

# Appendix

## Meridian Centre Boulevard Extension Study



Prepared For  
The Town Of Brighton

Prepared By  
Stantec Consulting Services Inc

Sponsor By  
Genesee Transportation Council

July 2007

Appendix - Meridian Centre Boulevard Extension  
Town Of Brighton  
July 2007

## **Appendixes**

Appendix A - Trip Generation Calculations

Appendix B - GTC Regional Travel Forecasting Model and Results

Appendix C – Synchro 7 - Traffic Analysis CD Files

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## **Appendix A**

### **Trip Generation Calculations**

Summary of Multi-Use Trip Generation  
 Average Weekday Driveway Volumes  
 March 29, 2007

Land Use	Size	24 Hour Two-Way Volume	AM Pk Hour Enter	Exit	PM Pk Hour Enter	Exit
Elderly Housing - Attached	160 Occupied Dwelling Units	557	6	6	11	6
Medical-Dental Office Building	58 Th.Gr.Sq.Ft.	2096	114	30	58	158
Total		2653	120	36	69	164

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation  
 Saturday and Sunday Driveway Volumes  
 March 29, 2007

Land Use	Size	Saturday			Sunday		
		24 Hr	Peak Hour	24 Hr	Peak Hour	24 Hr	Peak Hour
		2-Way Vol.	Enter	Exit	2-Way Vol.	Enter	Exit
Elderly Housing - Attached	160 Occupied Dwelling Units	402	0	0	432	0	0
Medical-Dental Office Building	58 Th.Gr.Sq.Ft.	520	120	90	90	12	11
<b>Total</b>		<b>922</b>	<b>120</b>	<b>90</b>	<b>522</b>	<b>12</b>	<b>11</b>

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation  
 Average Weekday Driveway Volumes  
 February 09, 2007

Land Use	Size	24 Hour Two-Way Volume	AM Pk Hour Enter	Hour Exit	PM Pk Hour Enter	Hour Exit
Single Family Detached Housing						
	50 Dwelling Units	550	11	33	36	21
Low-Rise Apartment	225 Occupied Dwelling Units	1540	22	84	90	48
Residential Condominium / Townhouse						
	70 Dwelling Units	474	7	32	30	15
Residential Condominium / Townhouse						
	67 Dwelling Units	457	6	31	29	14
Rental Townhouse	106 Dwelling Units	0	24	50	39	37
Total		3021	70	230	224	135

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation  
 Saturday and Sunday Driveway Volumes  
 February 09, 2007

Land Use	Size	Saturday			Sunday		
		24 Hr 2-Way Vol.	Peak Hour Enter	Hour Exit	24 Hr 2-Way Vol.	Peak Hour Enter	Hour Exit
Single Family Detached Housing	50 Dwelling Units	549	30	25	432	27	24
Low-Rise Apartment	225 Occupied Dwelling Units	1585	69	59	1357	65	58
Residential Condominium / Townhouse	70 Dwelling Units	681	34	29	576	32	34
Residential Condominium / Townhouse	67 Dwelling Units	670	34	29	567	32	33
Rental Townhouse	106 Dwelling Units	0	0	0	0	0	0
<b>Total</b>		<b>3485</b>	<b>167</b>	<b>142</b>	<b>2932</b>	<b>156</b>	<b>149</b>

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Average Vehicle Trip Generation  
 For 183 Dwelling Units of Single Family Detached Housing  
 March 27, 2007

	24 Hour Two-Way Volume	7-9 AM Pk Hour		4-6 PM Pk Hour	
		Enter	Exit	Enter	Exit
Average Weekday	1751	35	102	117	68

	24 hour Two-Way Volume	Peak Hour	
		Enter	Exit
Saturday	1848	93	79
Sunday	1607	84	73

Note: A zero indicates no data available.  
 Source: Institute of Transportation Engineers  
 Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS



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## **Appendix B**

### **GTC Regional Travel Forecasting Model and Results**

# Meridian Centre Boulevard Extension Modeling

*(Requested by Stantec)*

Relating to UPWP Project:

- Meridian Centre Boulevard Extension Study (Task 6631)

## **Considerations/Variables for Modeling:**

- Design (Scenario) Years
  - 2005
  - 2025
- Additional Proposed Improvements
  - Check Alignment of new I-390 Off-Ramp to B-HTL Rd. and include in 2005
  - Senator Keating Blvd. extended east to connect with S. Winton Rd.
  - I-590 / Winton Rd. Interchange Improvements
  - Meridian Centre Blvd. extension west to connect with S. Clinton Ave.
- Land Use Modifications (2005, 2025)
  - Incorporation of Existing and Planned/Proposed Land Use as provided by Stantec
- Select Link & TAZ Analysis
  - Identify Meridian Centre Blvd. Extension & TAZ 400 local traffic

## **Scenario Details:**

**2005\_RevBASE\_C** (or 2006) – Existing, Revised Base Year, Constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd. (completed in 2006)

**2005\_RevBASE\_U** (or 2006) – Existing, Revised Base Year, Un-constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd. (completed in 2006)

**2005\_SelectLink\_Meridian** – Existing, Revised Base Year with Meridian Centre Blvd. extended for Select Link Analysis

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd. (completed in 2006)
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

**2005\_SelectLink\_TAZ** – Existing, Revised Base Year with Meridian Centre Blvd. extended for Select TAZ Analysis

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd. (completed in 2006)
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

**2025\_RevBASE\_C** – Future, Revised Base Year, Constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements

**2025\_RevBASE\_U** – Future, Revised Base Year, Un-constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements

**2025\_Meridian\_C** – Future, Revised Base Year with Meridian Centre Blvd. extended, Constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

**2025\_Meridian\_U** – Future, Revised Base Year with Meridian Centre Blvd. extended, Un-constrained

- Includes new I-390 Ramp to Brighton-Henrietta Townline (B-HTL) Rd.
- Includes the extension of Sen. Keating Blvd. to S. Winton Rd.
- Includes the I-590 / Winton Rd. interchange improvements
- Includes the extension of Meridian Centre Blvd. to S. Clinton Ave.

