

Pre-NEPA Activities (Interchange Access Concepts & Analysis) Technical Memorandum

for the State College Area Connector Project



July 2025

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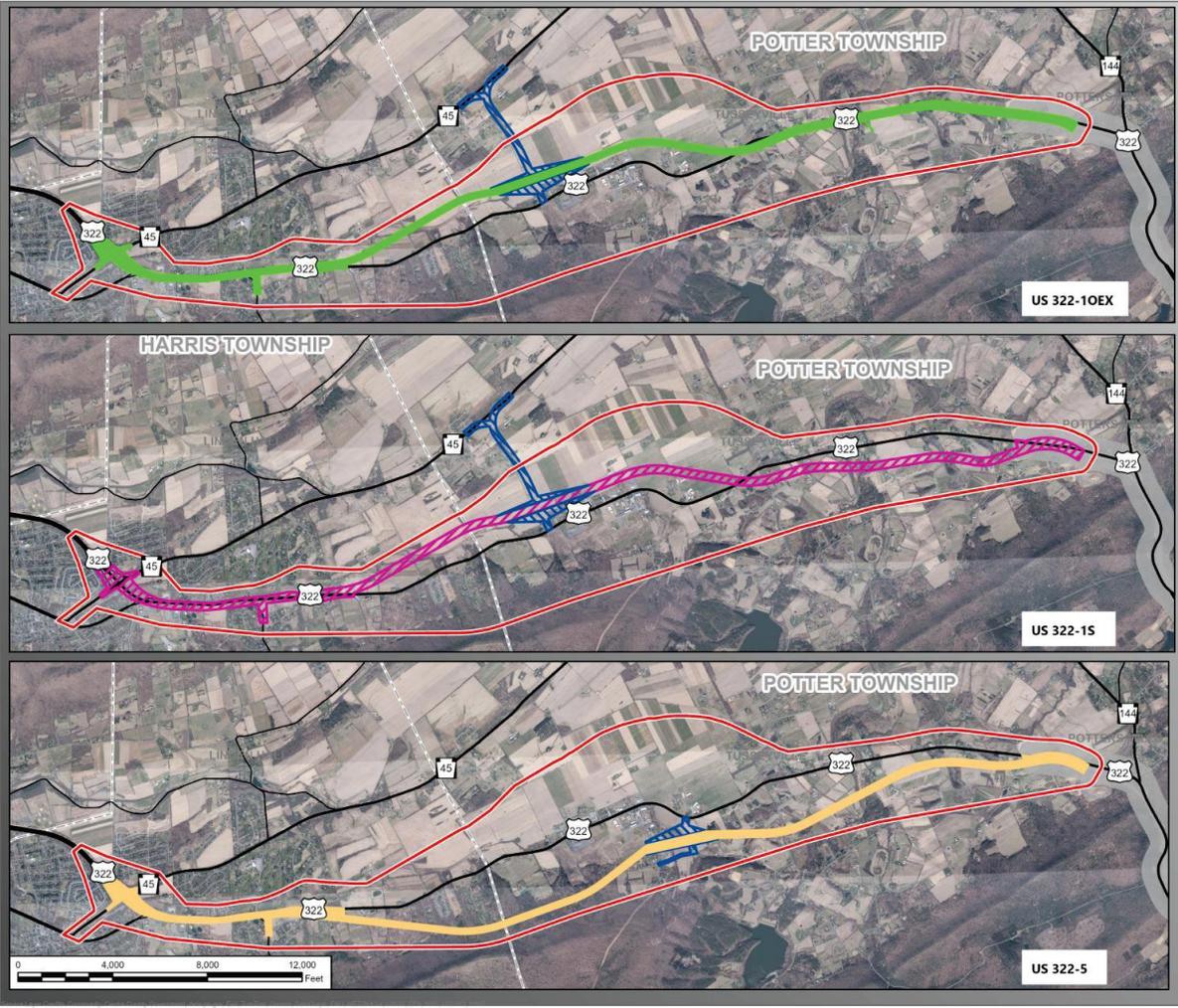
AADT	Annual Average Daily Traffic
ADTT	Average Daily Truck Traffic
BLOS	Bicycle Level of Service
CCMPO	Centre County Metropolitan Planning Organization
CRPA	Centre Regional Planning Agency
D-factor	Peak Hour Directional Factor
EB	Eastbound
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
GIS	Geographic Information Systems
HCM	Highway Capacity Manual
HSM	Highway Safety Manual
I-	Interstate
K-factor	Peak Hour Traffic Factor
LOS	Level of Service
L RTP	Long Range Transportation Plan
mph	Miles per Hour
NB	Northbound
NEPA	National Environmental Policy Act
NHS	National Highway System
PA	Pennsylvania Route
PCIT	Pennsylvania Crash Information Tool
PEL	Planning and Environmental Linkages
PennDOT	Pennsylvania Department of Transportation

PSI	Potential for Safety Improvement
SB	Southbound
SCCCTS	South Central Centre County Transportation Study
T-factor	Peak Hour Truck Factor
TDM	Travel Demand Model
TIP	Transportation Improvement Program
US	U.S. Route
VPD	Vehicles per Day
WB	Westbound

I. Introduction and Background

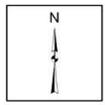
The Pennsylvania Department of Transportation (PennDOT), in cooperation with the Federal Highway Administration (FHWA) and in coordination with the Centre County Metropolitan Planning Organization (CCMPO), is advancing the transportation studies that were developed during the State College Area Connector Project Planning and Environmental Linkages (PEL) Study which was finalized in June 2023.

This document provides additional traffic engineering analysis conducted during Pre-NEPA activities on the State College Area Connector (SCAC). Specifically, this analysis was conducted to evaluate interchange concepts for access modifications needed with any of the build alternatives evaluated and advanced in the PEL Study; see **Figure 1** “PEL Study Reasonable Alternatives to Advance for Further Study”.



LEGEND

- US 322-1OEX
- US 322-1S
- US 322-5
- Potters Mills Gap Transportation Project
- Township
- Municipality/Borough
- Project Area
- PA 45/Connector/Interchange Removed Post-PEL Study



INDEX MAP



State College Area Connector

PEL STUDY REASONABLE ALTERNATIVES TO ADVANCE FOR FURTHER STUDY

HARRIS AND POTTER TOWNSHIPS
CENTRE COUNTY, PENNSYLVANIA

Figure 1

1 Inch = 4,000 Feet

II. Future Year Traffic Volume Projections

A. Methodology

Future year traffic volume forecasts were estimated utilizing the Centre County Regional Travel Demand Model (TDM) (also utilized for the PEL Study) and the existing 2023 traffic volume data (determined from traffic counts collected Fall 2022/Spring 2023 as part of the EIS Supplemental data collection program for the project). The CCMPO developed and maintains the TDM, which is a trip-based model comprised of links (roadways), nodes (intersections), and zones (development) within the region. As noted during the PEL Study, an updated, calibrated, and validated model was created by CCMPO for a base year (2017) roadway network and development trips.

To develop the model future year (2050) traffic forecasts, the CCMPO and municipalities in the region collaborate to estimate anticipated future growth in population and employment demographics relative to current zoning and approved/anticipated development. (Growth and development are handled at the local level not controlled by PennDOT.) Using these anticipated growth and development forecasts, in conjunction with coded model roadway network enhancements (for a future roadway network corresponding with approved transportation improvements on the TIP), the CCMPO provided an associated Year 2050 No-Build scenario TDM forecast.

Annual growth rates were then developed for the project area comparing corresponding roadway links in the base and No-Build TDM models, from which a corridor growth rate was determined and applied to the 2023 traffic volume data to estimate future Year 2050 No-Build traffic volumes for the study.

Traffic volumes for the various build alternative(s) were estimated using a similar approach. Network enhancements were coded in the TDM for the build scenarios. The link volumes from each Build Alternative scenario model run were then compared with the corresponding No-Build TDM model run volumes to estimate the change in volume throughout the project area network, with some adjustment using engineering judgement to develop balanced volumes.

III. Interchange Access Build Concepts

A. US 322 Build Alternative Interchange Access Scenarios

As illustrated in **Figure 2** below, current access along US 322 to/from Boalsburg/Harris Township is provided via the SR 3010 (Warner Boulevard/Boalsburg Road) full access interchange, and the partial access interchanges at PA 45 (Earlstown Road) (to/from the west only) and SR 3014 (Boal Avenue) (to/from the east only). Although separated by about 1000 feet, the PA 45 and SR 3014 ramps working together currently provide full access interchange movements on the eastern end of the 4-lane section of US 322 (Mt. Nittany Expressway).

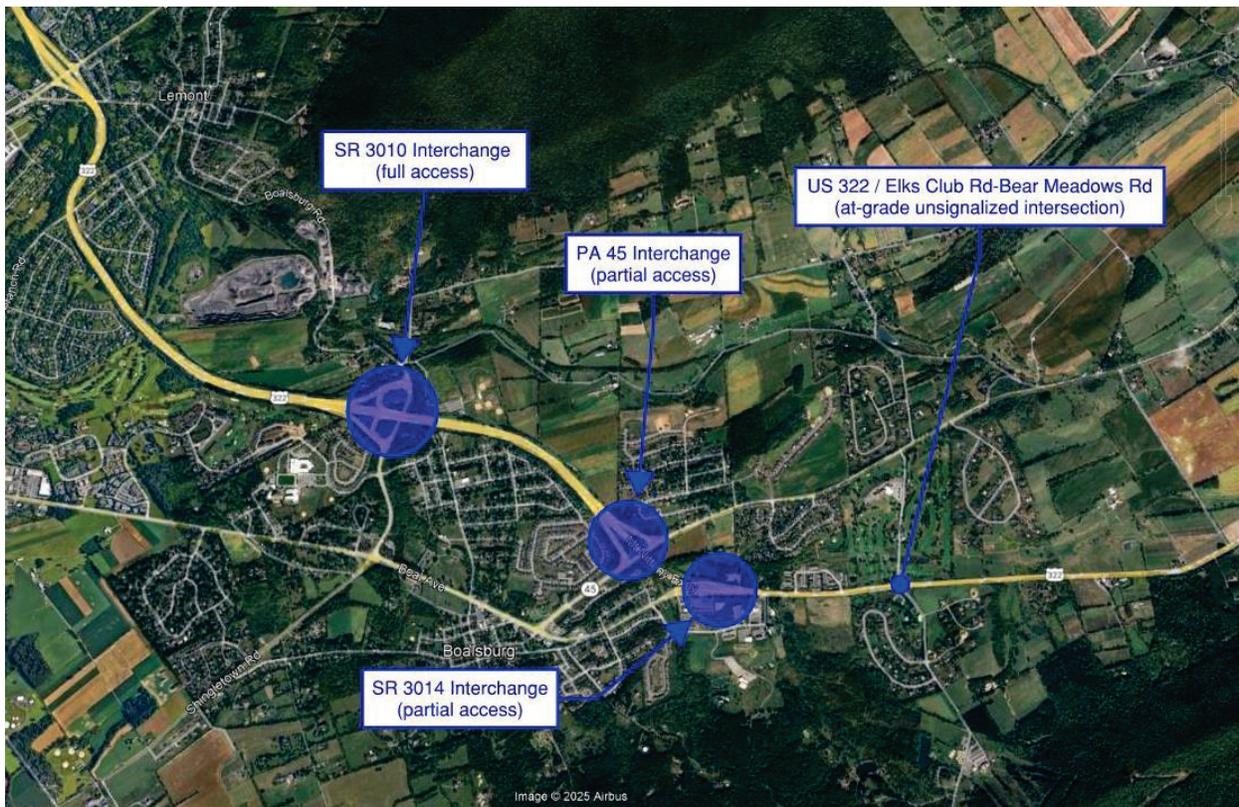


FIGURE 2 - EXISTING BOALSBURG ACCESS

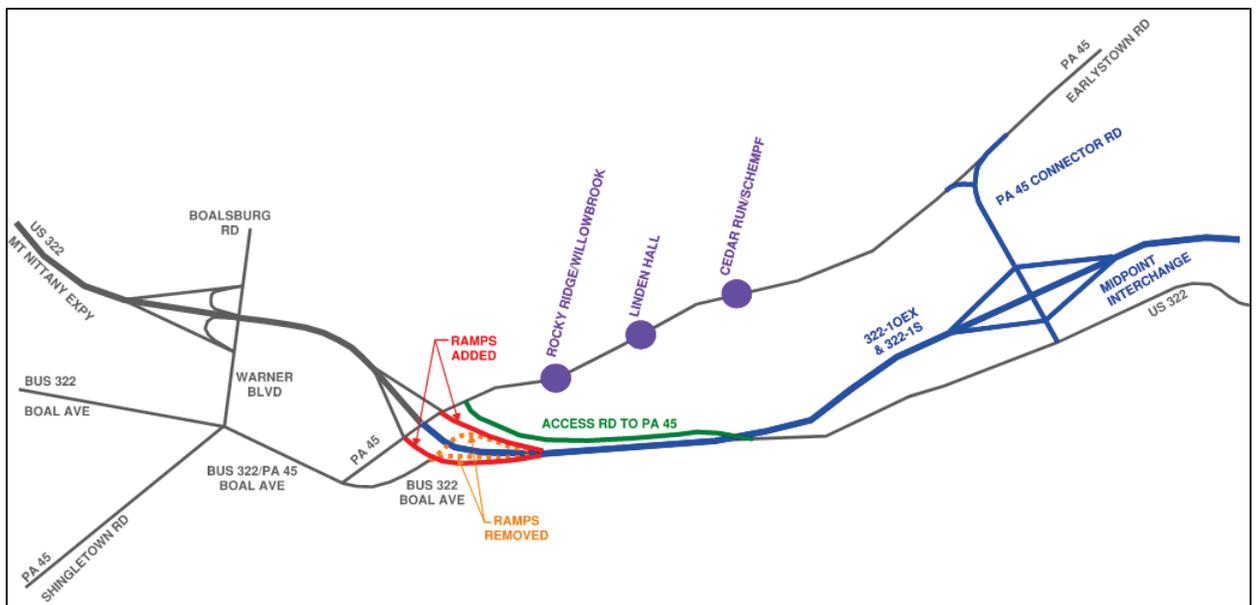
With any of the PEL Study Recommended Alternatives being advanced to the EIS/NEPA stage, access modifications will be needed to safely and effectively provide/maintain local access between a new

US 322 four-lane, limited access facility and other local roadways in Boalsburg/Harris Township and Potter Township.

Several alternative access concepts for the EIS Build Alternative options were developed and evaluated. These concepts included various modifications of the PA 45 and SR 3014 (Business Route 322) partial interchange ramps while maintaining the existing SR 3010 interchange. Additionally, the PEL Study Screening Process of the US 322 Build Alternatives (PEL Study Chapter 4 and Chapter 6) evaluation included consideration of a Midpoint Interchange along with a two-lane roadway connector between US 322 and PA 45 (called the “PA 45 Connector”) located in the vicinity of the Harris Township/Potter Township line. The PEL Study recommendations also included advancement of the PA 45 Connector into the EIS/NEPA phase.

