TDOT Department of Transportation

Memphis Urban Area Metropolitan Planning Organization (MPO)
September 22, 2022

Blue Oval City
SR-194 Extension I-40 Exit 39

Steve Sellers P.E. – Blue Oval City Program Manager

AGENDA

- INTRODUCTION
- BLUE OVAL CITY DEVELOPMENT TEAM
- BLUE OVAL CITY STAKEHOLDERS
- MEGASITE HISTORY
- ANNOUNCEMENT
- APPROACH
- PROJECT INFORMATION
- ADDITIONAL STUDIES

INTRODUCTION

Steve Sellers, P.E. – Blue Oval City Program Manager

Headquarters Project Management & Construction Division
615-741-0786
steve.sellers@tn.gov

EDUCATION

BSCE TN Technological University May 1995

PROFESSIONAL STATUS

Registered Professional Engineer in TN

WORK EXPERIENCE

TN Department of Transportation

March 2001 – Present
Blue Oval City Program Manager
Deputy Director of Construction – State Innovative Delivery
Special Assignment Project Manager I-440 Design Build Jan. 2019
Asst. Director of Construction (Headquarters Construction Division Nashville)
Operations District Engineer / Operations District Manager (Region 4 Jackson).
Operations District Supervisor / Operations Spec. Supervisor 1 / Operations Spec. 2 (Bethel Springs)

Contractors

June 1995 – January 2001

Harper Construction	Jones Brothers Inc.	WMC Contracting Inc.	Hubbs Construction Company
Construction Manager	Group Manager	Manager	Project Manager

Blue Oval City Current Development Team

Steve Sellers, P.E. – Blue Oval City Program Manager

615-741-0786 Steve.Sellers@tn.gov

Brandon Akins, P.E. - Civil Engineering Manager 2

901-537-1178 Brandon.Akins@tn.gov

James Kelley, P.E. - Director Project Management

615-253-7604 James.D.Kelley@tn.gov

TDOT Divisional Representation

STID, Geotechnical, Environmental, Traffic, Design, Survey, Operations, Right of Way, Structures, many others……

Consultant Representation

HDR, Inc., Benesh, Arcadis & Avenue Consultants

Blue Oval City Stakeholders

FORD / Walbridge (CM) / SSOE (Design)

SK Innovation / Ghafari (Design)

FHWA – IAR / NEPA

Corp of Engineers – 404 Permit

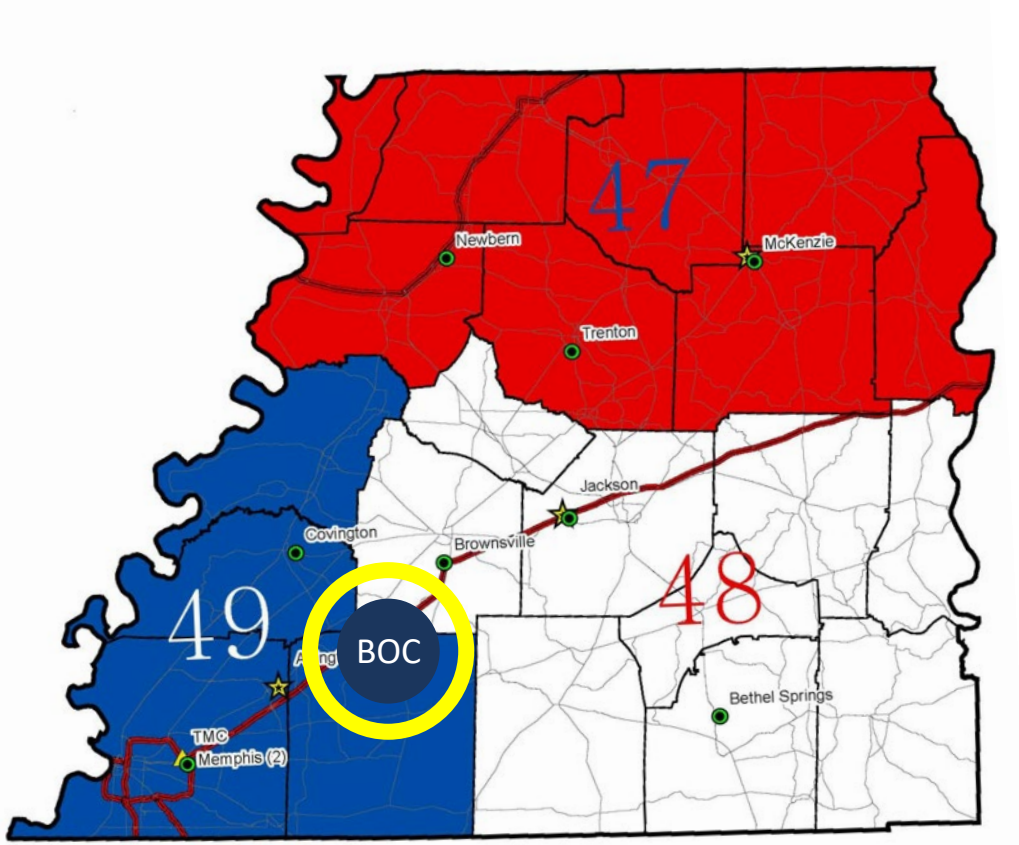
TVA & Local Utility Owners

County Mayors and County Road Superintendents

TDOT Region 4 & Blue Oval City (BOC)

Region 4 Map

- 21-County Area
- Bordered by the Tennessee and Mississippi Rivers
- 2 Metropolitan Planning Organization (MPO) Areas
- 3 Rural Planning Organization (RPO) Areas



Blue Oval City – Memphis Regional Megasite

Memphis Regional Megasite (MRM) History

- Megasite Size – 4100 Acres
- Initiated by Governor Bredesen in 2006 as a center for solar panel production
- 2009 – State officials purchased the six square mile plot for $40 million
- Solar Farm opened in 2012
- Governor Haslam requested and was awarded $27 million to re-route SR-222
  - Included realignment and widening of SR-222 from I-40 to Keeling Road
    - 4 lane boulevard typical section
  - Bridge widening over I-40
  - Ramp widening and signalization
- Investment in MRM prior to Ford Announcement – $174 million