*Note: Constrained Model Scenarios are run with a normal number of iterations*

*Un-constrained Model Scenarios are run with a single iteration*

- *this methodology was agreed upon to attempt to isolate the traffic that is diverted as a result of congestion on Interstates, specifically I-390 at the East and West Henrietta Rd. exits*

## Land Use Modifications

### 2005 Model Land Use

TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	16	Retail Employment	0
Manufacturing Employment	91	Manufacturing Employment	4
Other Employment	709	Other Employment	440
<b>Total Employment</b>	<b>816</b>	<b>Total Employment</b>	<b>444</b>
HH's with 0 Vehicles	101	HH's with 0 Vehicles	0
HH's with 1 Vehicle	61	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	0
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
<b>Total Households</b>	<b>162</b>	<b>Total Households</b>	<b>0</b>

### 2005 Land Use (per Stantec Calculations)

TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	32	Retail Employment	0
Manufacturing Employment	180	Manufacturing Employment	13
Other Employment	1,404	Other Employment	1,380
<b>Total Employment</b>	<b>1,616</b>	<b>Total Employment</b>	<b>1,393</b>
HH's with 0 Vehicles	0	HH's with 0 Vehicles	0
HH's with 1 Vehicle	241	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	0
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
<b>Total Households</b>	<b>241</b>	<b>Total Households</b>	<b>0</b>

### 2025 Model Land Use

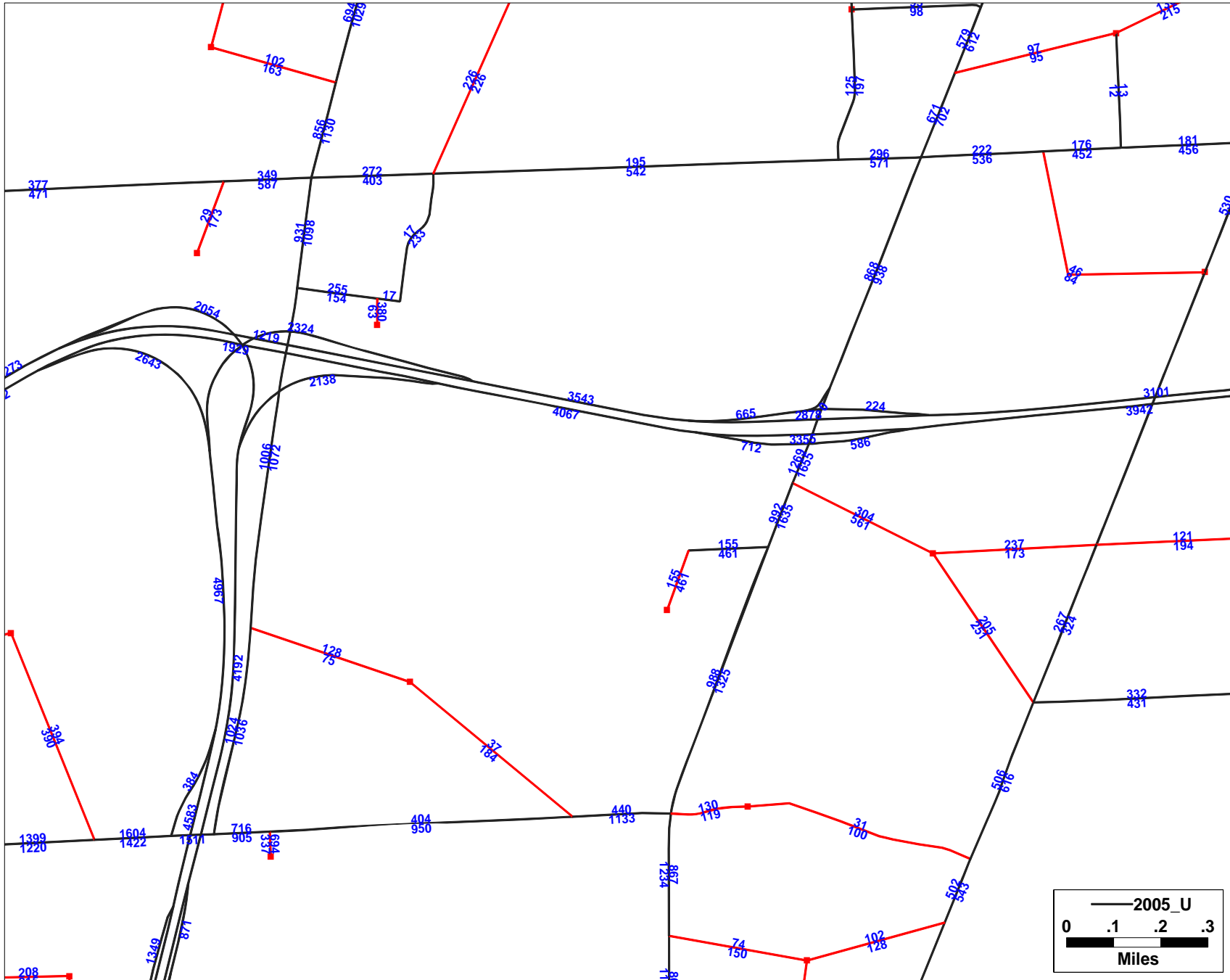
TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	17	Retail Employment	0
Manufacturing Employment	90	Manufacturing Employment	4
Other Employment	750	Other Employment	466
<b>Total Employment</b>	<b>857</b>	<b>Total Employment</b>	<b>470</b>
HH's with 0 Vehicles	106	HH's with 0 Vehicles	0
HH's with 1 Vehicle	63	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	0
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
<b>Total Households</b>	<b>169</b>	<b>Total Households</b>	<b>0</b>

### 2025 Land Use (per Stantec Calculations)

TAZ 400 (Meridian Centre Blvd. vicinity)		TAZ 199 (Keating/Lac de Ville vicinity)	
Retail Employment	32	Retail Employment	0
Manufacturing Employment	180	Manufacturing Employment	22
Other Employment	1,404	Other Employment	2,521
<b>Total Employment</b>	<b>1,616</b>	<b>Total Employment</b>	<b>2,543</b>
HH's with 0 Vehicles	0	HH's with 0 Vehicles	0
HH's with 1 Vehicle	319	HH's with 1 Vehicle	0
HH's with 2 Vehicles	0	HH's with 2 Vehicles	447
HH's with 3 or more Vehicles	0	HH's with 3 or more Vehicles	0
<b>Total Households</b>	<b>319</b>	<b>Total Households</b>	<b>447</b>

