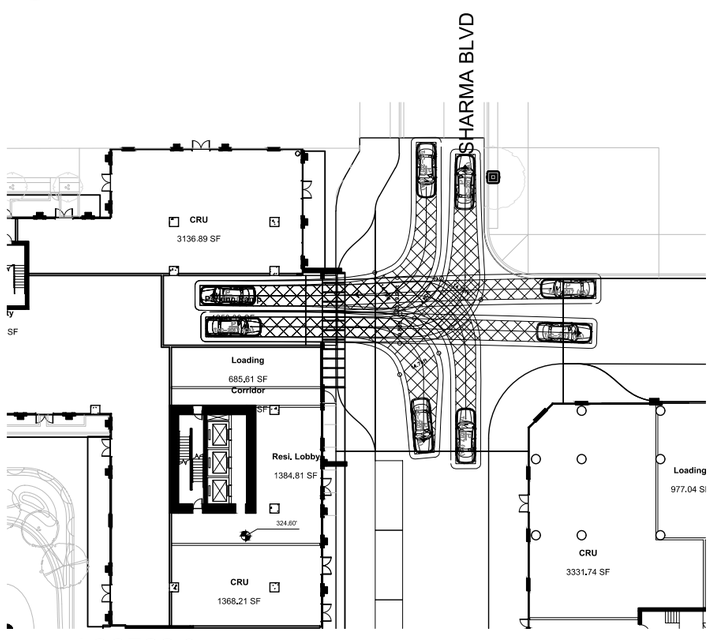
NOTE:
OUTLINE OUTSIDE OF VEHICLE BODY REPRESENTS A 0.50m ENVELOPE



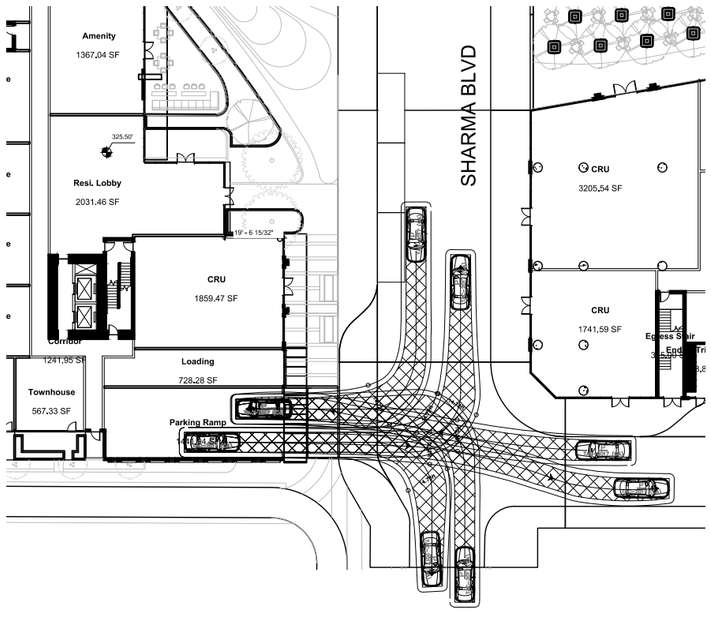
1.1 ACCESS 1
CAR- INBOUND AND OUTBOUND AT PARKADE ENTRANCE



1.2 ACCESS 2
CAR - INBOUND AND OUTBOUND AT PARKADE ENTRANCE

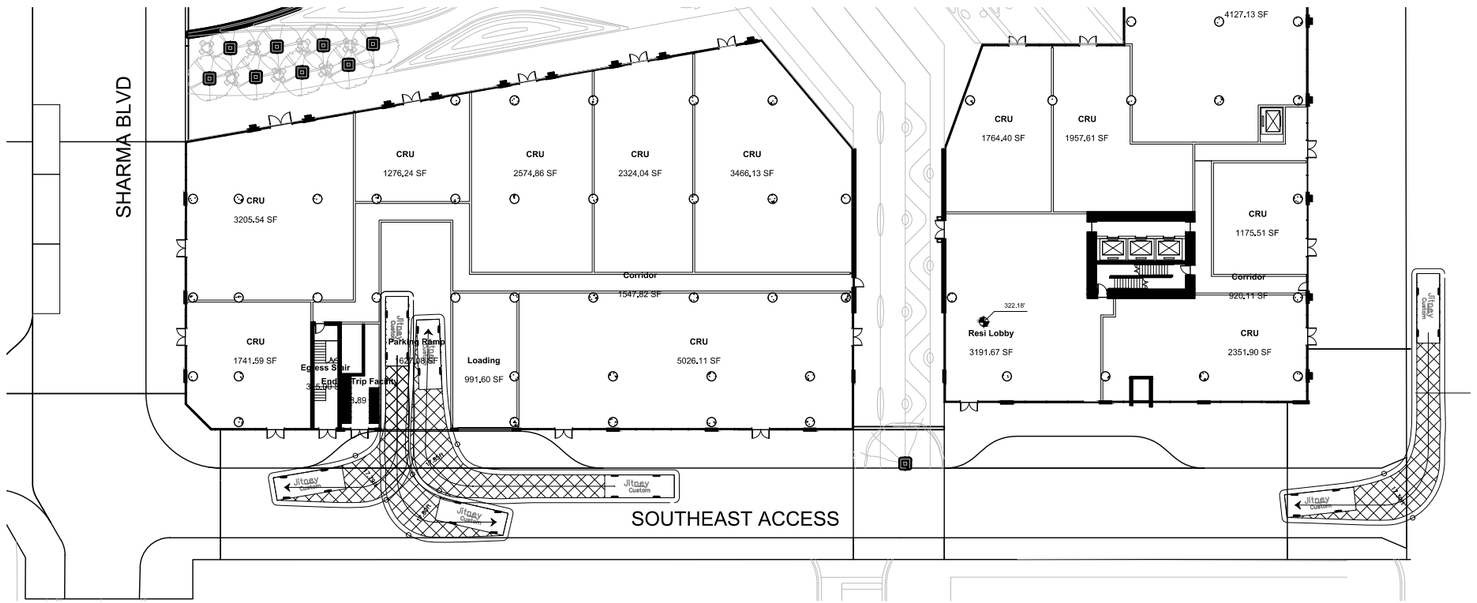


1.3 ACCESS 3
CAR - INBOUND AND OUTBOUND AT PARKADE ENTRANCE



1.4 ACCESS 4
CAR - INBOUND AND OUTBOUND AT PARKADE ENTRANCE

8037-8087 SCOTT ROAD
JITNEY CIRCULATION

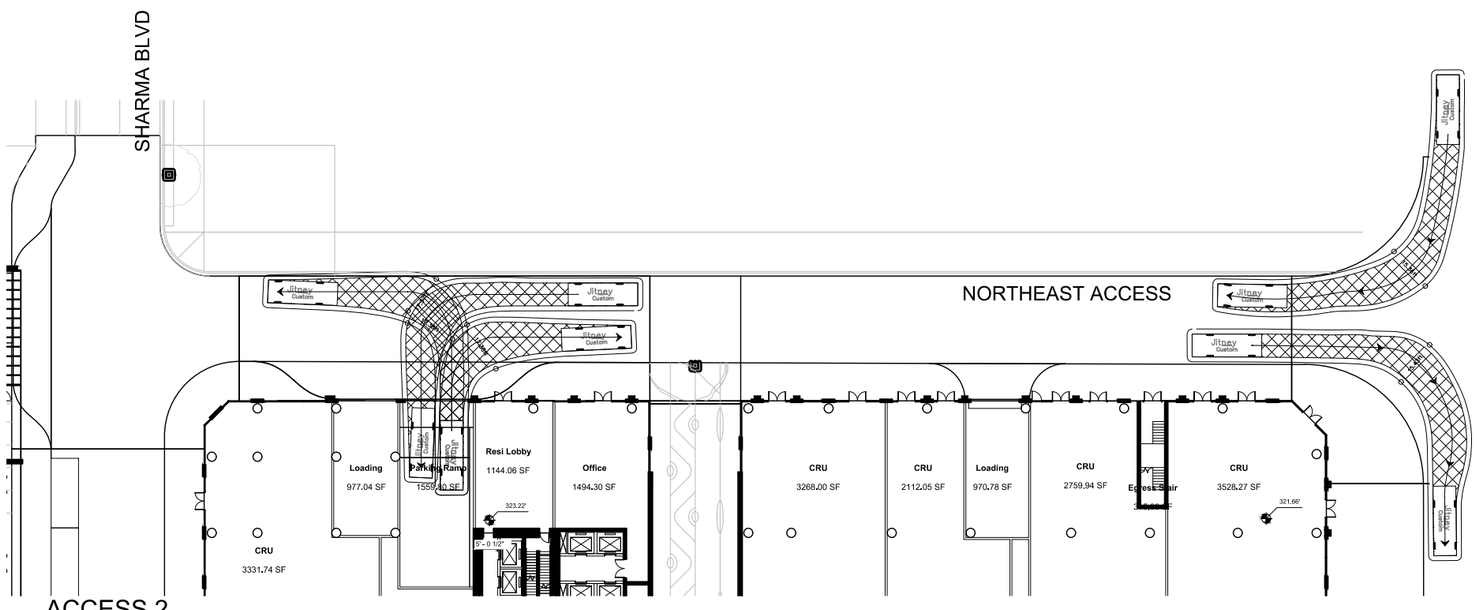


ACCESS 1
JITNEY- INBOUND AND OUTBOUND AT PARKADE ENTRANCE

2.1

NOTE:
OUTLINE OUTSIDE OF VEHICLE BODY REPRESENTS A 0.50m ENVELOPE

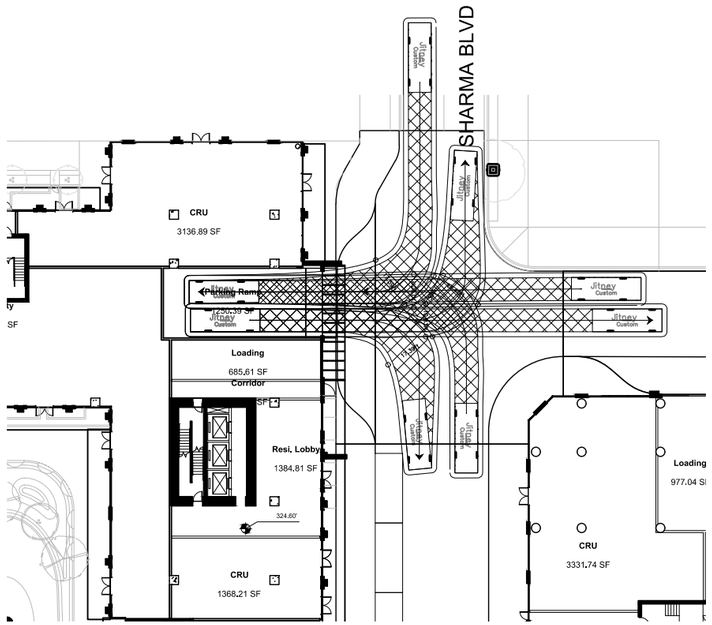
120 STREET



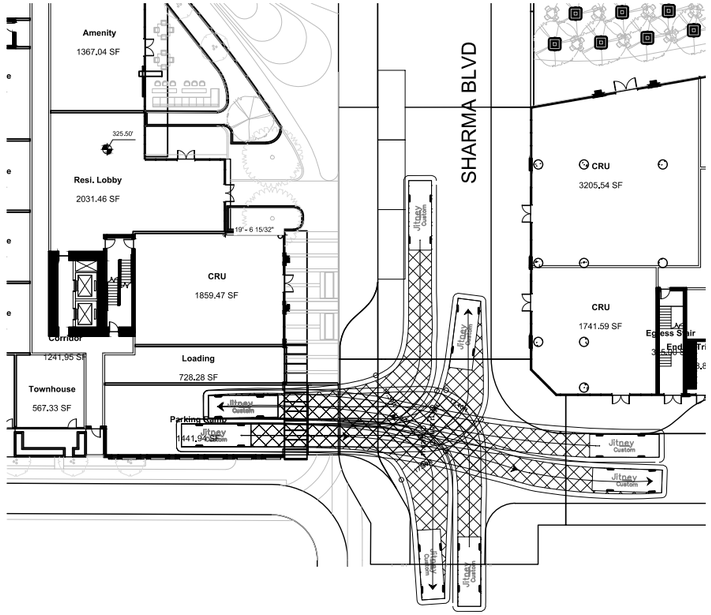
ACCESS 2
JITNEY - INBOUND AND OUTBOUND AT PARKADE ENTRANCE

2.2

8037-8087 SCOTT ROAD
JITNEY CIRCULATION

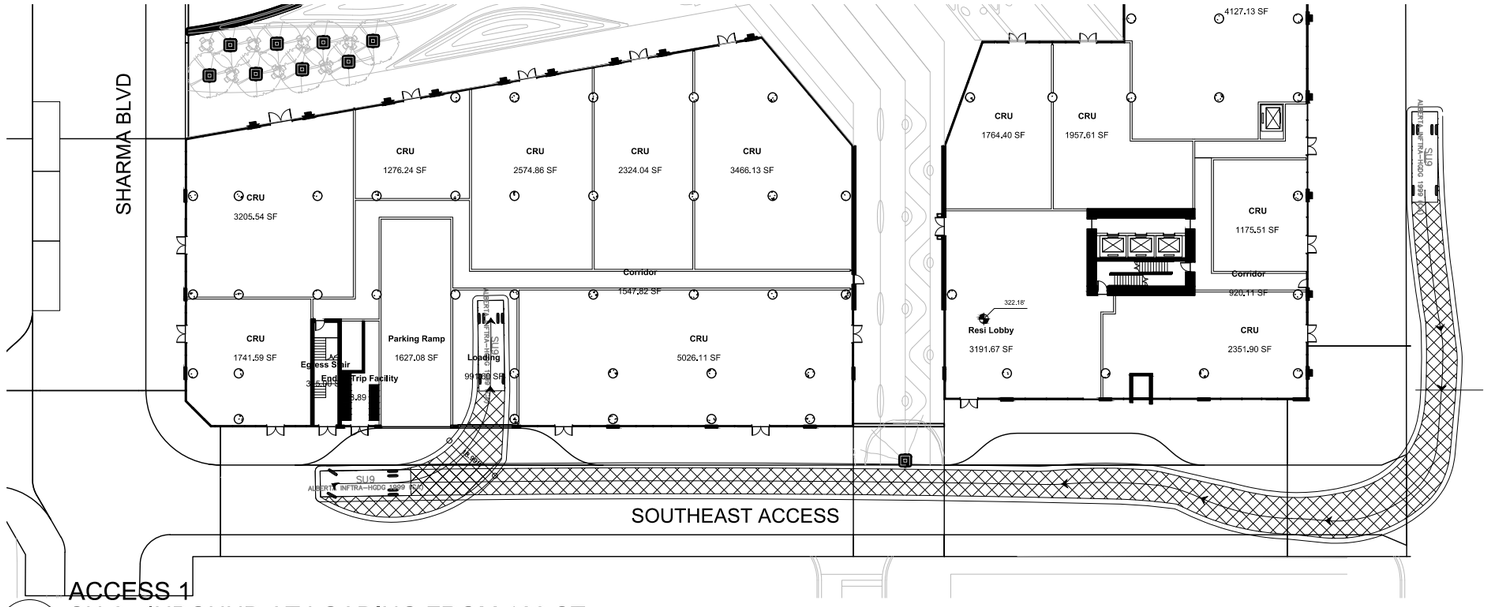


ACCESS 3
2.3 JITNEY- INBOUND AND OUTBOUND AT PARKADE ENTRANCE



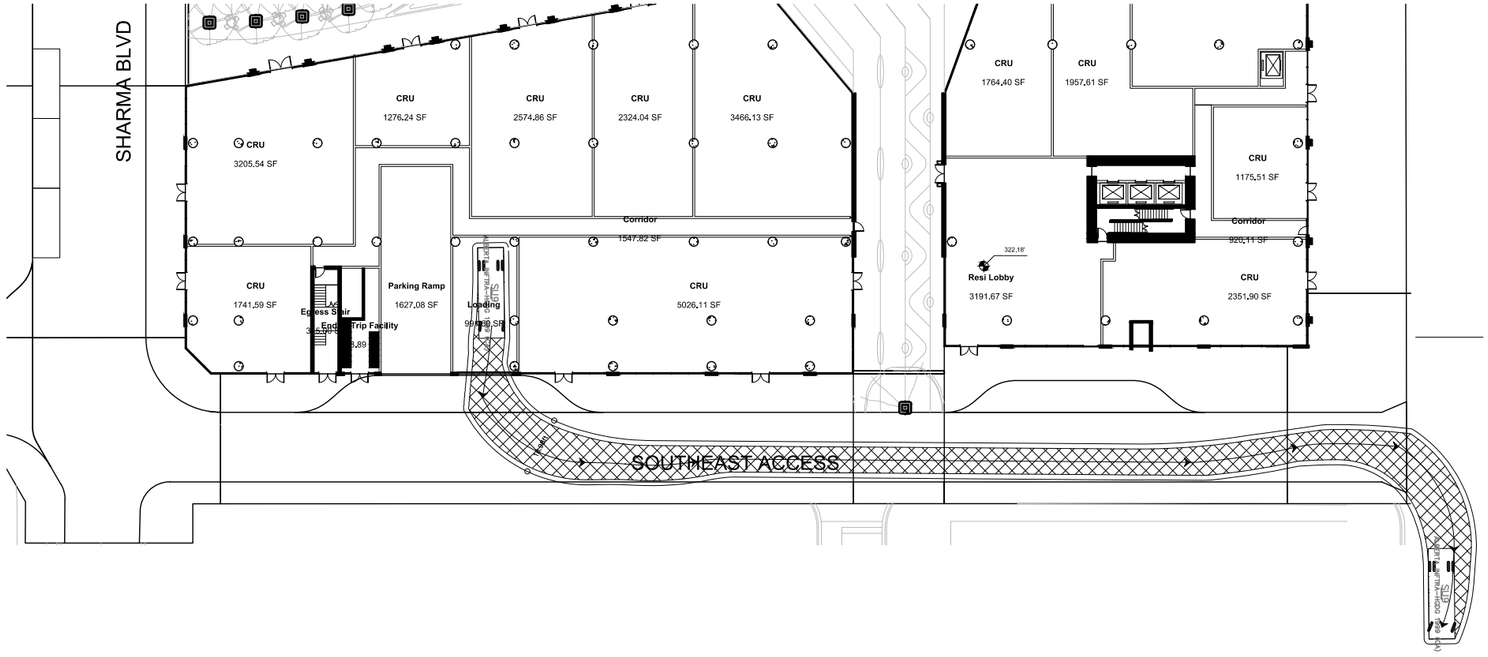
ACCESS 4
2.4 JITNEY- INBOUND AND OUTBOUND AT PARKADE ENTRANCE

8037-8087 SCOTT ROAD
SU-9 CIRCULATION



ACCESS 1
SU-9 - INBOUND AT LOADING FROM 120 ST

3.1

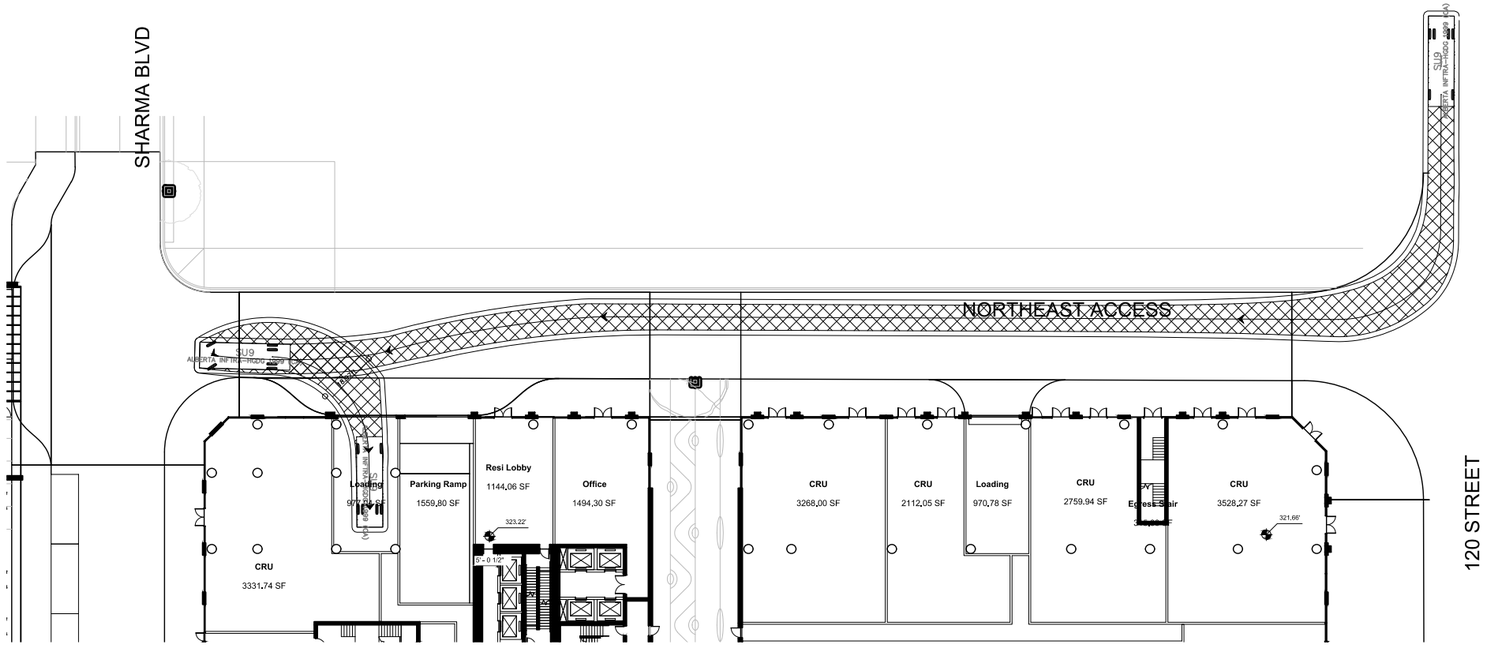