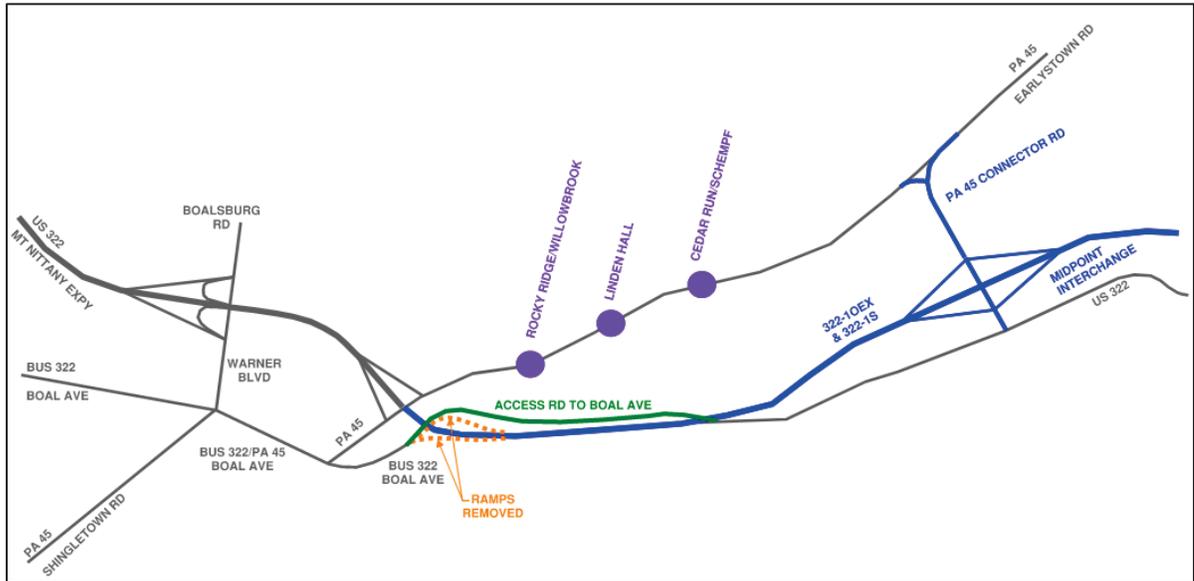
In addition to a No-Build scenario (Scenario A), the PA 45/SR 3014 interchange build concepts consisted of the following (graphical representation also shown with each concept):

- Scenario B: Provide Full Access Interchange at PA 45

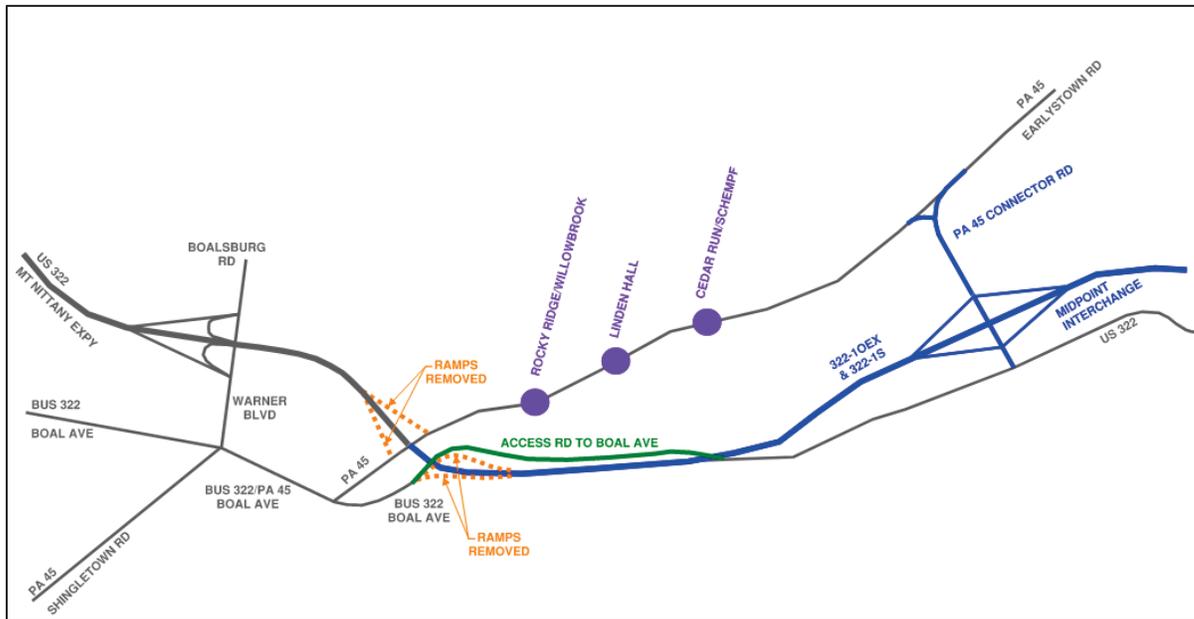


state college area CONNECTOR

- Scenario C: Maintain Existing PA 45 Partial Interchange and Remove Existing SR 3014 Partial Interchange



- Scenario D: Remove Existing PA 45 Partial Interchange and SR 3014 Partial Interchange



It should be noted that during the PEL Study public involvement process, there was controversy and opposition to the PA 45 Connector Road expressed by the general public and local officials due to a perception of increased traffic and safety concerns on portions of PA 45, particularly on the Potter

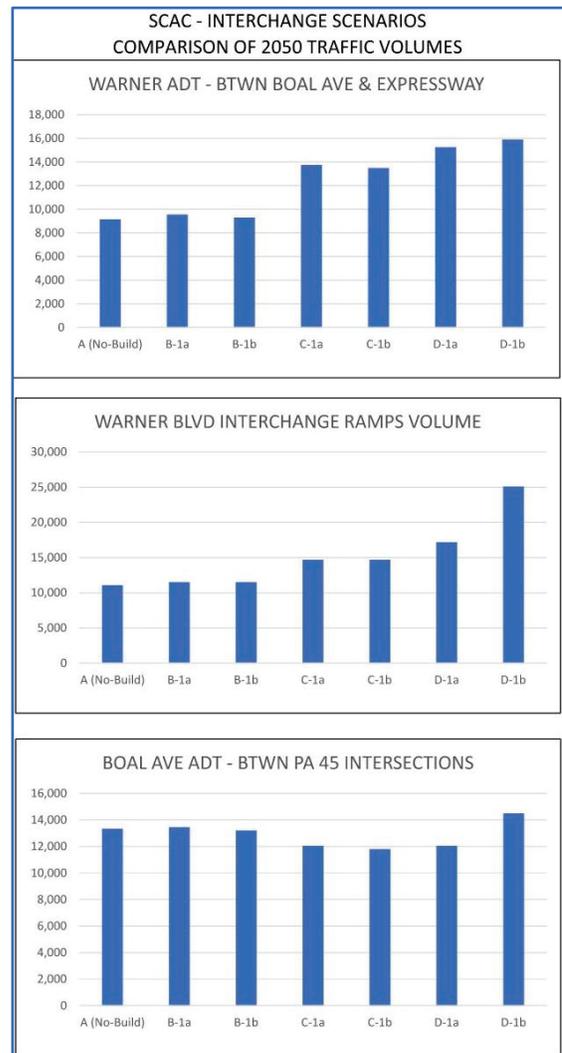
Township portion of PA 45. During this coordination with public officials, both Harris Township and Potter Township noted support for the Midpoint Interchange with or without the PA 45 Connector; from an incident management perspective.

B. Fatal Flaw Analyses of Interchange Access Concepts

Using the CCMPO TDM, each of the interchange concepts was modeled, with the PA 45 Connector (B-1a, C-1a, D-1a) and without the PA 45 Connector (B-1b, C-1b, D-1b); the Midpoint Interchange was included in all models. This modeling process involved the enhancement/modifications of the model network coding for the roadway links corresponding to each alternative.

Year 2050 Build ADT volumes were developed for the build concept scenarios using the methodology described in Section II.A above. Select link analyses (SLA) were also run from the TDM to aid in developing traffic forecasts. An SLA provides the traffic analyst with origin-destination traffic flows on a single link of a roadway network. The base TDM used for the SCAC project has been calibrated with recent origin-destination data obtained from the Streetlight Data platform. Using the SLA feature of the TDM is a useful tool in predicting/estimating traffic volumes, particularly for a new roadway facility, as the SLA helps analysts understand where traffic comes from and where it is going.

A fatal flaw analysis of the ADT volume projections was then conducted. This analysis included determining estimated changes in traffic volumes, traffic patterns, and traffic shifts, compared to the no-build scenario (Scenario A), as well as comparisons of each concept. As shown to the right, bar charts were prepared showing volumes on various roadways and interchanges in and around the project area to provide the volume comparisons.



The Year 2050 ADT volume projections and various bar charts are contained in **Appendix A** and **Appendix B**, respectively.

Graphical summaries for each of the interchange concept scenarios were also prepared. As examples, shown in **Figure 3** and **Figure 4** are the graphics prepared for Concept Scenario D with and without the PA 45 Connector for PEL Study Alternatives 322-1OEX and 322-1S. **Appendix C** contains all of the graphics for all combinations of the advanced PEL Study Alternatives evaluated.

C. Public Involvement Process/Local Municipal Coordination

In accordance with the NEPA public involvement process, the PennDOT Design Team met with local townships officials of Harris Township and Potter Township on August 24, 2023 to present the fatal flaw analysis performed for the Interchange Access Concepts. During the meeting the discussion included the following:

- Harris Township expressed concern over any interchange scenario that forces more through traffic into the downtown area of Harris Township and especially along Boal Avenue, and noted they are currently studying a “road diet” of Boal Avenue for the section between the PA 45 legs.
- Harris Township expressed concern over adding more traffic at the SR 3010 (Warner Boulevard)/Atherton Street intersection (would result with Concept Scenarios C and D), noting that this is the most dangerous intersection in the Township. The Township also noted that these scenarios would provide the most circuitous route for travelers wanting to reach their business district. Therefore, the Township stated that of the three concepts, it favored Scenario B.
- Potter Township representatives did not favor one of the scenarios over another; however, they were split on support for the PA 45 Connector inclusion.
- The PennDOT Design Team noted that without the PA 45 Connector, traffic using the new Midpoint Interchange is drastically reduced making it difficult to justify the cost of building this Midpoint Interchange without also building the PA 45 Connector; all parties agreed that the Midpoint Interchange would support incident management.

STUDY SCENARIO D-1a DIAGRAM (322-1OEX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):
A - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
B - Increases traffic at Warner Blvd interchange by approx. 75%
C - Marginal decrease in traffic on Boal Ave between PA 45 legs (due to traffic shifts to Warner Blvd)
D - Shifts traffic patterns/turning movements at two PA 45/Boal Ave signals
E - Reduces traffic on PA 45 between Connector Rd and US 322 Expressway by approx. 50-60%
F - Minimal increase (5-10%) in traffic volume on PA 45 between Connector Rd and PA 144

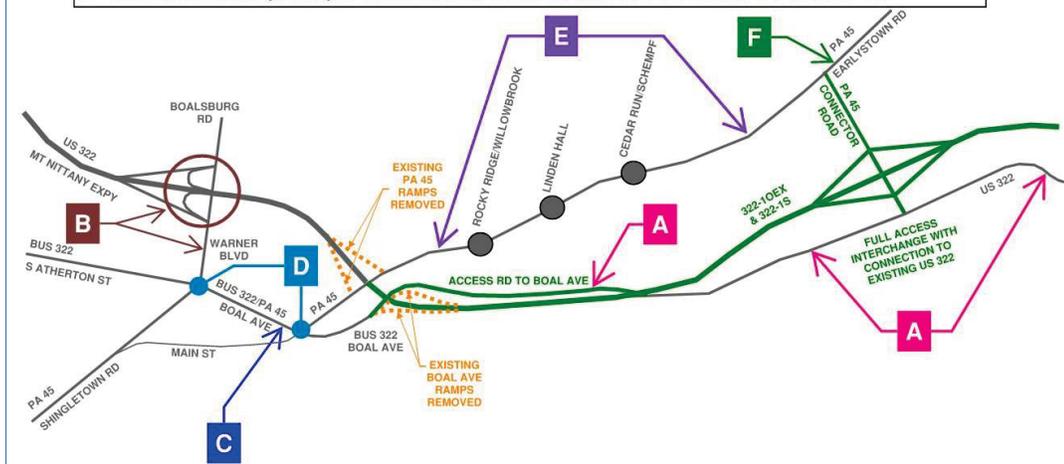


FIGURE 3 - INTERCHANGE CONCEPT SCENARIO D-1A SUMMARY FIGURE

STUDY SCENARIO D-1b DIAGRAM (322-1OEX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS:

- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic at Warner Blvd interchange by greater than 2x
- C** - Increases traffic on Boal Ave between PA 45 legs (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at two PA 45/Boal Ave signals
- E** - Minimal traffic volumes using Midpoint Interchange
- F** - Negligible change (0-5%) in traffic volume on PA 45 between Expressway and PA 144

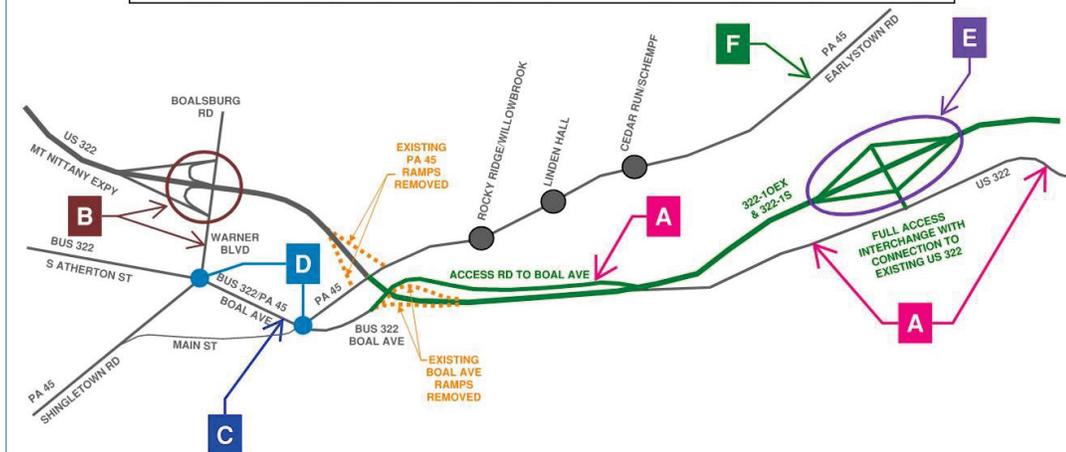


FIGURE 4 - INTERCHANGE CONCEPT SCENARIO D-1b SUMMARY FIGURE

Through further coordination with the coordinating agencies and specifically between the PennDOT, Centre County Metropolitan Planning Commission (CCMPO), and Harris and Potter Townships, it was agreed that the fatal flaw analysis does show the PA 45 Connector could have a positive effect on improving traffic operations along a portion of PA 45 in Harris Township, but would not solve traffic concerns on the section of PA 45 in Potter Township. Therefore, it was agreed that the PA 45 corridor has independent transportation needs that should be considered separate from the issues and needs of the US 322 corridor. As a result, the PA 45 Connector was removed from further study during the pre-NEPA phase of the SCAC project. A separate study was developed and is currently underway to address the PA 45 corridor.

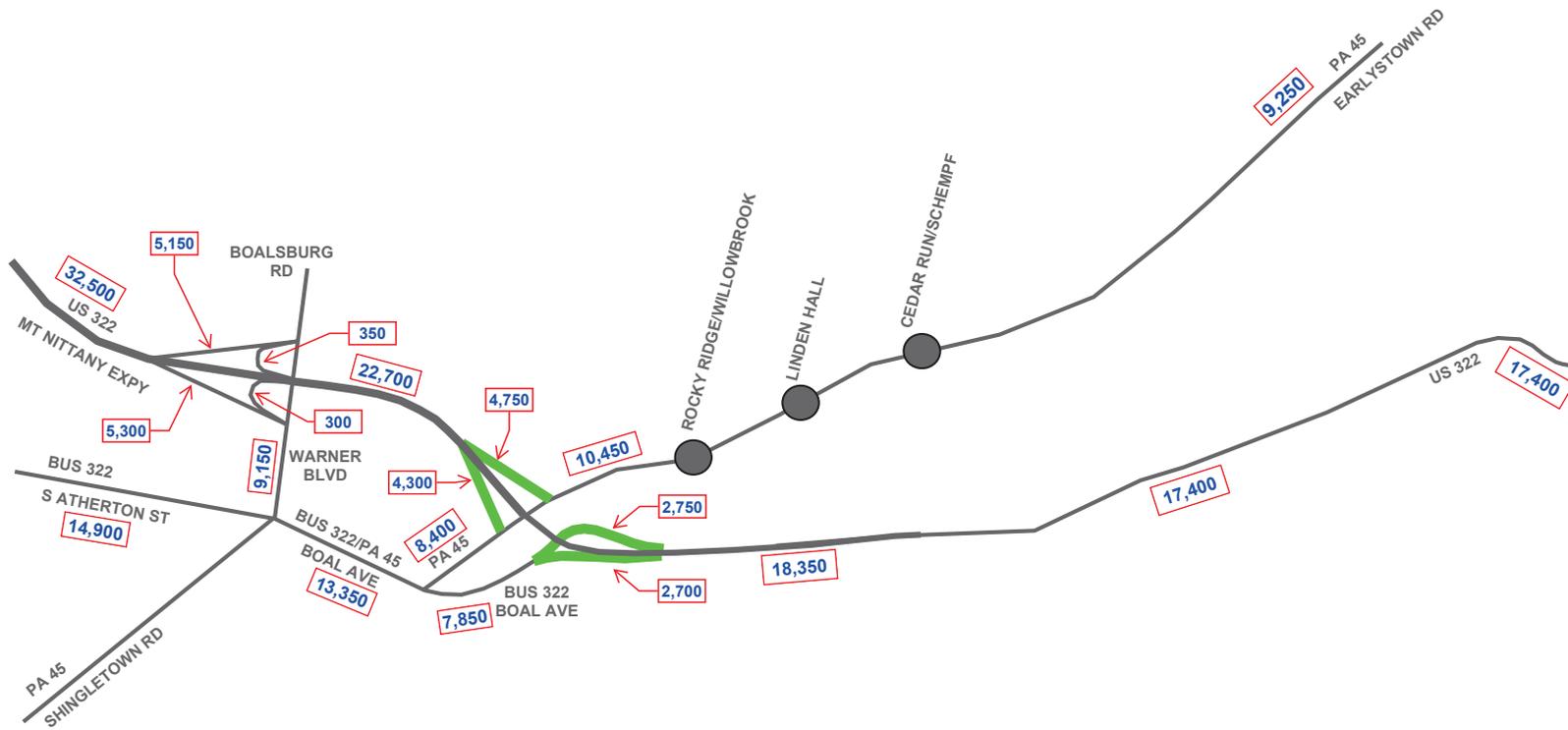
In summary, Scenarios C & D had more substantive changes in traffic patterns resulting in increased traffic volumes on SR 3010 (Warner Boulevard) and were therefore dismissed from further consideration, while Interchange Access Scenario B, with minimal changes to traffic volumes/patterns, was advanced for further consideration. Furthermore, it was agreed that Scenario B would be advanced without inclusion of either the PA 45 Connector Road, or the Midpoint Interchange.