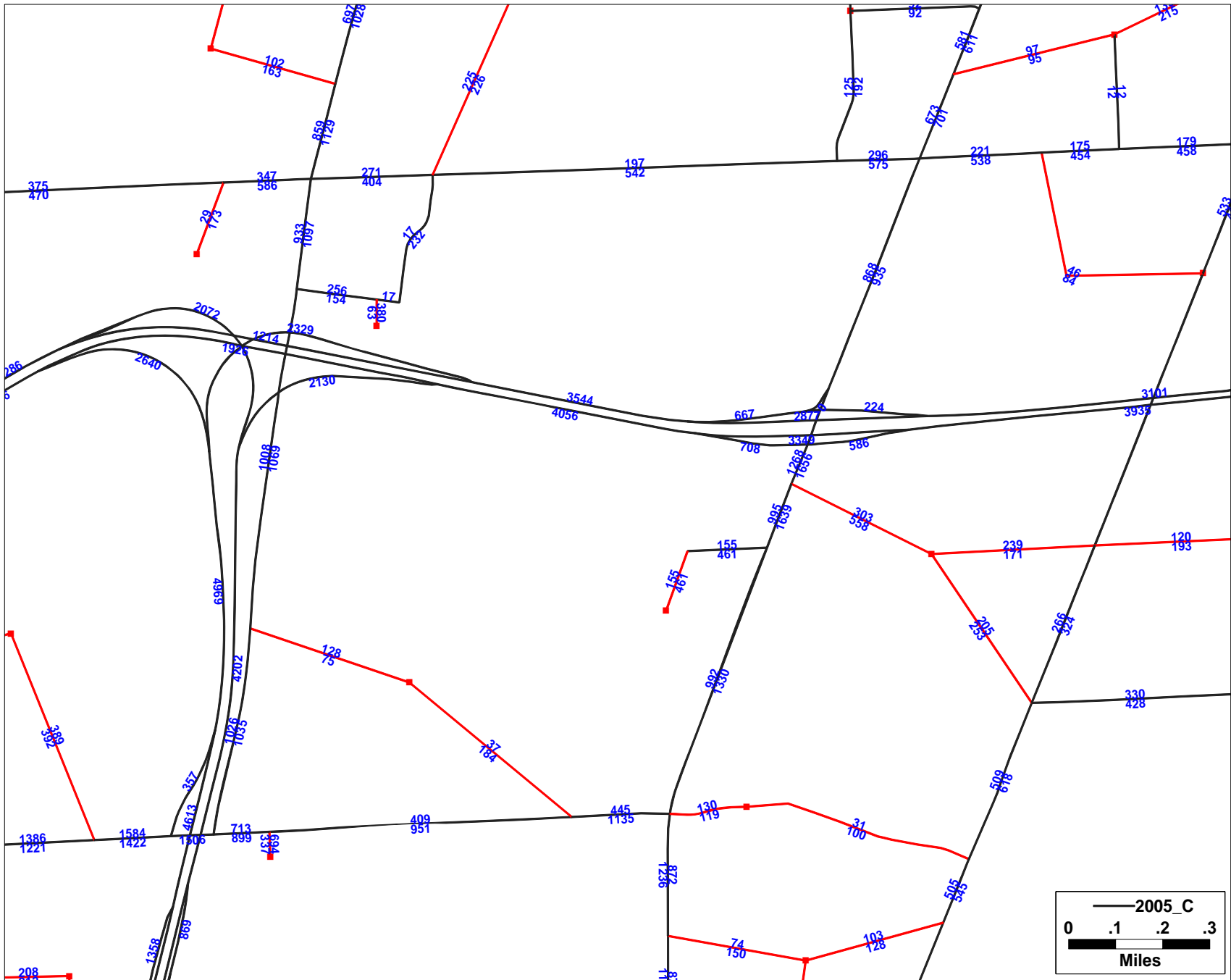
# 2005 (Unconstrained)

(PM Peak Hour Volumes)



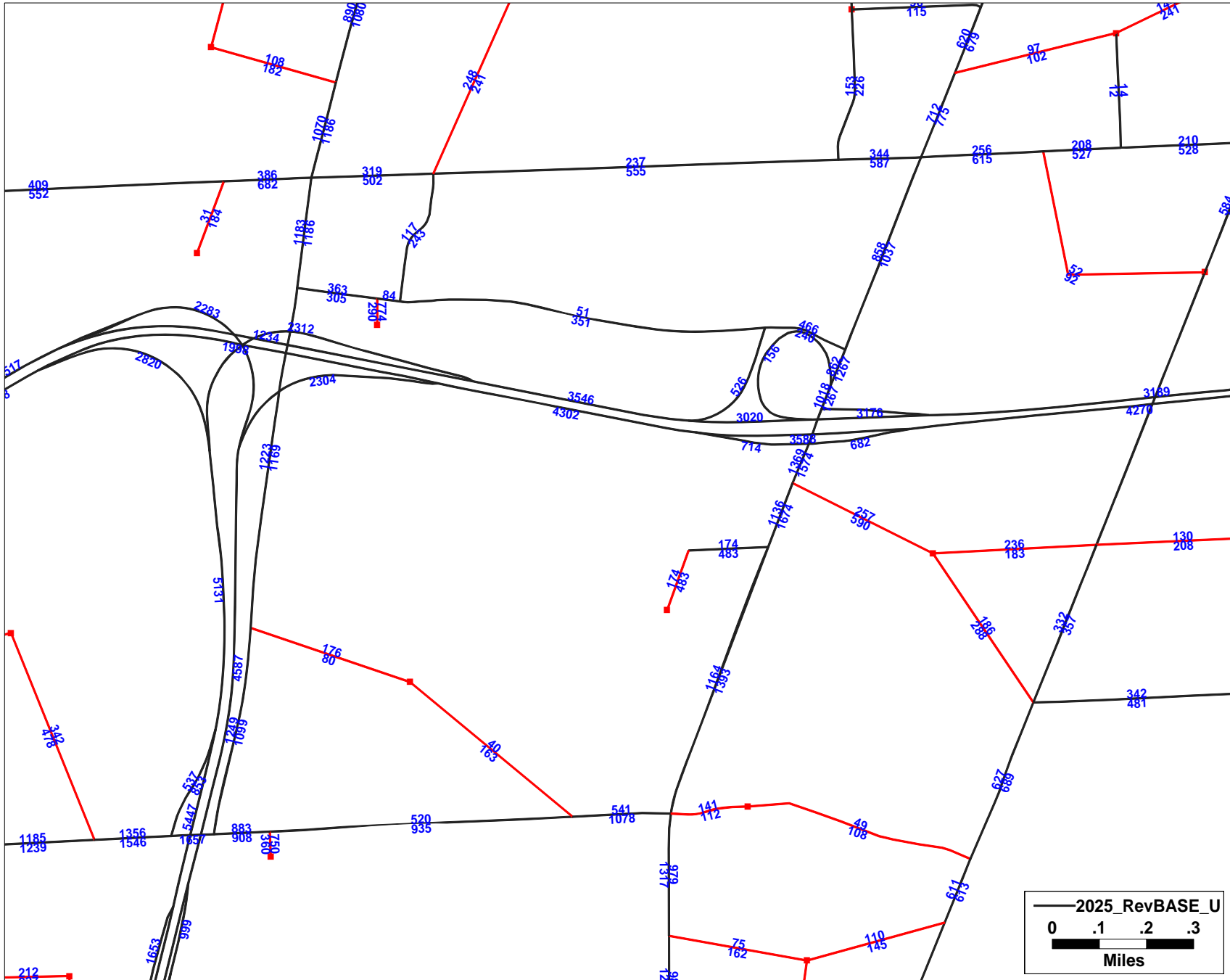
# 2005 (Constrained)