ACCESS 1
SU-9 - OUTBOUND FROM LOADING TO 120 ST

3.2

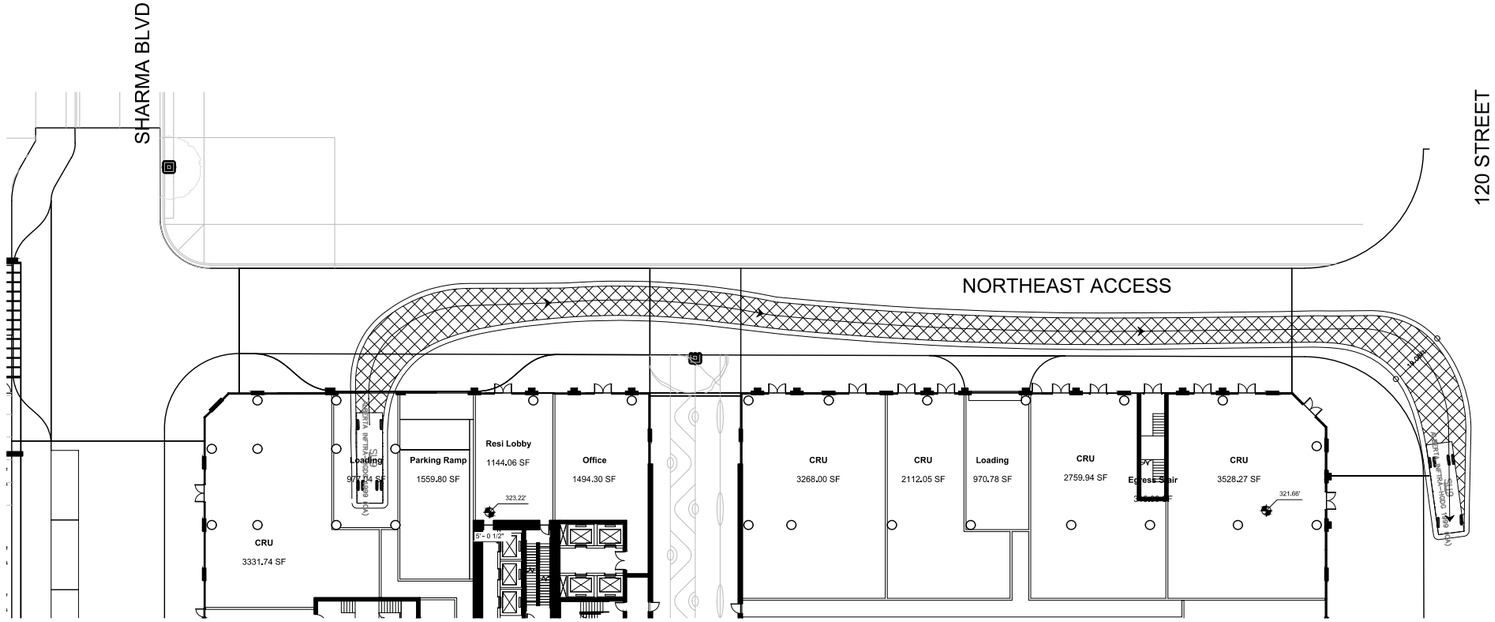
NOTE:
OUTLINE OUTSIDE OF VEHICLE BODY REPRESENTS A 0.50m ENVELOPE

8037-8087 SCOTT ROAD
SU-9 CIRCULATION



ACCESS 2
SU-9 - INBOUND AT LOADING FROM 120 ST

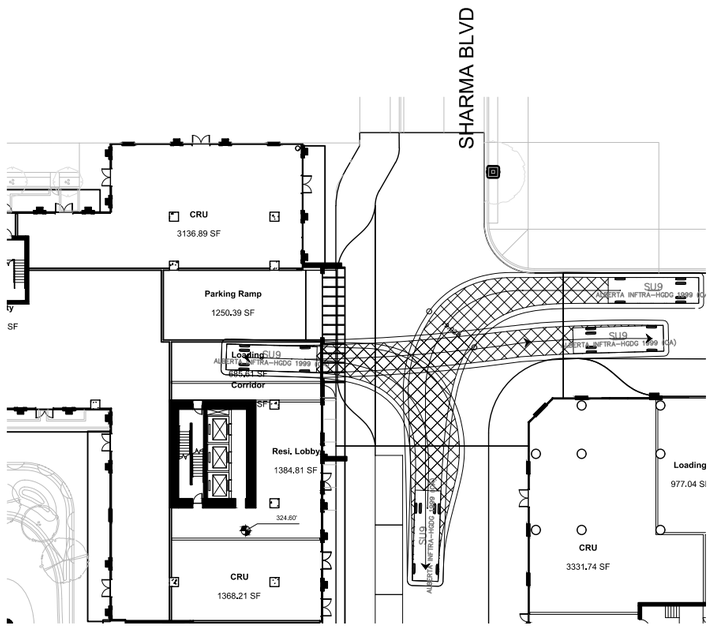
3.3



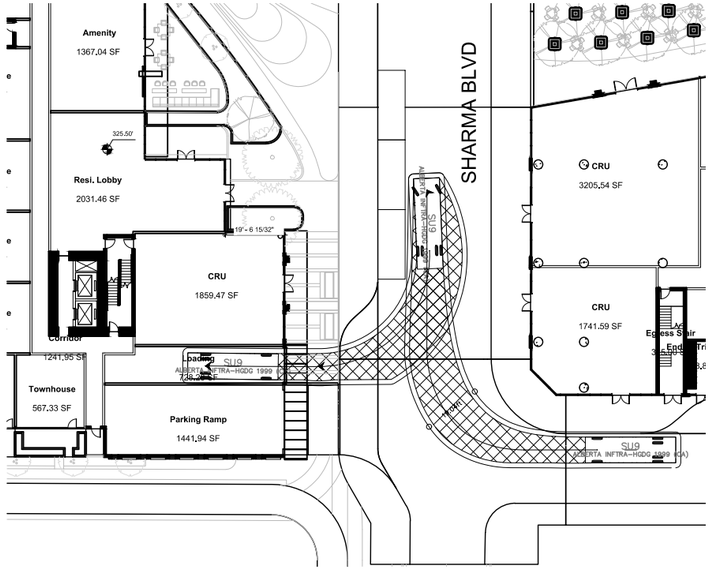
ACCESS 2
SU-9 - OUTBOUND FROM LOADING TO 120 ST

3.4

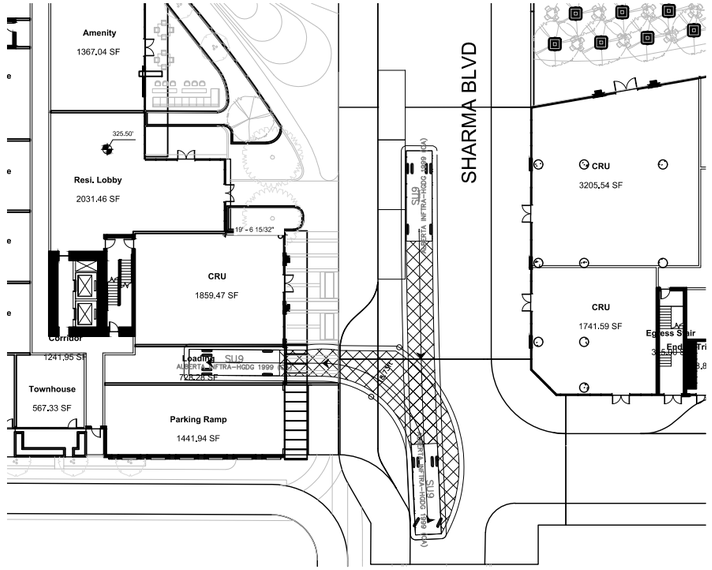
8037-8087 SCOTT ROAD
SU-9 CIRCULATION



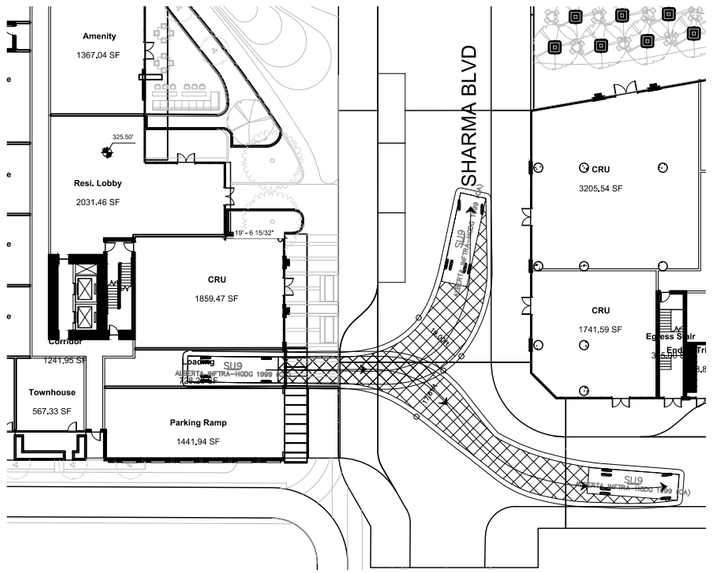
3.5 ACCESS 3
SU-9 - INBOUND AND OUTBOUND AT LOADING



