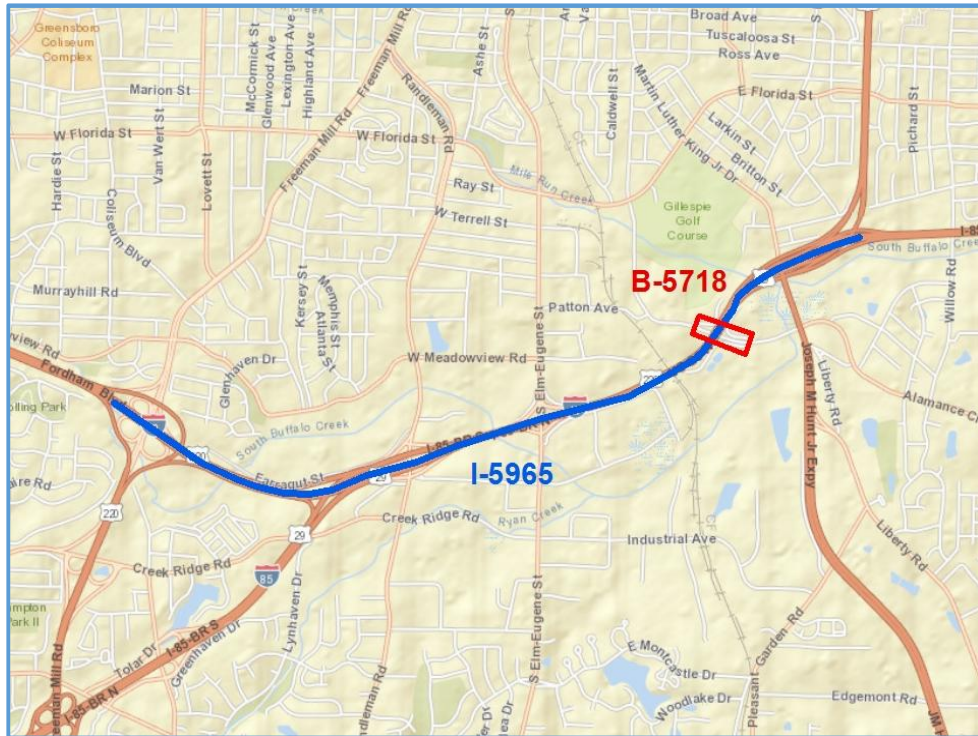


# Project Level Traffic Forecast

## STIP Project I-5965 & B-5718

Widen I-40 from US 221 to US 29 / US 70 & Replace Bridge #400329 (Patton Ave)

WBS # 45915.1.1



Prepared for:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
Transportation Planning Division  
Raleigh, North Carolina

Prepared By: WSP  
434 Fayetteville Street, Suite 1500  
Raleigh, North Carolina 27601



September 7, 2018



## TRAFFIC FORECAST COVER LETTER

**MEMORANDUM TO:** Laura Sutton, PE, NCDOT Central Project Delivery Team C

**FROM:** Mike Surasky, PE and Nita Bhawe

**DATE:** September 7, 2018

**SUBJECT:** Traffic Forecast for STIP Project I-5965 & B-5718, Guilford County

*Forecast approved by the NCDOT Transportation Planning Division on September 6, 2018.*

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Please find attached the *revised* 2018 base year and 2040 future year Traffic Forecast for STIP projects I-5965 & B-5718 located in Guilford County. This is the first forecast done for this project. This forecast was requested by NCDOT on March 13, 2018.

This forecast was originally approved by the NCDOT Transportation Planning Division on July 16, 2018. It was brought to our attention that the ramp from I-40 eastbound to Business 85 southbound at Exit #219 was missing from the forecast. This revised forecast incorporates this ramp and re-balanced volumes.

I I-5965 includes widening the 3.5-mile stretch of I-40 / Bus 85 / US 29 / US 70 / US 220 from Exit #218 (US 220) to Exit #222 (US 29 / US 70) (widen from 3 lanes to 4 lanes) and improving the SR 1007 (Randleman Rd) and Elm-Eugene St interchanges (these interchange improvements are unlikely to affect travel demand). B-5718 involves replacing Bridge 400329 (Patton Ave) over this same stretch of freeway.