Blue Oval City – Memphis Regional Megasite

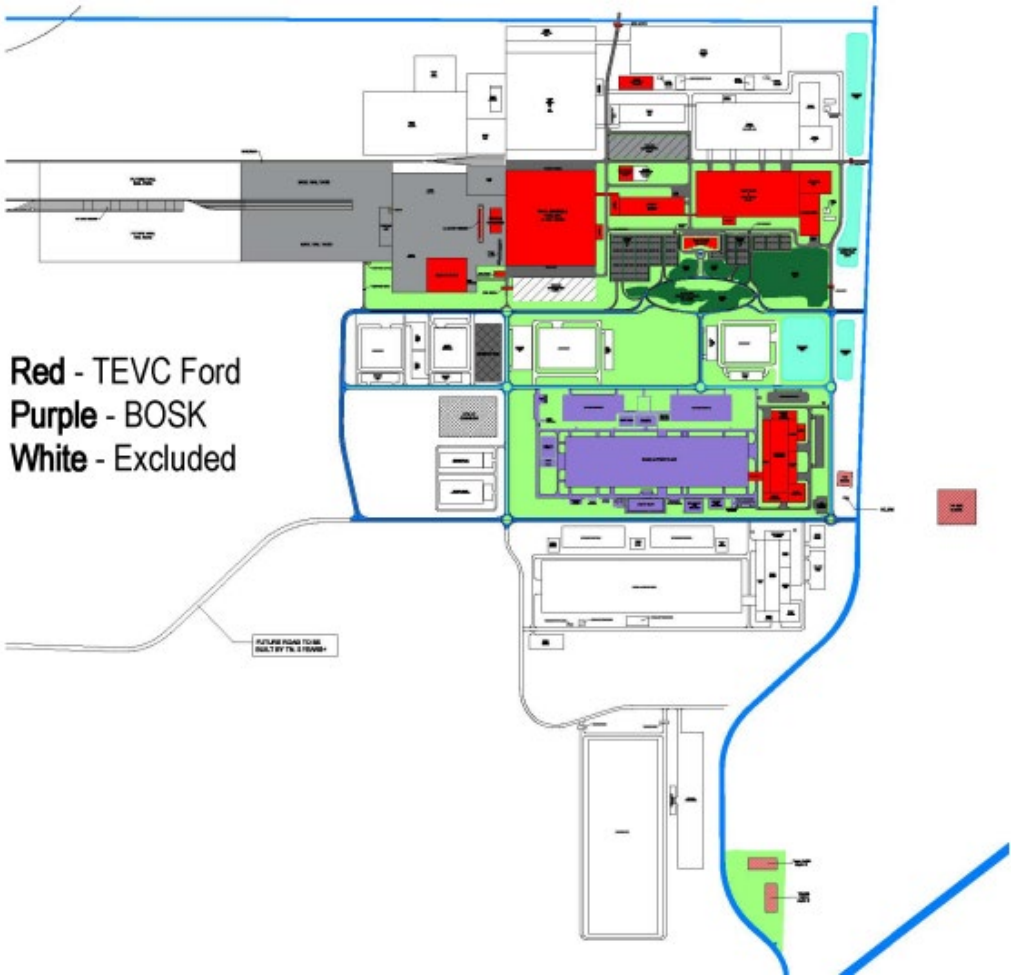
Pre-Announcement

- Meeting occurred with Ford, ECD, and TDOT to determine needs
- STID initiated early development of concepts for roadway network and new interchange to portray to Ford what TDOT could do
- Determination of Roadway
  - New interchange at I-40, with north-south roadway north of I-40 to a connector interchange for east-west route serving the MRM
  - Extension of SR-194 from SR-59 to the new I-40 interchange, and extension of SR-194 to the north to intersect SR-1
- Interstate Access Request (IAR) initiated September 22, 2021, with WSP

Blue Oval City – Memphis Regional Megasite

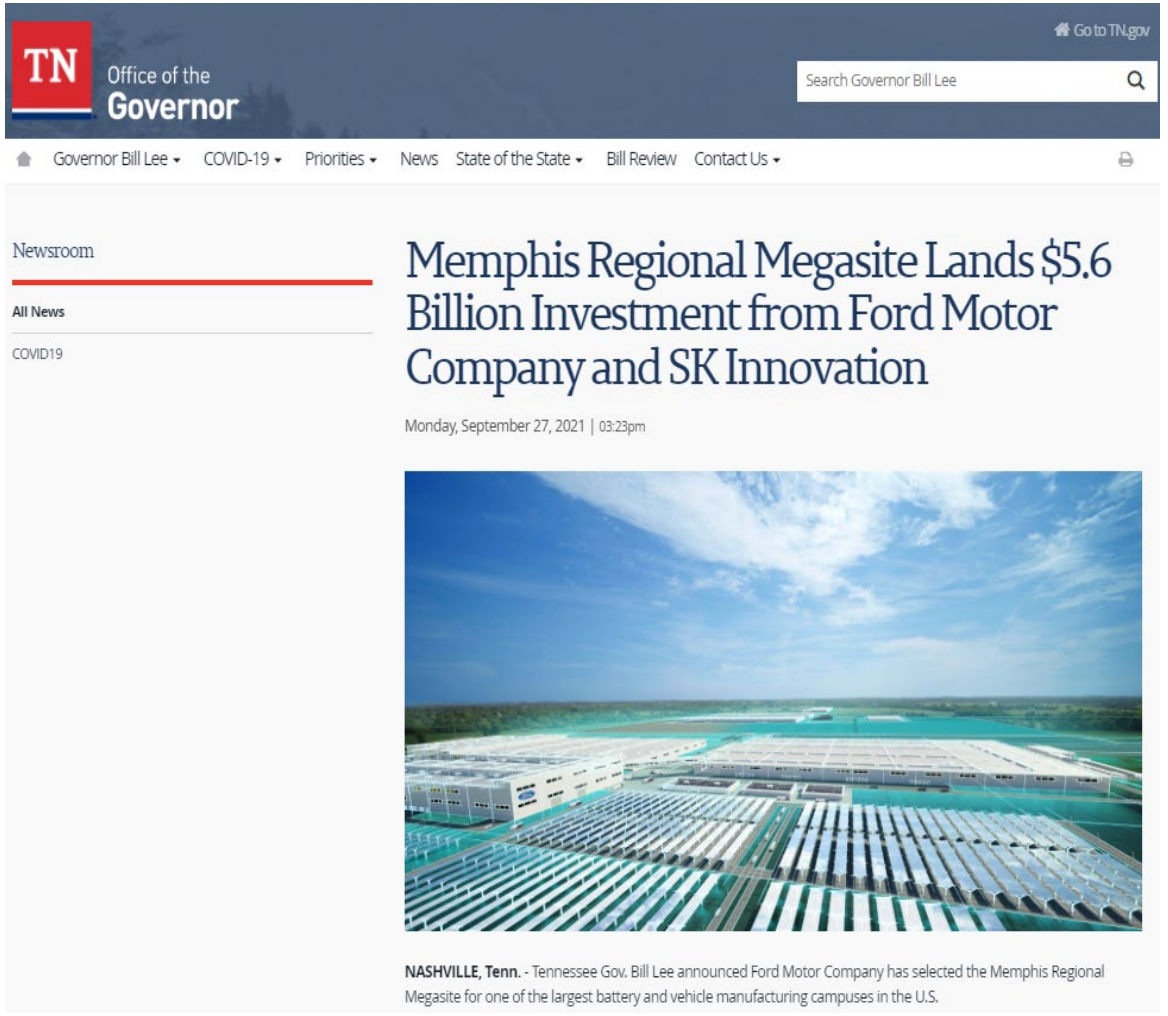
Traffic History

- Projections before Ford
  - AADT for SR-222 (2014/2034) – 10% Trucks
    - 2014 – 7,740 vpd
    - 2034 – 10,320 vpd
- Blue Oval City Projections
  - AADT for SR-222 (2025/2045) – 22% Trucks
    - 2025 – 10,860 vpd
    - 2045 – 16,740 vpd