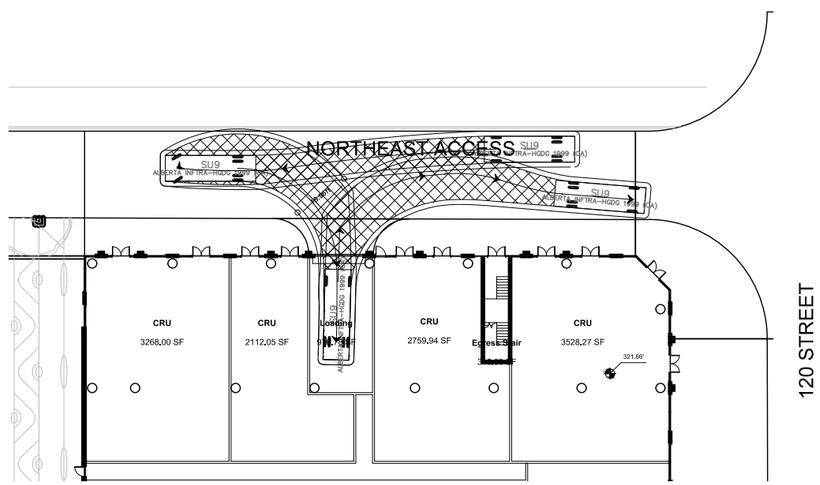
3.6 ACCESS 4
SU-9 - INBOUND AT LOADING



3.7 ACCESS 4
SU-9 - INBOUND AT LOADING

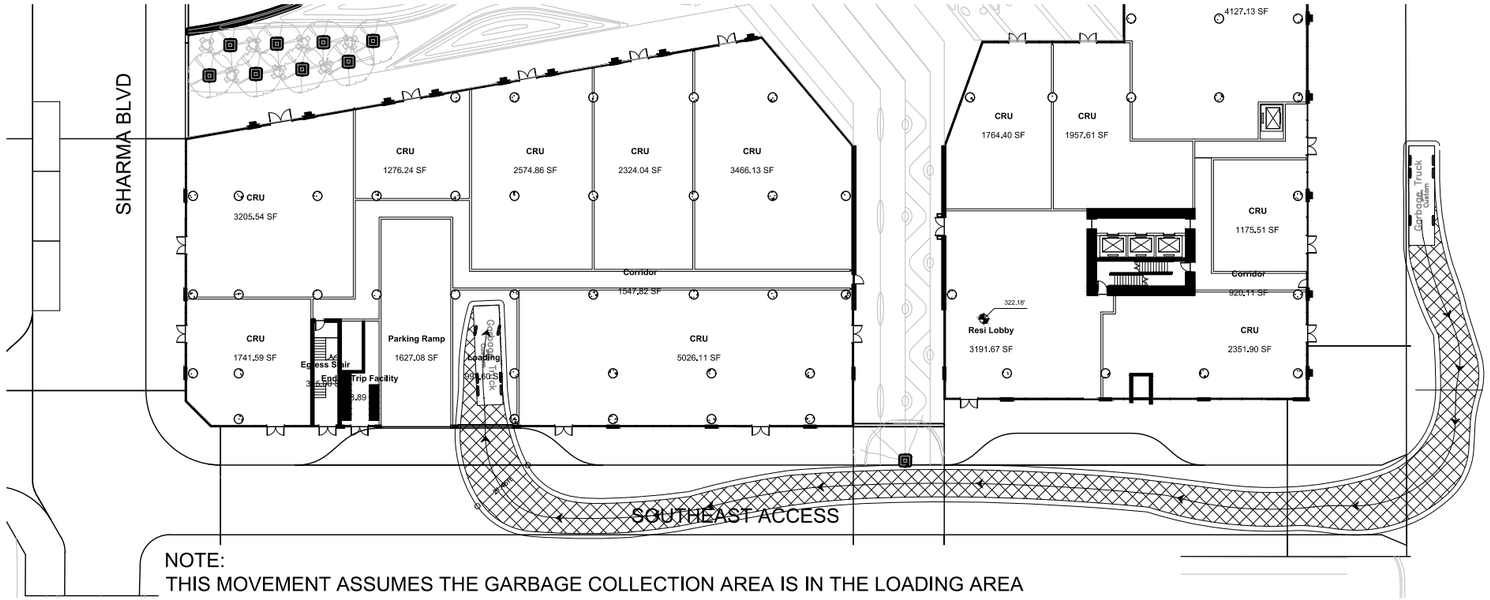


3.8 ACCESS 4
SU-9 - OUTBOUND FROM LOADING



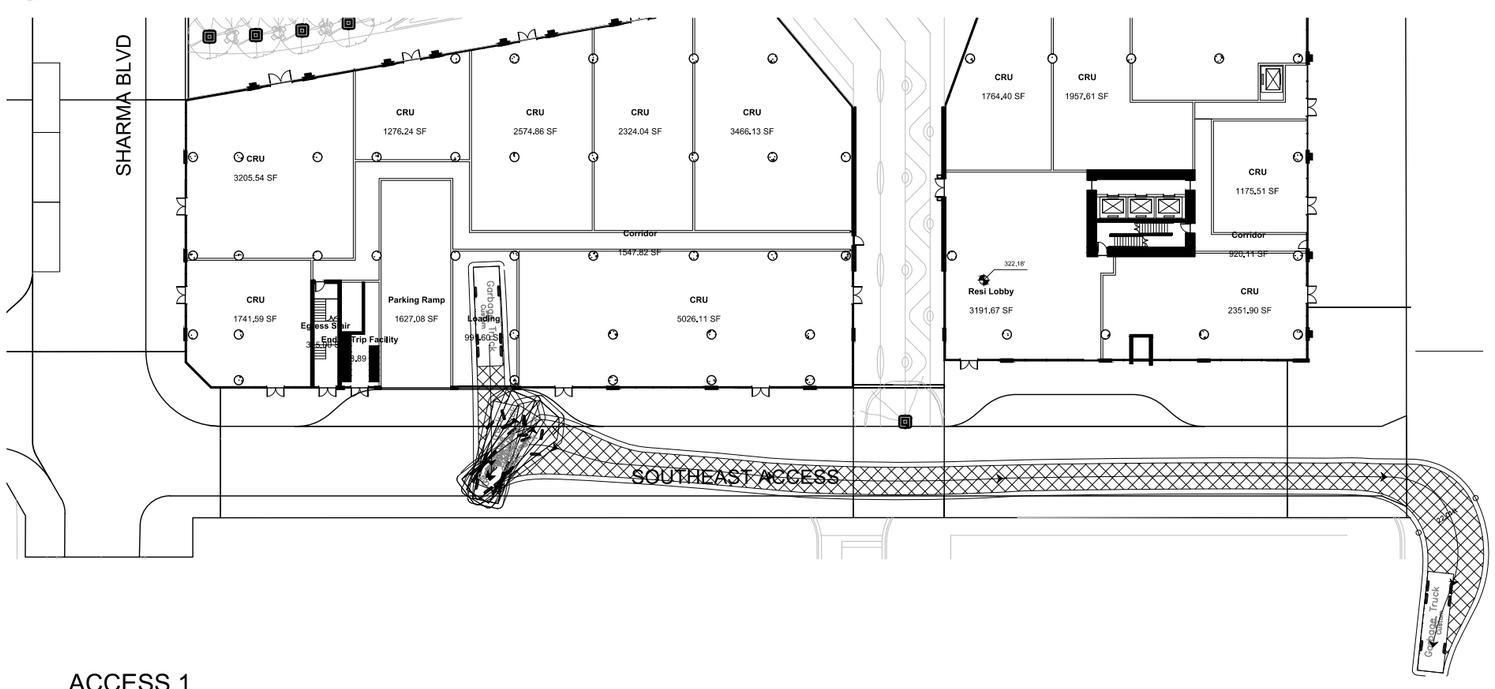
3.9 EX NORTHEAST ACCESS
SU-9 - INBOUND AND OUTBOUND AT LOADING

8037-8087 SCOTT ROAD
GARBAGE TRUCK CIRCULATION

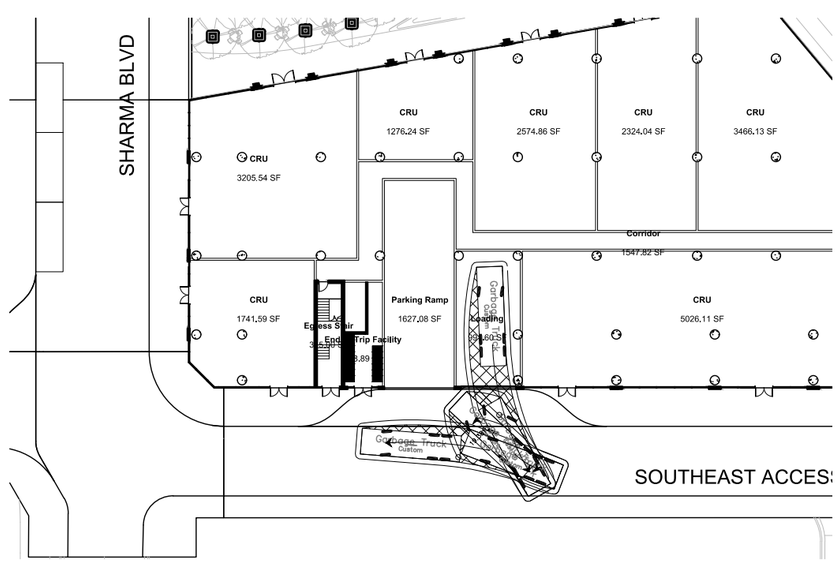


4.1a ACCESS 1
GARBAGE TRUCK - INBOUND FROM 120 ST TO COLLECTION

NOTE:
OUTLINE OUTSIDE OF VEHICLE BODY REPRESENTS A 0.50m ENVELOPE

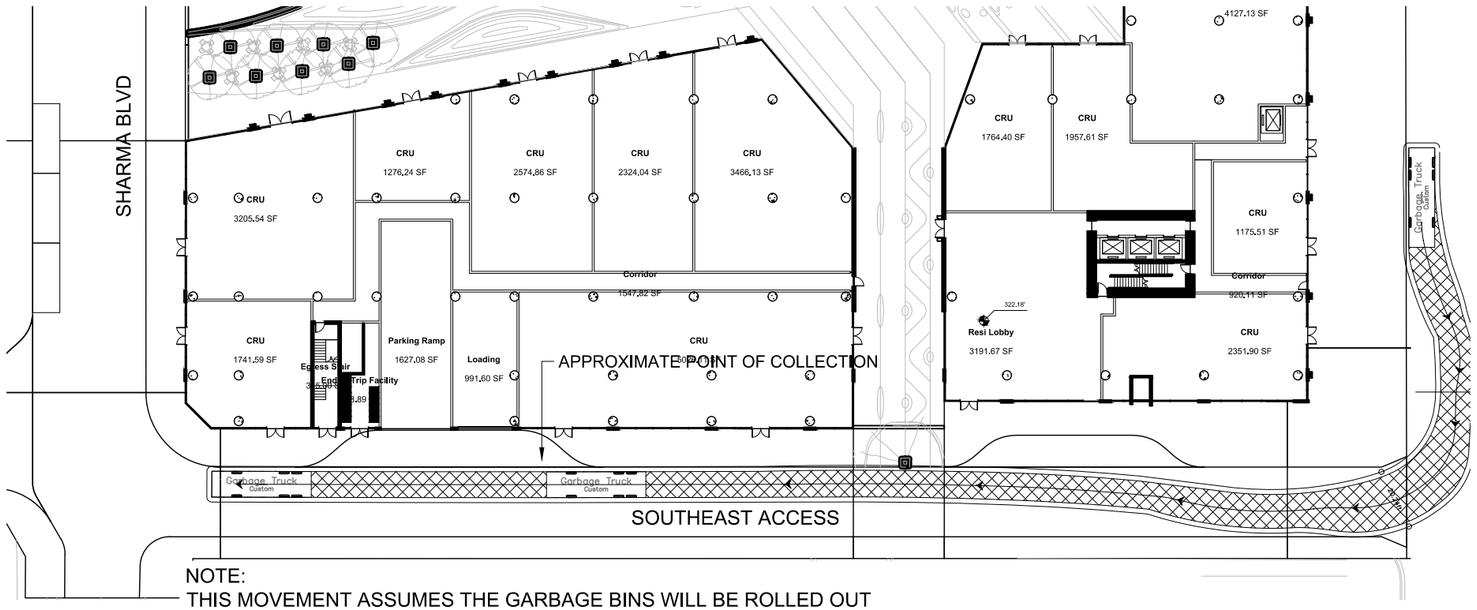


4.1b ACCESS 1
GARBAGE TRUCK - OUTBOUND FROM COLLECTION TO 120 ST



4.1c ACCESS 1
GARBAGE TRUCK - OUTBOUND FROM COLLECTION TO SHARMA BLVD