Both projects are within NCDOT Division 7 and are included in the 2018-2027 State Transportation Improvement Program (STIP). The Piedmont-Triad Regional Model (PTRM) Version 4.2 Travel Demand Model, was utilized for this forecast along with project counts, and historical AADTs.

The following four scenarios are provided in the forecast:

- 2018 Base Year No-Build
- 2018 Base Year Build
- 2040 Future Year No-Build
- 2040 Future Year Build

Certain assumptions were made in the development of the forecast, detailed below.

Fiscal Constraints:

WSP USA  
Suite 1500  
434 Fayetteville Street  
Raleigh, NC 27601

Tel.: +1 919 836-4040  
Fax: +1 919 836-4099  
wsp.com



For projects falling within a Metropolitan Planning Organization (MPO), forecasts are fiscally constrained to match the assumptions of the MPO's Metropolitan Transportation Plan (MTP) or Metropolitan Transportation Improvement Plan (MTP). The Greensboro MPO 2018-2027 MTP was approved on November 3, 2017. This forecast assumes that all projects within the MTP are constructed and open to traffic in 2040.

Interpolation:

To determine any intermediate years between similar scenarios, straight-line interpolation may be used. AADT volumes may be extrapolated for up to two years immediately following 2040. If it is determined that any of these assumptions have become inconsistent with the project and surrounding area activity, please request updated information.

If you have any questions, or I can be of further assistance, please do not hesitate to call me at 919-836-4060, or e-mail me at [mike.surasky@wsp.com](mailto:mike.surasky@wsp.com). Thank you.

cc: FILE (Guilford County, Project I-5965 & B-5718)

cc: (via e-mail as PDF attachments):

James H. Dunlop, PE – NCDOT Congestion Management Section ([jdunlop@ncdot.gov](mailto:jdunlop@ncdot.gov))

Brenda Moore, PE, CPM – NCDOT Roadway Design Unit ([roadwaydesign@ncdot.gov](mailto:roadwaydesign@ncdot.gov))

Clark Morrison, PhD, PE – NCDOT Pavement Management Unit ([cmorrison@ncdot.gov](mailto:cmorrison@ncdot.gov))

Ed Lewis – NCDOT Division 7 Planning Engineer ([elewis@ncdot.gov](mailto:elewis@ncdot.gov))