(PM Peak Hour Volumes)



# 2025 (Unconstrained)

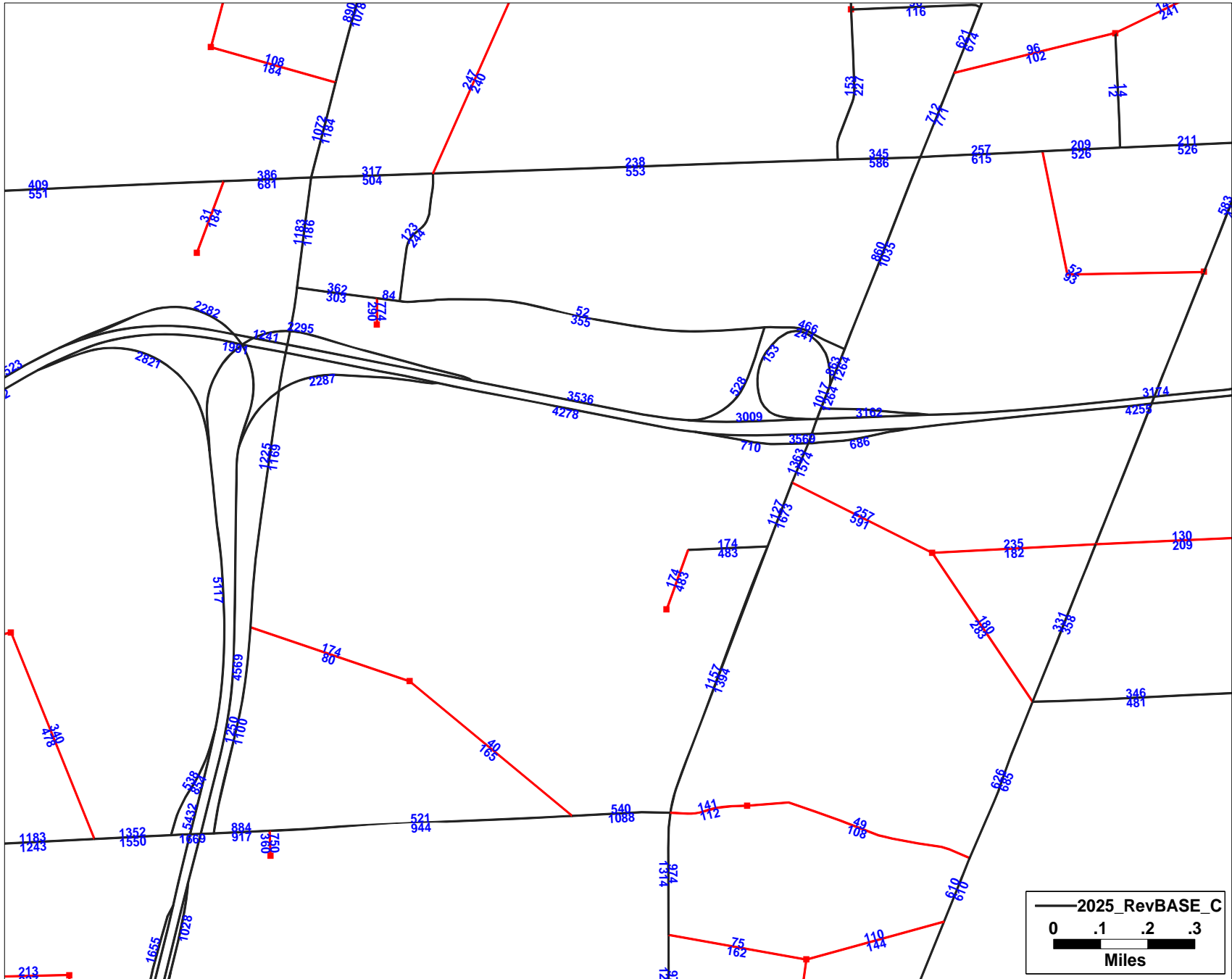
(PM Peak Hour Volumes)