8037-8087 SCOTT ROAD
GARBAGE TRUCK CIRCULATION

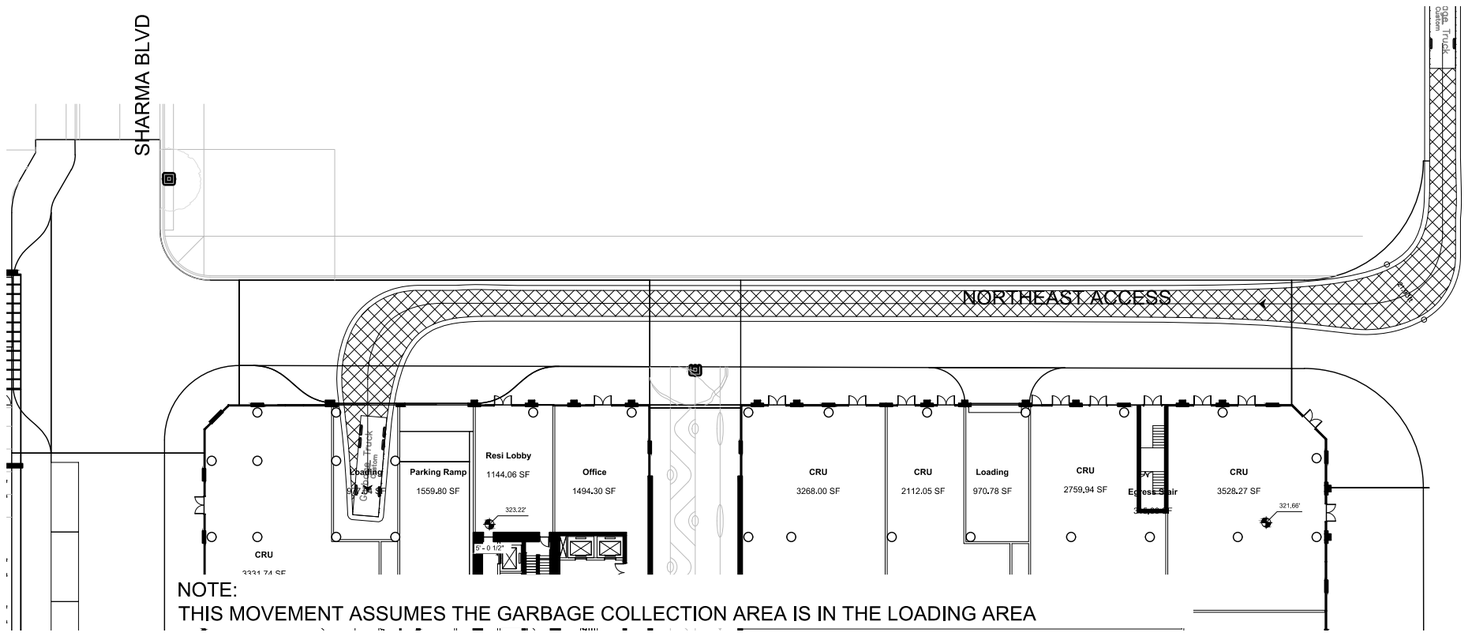


NOTE:
THIS MOVEMENT ASSUMES THE GARBAGE BINS WILL BE ROLLED OUT

NOTE:
OUTLINE OUTSIDE OF VEHICLE BODY REPRESENTS A 0.50m ENVELOPE

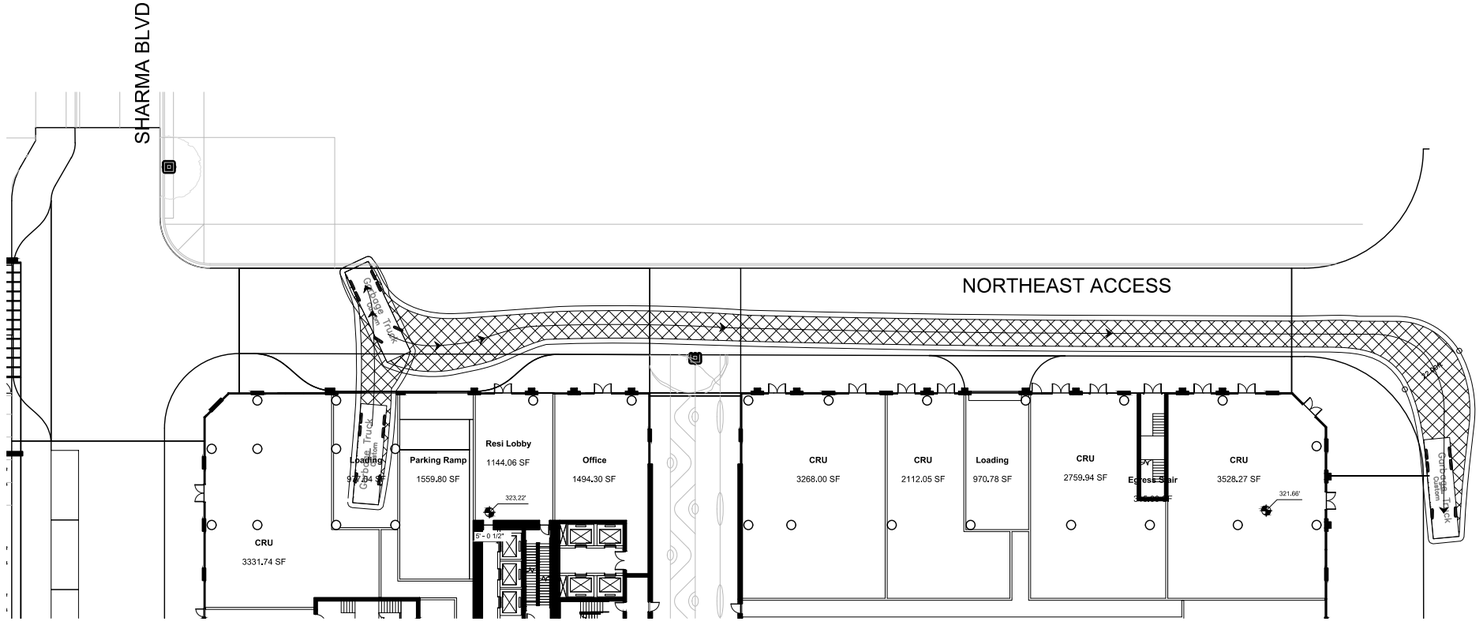
4.2 ACCESS 1
GARBAGE TRUCK - INBOUND AND OUTBOUND AT GARBAGE COLLECTION

8037-8087 SCOTT ROAD
GARBAGE TRUCK CIRCULATION



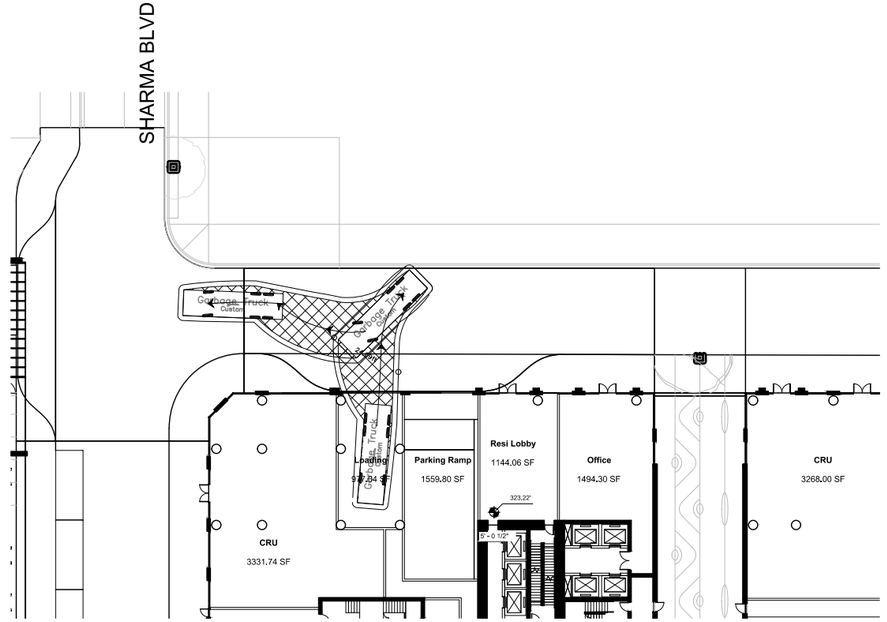
ACCESS 2
GARBAGE TRUCK - INBOUND FROM 120 ST TO COLLECTION

4.3a



ACCESS 2
GARBAGE TRUCK - OUTBOUND FROM COLLECTION TO 120 ST

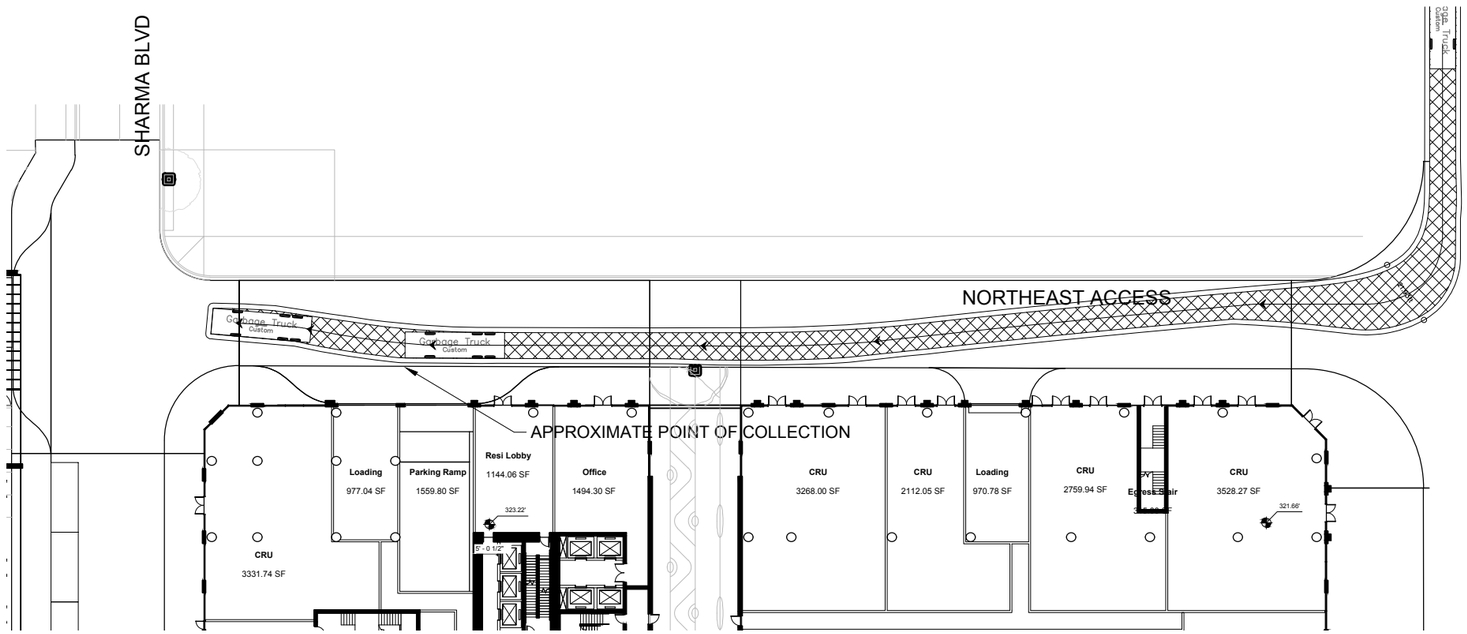
4.3b



ACCESS 2
GARBAGE TRUCK - OUTBOUND FROM COLLECTION TO SHARMA BLVD

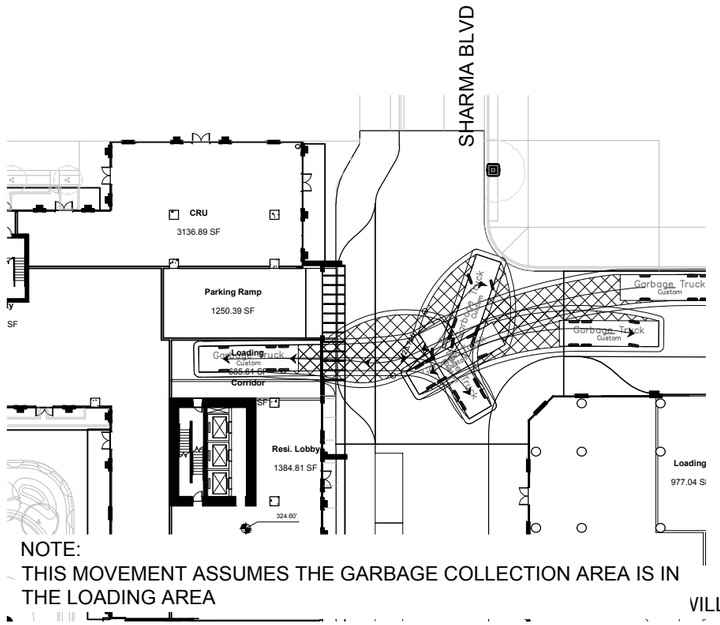
4.3c