Blue Oval City – Memphis Regional Megasite

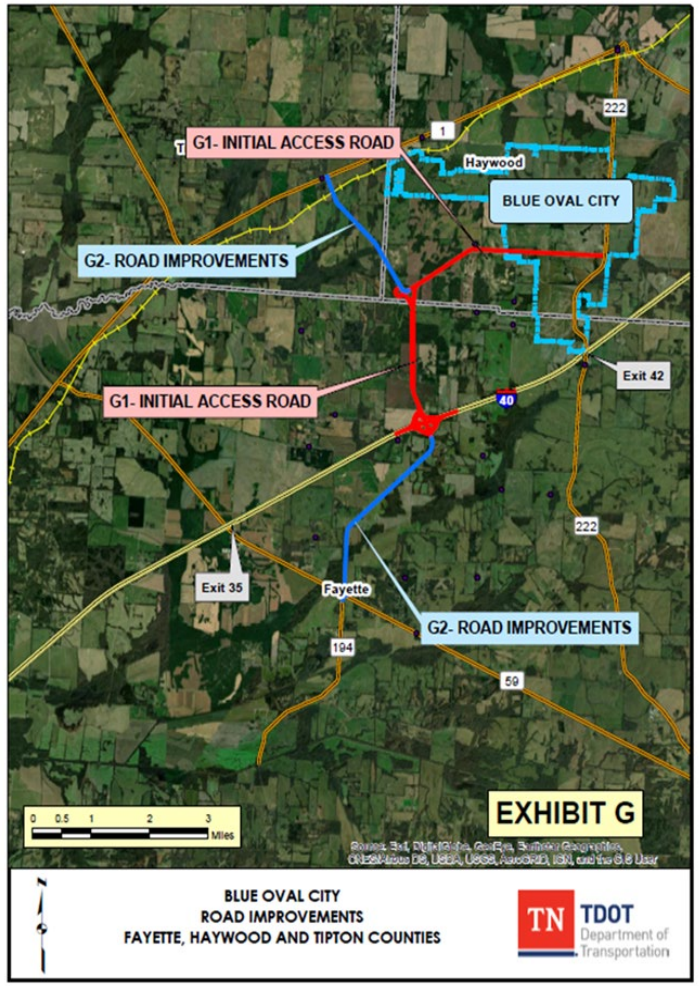
- Ford announced Blue Oval City **September 27, 2021**
  - 5.6 billion investment
    - $2.5 billion Ford Motor Company
    - $3.1 billion SK Innovation Company
  - **5,760 full time jobs**
  - Anticipated to generate more than 27,000 new jobs, both directly and indirectly, to support the site's operations. This will result in more than $**1.02 billion** in annual earnings.
  - This project is anticipated to contribute **$3.5 billion** each year to Tennessee's gross state product.



Blue Oval City – Memphis Regional Megasite

TNECD & Ford MOU Agreement

- Employment thresholds for Blue Oval City and repayment for jobs shortfall
- State to construct potable water infrastructure by March 2023
- **TDOT to construct initial access road available for use by January 31, 2025 (G1 SECTION)**
- Remaining road improvements will be completed by July 1, 2026 (G2 SECTIONS)