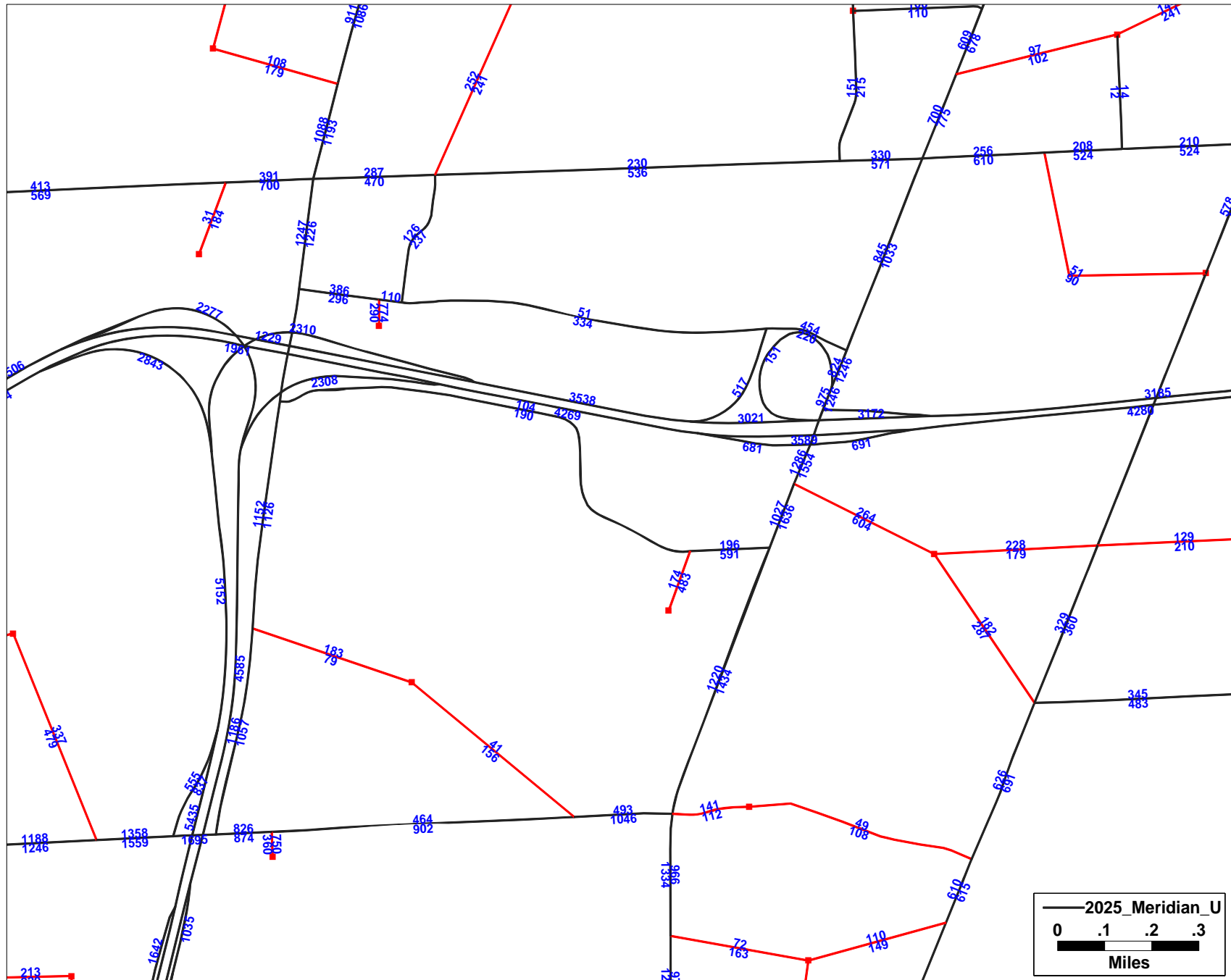
# 2025 (Constrained)

(PM Peak Hour Volumes)



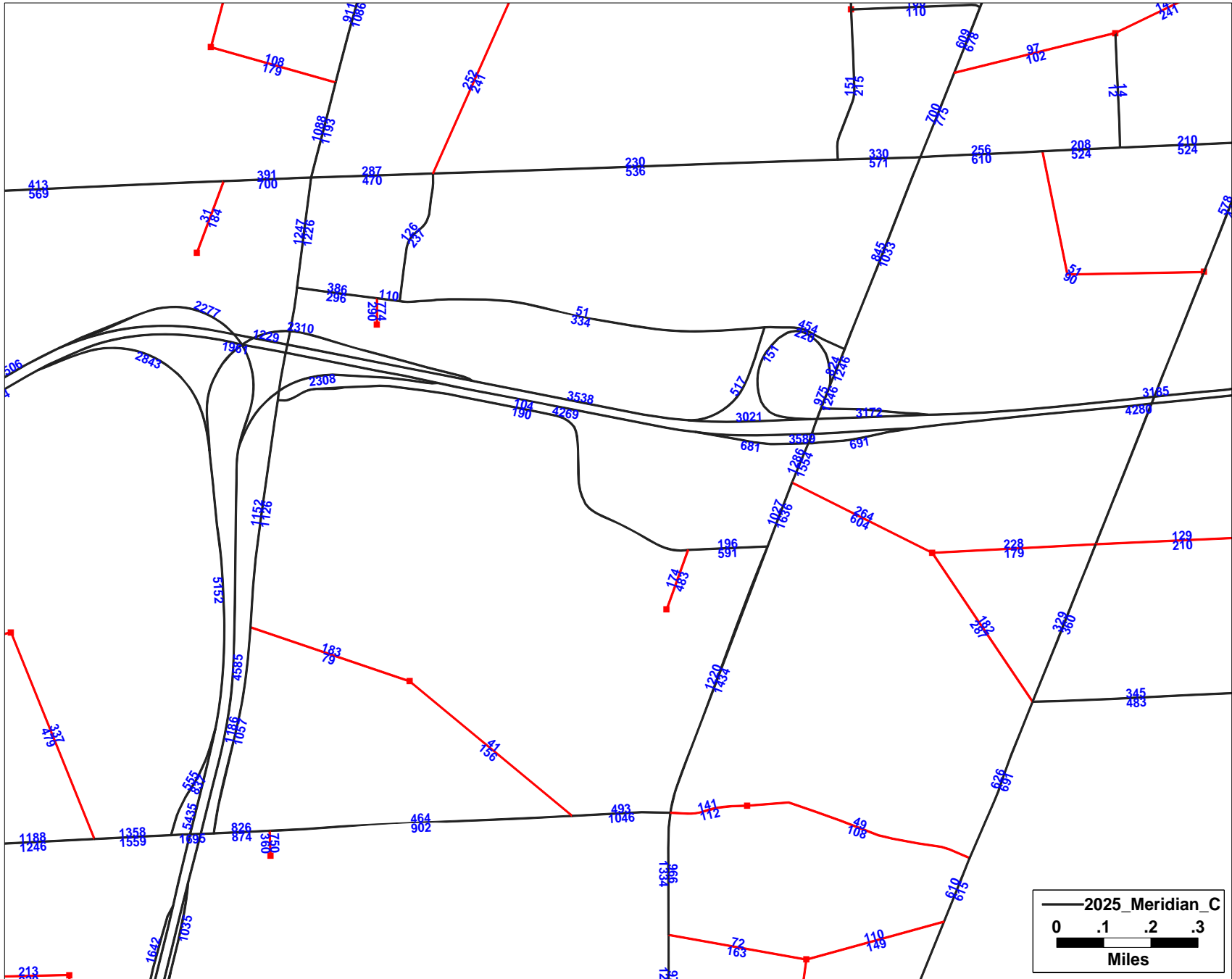
# 2025 with Meridian Centre Blvd. Extension (Unconstrained)

(PM Peak Hour Volumes)