APPENDIX A –

Build Interchange Concepts Scenarios
Year 2050 ADT Volume Projections

SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO A DIAGRAM

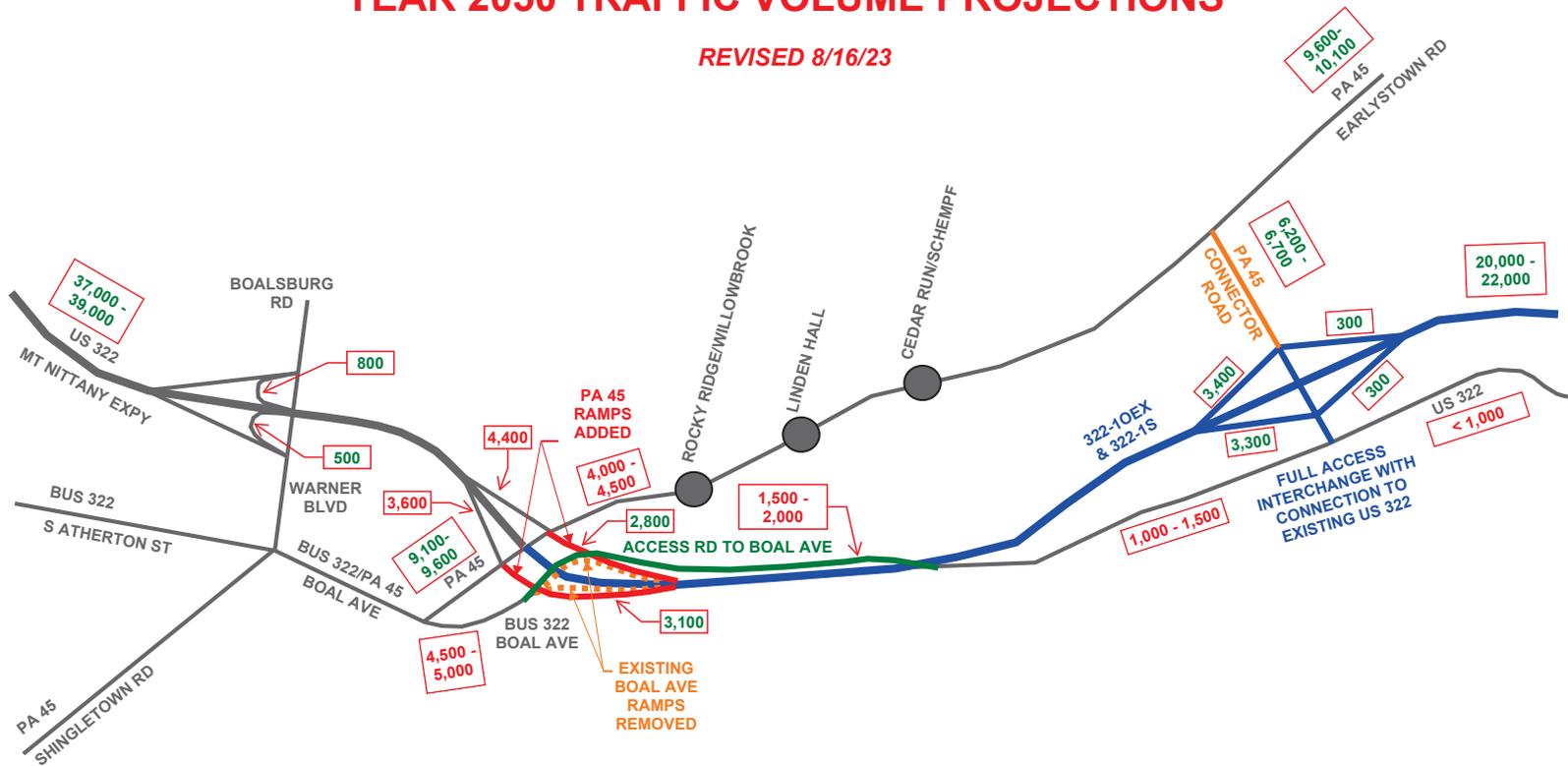
NO BUILD ALTERNATIVE YEAR 2050 TRAFFIC VOLUME PROJECTIONS



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO B-1a DIAGRAM

US 322 BUILD ALTERNATIVES (322-1OEX / 322-1S) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

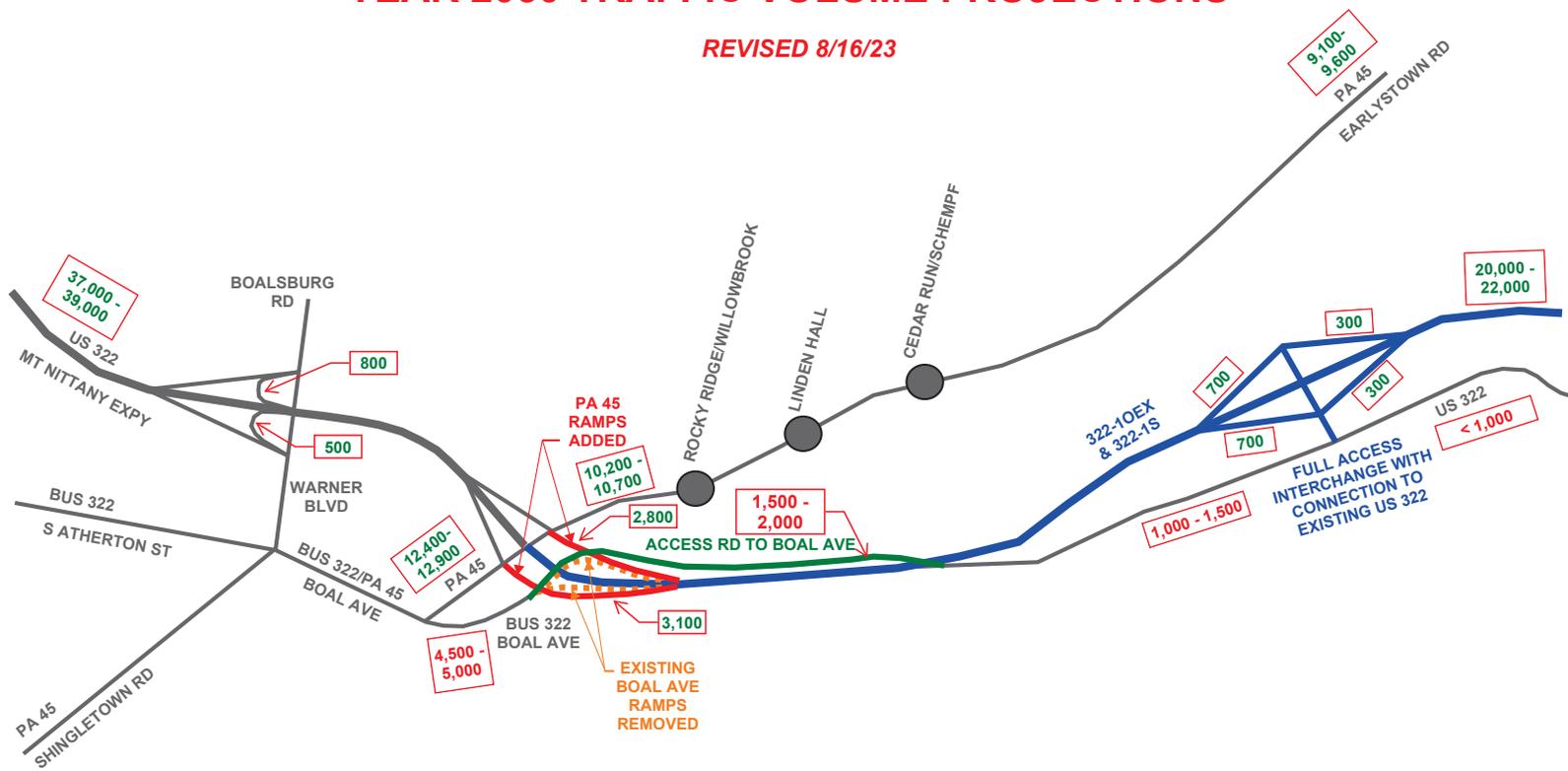
REVISED 8/16/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO B-1b DIAGRAM

US 322 BUILD ALTERNATIVES (322-1OEX / 322-1S) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

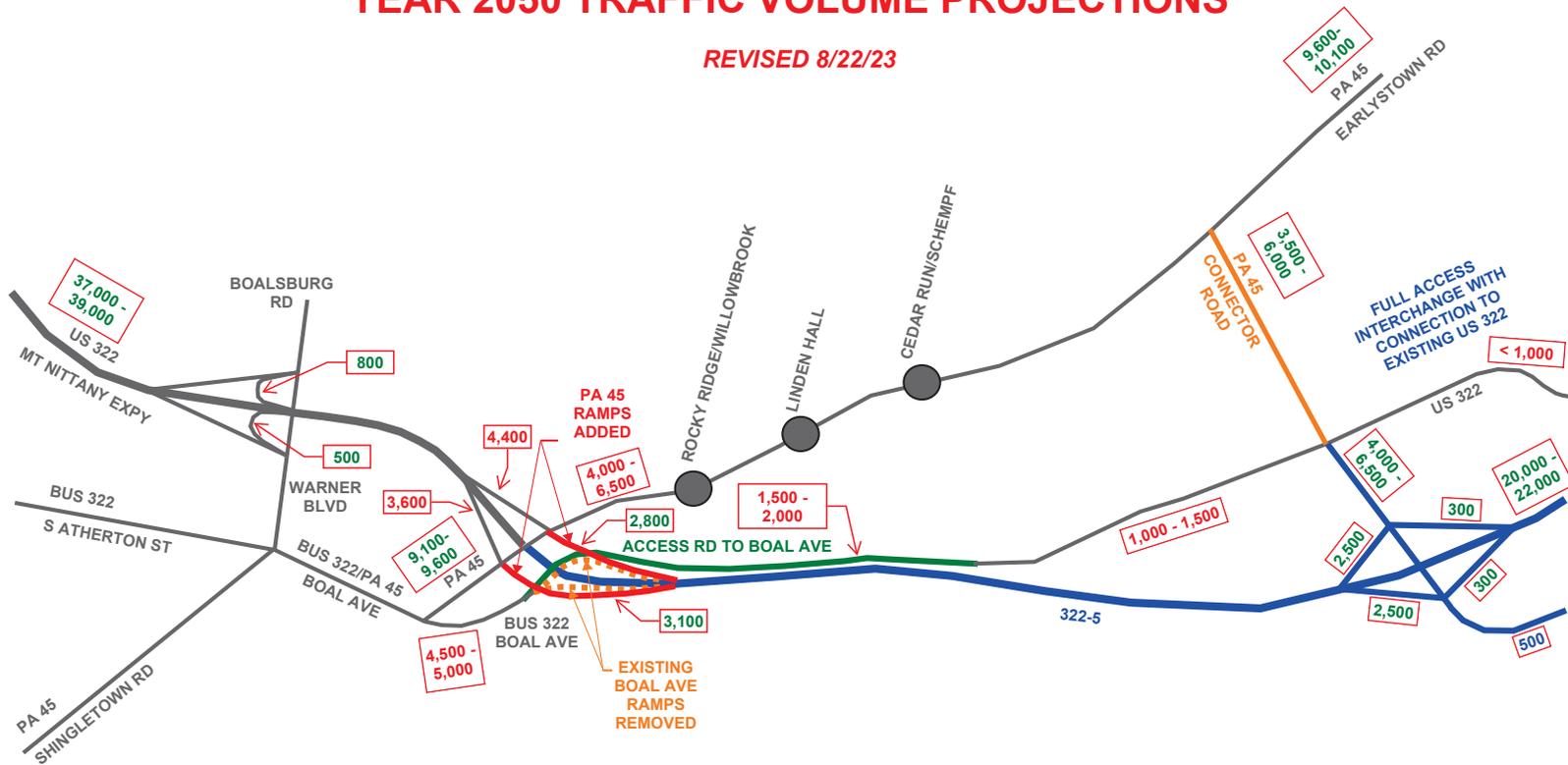
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SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO B-1a DIAGRAM

US 322 BUILD ALTERNATIVES (322-5) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

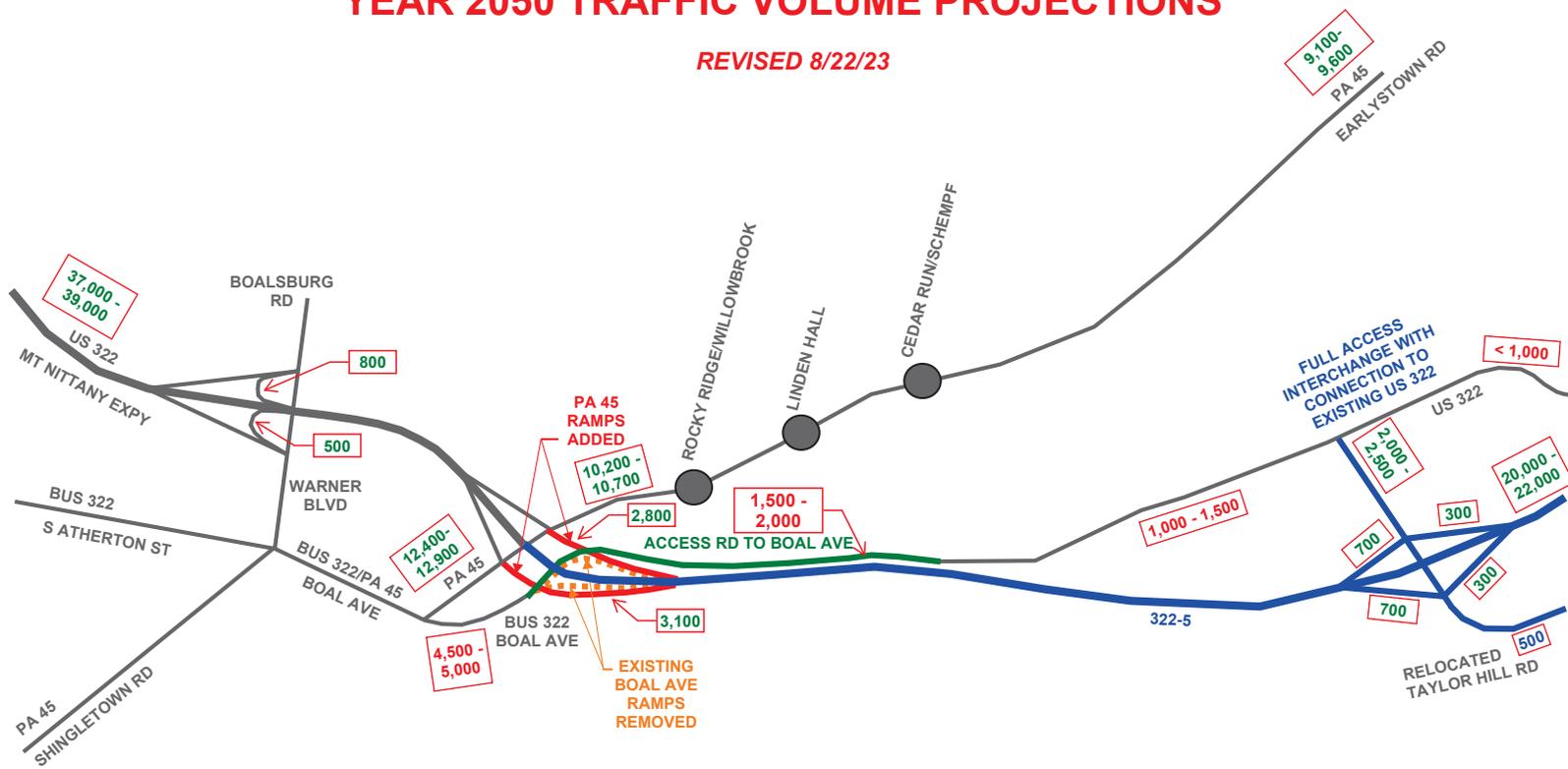
REVISED 8/22/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO B-1b DIAGRAM

US 322 BUILD ALTERNATIVES (322-5) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