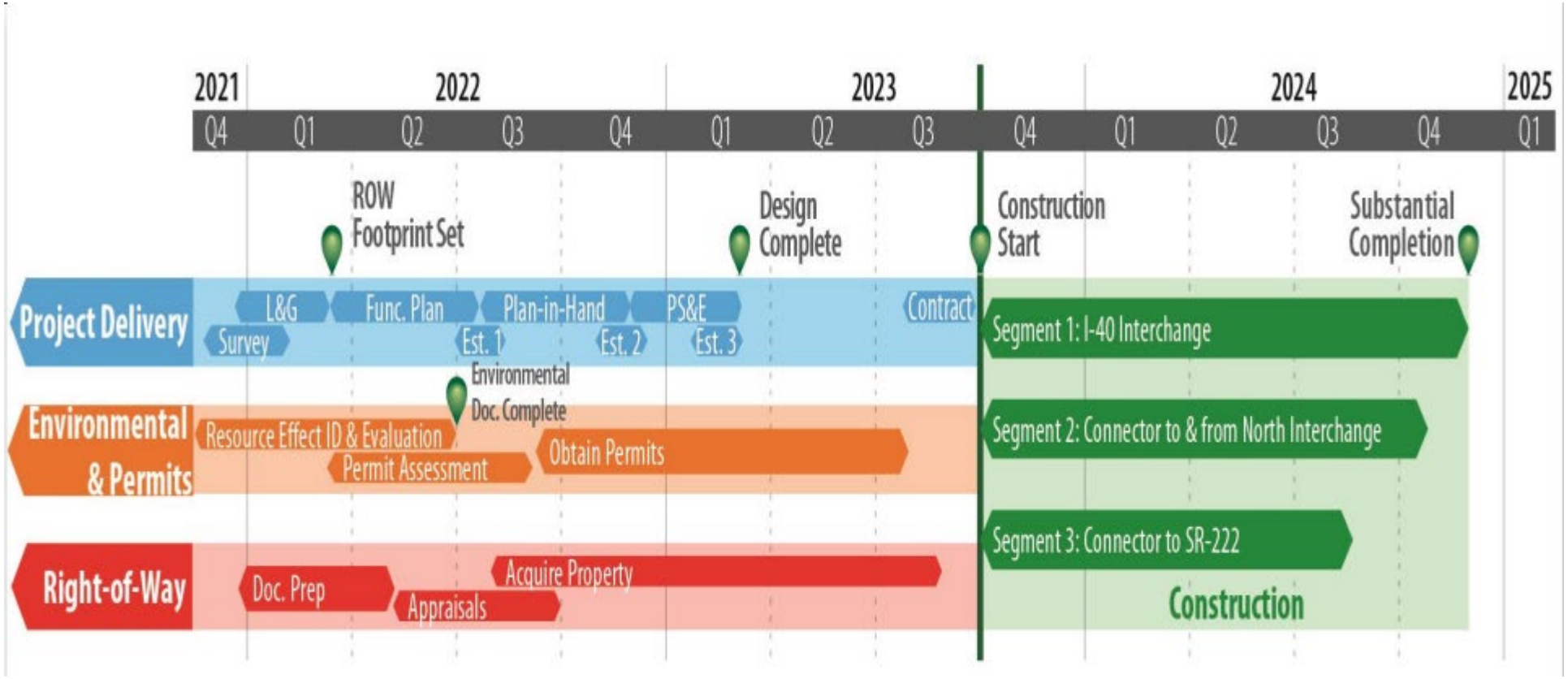


Blue Oval City impacts to Transportation

- The development of the site is expected to fundamentally change both passenger and freight traffic volumes and patterns in this otherwise rural portion of southwest Tennessee.

- Consequently, the project is intended to address the projected increase of traffic while generally improving the multimodal transportation network within the region.

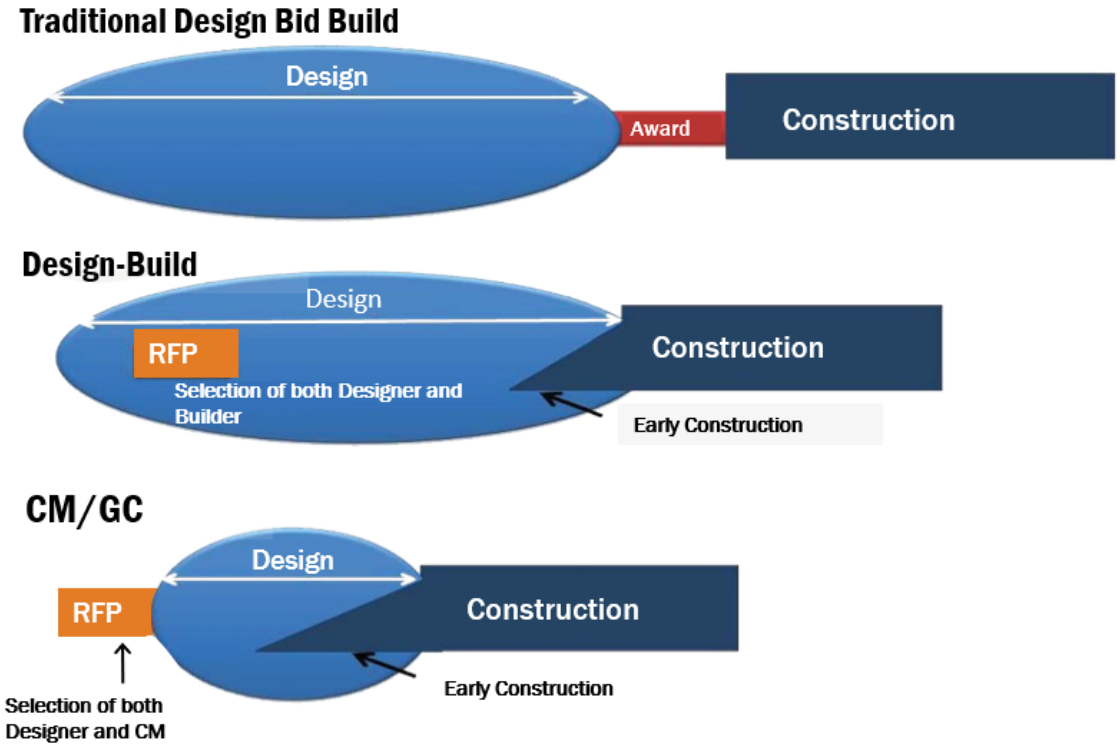
G1 - Project Timeline January 31, 2025



Project Delivery Approach & Why CMGC Process for G1?

TDOT to construct initial access road available for use by **January 31, 2025**

1. G1 Project Delivery Method – CMGC



- Expedite complex project delivery
- Early Work Packages / Early Material Procurement
- Design based on contractor capabilities and DOT expectations
- Mutually agreed distribution of risk
- Provide the best product in the shortest timeframe at an agreed-upon price (one contractor, one price)
- Owner retains greater control of design vs. design-build
- Early involvement of third parties during design (utilities, railroad, cities, major stakeholders)
- Daily peer exchange

Project Delivery Approach & Why CMGC Process for G1?

TDOT to construct initial access road available for use by **January 31, 2025**

1. G1 Project Delivery Method – CMGC

- 3 pilot projects:
  - Project 1: TDOT Fast Fix 8 Accelerated Bridge Construction Project (Davidson County)
  - **Project 2: TDOT I-240 MemFix4 (Shelby County)**
  - Project 3: I-24 Bridges over South Germantown Road and Belvoir Avenue (Hamilton County)

- Active CMGC Projects
  - CMGC4 Broadway Bridge (Davidson Co.)

CMGC05 – SR-194 Extension I-40 Exit 39

Owner – TDOT

Construction Manager – Kiewit Infrastructure South Co.