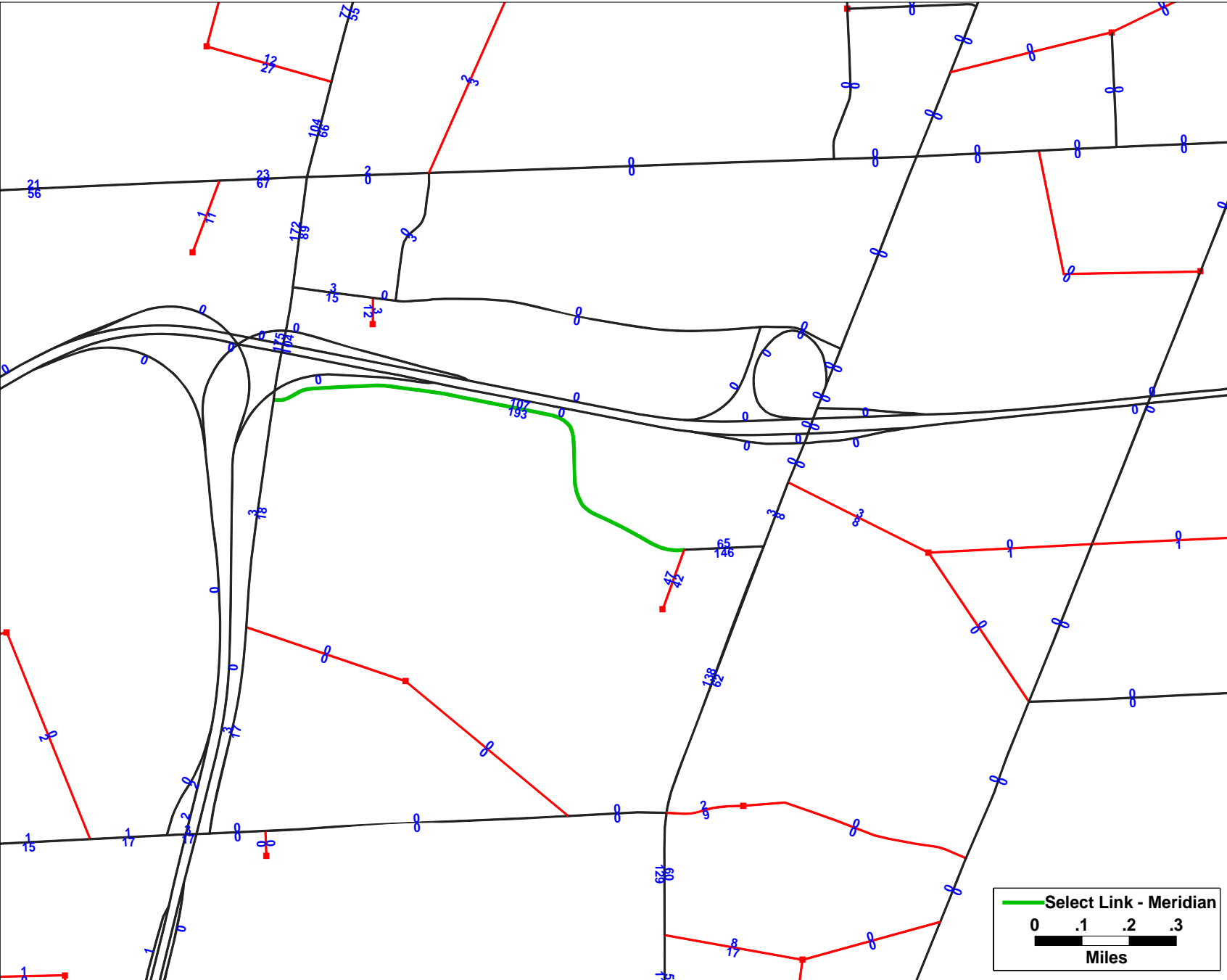
# 2025 with Meridian Centre Blvd. Extension (Constrained)

(PM Peak Hour Volumes)



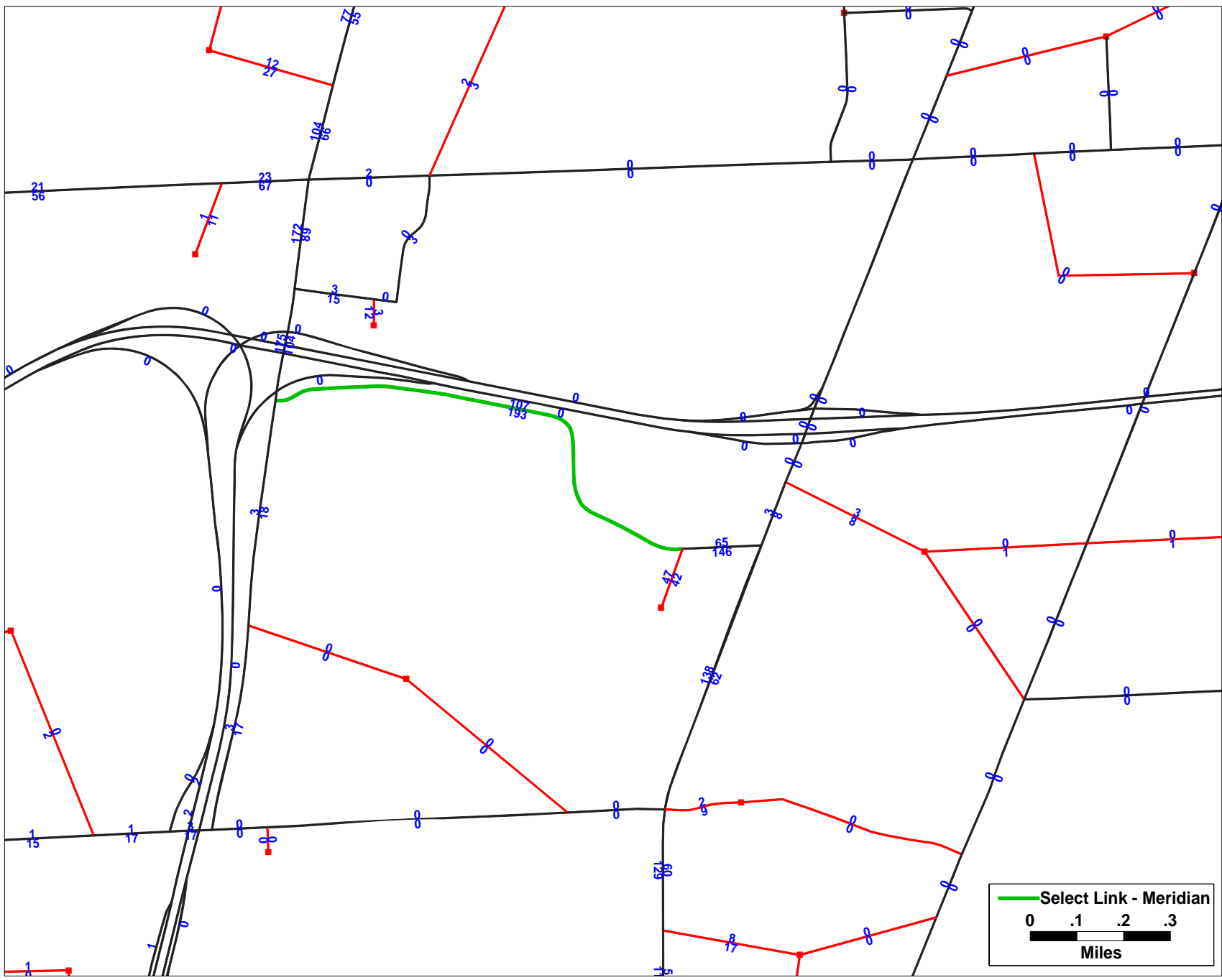
# 2025 Select Link - Meridian Centre Blvd. Extension