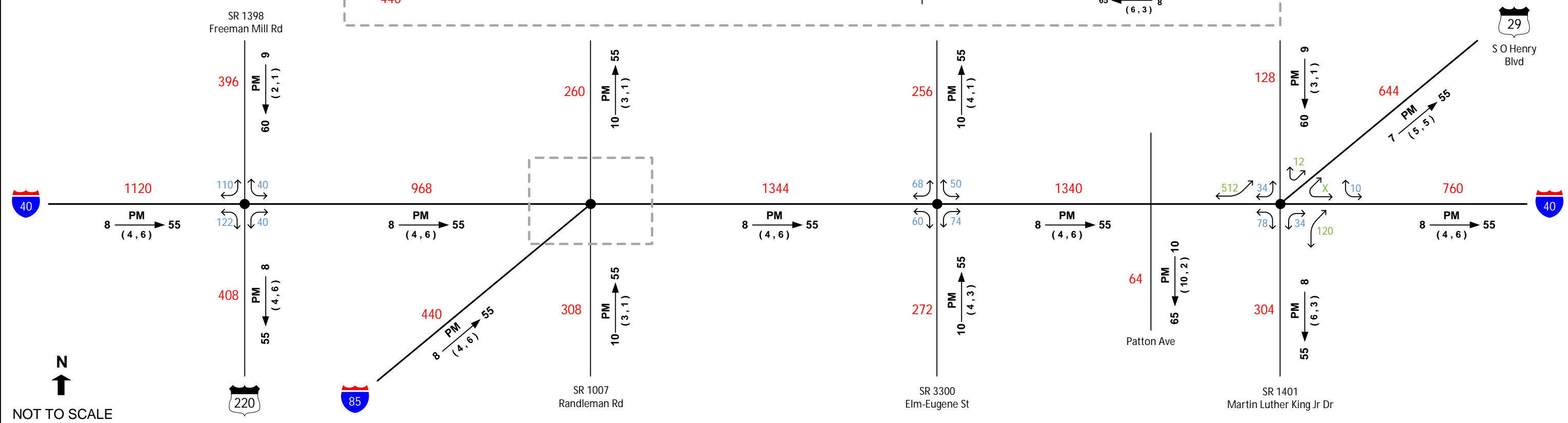
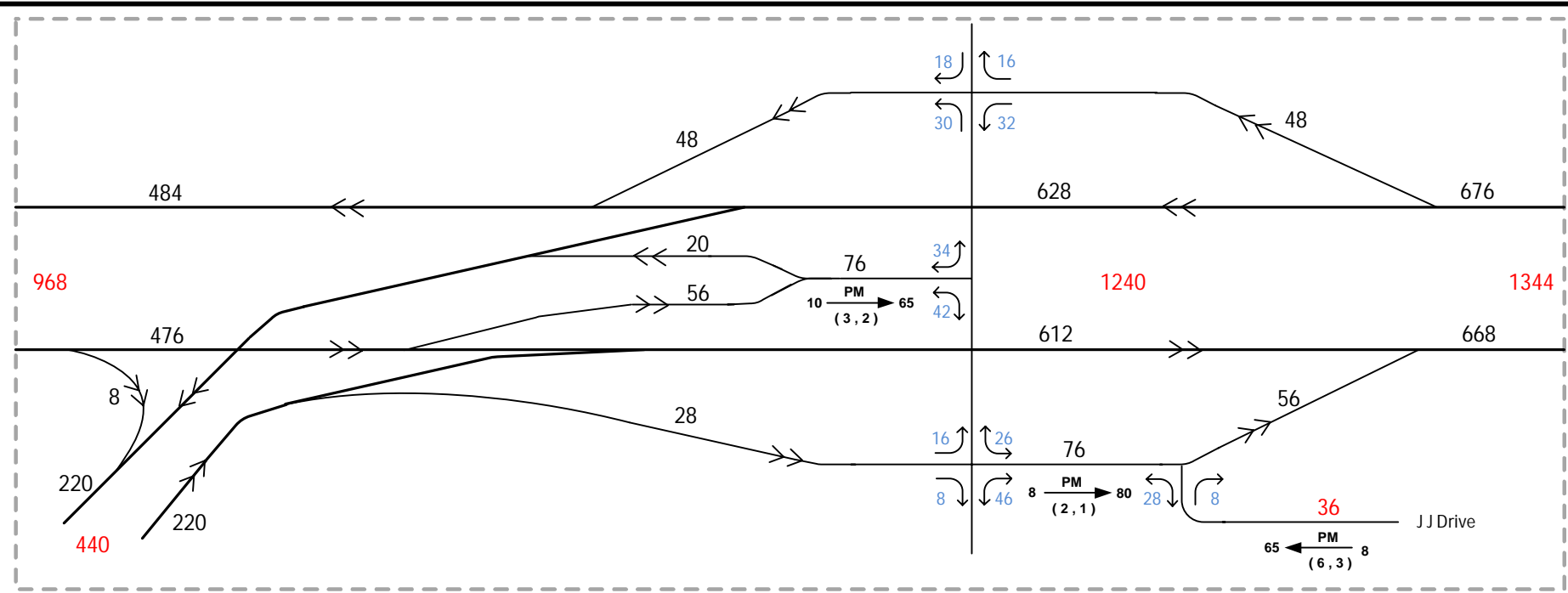
Michael Abuya – NCDOT Triad Forecasting and Planning Team ([mrabuya@ncdot.gov](mailto:mrabuya@ncdot.gov))

Keith Dixon – NCDOT Transportation Planning Division ([kgdixon@ncdot.gov](mailto:kgdixon@ncdot.gov))

Tyler Meyer – Greensboro Urban Area MPO ([tyler.meyer@greensboro-nc.gov](mailto:tyler.meyer@greensboro-nc.gov))

Jeffrey Sovich – Greensboro Urban Area MPO ([jeffrey.sovich@greensboro-nc.gov](mailto:jeffrey.sovich@greensboro-nc.gov))