Independent Cost Estimator – Innovative Contracting and Engineering

Design Consultant – HDR

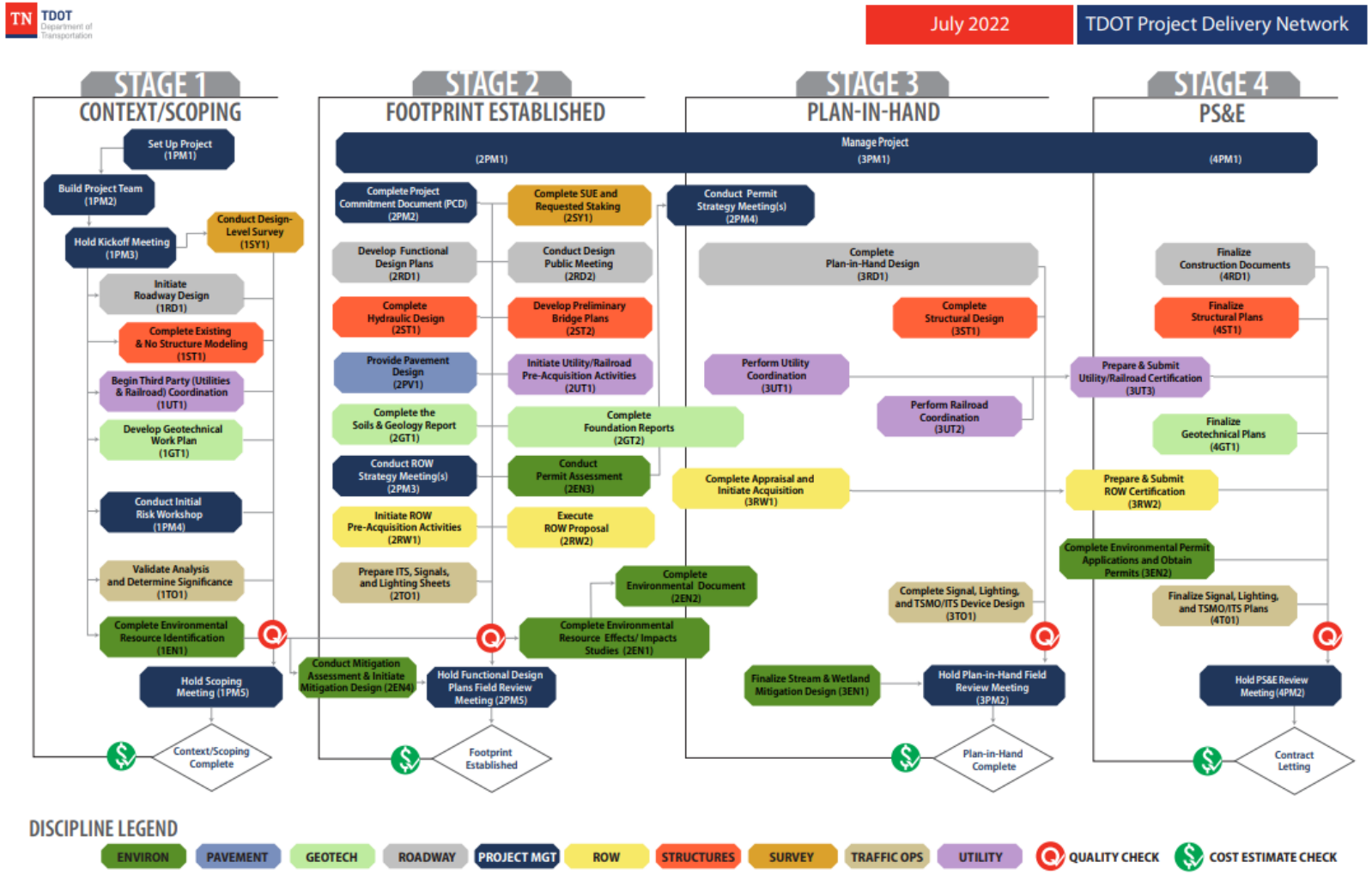
Project Delivery Approach

TDOT to construct initial access road available for use by January 31, 2025

2. TDOT decided to utilize **Project Delivery Network (PDN)** - PDN was developed to provide consistency and transparency throughout the project delivery process, enabling project teams to improve reliability and efficiency

- Maintain consistency via a logical progression of activities throughout the planning, environmental, and design phases.
- Clearly define the construction scope of work and programmed amount at the beginning of the project.
- Streamline steps and procedures throughout the project development process.
- Define key project deliverables and activities to build an MS Project schedule that a Project Manager and team follow to deliver the project.
- Identify opportunities for multidisciplinary collaboration throughout each stage of the process.
- Provide a systematic quality process for key deliverables.

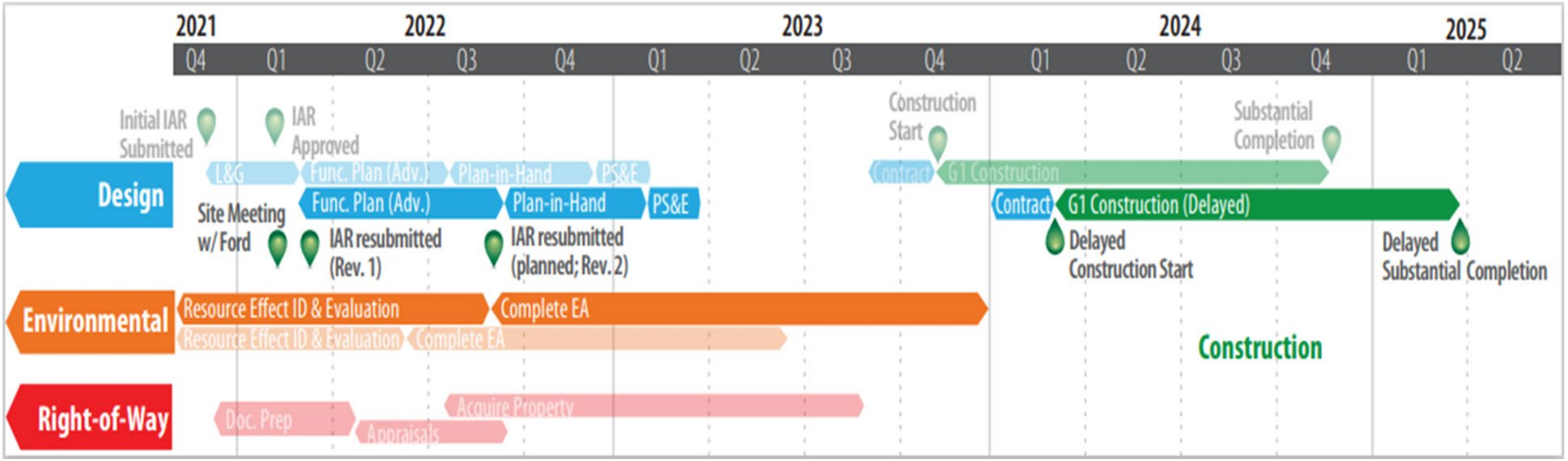
Project Delivery Approach



CHALLENGES

- Initial IAR assumed nearly all Blue Oval City traffic to utilize proposed I-40 Exit 39 Interchange
  - Ford's Traffic numbers utilized exit 42 resulting in a revised IAR submittal
- ROW for access road through Megasite restricted due to Ford/SK Innovations
- Alignment of proposed access road through Megasite shifted due to further needs
- G1 Schedule Impacts
  - Revised IAR
  - Geotechnical issues & escalating prices – (Undercutting & Graded Solid Rock)
- G2 Design
  - G2 North – CSX Rail Crossing
  - G2 South – Approx. 2700' Bridge