(PM Peak Hour Volumes)

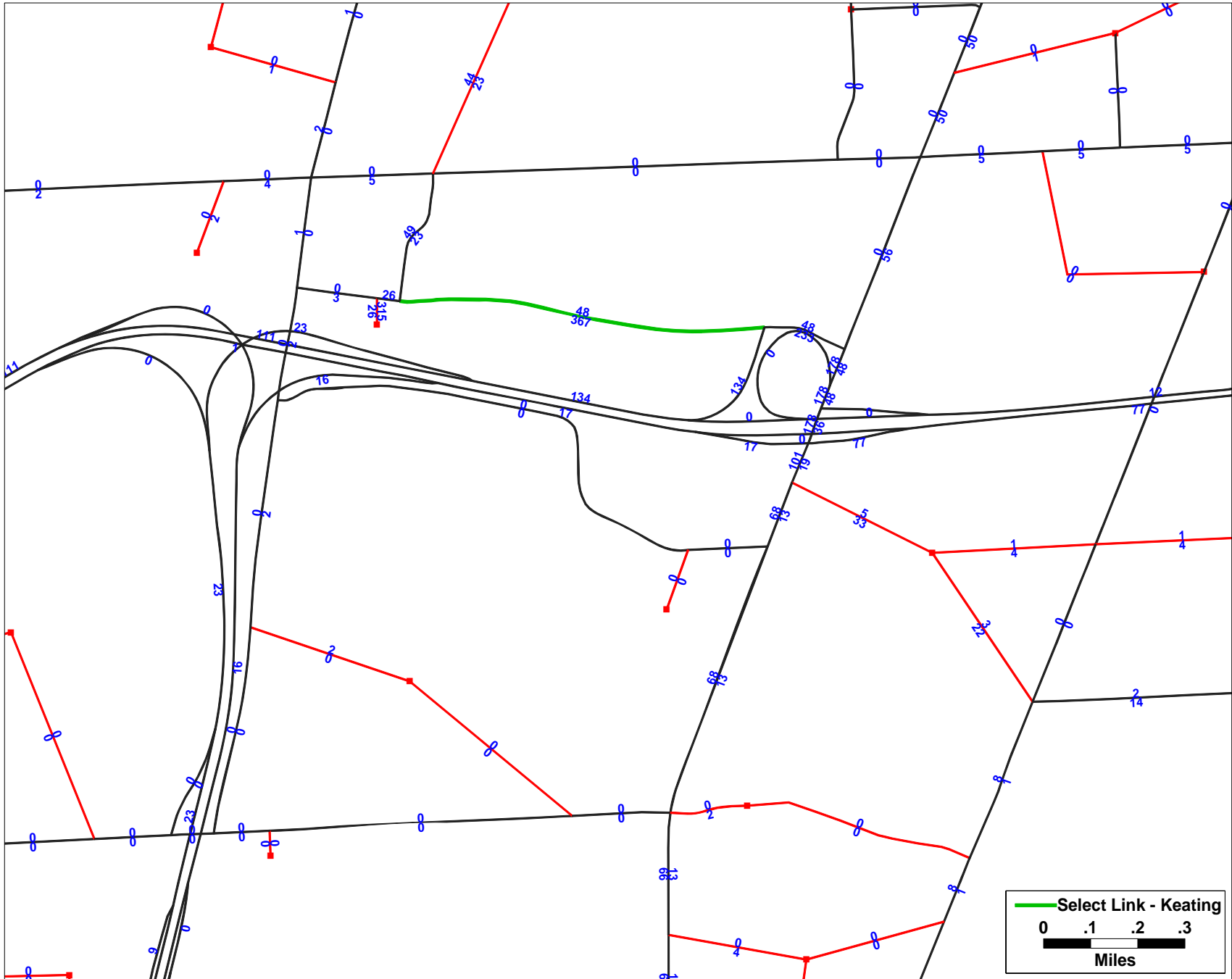


# 2025 Select Link - Meridian Centre Blvd. Extension (No Other Modifications)

(PM Peak Hour Volumes)