8037-8087 SCOTT ROAD
GARBAGE TRUCK CIRCULATION



ACCESS 2
GARBAGE TRUCK - INBOUND AND OUTBOUND AT GARBAGE COLLECTION

4.4

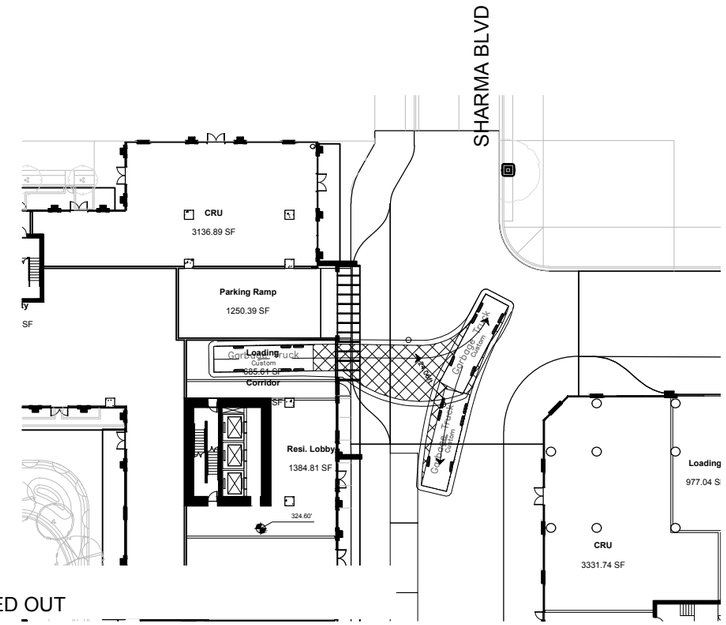


NOTE:
THIS MOVEMENT ASSUMES THE GARBAGE COLLECTION AREA IS IN
THE LOADING AREA

VILL BE ROLLED OUT

ACCESS 3
GARBAGE TRUCK - INBOUND AND OUTBOUND TO 120 ST

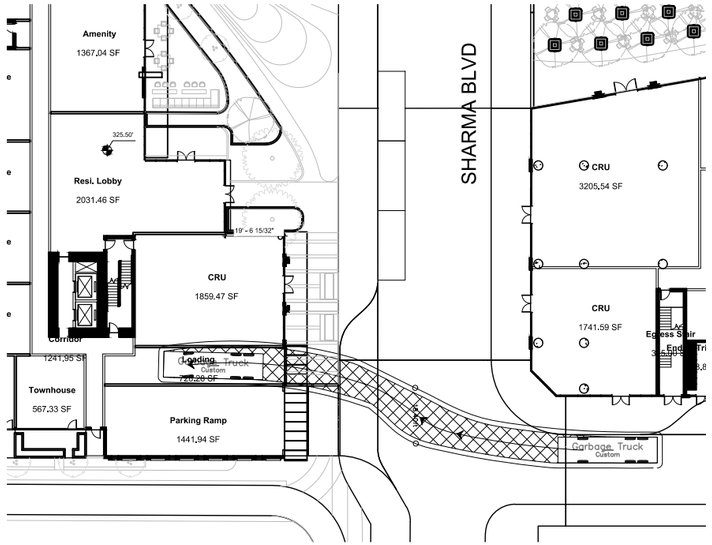
4.5



ACCESS 3
GARBAGE TRUCK - OUTBOUND TO SHARMA BLVD

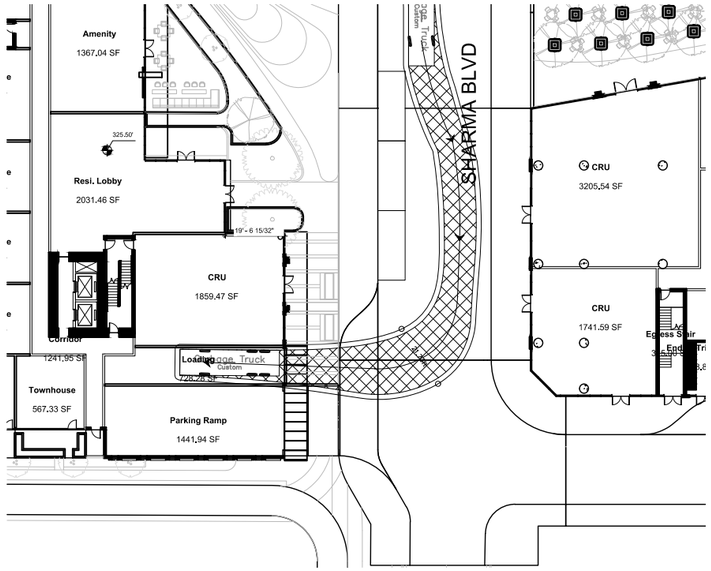
4.6

8037-8087 SCOTT ROAD
GARBAGE TRUCK CIRCULATION

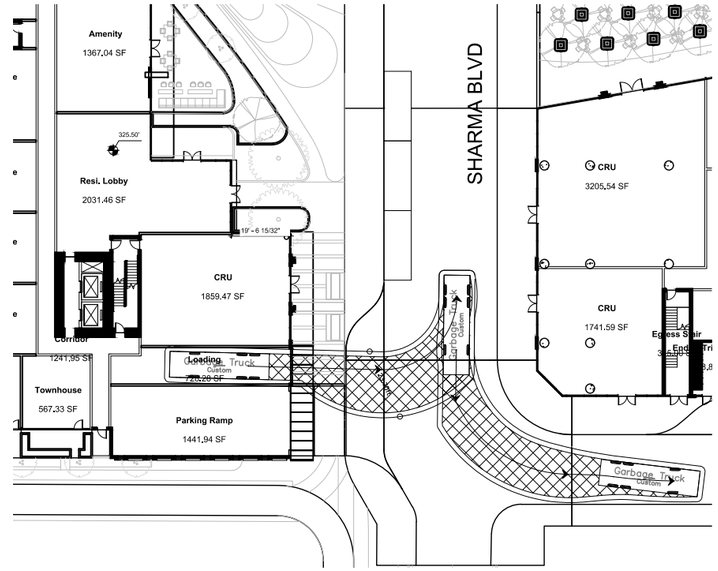


NOTE:
THIS MOVEMENT ASSUMES THE GARBAGE COLLECTION AREA IS IN THE LOADING AREA

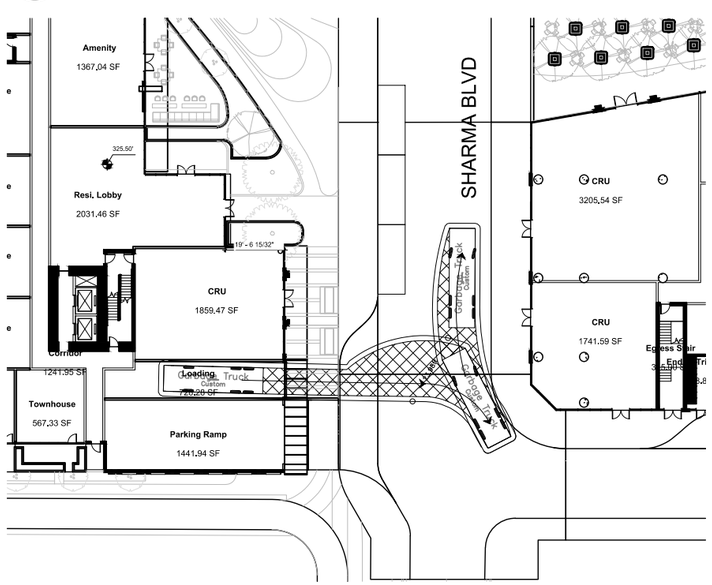
4.7a ACCESS 4
GARBAGE - INBOUND AT LOADING