Revised G1 Schedule



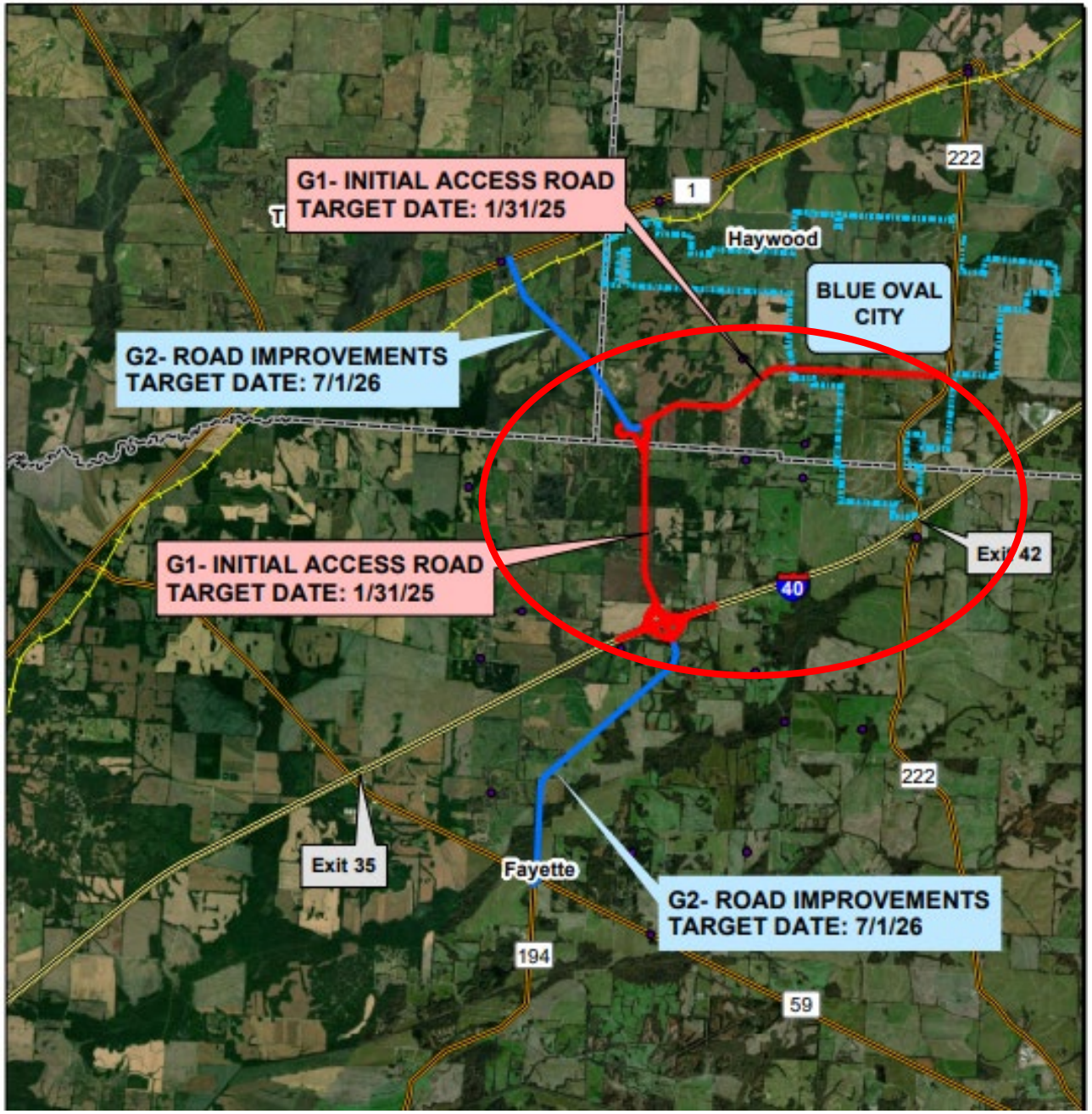
G1& G2 - Project Progress

- Revised Interchange Access Request (IAR) – FHWA approved September 16, 2022
- G1 and G2 Technical Studies - (Archaeology, Historic, Air, Noise, Hazmat, & Ecology)
- NEPA - following IAR operational approval
- G1 -ROW Appraisals and Acquisitions in Progress
- Design - I-40 Interchange, Line and Grade plans, and coordination with Environmental (Utilizing Open Roads-Bentley)
  - Held Public Design Meeting for G1 July 7th
  - G1 Advanced Functional Set of Plans August 18th
- G1 and G2 Utilities – Early Notice and Coordination

TN TDOT Department of Transportation

SR-194 Extension
(G1 Section)

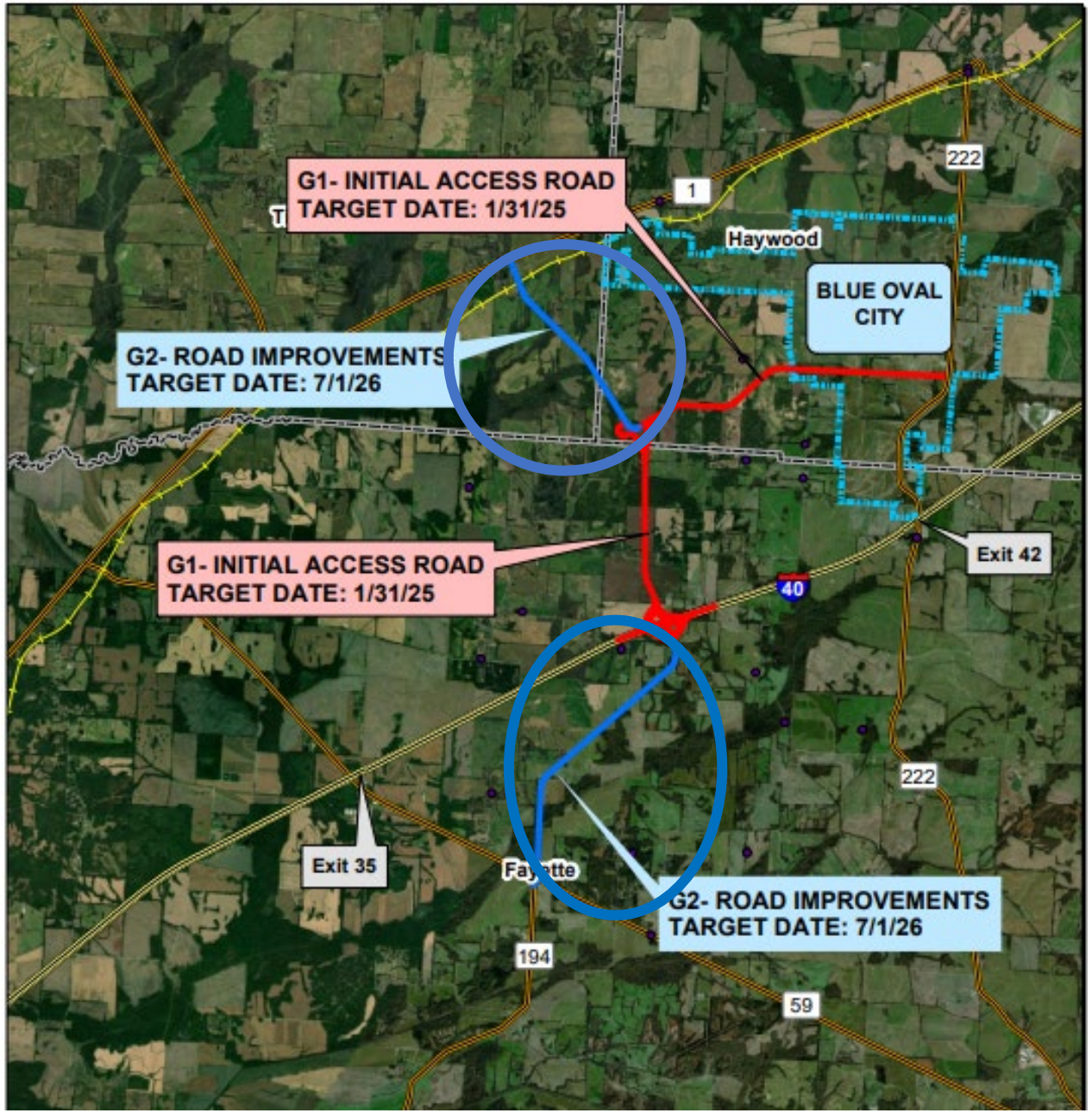
- Free Flow Interchange to and from I-40 to Blue Oval City (Exit 39)
- SR-194 Extension from I-40 to Connector Road – 2.0 Miles
- SR-468 Extension to SR-222 – 3.6 Miles
- 4-lane Median Divided Roadway Section to Blue Oval City
- Delivery Method - **Construction Manager/General Contractor (CM/GC)**