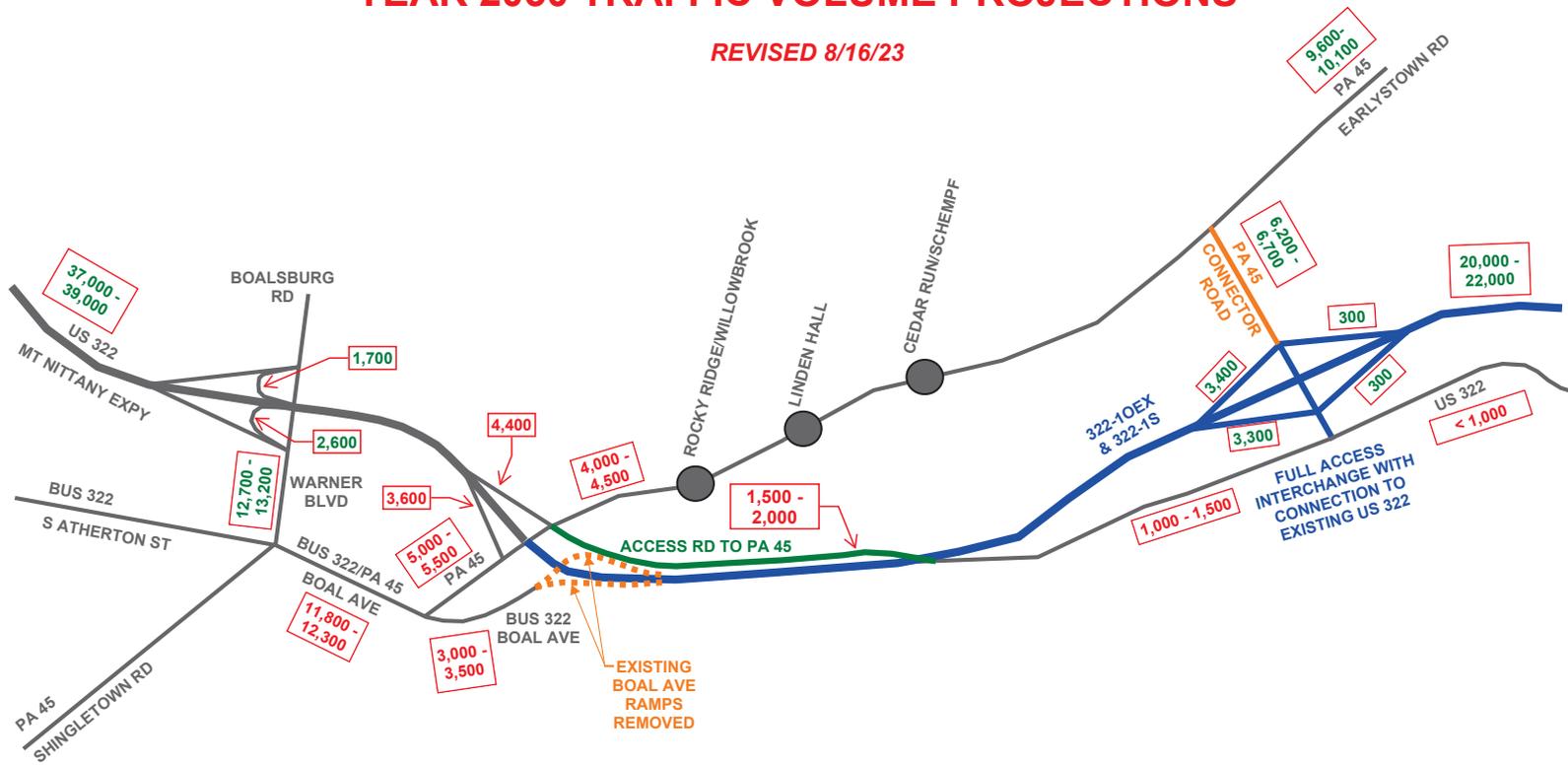
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SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO C-1a DIAGRAM

US 322 BUILD ALTERNATIVES (322-1OEX / 322-1S) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

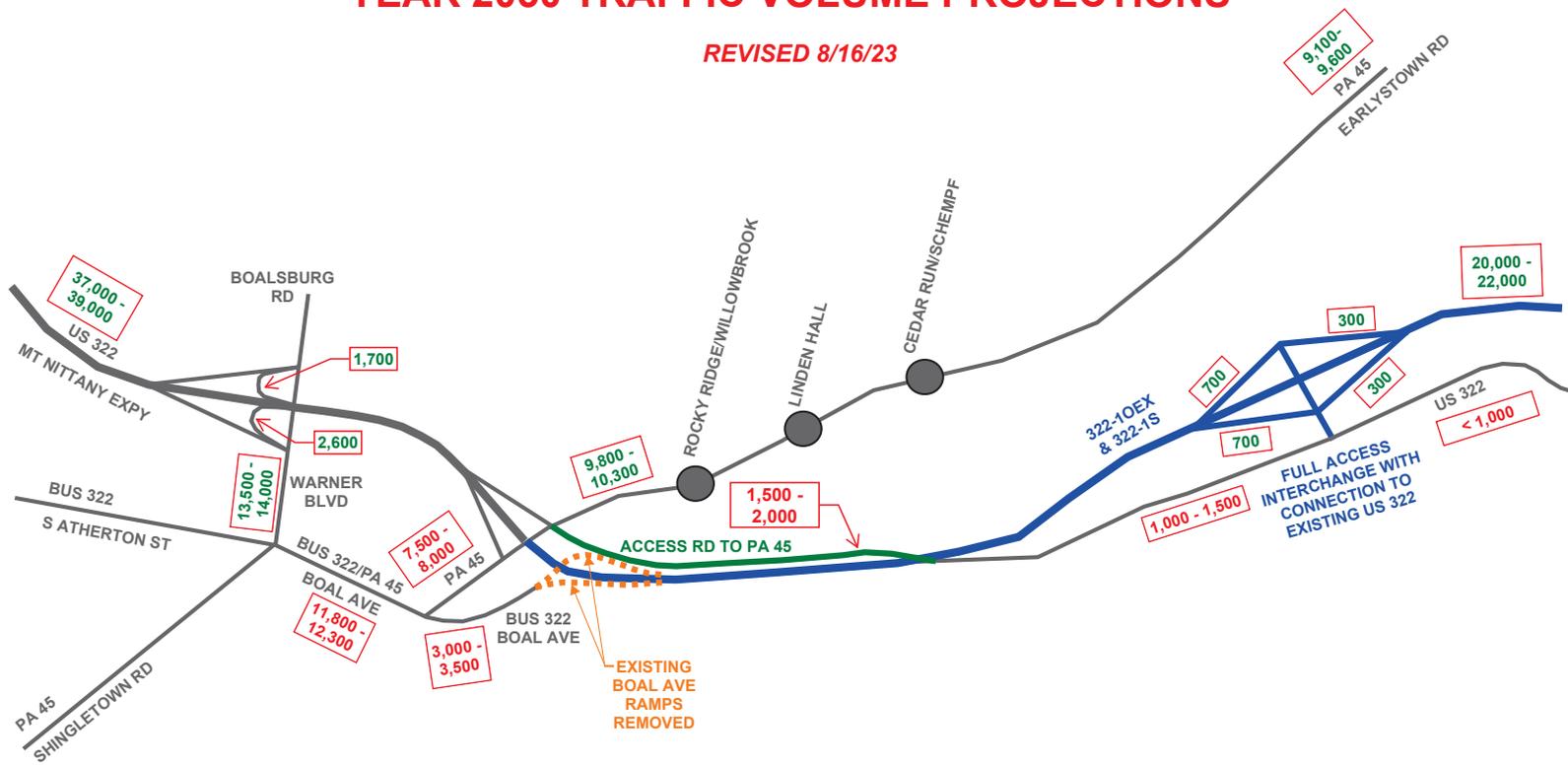
REVISED 8/16/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO C-1b DIAGRAM

US 322 BUILD ALTERNATIVES (322-1OEX / 322-1S) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

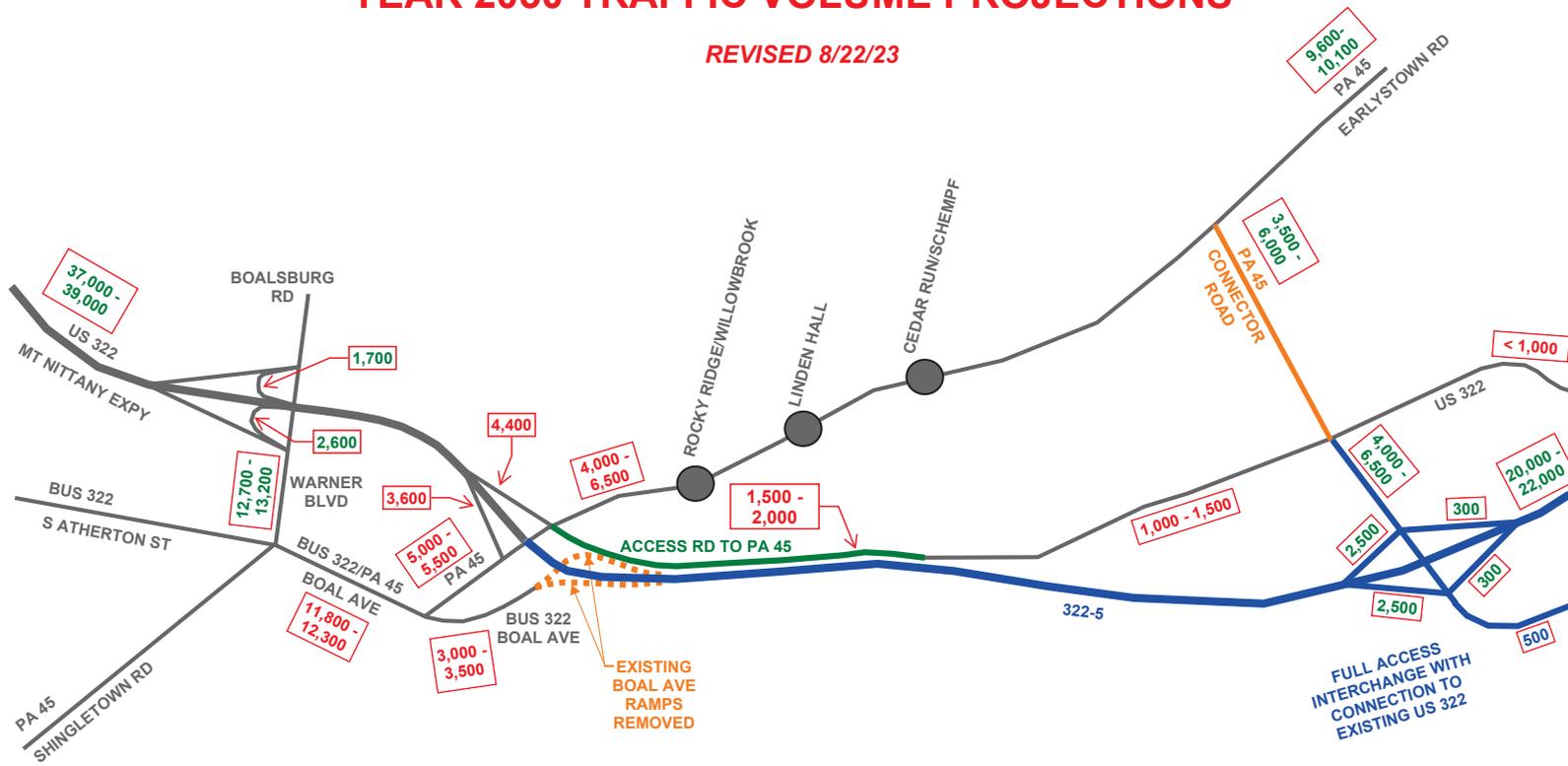
REVISED 8/16/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO C-1a DIAGRAM

US 322 BUILD ALTERNATIVES (322-5) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

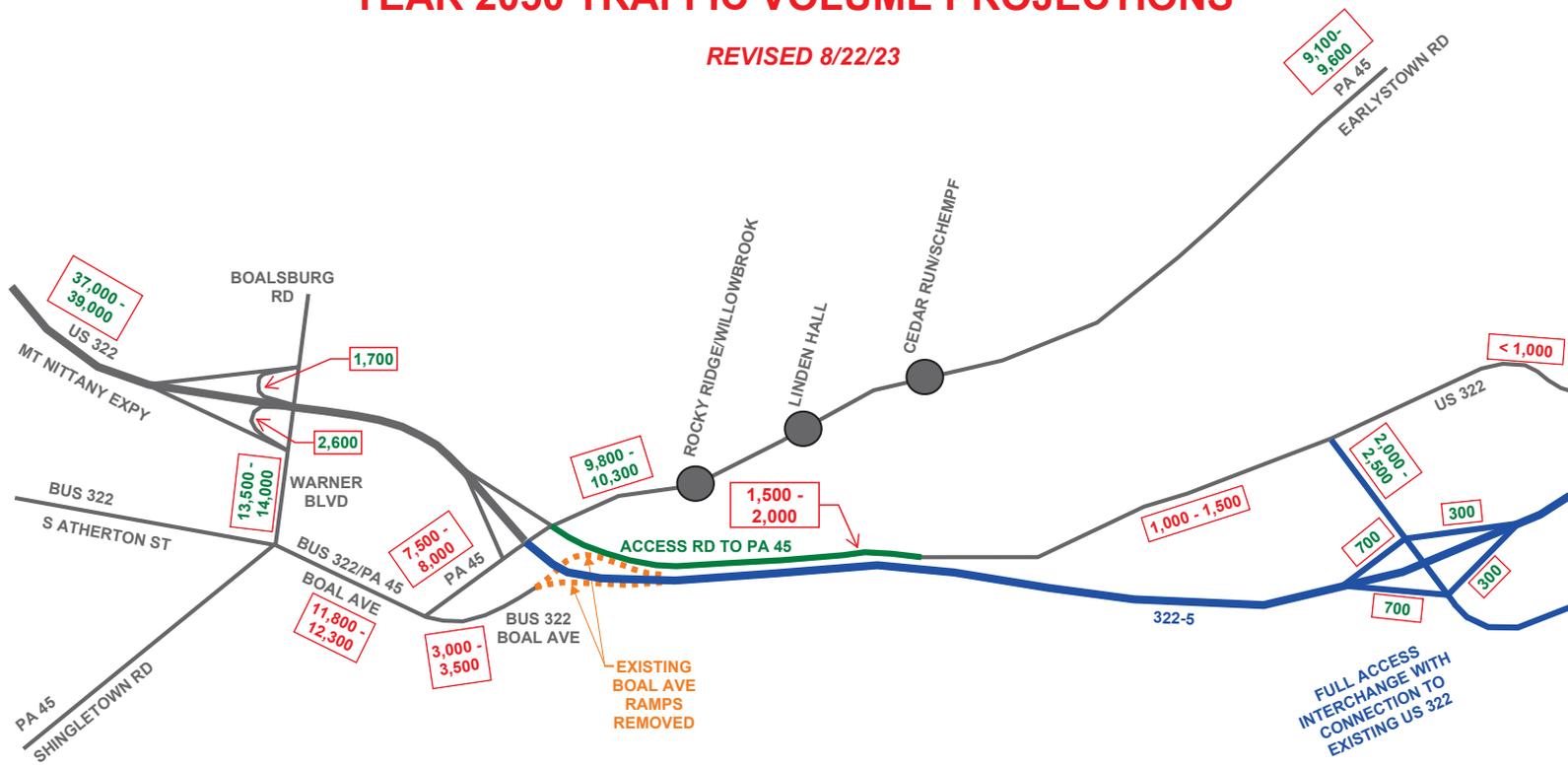
REVISED 8/22/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO C-1b DIAGRAM

US 322 BUILD ALTERNATIVES (322-5) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