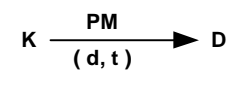
NCDOT Traffic Forecasting GIS Support ([trafficforecastinggissupport@ncdot.gov](mailto:trafficforecastinggissupport@ncdot.gov))



# 2018 AVERAGE ANNUAL DAILY TRAFFIC

## NO BUILD ALTERNATIVE

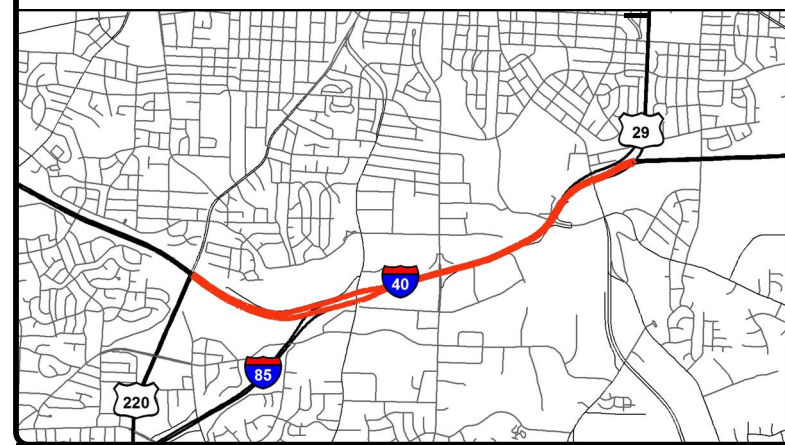
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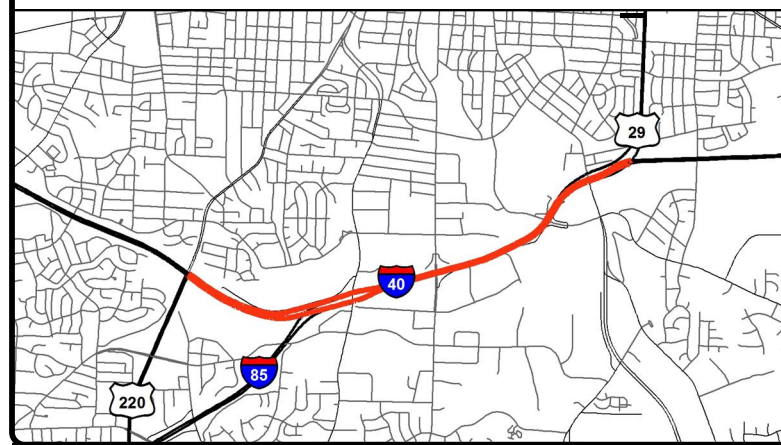
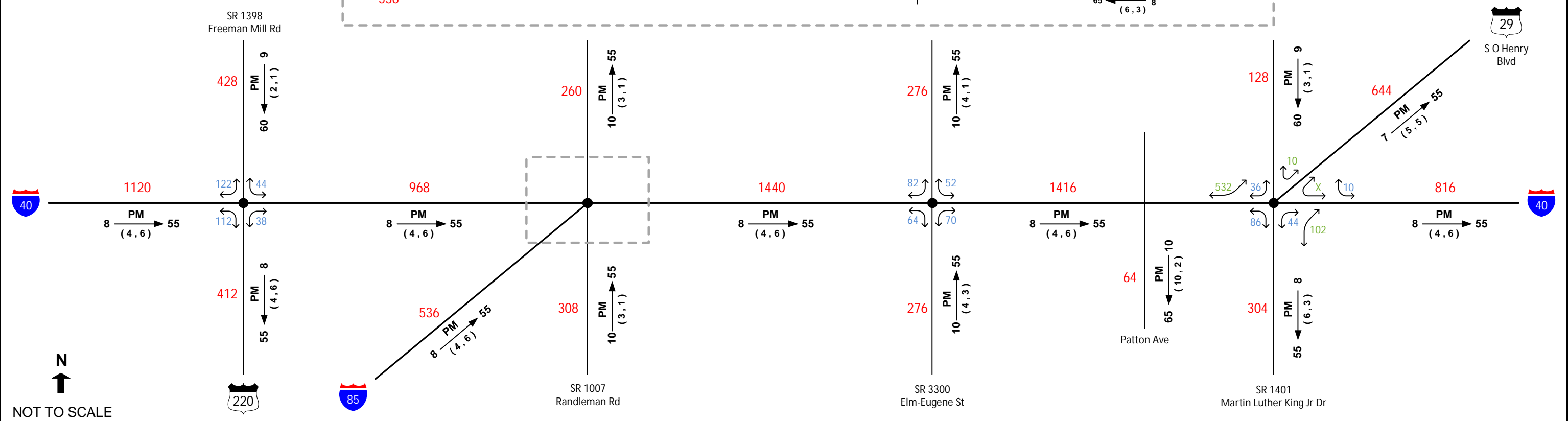
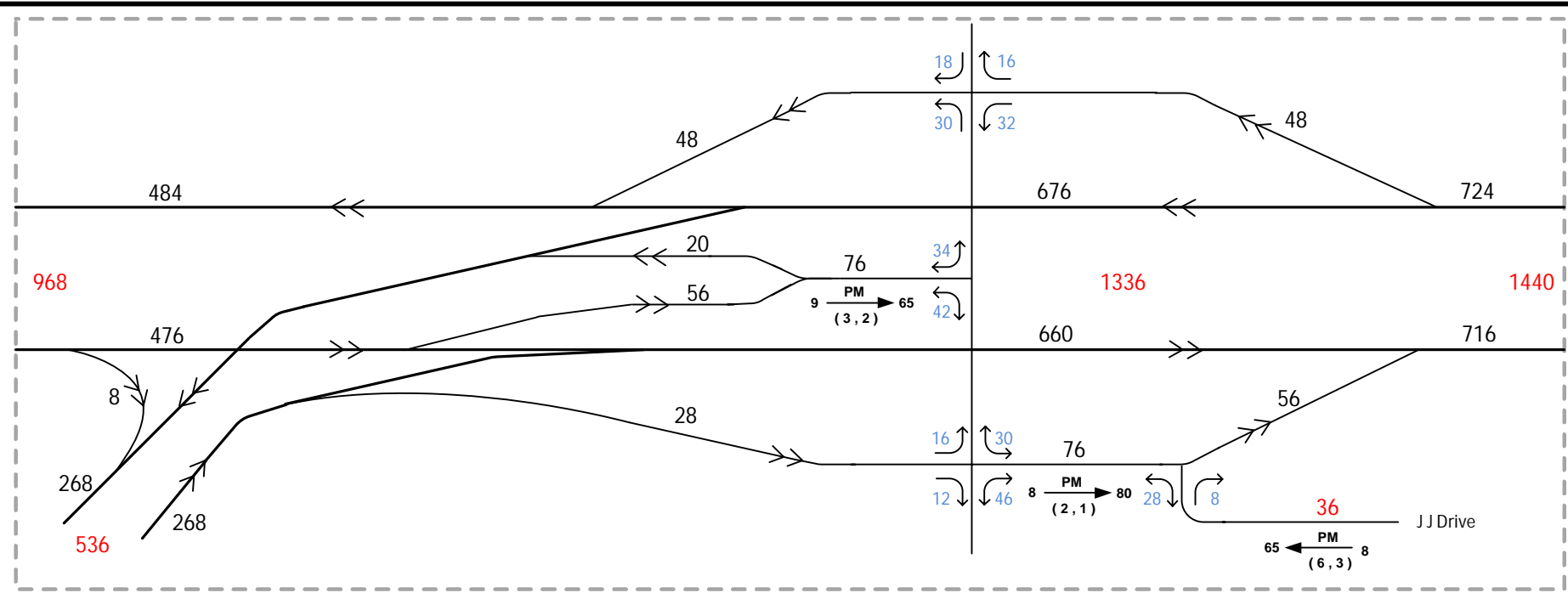