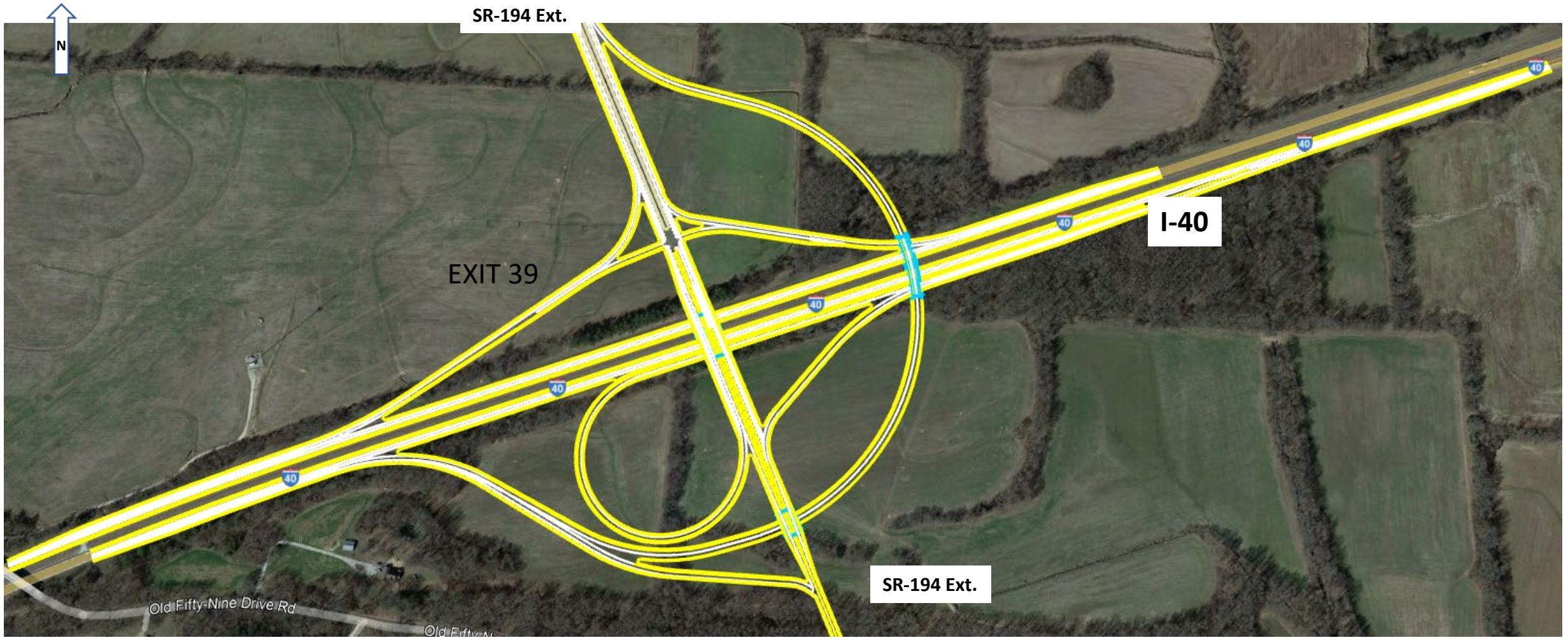
TN TDOT Department of Transportation

SR-194 Extension
(G2 Section)

- SR-194 Extension from Connector Road to SR-1 – 2.3 Miles
- SR-194 Extension from I-40 to SR-59 – 3.5 Miles
- 2-lane Rural Roadway Section
- Delivery Method- **Traditional Design-Bid-Build**