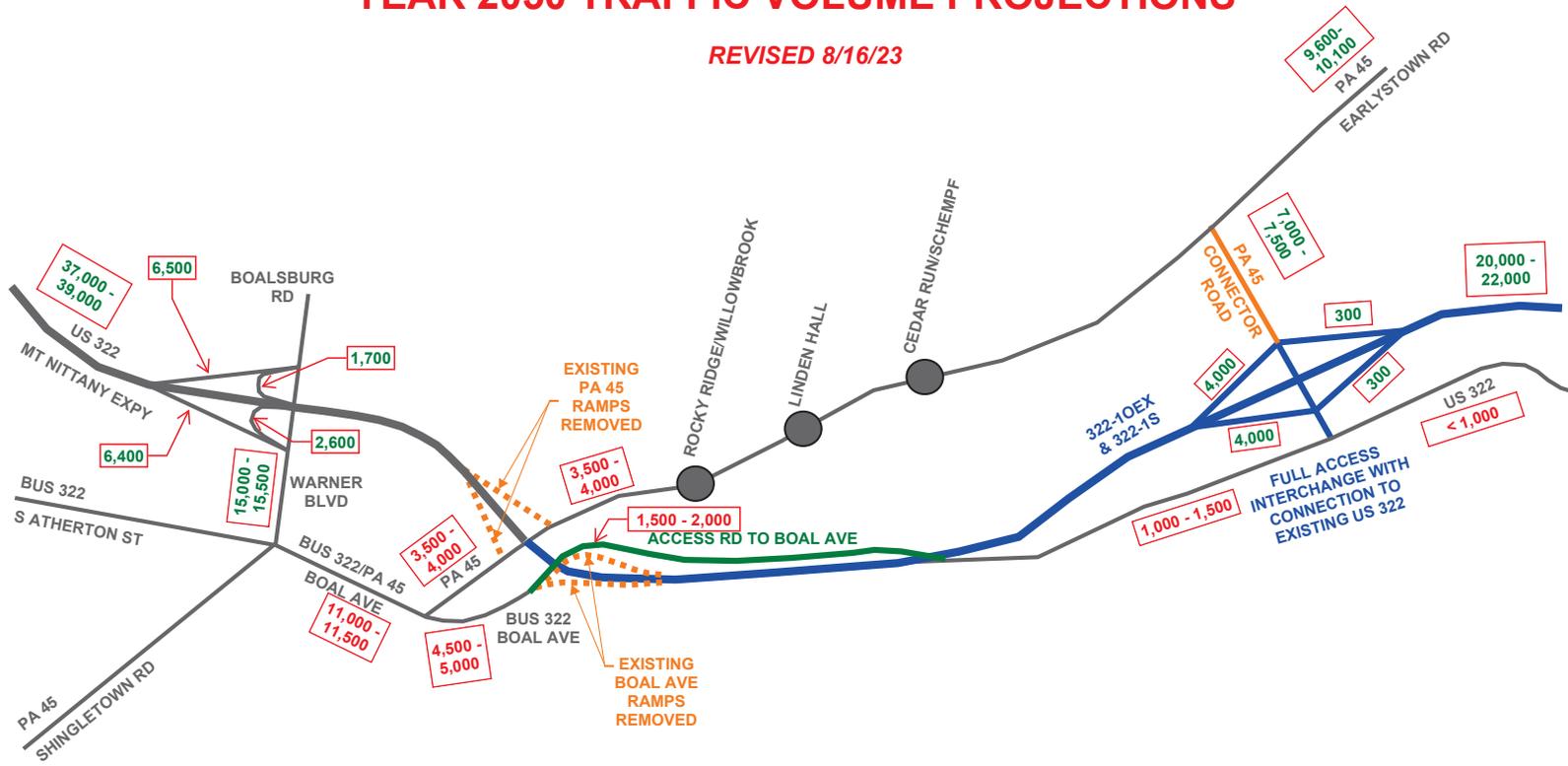
REVISED 8/22/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO D-1a DIAGRAM

US 322 BUILD ALTERNATIVES (322-1OEX / 322-1S) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

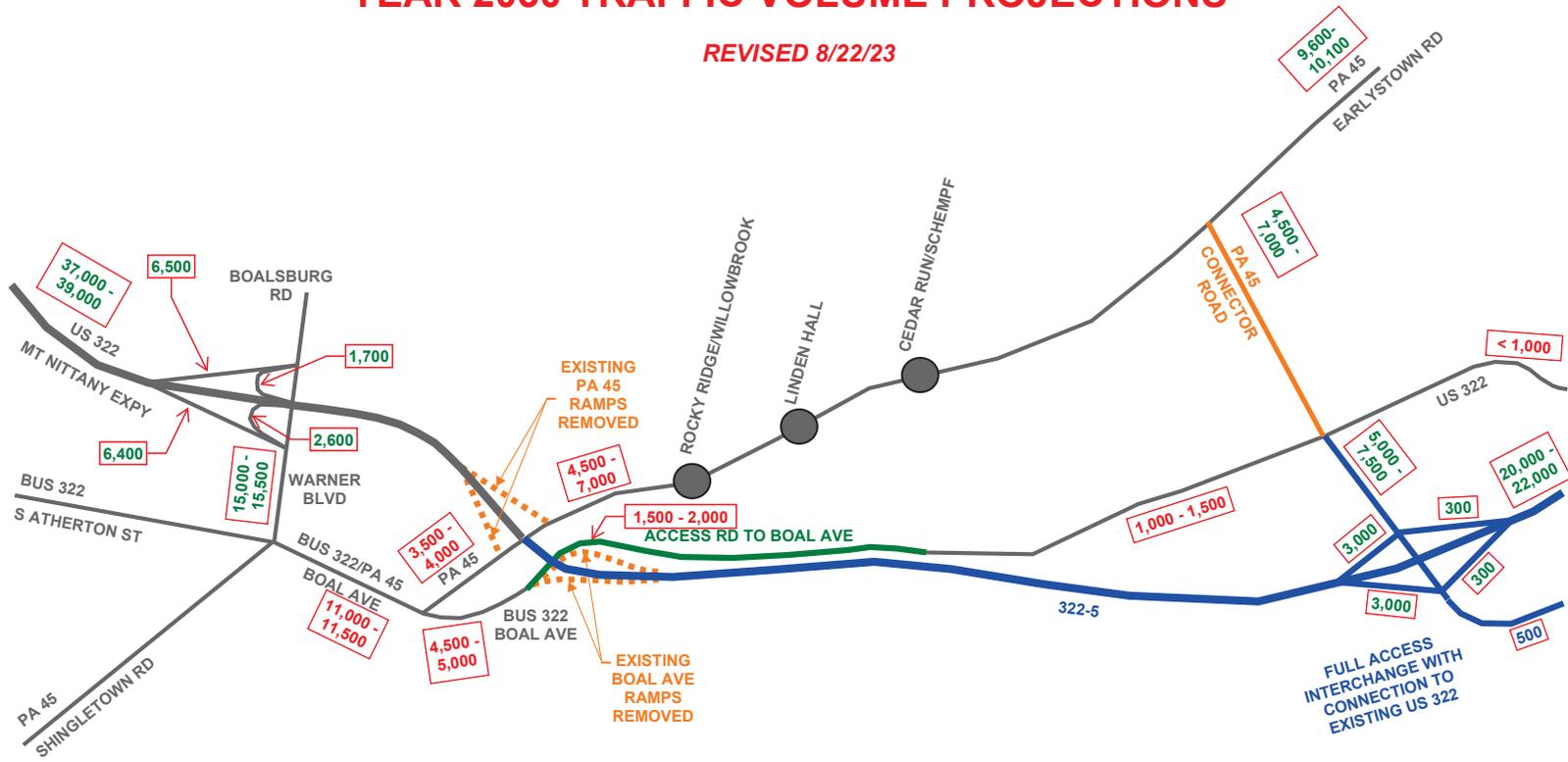
REVISED 8/16/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO D-1a DIAGRAM

US 322 BUILD ALTERNATIVES (322-5) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

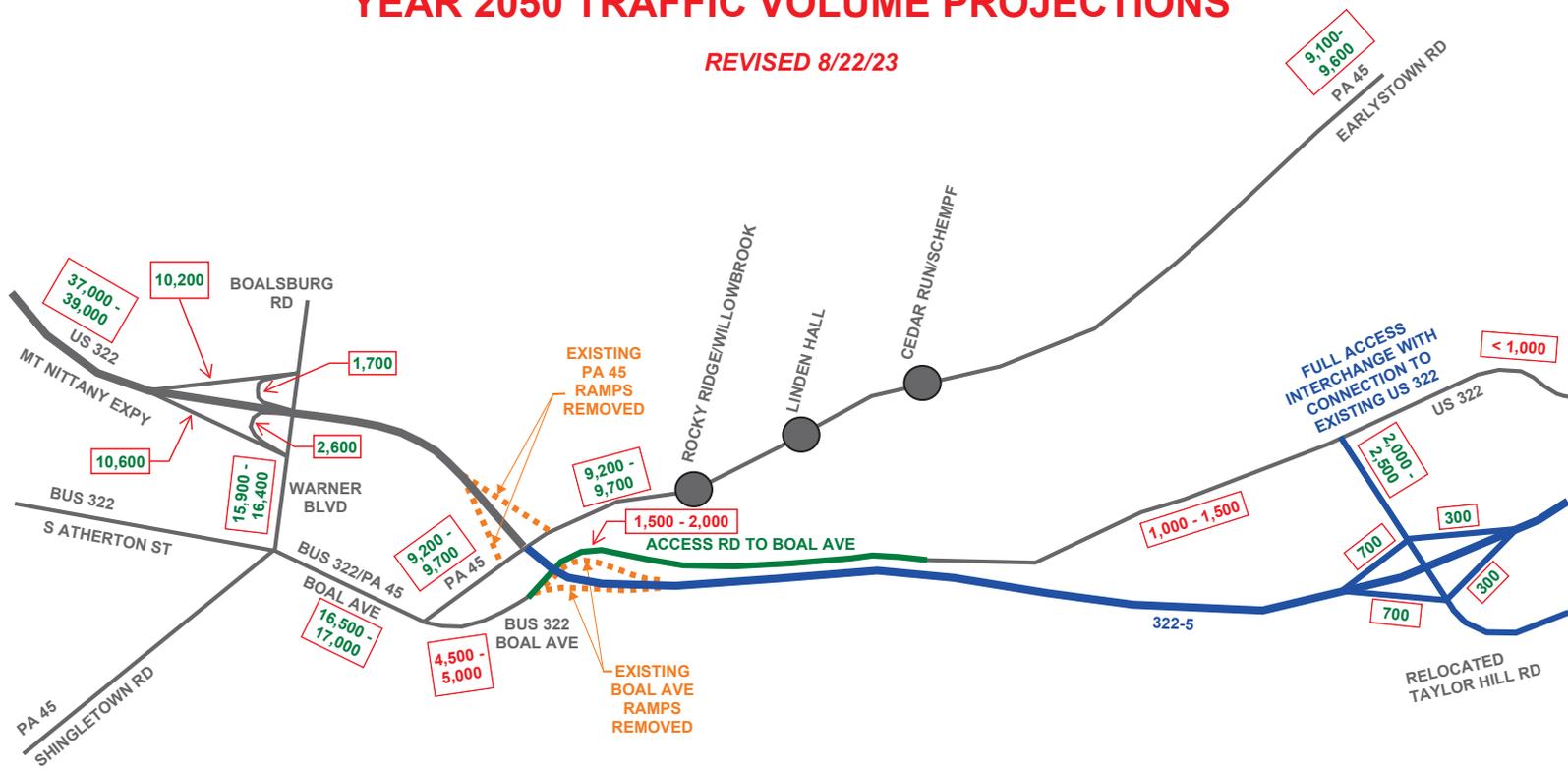
REVISED 8/22/23



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO D-1b DIAGRAM

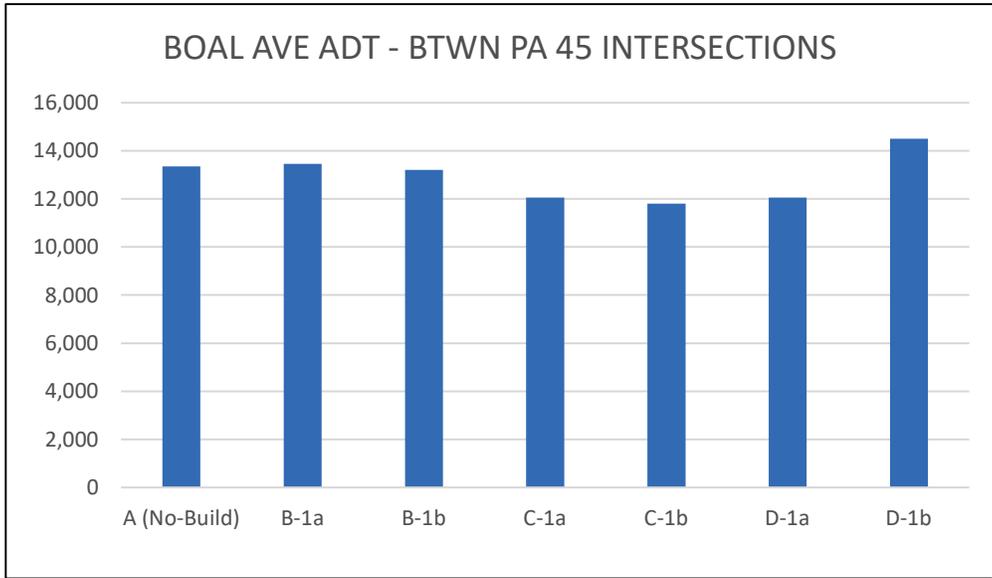
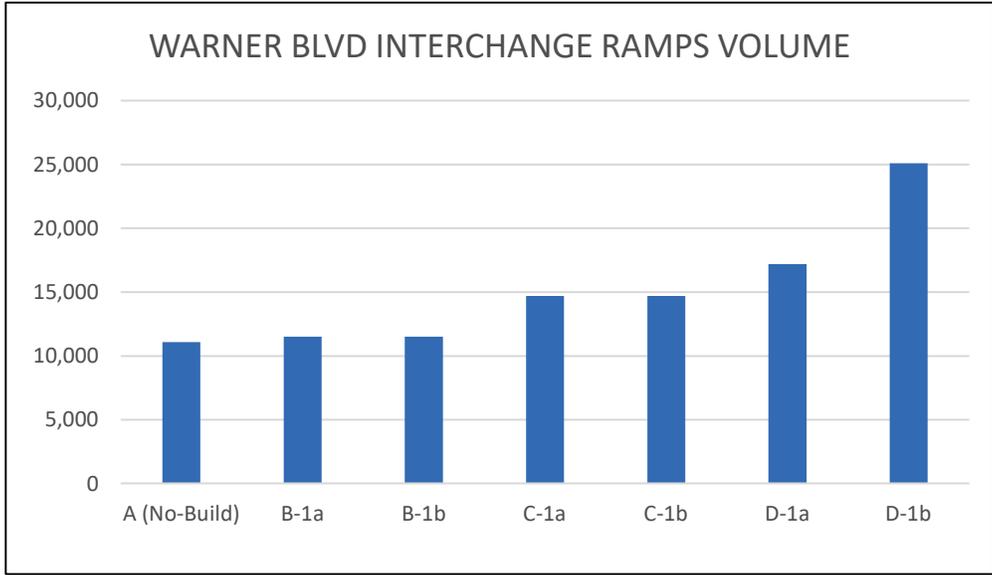
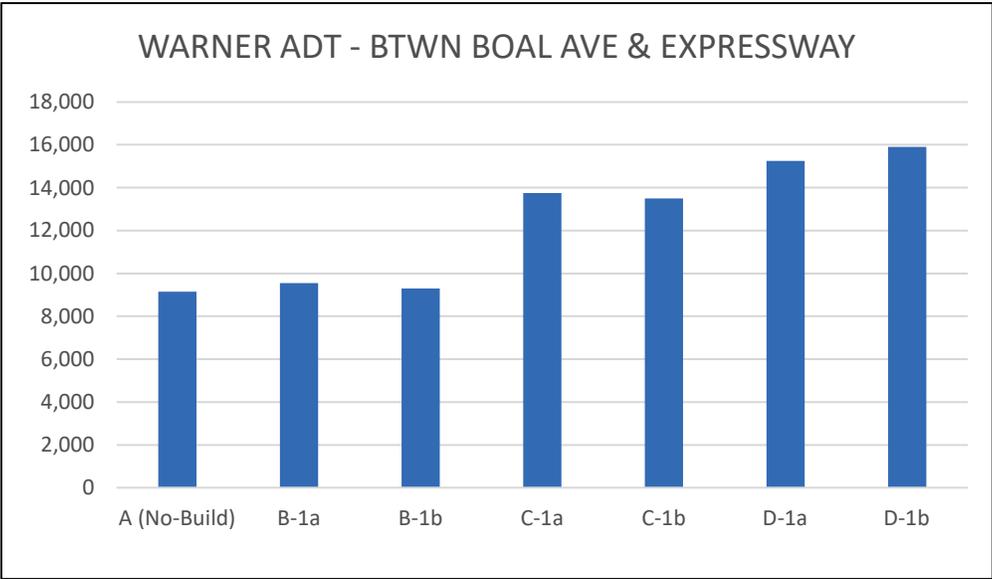
US 322 BUILD ALTERNATIVES (322-5) YEAR 2050 TRAFFIC VOLUME PROJECTIONS