- ### Vehicles Per Day (VPD) in 100s
- 1- Less than 50 VPD
- X Movement Prohibited
- Roadway
- Existing Interchange

- K Design Hour Factor
- PM PM Peak Hour
- D Peak Hour Directional Split
- Indicates Direction of D
- (d,t) Duals, TT-STs (%)

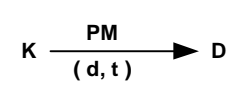
TIP: I-5965 & B-5718	WBS: 45915.1.1
COUNTY: Guilford	DIVISION: 7
DATE: September 7, 2018	
PREPARED BY: WSP, USA	
LOCATION: I-40 from US 220 to US 29	
PROJECT: Widen I-40 from a 6-lane to an 8-lane facility and replace Bridge 400329 (Patton Ave).	





# 2018 AVERAGE ANNUAL DAILY TRAFFIC

## LEGEND



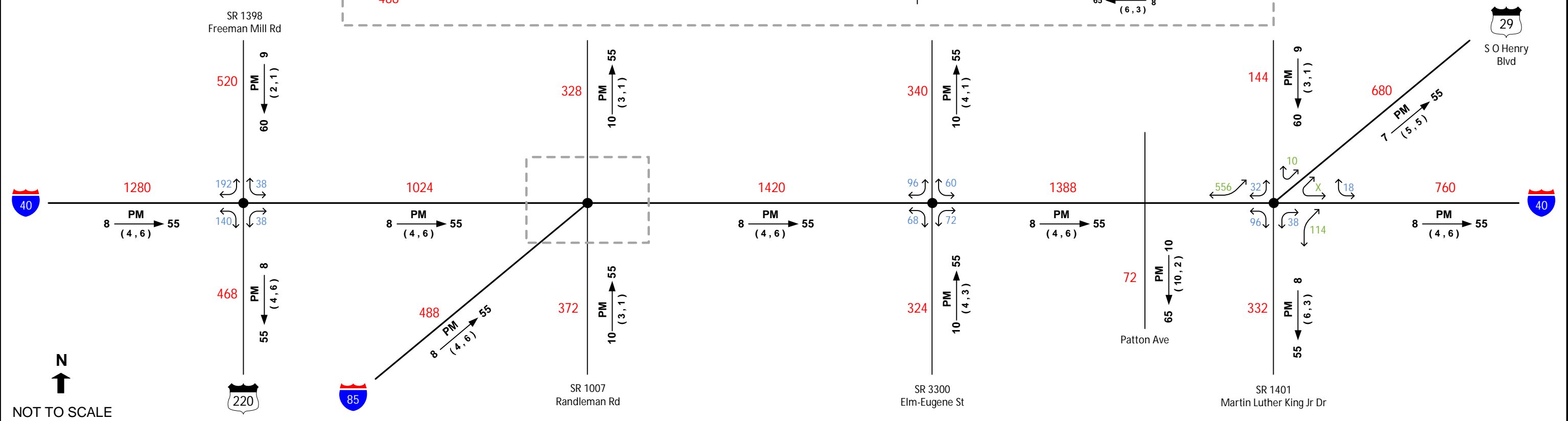
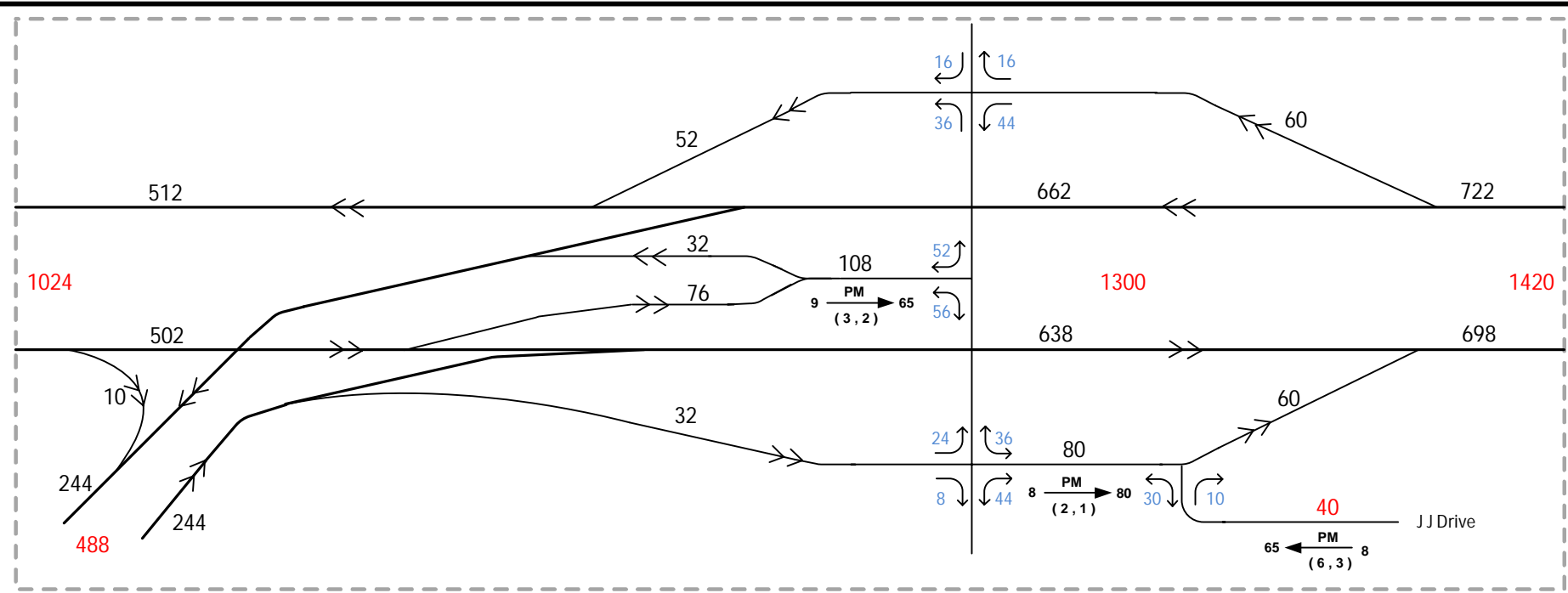
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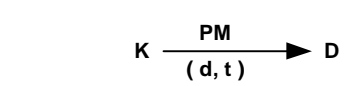