4.7b ACCESS 4
GARBAGE - INBOUND AT LOADING

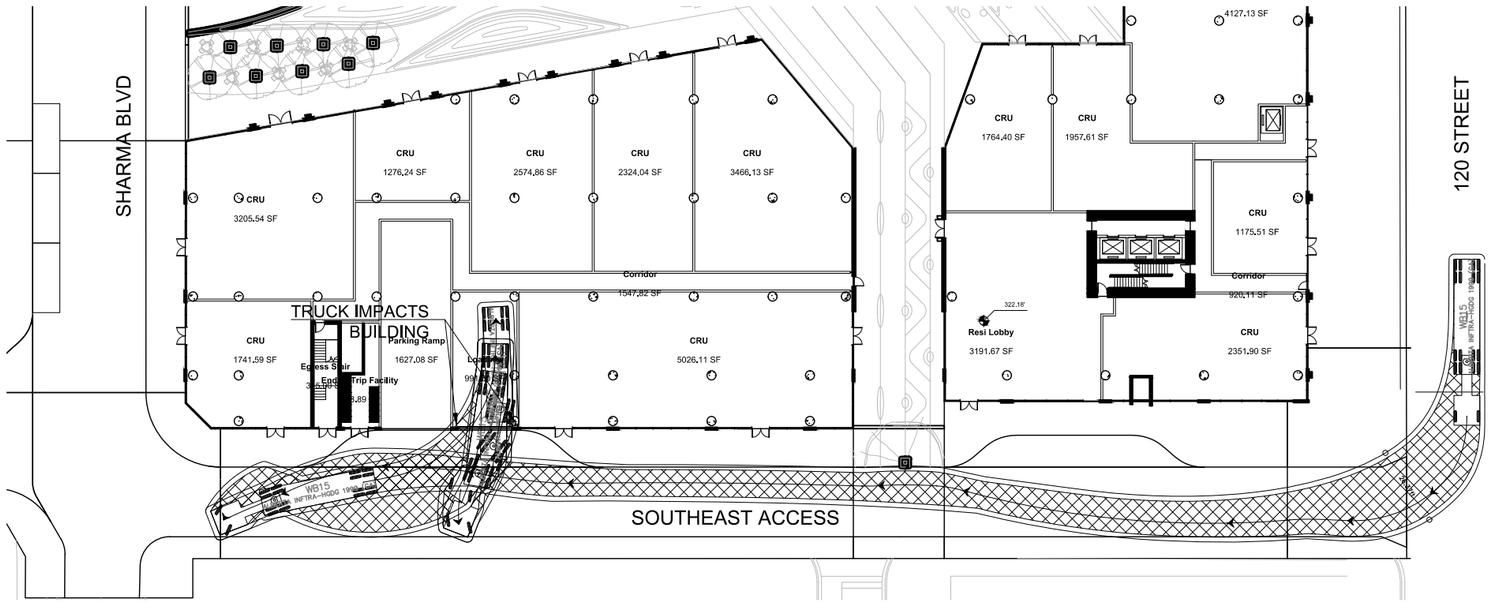


4.7c ACCESS 4
GARBAGE - OUTBOUND FROM LOADING

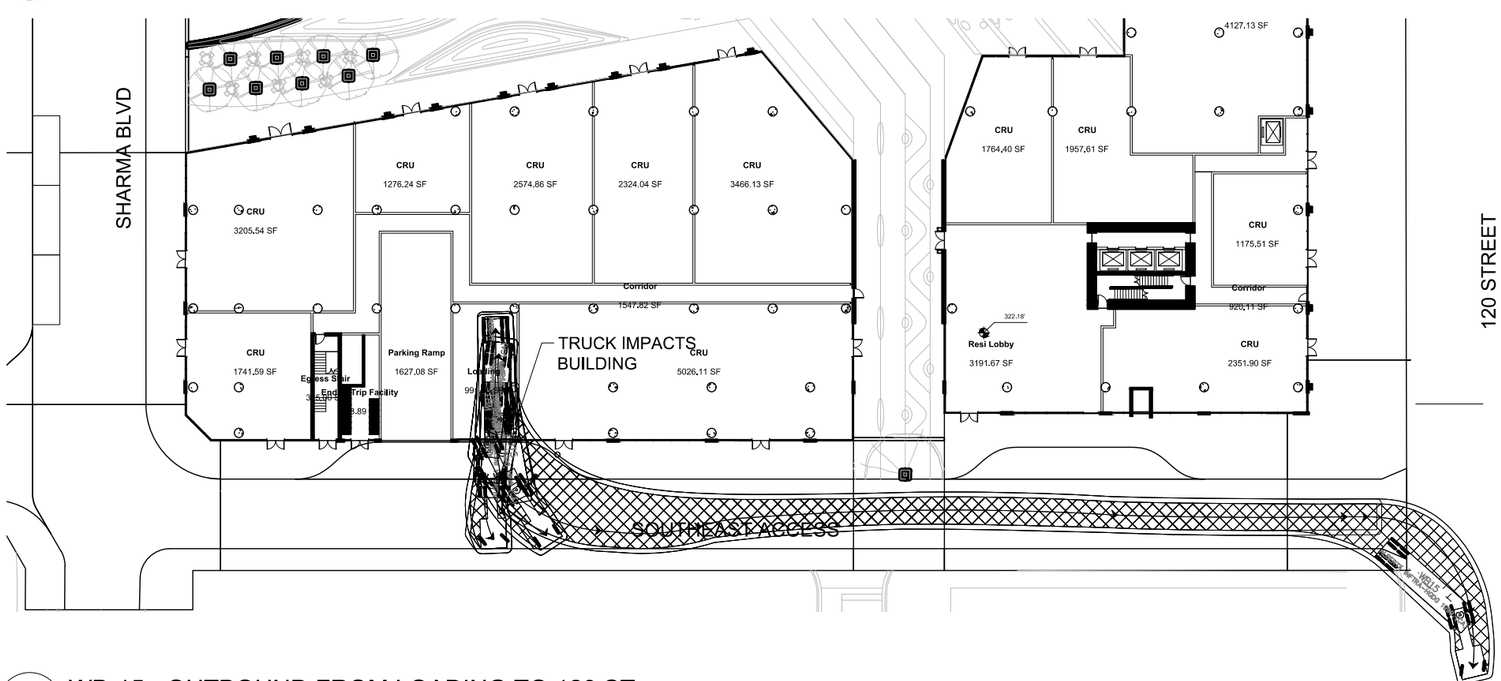


4.7d ACCESS 4
GARBAGE - OUTBOUND FROM LOADING

8037-8087 SCOTT ROAD
WB-15 CIRCULATION



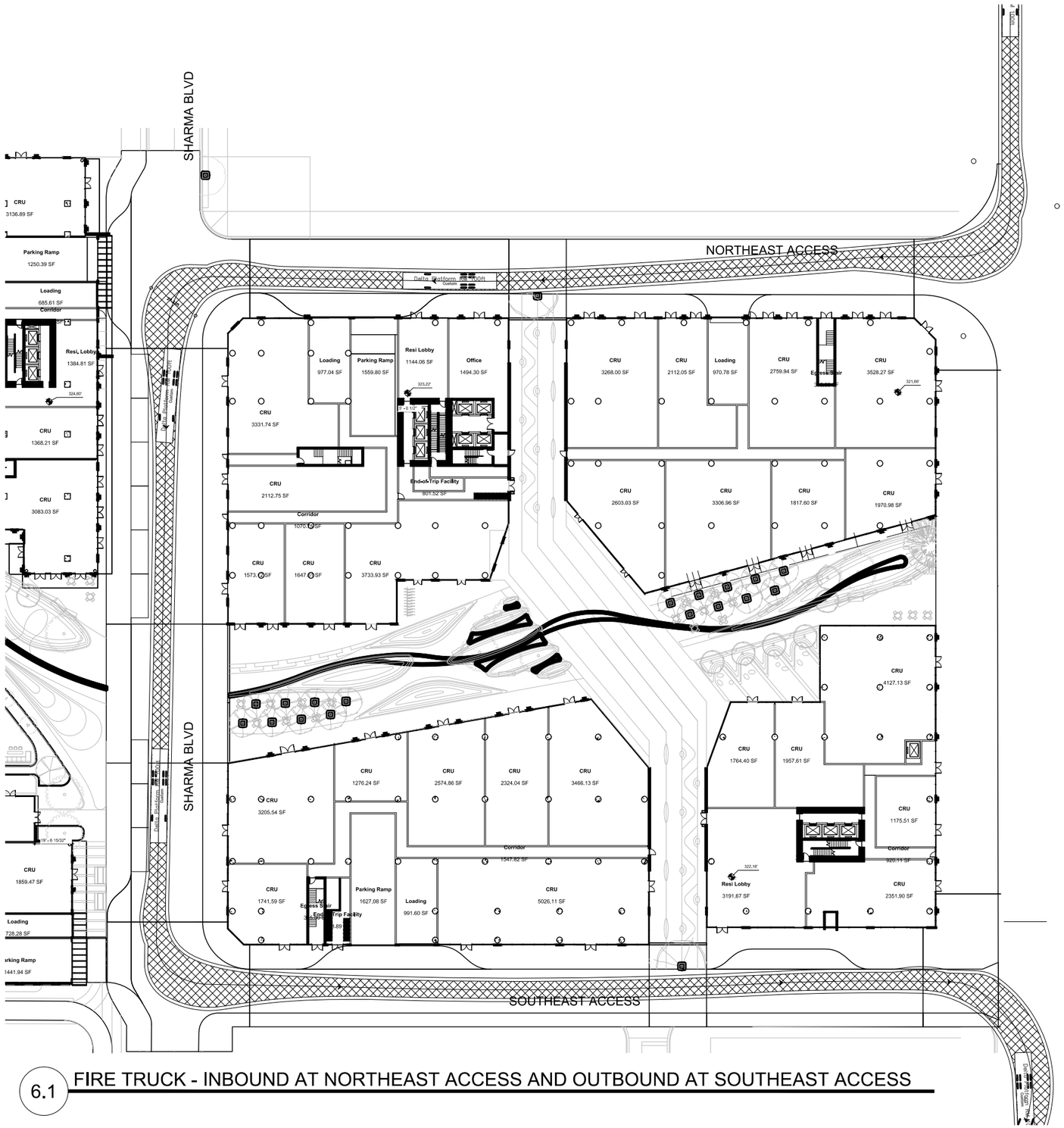
5.1 WB-15 - INBOUND FROM 120 ST TO LOADING