REVISED 8/22/23

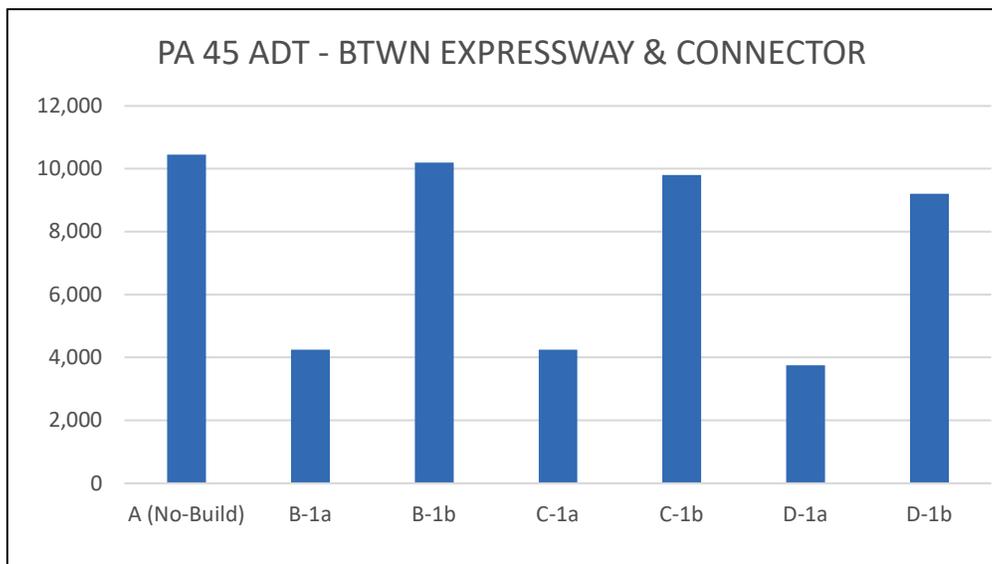
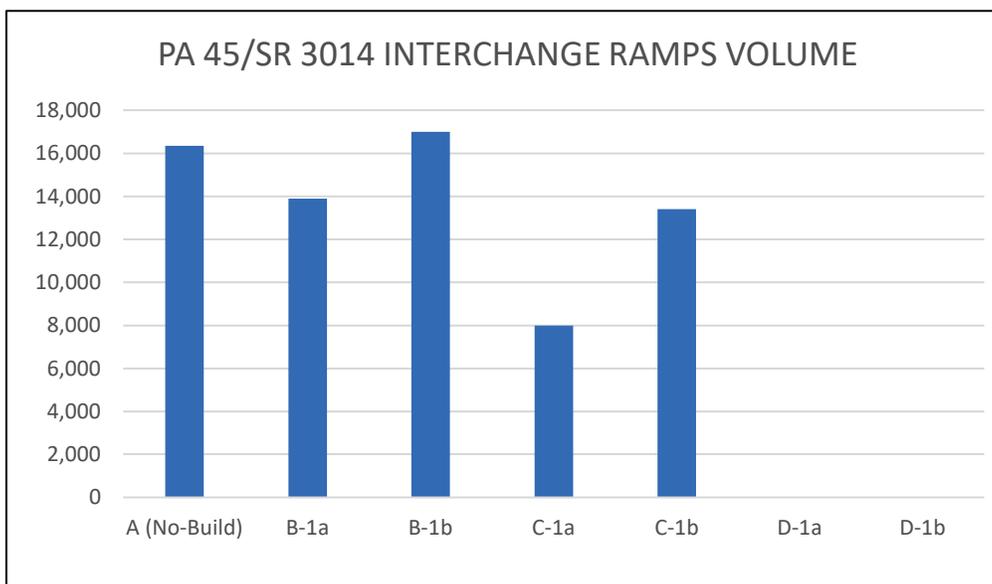
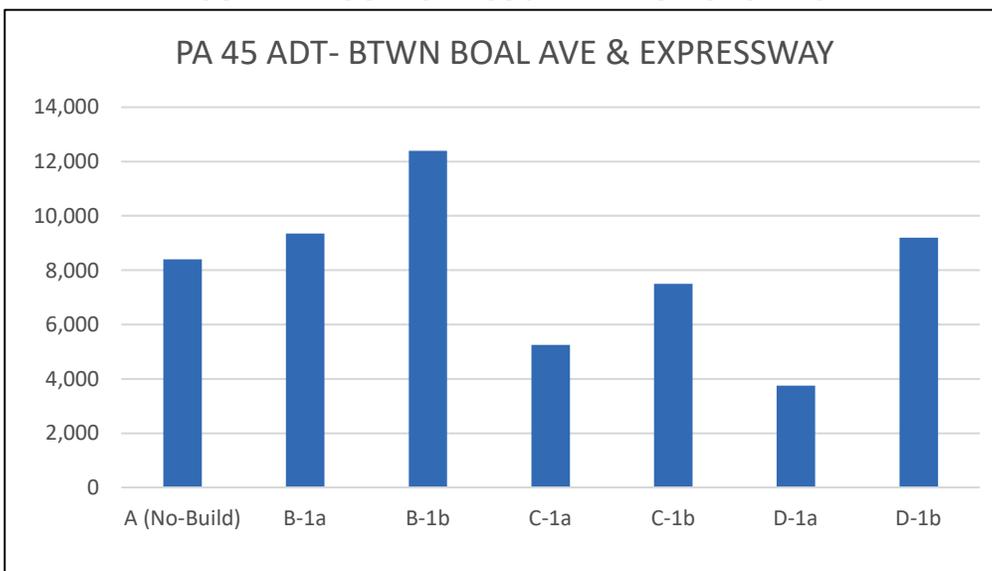


APPENDIX B –
Build Interchange Concepts Scenarios
Volume Comparisons

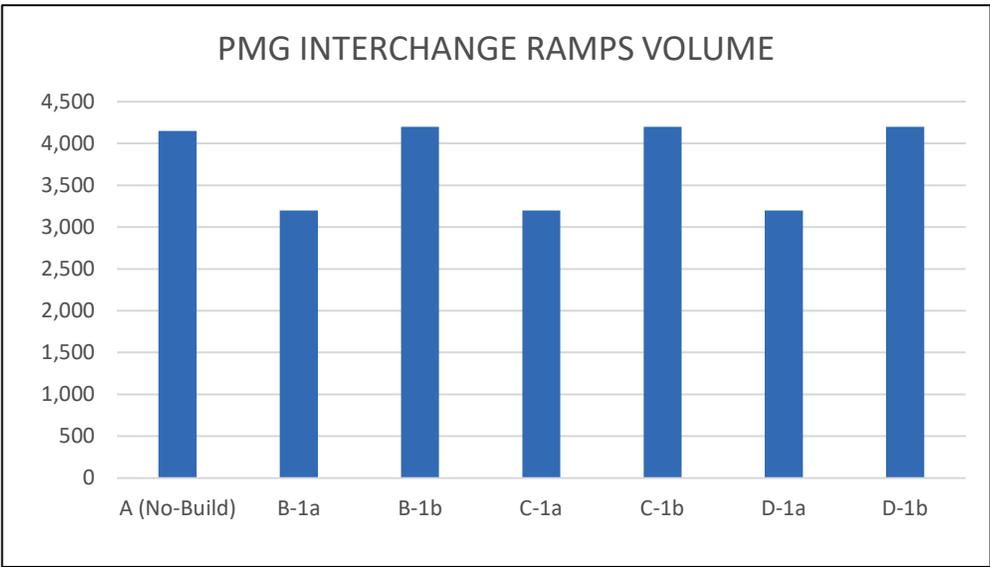
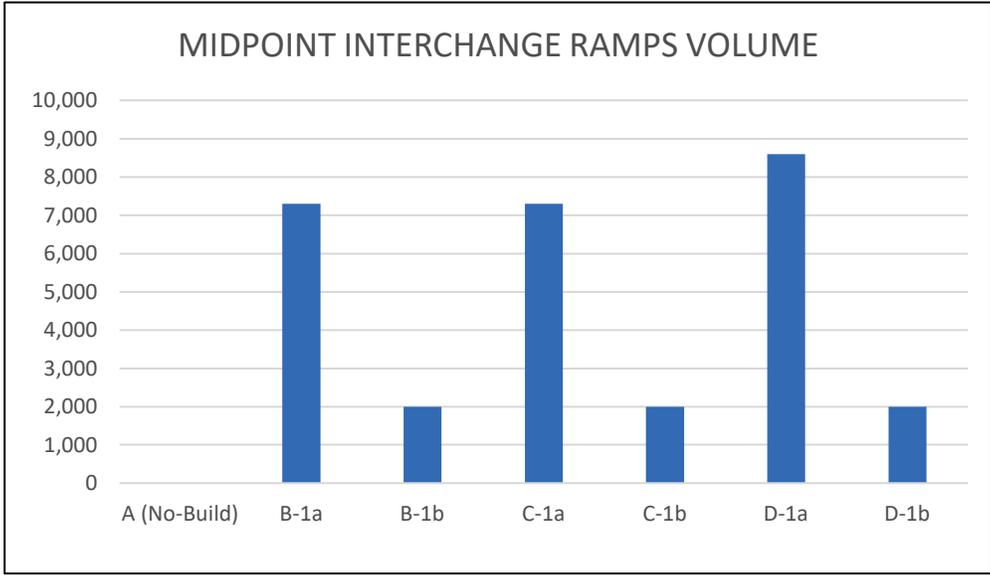
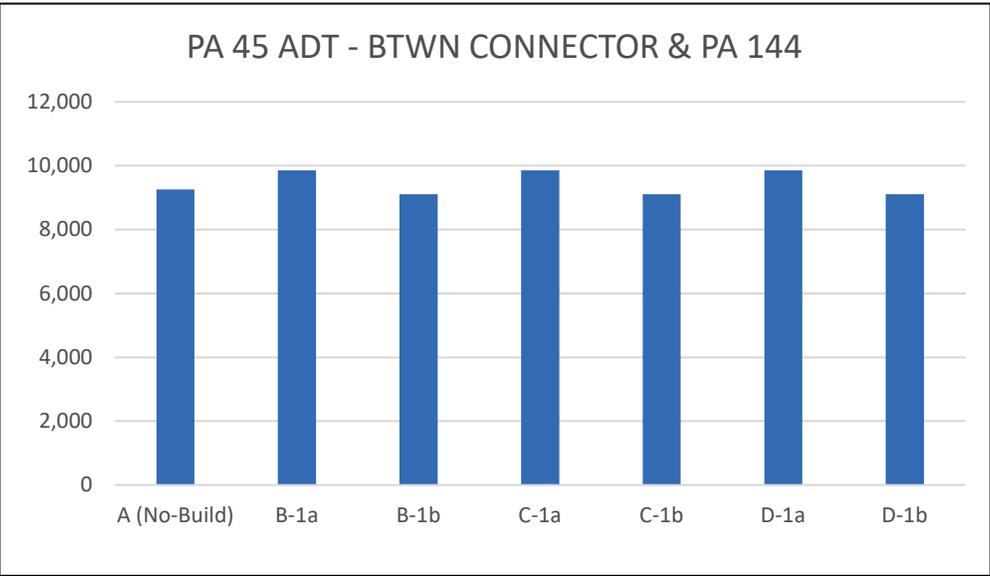
**SCAC - INTERCHANGE SCENARIOS
COMPARISON OF 2050 TRAFFIC VOLUMES**



SCAC - INTERCHANGE SCENARIOS COMPARISON OF 2050 TRAFFIC VOLUMES



**SCAC - INTERCHANGE SCENARIOS
COMPARISON OF 2050 TRAFFIC VOLUMES**



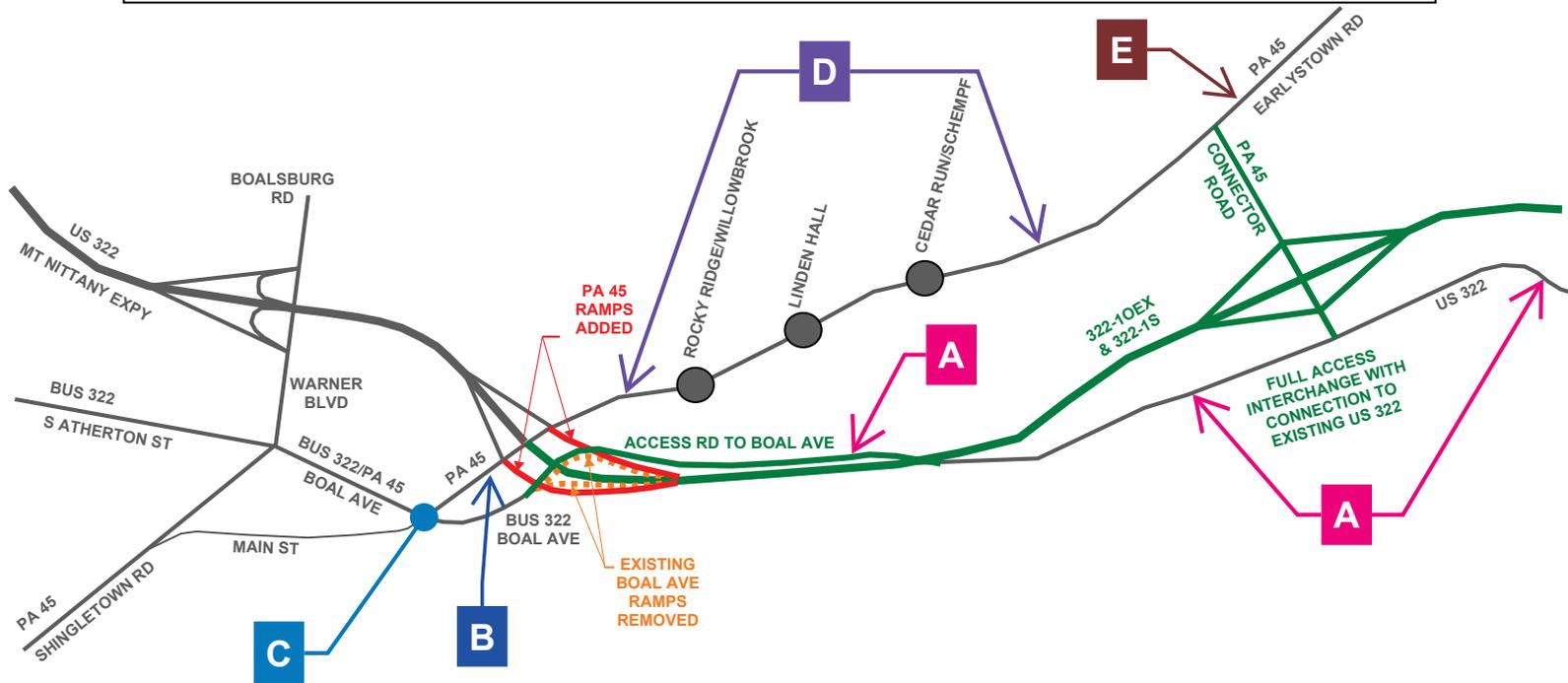
APPENDIX C –
Build Interchange Concepts Scenarios
Summary Figures

SCAC - PA 45 ALTERNATIVES ANALYSIS

STUDY SCENARIO B-1a DIAGRAM (322-1OEX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

- A - Reduces traffic volumes on existing US 322 (2-lane section) by >90%**
- B - Increases traffic on PA 45 between Boal Ave and US 322 Expressway by approx. 50%**
- C - Shifts traffic patterns/turning movements at Boal Ave/PA 45/Main St intersection**
- D - Reduces traffic on PA 45 between Connector Rd and US 322 Expressway by approx. 45-50%**
- E - Minimal increase (5-10%) in traffic volume on PA 45 between Connector Rd and PA 144**

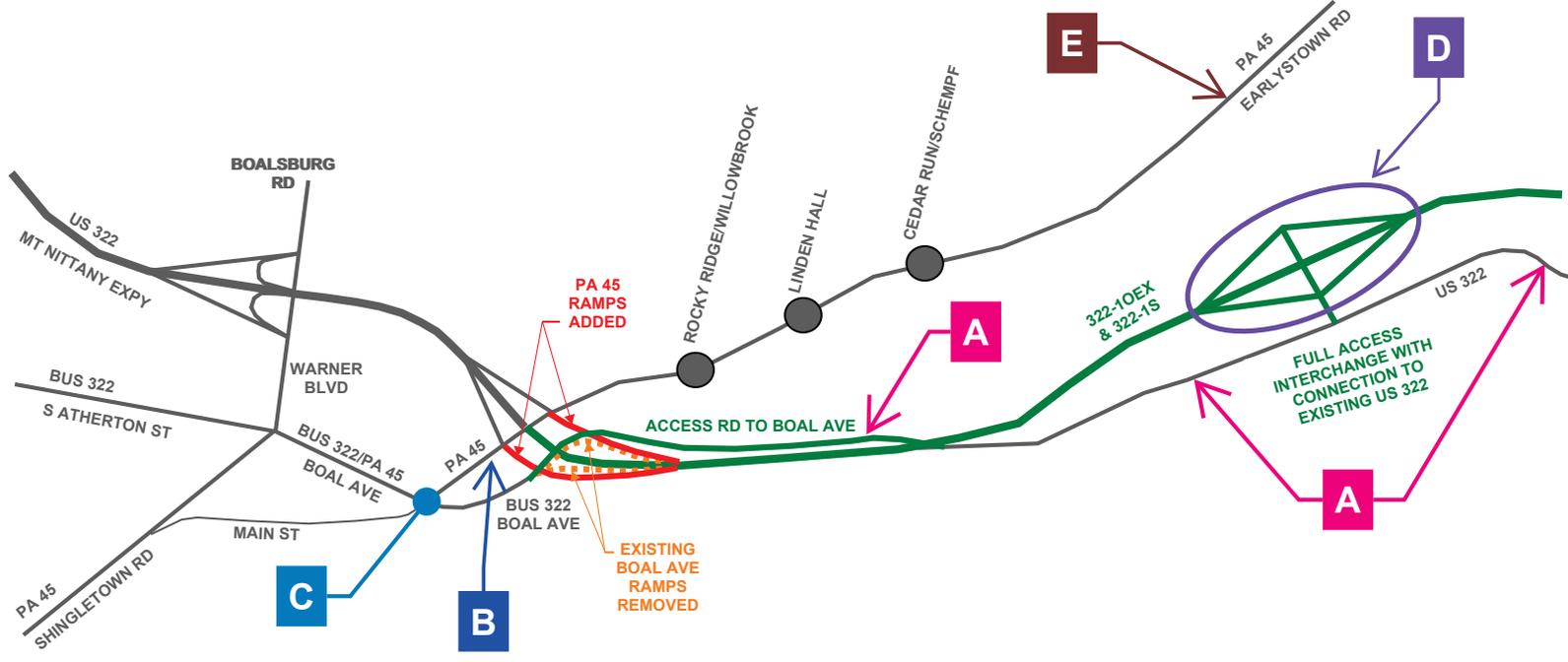


SCAC - PA 45 ALTERNATIVES ANALYSIS

STUDY SCENARIO B-1b DIAGRAM (322-10EX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