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# 2040 AVERAGE ANNUAL DAILY TRAFFIC

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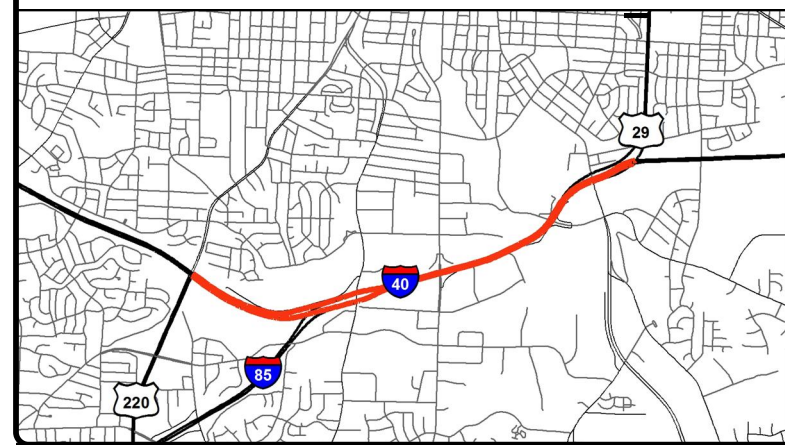
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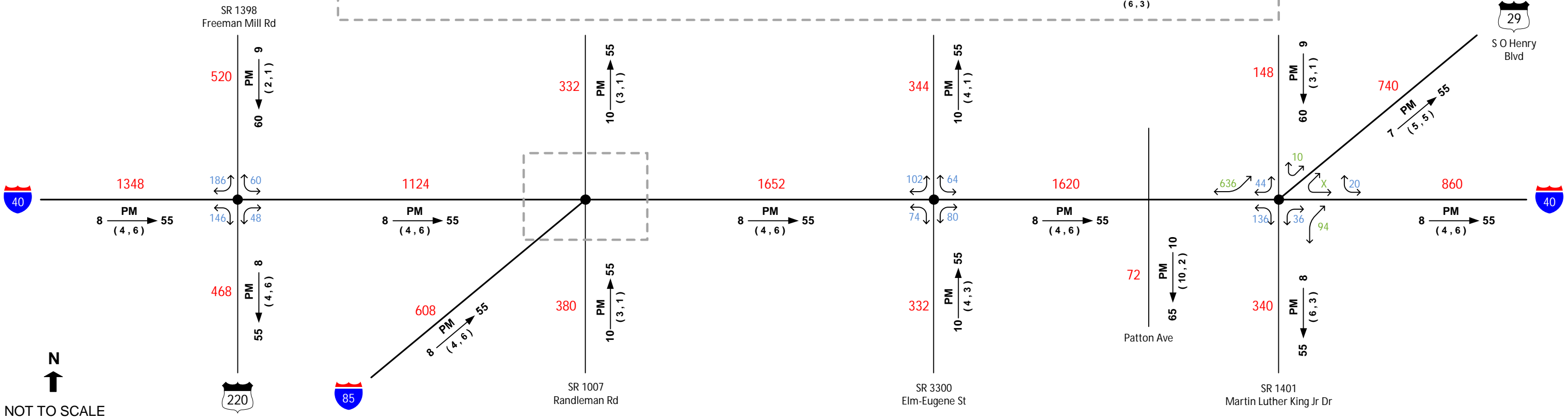