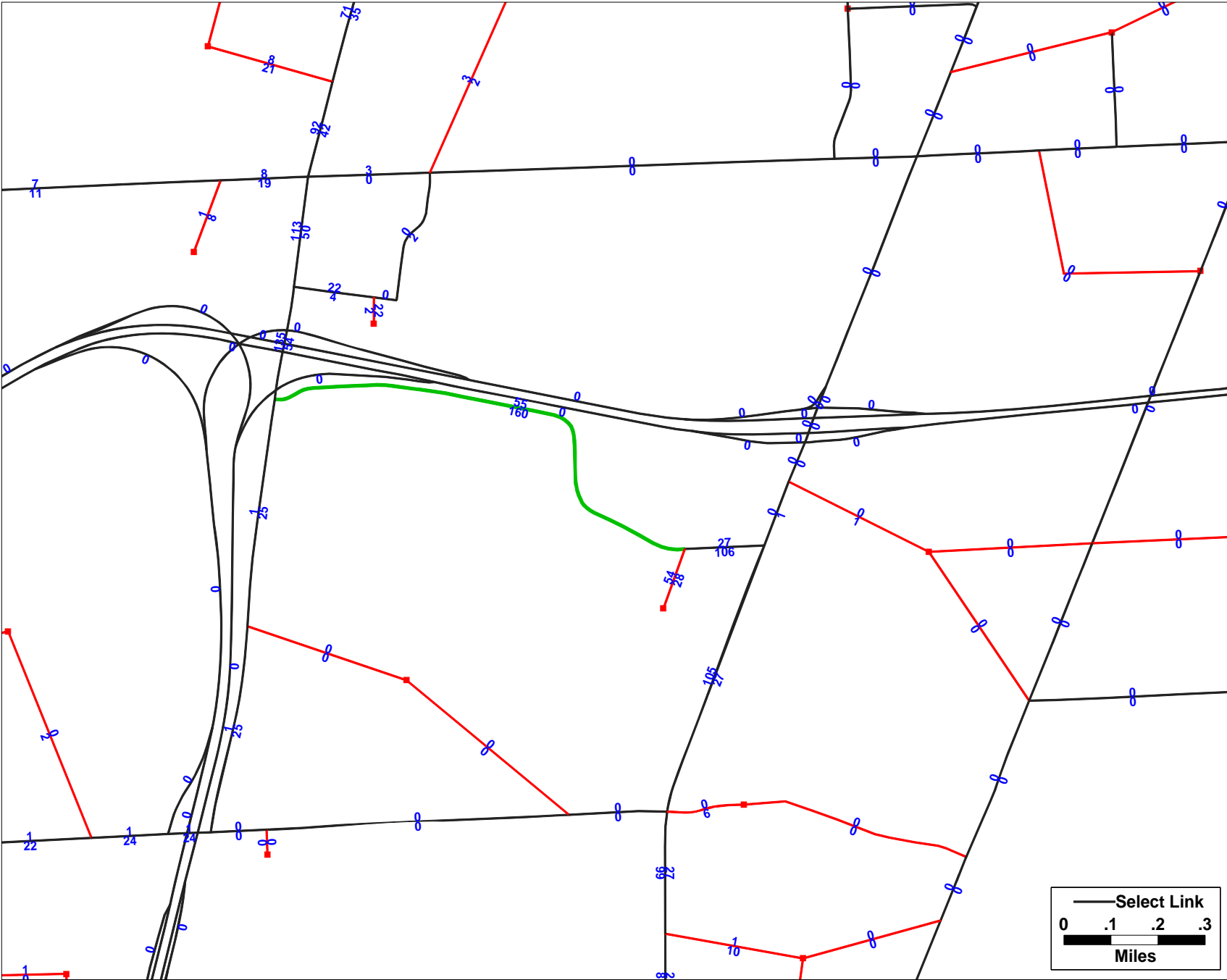


# 2025 Select Link - Sen. Keating Blvd. (PM Peak Hour Volumes)

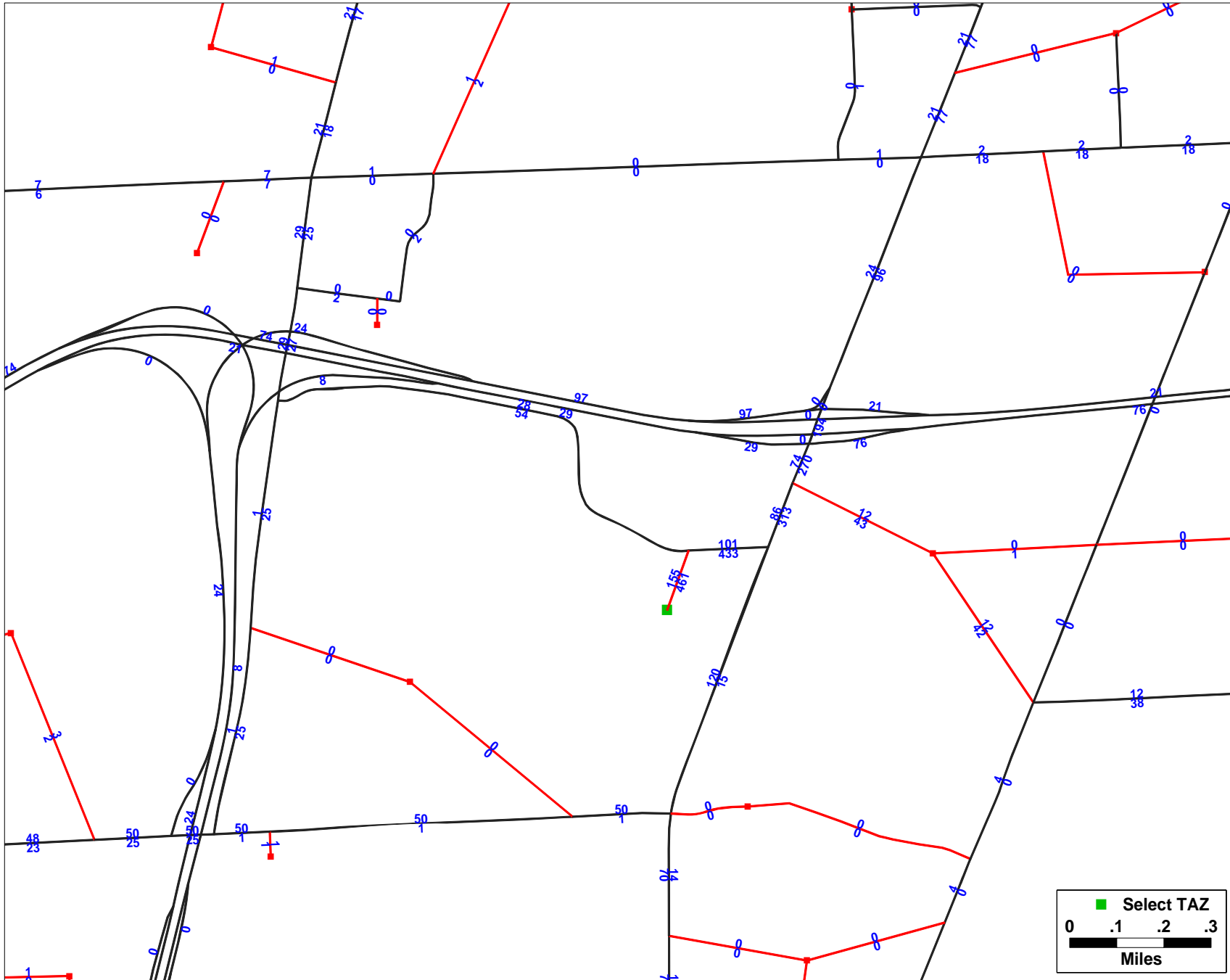


# 2005 Select Link - Meridian Centre Blvd. Extension

(PM Peak Hour Volumes)



# 2005 Select TAZ - Meridian Centre Blvd. Extension (PM Peak Hour Volumes)





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## **Appendix C**

### **Synchro 7 - Traffic Analysis CD Files**

Available Upon Request