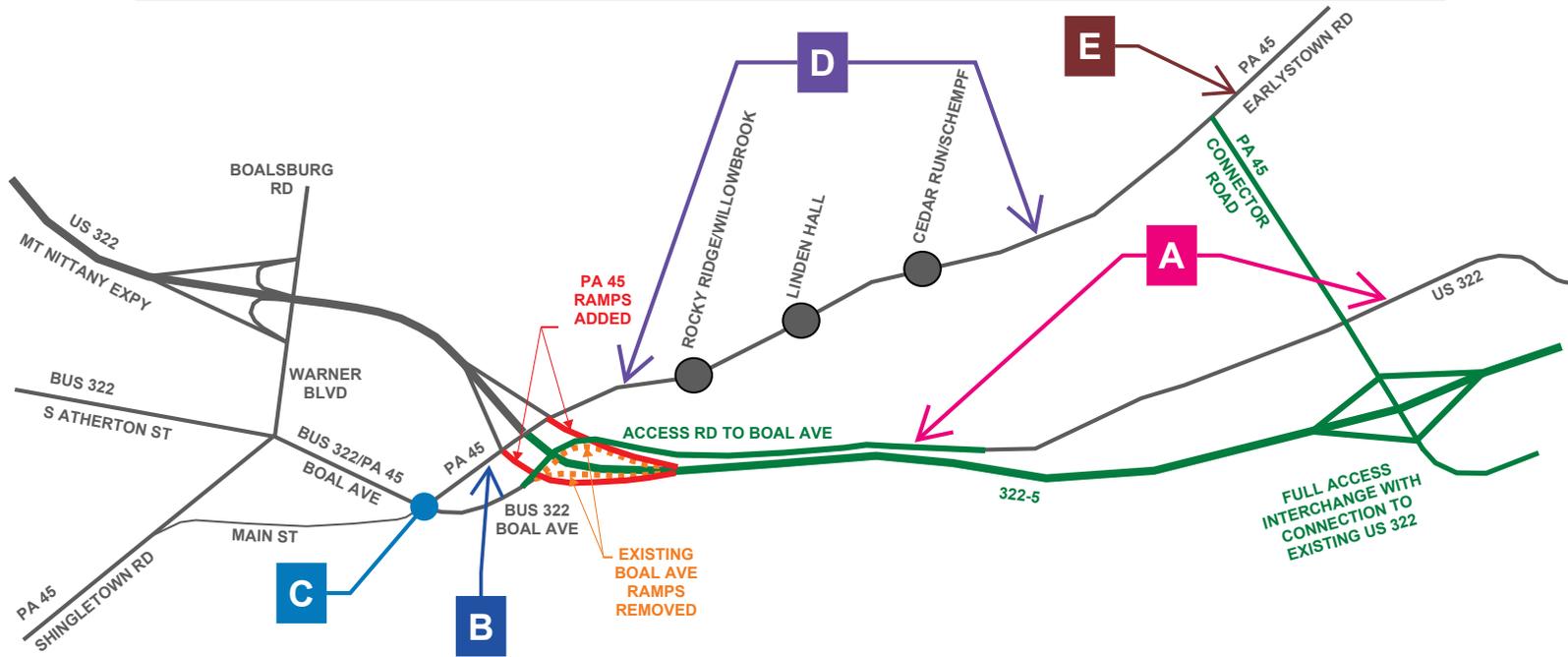
- A - Reduces traffic volumes on existing US 322 (2-lane section) by >90%**
- B - Increases traffic on PA 45 between Boal Ave and US 322 Expressway by approx. 50%**
- C - Shifts traffic patterns/turning movements at Boal Ave/PA 45/Main St intersection**
- D - Minimal traffic volumes using Midpoint Interchange**
- E - Negligible change (0-5%) in traffic volume on PA 45 between Expressway and PA 144**



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO B-1a DIAGRAM (322-5)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

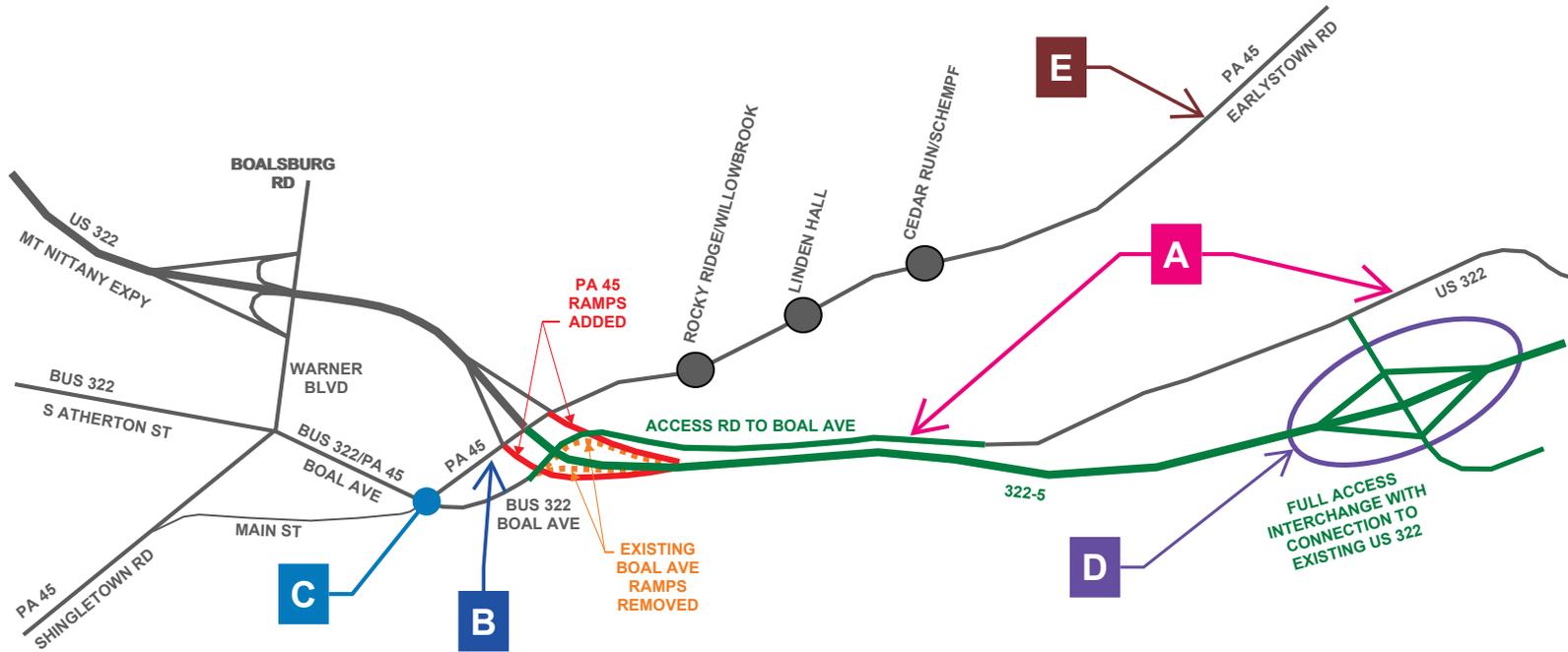
- A - Reduces traffic volumes on existing US 322 (2-lane section) by >90%**
- B - Increases traffic on PA 45 between Boal Ave and US 322 Expressway by approx. 50%**
- C - Shifts traffic patterns/turning movements at Boal Ave/PA 45/Main St intersection**
- D - Reduces traffic on PA 45 between Connector Rd and US 322 Expressway by approx. 35-40%**
- E - Minimal increase (5-10%) in traffic volume on PA 45 between Connector Rd and PA 144**



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO B-1b DIAGRAM (322-5)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

- A - Reduces traffic volumes on existing US 322 (2-lane section) by >90%**
- B - Increases traffic on PA 45 between Boal Ave and US 322 Expressway by approx. 50%**
- C - Shifts traffic patterns/turning movements at Boal Ave/PA 45/Main St intersection**
- D - Minimal traffic volumes using Midpoint Interchange**
- E - Negligible change (0-5%) in traffic volume on PA 45 between Expressway and PA 144**

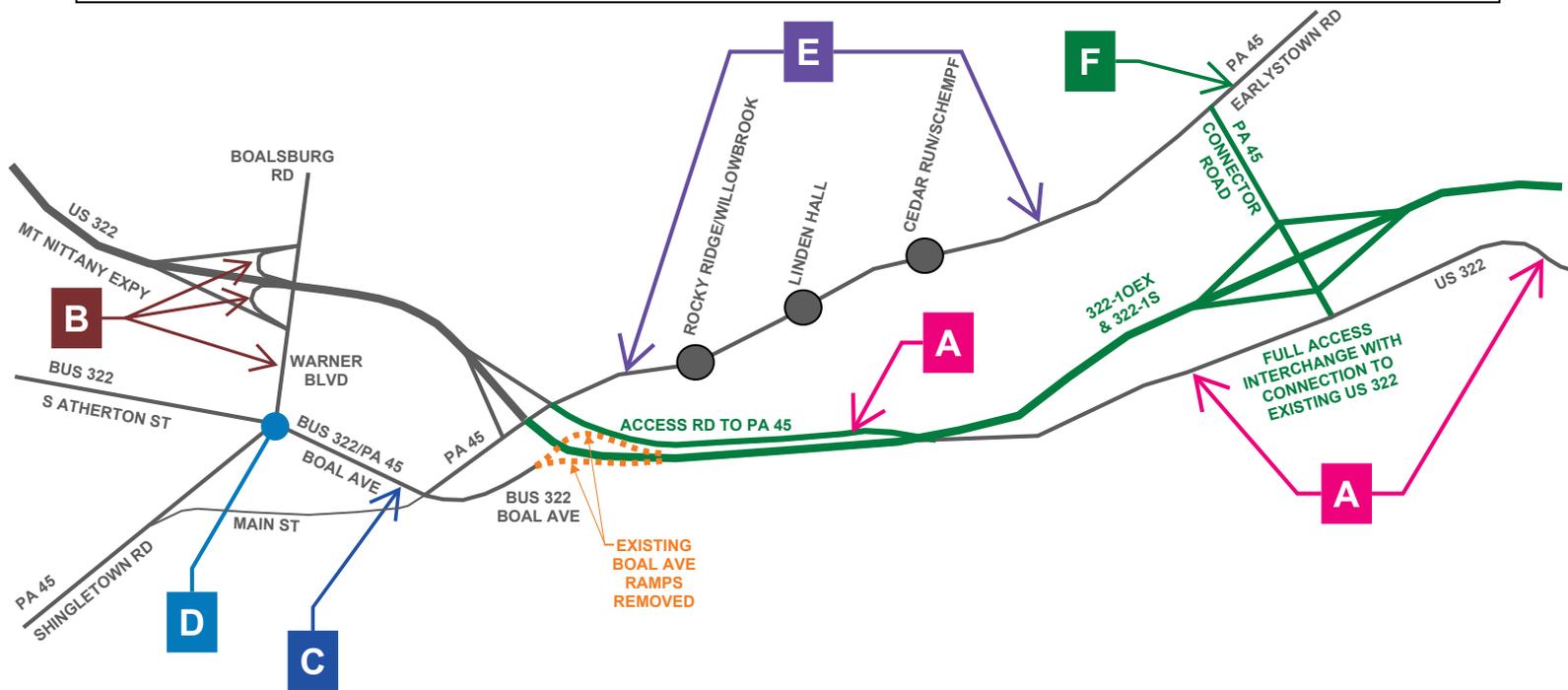


SCAC - PA 45 ALTERNATIVES ANALYSIS

STUDY SCENARIO C-1a DIAGRAM (322-1OEX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic on Warner Blvd loop ramps and Warner Blvd by approx. 30-35%
- C** - Reduces traffic on Boal Ave between PA 45 legs by approx. 10% (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at Atherton St/PA 45/Boal Ave intersection
- E** - Reduces traffic on PA 45 between Connector Rd and US 322 Expressway by approx. 40-45%
- F** - Minimal increase (5-10%) in traffic volume on PA 45 between Connector Rd and PA 144

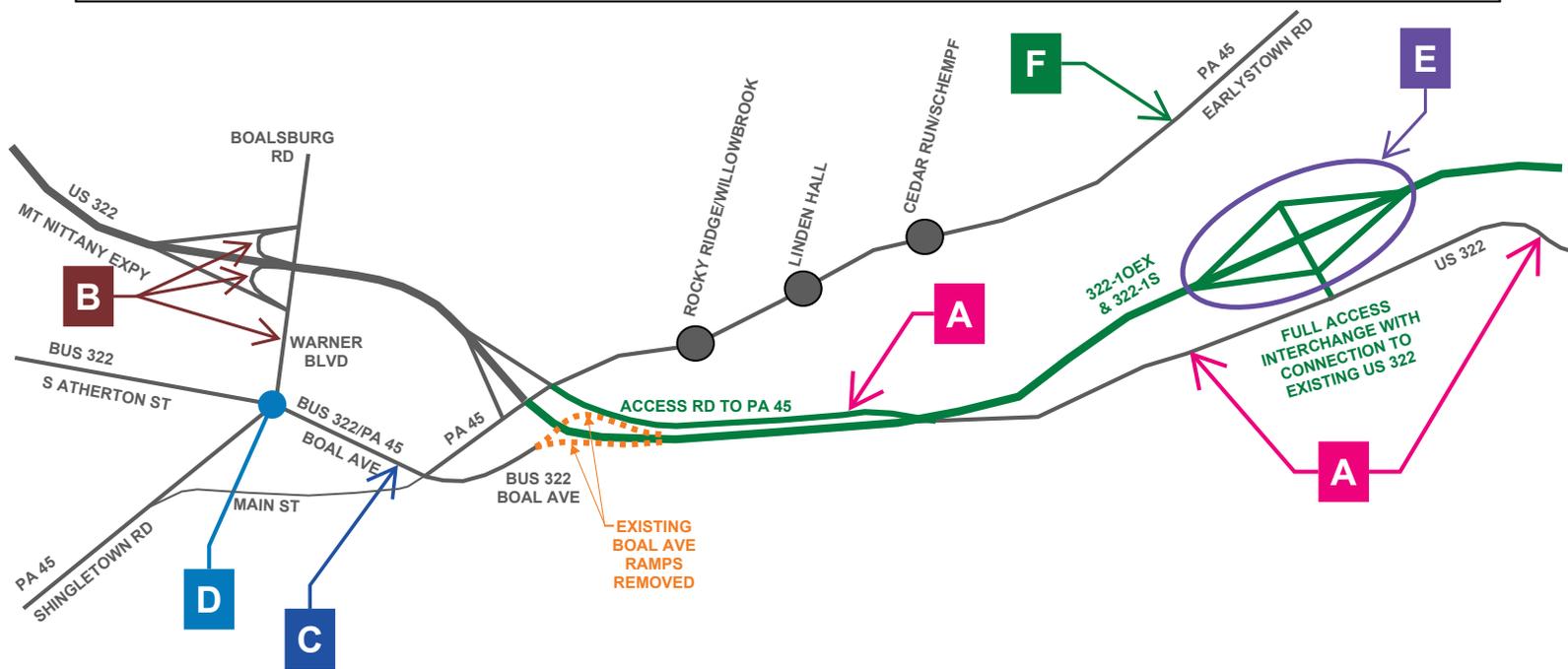


SCAC - PA 45 ALTERNATIVES ANALYSIS

STUDY SCENARIO C-1b DIAGRAM (322-10EX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