5.2 WB-15 - OUTBOUND FROM LOADING TO 120 ST

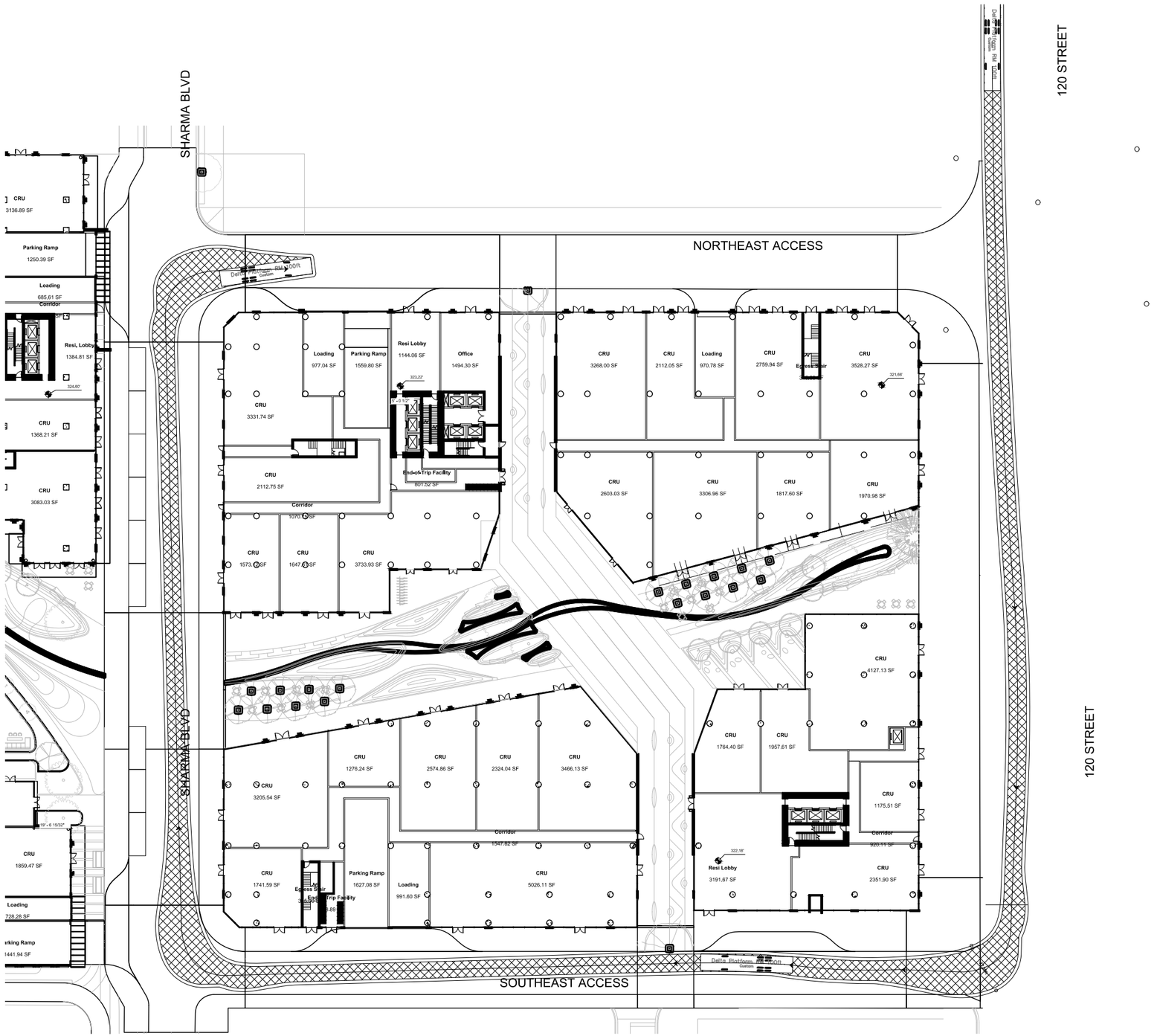
NOTE:
OUTLINE OUTSIDE OF VEHICLE BODY REPRESENTS A 0.50m ENVELOPE

8037-8087 SCOTT ROAD
FIRE TRUCK CIRCULATION



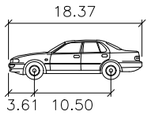
6.1 FIRE TRUCK - INBOUND AT NORTHEAST ACCESS AND OUTBOUND AT SOUTHEAST ACCESS

8037-8087 SCOTT ROAD
FIRE TRUCK CIRCULATION



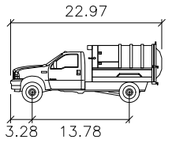
6.2 FIRE TRUCK - INBOUND AT SOUTHEAST ACCESS AND OUTBOUND AT NORTHEAST ACCESS

8037-8087 SCOTT ROAD
VEHICLE PROFILES



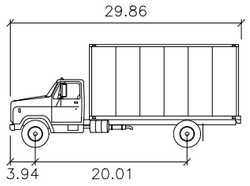
P

	feet
Width	: 6.56
Track	: 6.56
Lock to Lock Time	: 6.0
Steering Angle	: 35.9



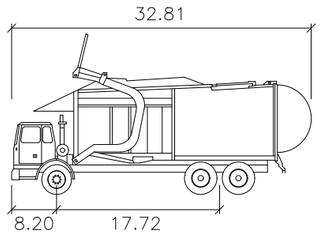
Jitney

	feet
Width	: 7.55
Track	: 7.55
Lock to Lock Time	: 6.0
Steering Angle	: 49.9



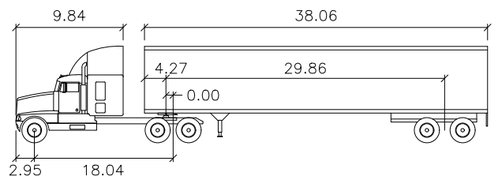
SU9

	feet
Width	: 8.53
Track	: 8.53
Lock to Lock Time	: 6.0
Steering Angle	: 31.5



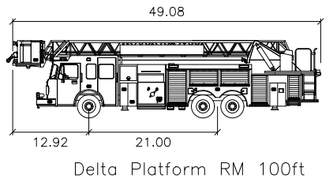
Garbage Truck

	feet
Width	: 8.53
Track	: 8.53
Lock to Lock Time	: 6.0
Steering Angle	: 35.9



WB15

	feet		
Tractor Width	: 8.53	Lock to Lock Time	: 6.0
Trailer Width	: 8.53	Steering Angle	: 26.0
Tractor Track	: 8.53	Articulating Angle	: 70.0
Trailer Track	: 8.53		



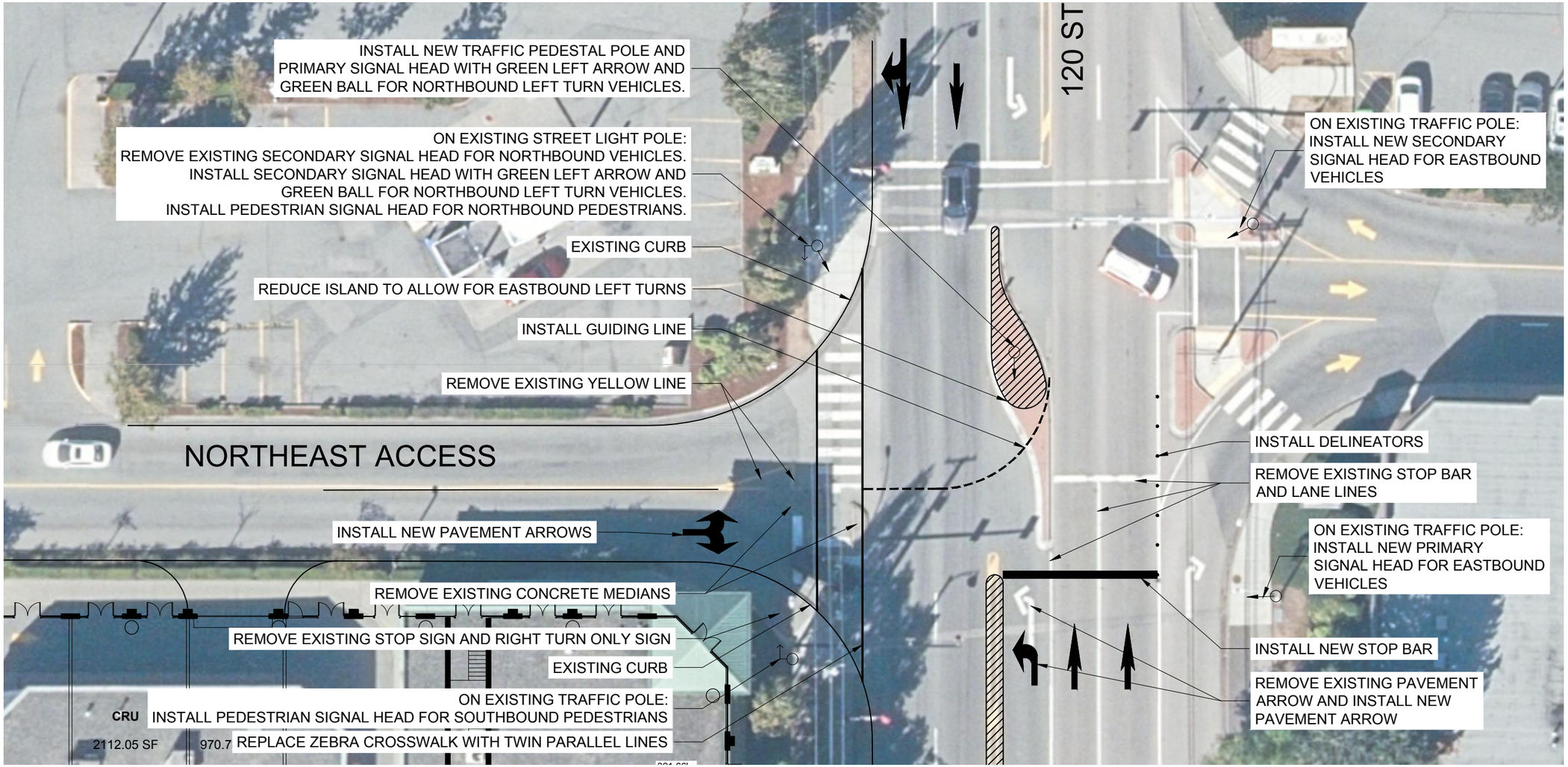
Delta Platform RM 100ft

	feet
Width	: 8.70
Track	: 7.83
Lock to Lock Time	: 5.0
Steering Angle	: 39.0

Appendix K

Preliminary Road Layout Concept Drawings

8037-8087 SCOTT ROAD
NORTHEAST ACCESS FUNCTIONAL DESIGN



LEGEND:

NEW / MODIFIED MEDIANS

TRAFFIC POLE / STREET LIGHT POLE

PEDESTRIAN SIGNAL HEAD

SIGNAL HEAD

8037-8087 SCOTT ROAD
NORTHEAST ACCESS FUNCTIONAL DESIGN - FIRE TRUCK CIRCULATION