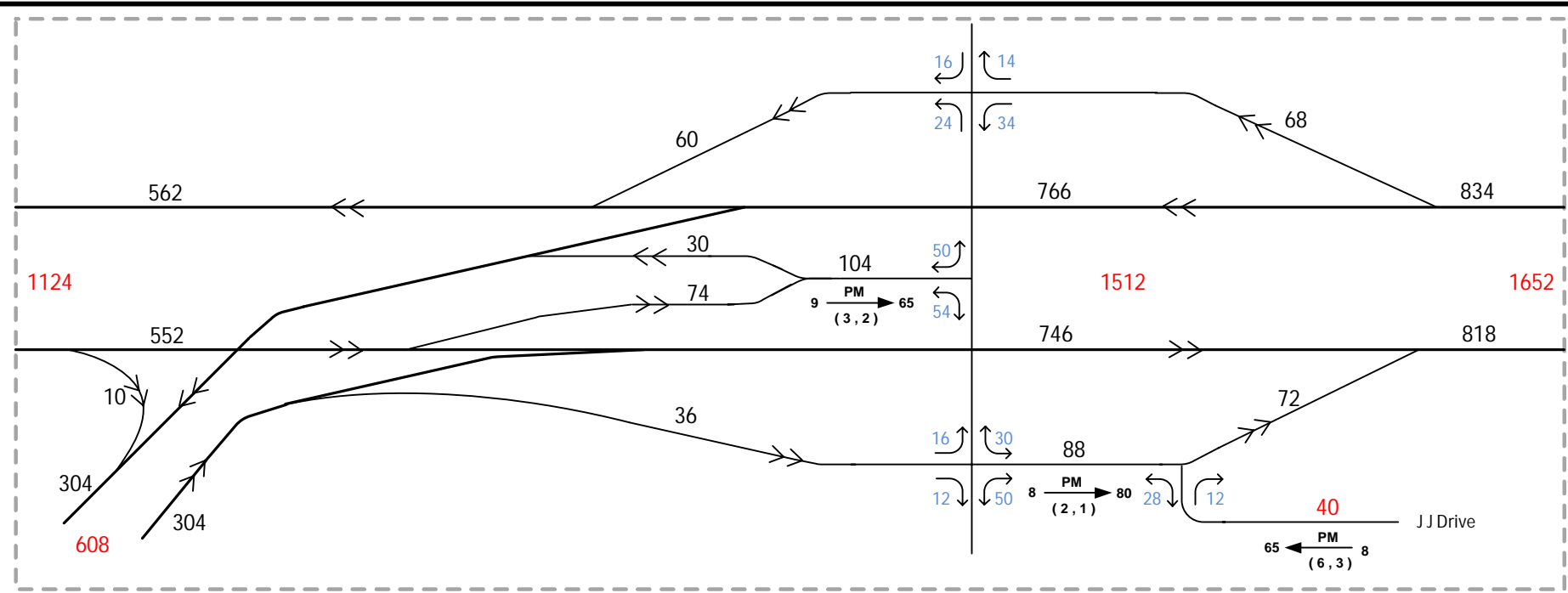


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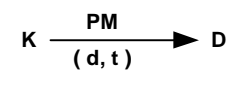




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NOT TO SCALE

# 2040 AVERAGE ANNUAL DAILY TRAFFIC

## LEGEND



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