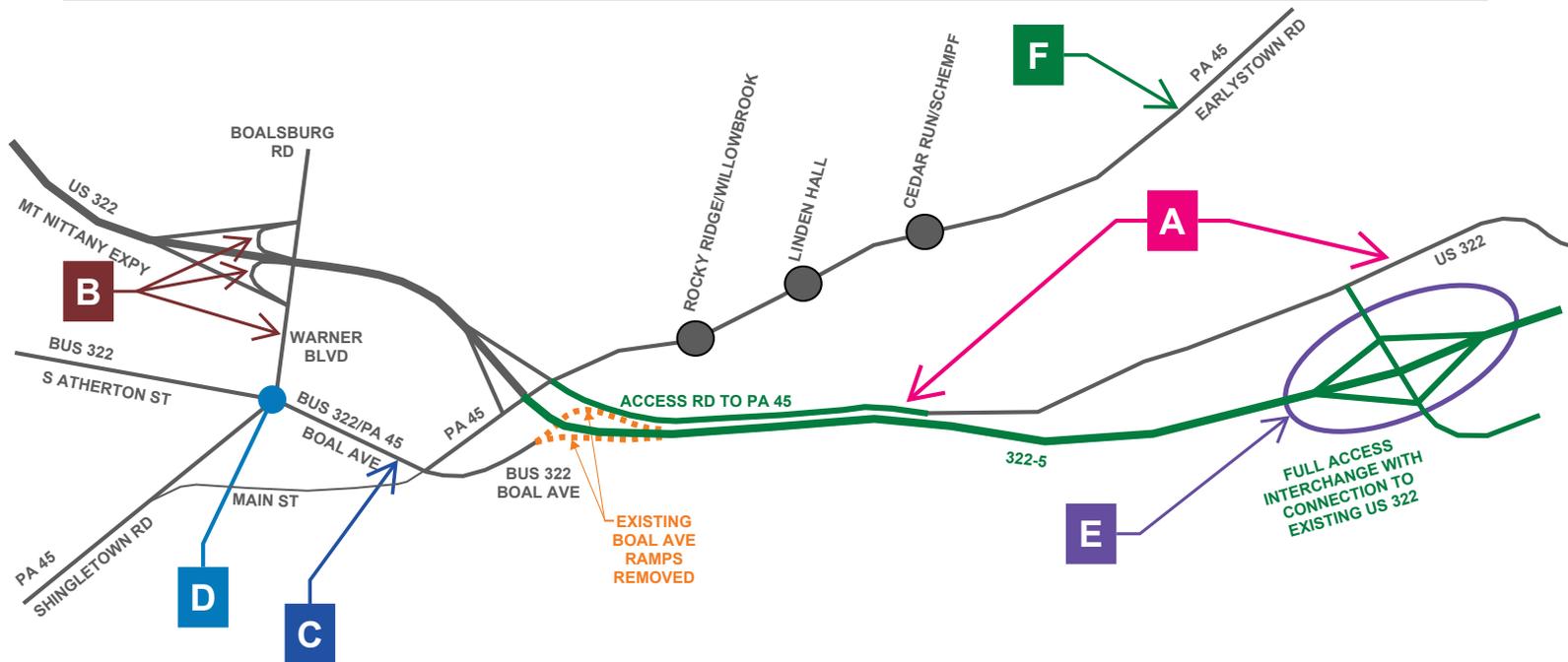
- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic on Warner Blvd loop ramps and Warner Blvd by approx. 30-35%
- C** - Reduces traffic on Boal Ave between PA 45 legs by approx. 10% (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at Atherton St/PA 45/Boal Ave intersection
- E** - Minimal traffic volumes using Midpoint Interchange
- F** - Negligible change (0-5%) in traffic volume on PA 45 between Expressway and PA 144



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO C-1b DIAGRAM (322-5)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic on Warner Blvd loop ramps and Warner Blvd by approx. 30-35%
- C** - Reduces traffic on Boal Ave between PA 45 legs by approx. 10% (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at Atherton St/PA 45/Boal Ave intersection
- E** - Minimal traffic volumes using Midpoint Interchange
- F** - Negligible change (0-5%) in traffic volume on PA 45 between Expressway and PA 144

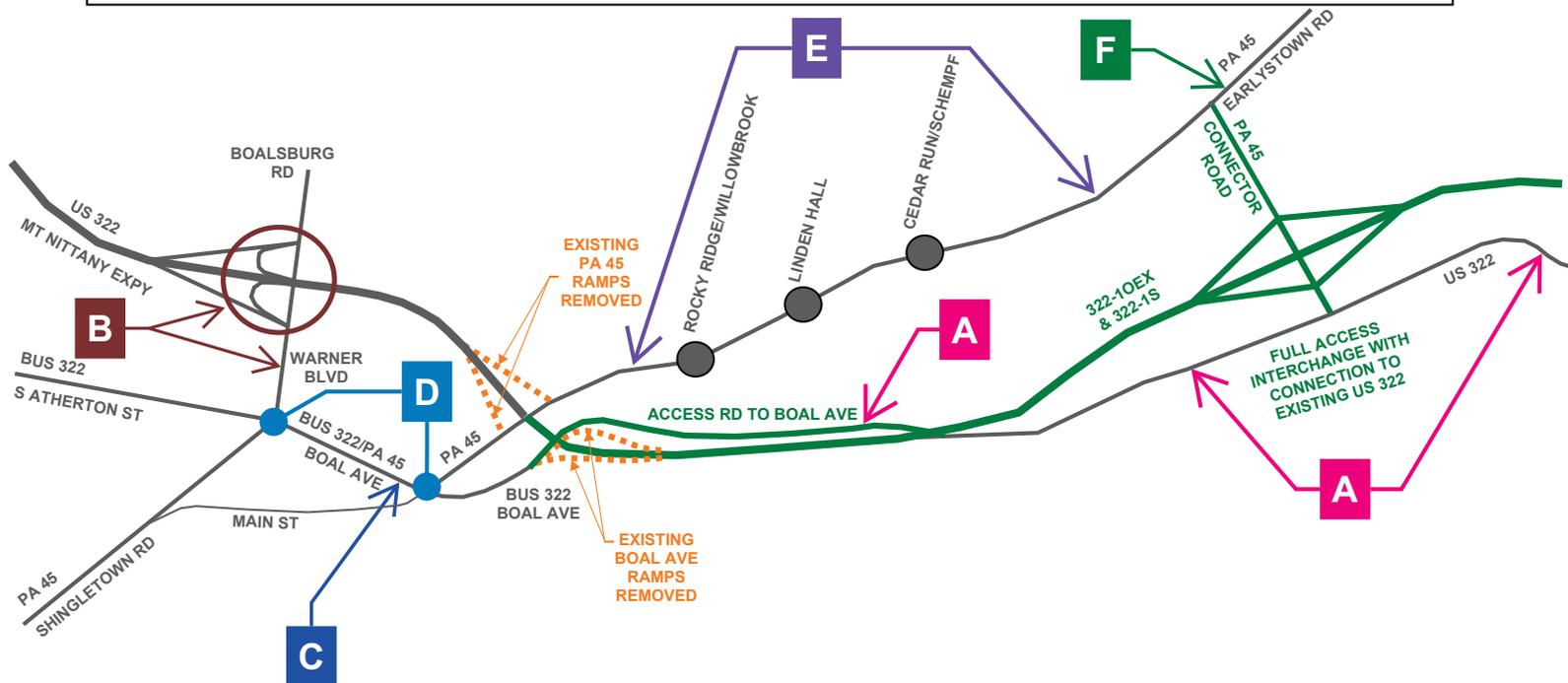


SCAC - PA 45 ALTERNATIVES ANALYSIS

STUDY SCENARIO D-1a DIAGRAM (322-1OEX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic at Warner Blvd interchange by approx. 75%
- C** - Marginal decrease in traffic on Boal Ave between PA 45 legs (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at two PA 45/Boal Ave signals
- E** - Reduces traffic on PA 45 between Connector Rd and US 322 Expressway by approx. 50-60%
- F** - Minimal increase (5-10%) in traffic volume on PA 45 between Connector Rd and PA 144

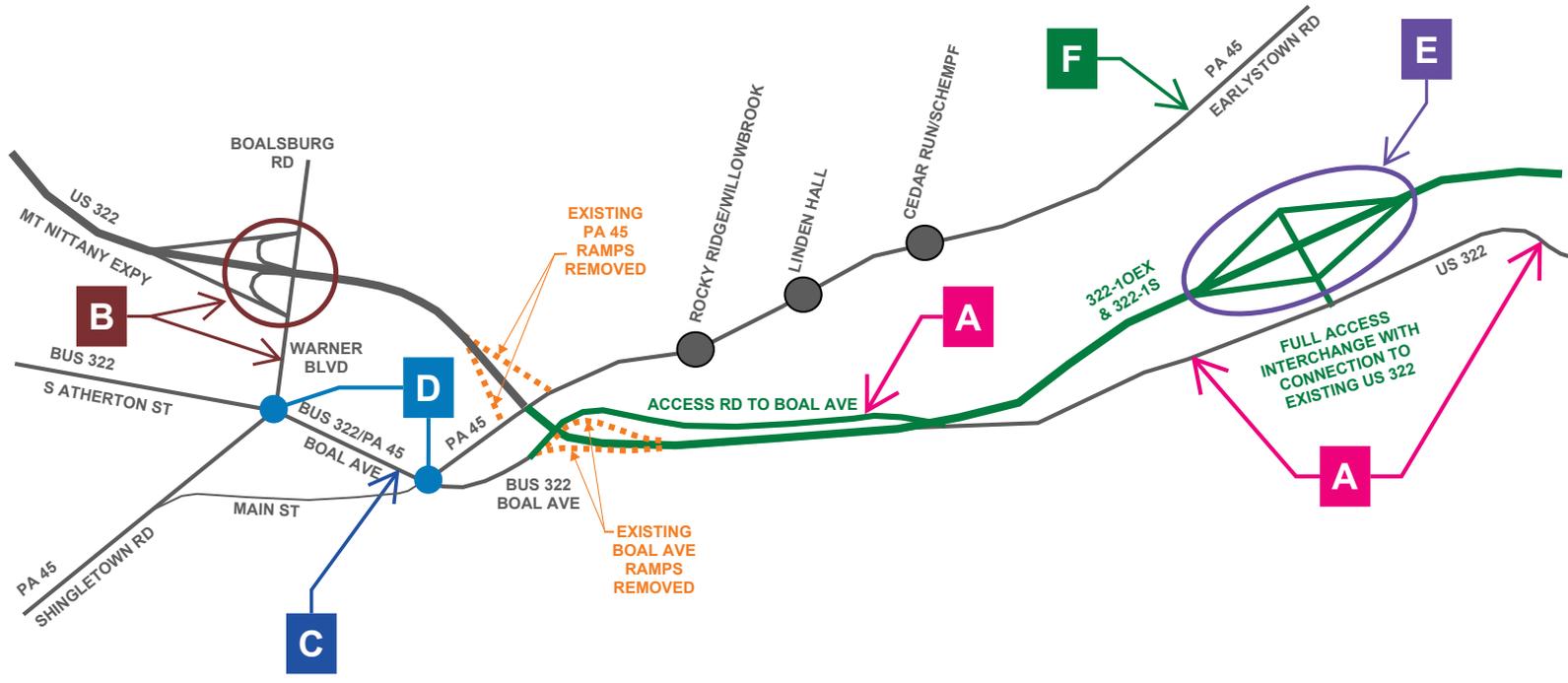


SCAC - PA 45 ALTERNATIVES ANALYSIS

STUDY SCENARIO D-1b DIAGRAM (322-10EX / 322-1S)

CHANGES IN TRAFFIC VOLUMES/PATTERNS:

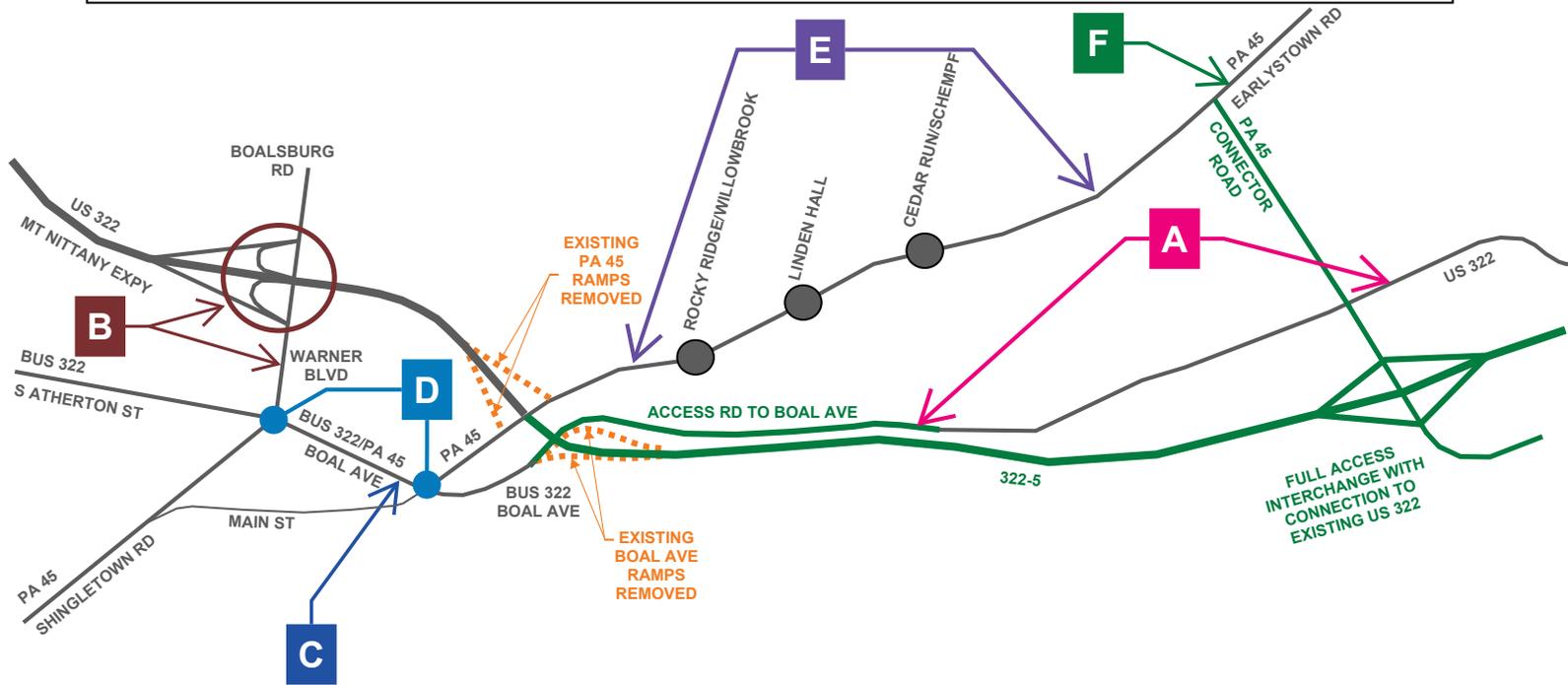
- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic at Warner Blvd interchange by greater than 2x
- C** - Increases traffic on Boal Ave between PA 45 legs (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at two PA 45/Boal Ave signals
- E** - Minimal traffic volumes using Midpoint Interchange
- F** - Negligible change (0-5%) in traffic volume on PA 45 between Expressway and PA 144



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO D-1a DIAGRAM (322-5)

CHANGES IN TRAFFIC VOLUMES/PATTERNS (Compared to 2050 No Build):

- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic at Warner Blvd interchange by approx. 75%
- C** - Marginal decrease in traffic on Boal Ave between PA 45 legs (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at two PA 45/Boal Ave signals
- E** - Reduces traffic on PA 45 between Connector Rd and US 322 Expressway by approx. 35-40%
- F** - Minimal increase (5-10%) in traffic volume on PA 45 between Connector Rd and PA 144



SCAC - PA 45 ALTERNATIVES ANALYSIS STUDY SCENARIO D-1b DIAGRAM (322-5)

CHANGES IN TRAFFIC VOLUMES/PATTERNS:

- A** - Reduces traffic volumes on existing US 322 (2-lane section) by >90%
- B** - Increases traffic at Warner Blvd interchange by greater than 2x
- C** - Increases traffic on Boal Ave between PA 45 legs (due to traffic shifts to Warner Blvd)
- D** - Shifts traffic patterns/turning movements at two PA 45/Boal Ave signals
- E** - Minimal traffic volumes using Midpoint Interchange
- F** - Negligible change (0-5%) in traffic volume on PA 45 between Expressway and PA 144