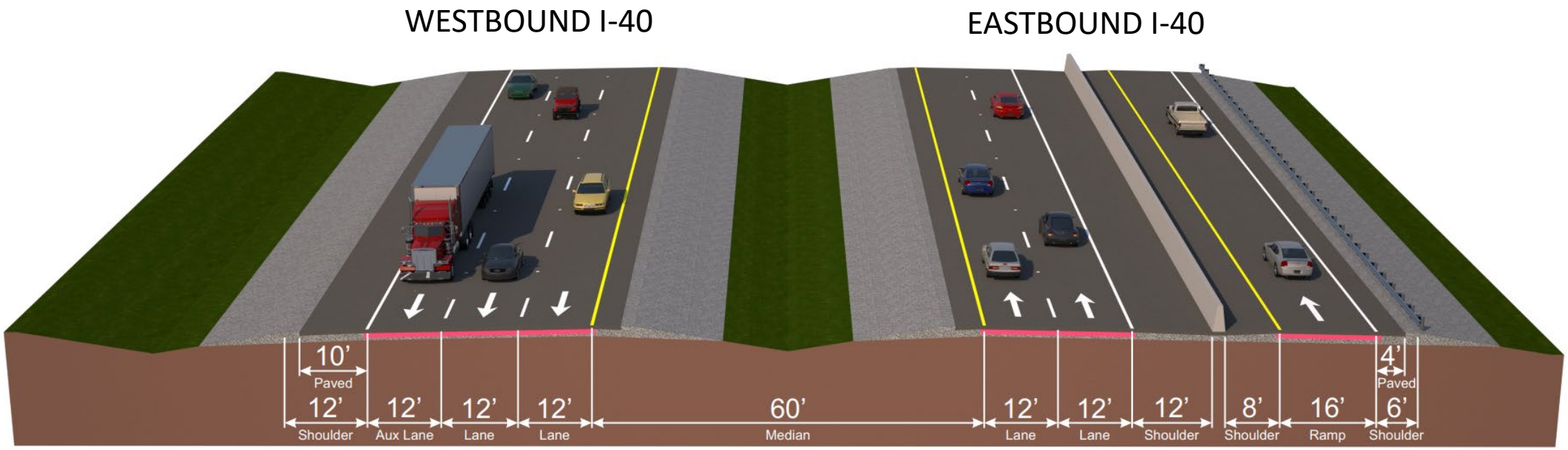


PROPOSED I-40 EXIT 39 – Freeflow Traffic I-40 to and from Blue Oval City



PROPOSED TYPICAL SECTION

I-40 at Exit 39



Interstate 40

Widening at State Route 194 Ext. Interchange

PROPOSED SR-194 EXTENSIONS

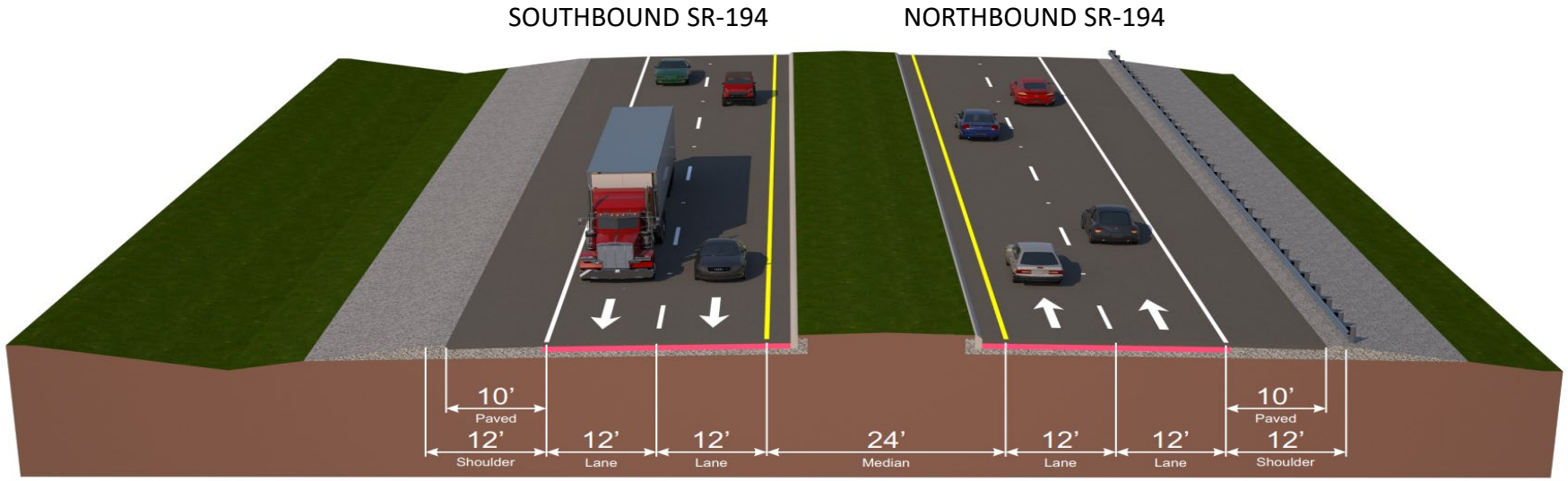
From I-40 Exit 39 Interchange to Northern Connector (SR-468)

PROPOSED TYPICAL SECTION

SR-194 Extension from I-40 Exit 39 Interchange to Northern Connector (SR-468)

<u>Proposed SR-194 extension between proposed Exit 39 at I-40 and the Northern Connector Interchange</u>

This portion of the proposed SR-194 extension would consist of four 12-foot travel lanes (two lanes in each direction), 12-foot shoulders on either side of the roadway and a 24-foot inside median separating the travel lanes. The design speed would be 55 mph. Full access control would be provided for this portion of the project. A bridge would be constructed over Thorpe Drive to allow continued access by local traffic.



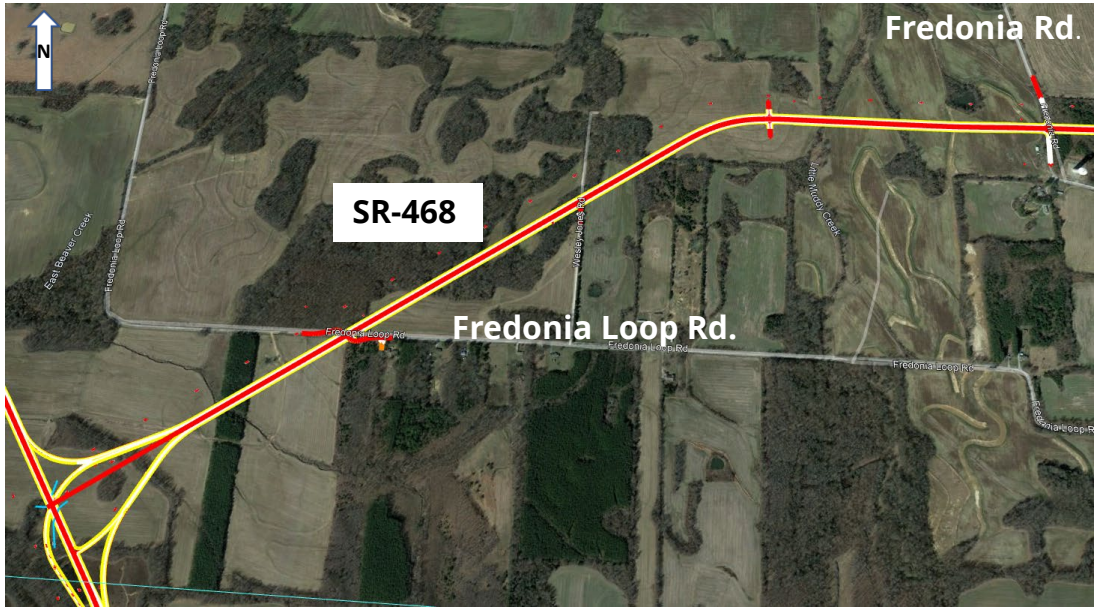
State Route 194 Extention

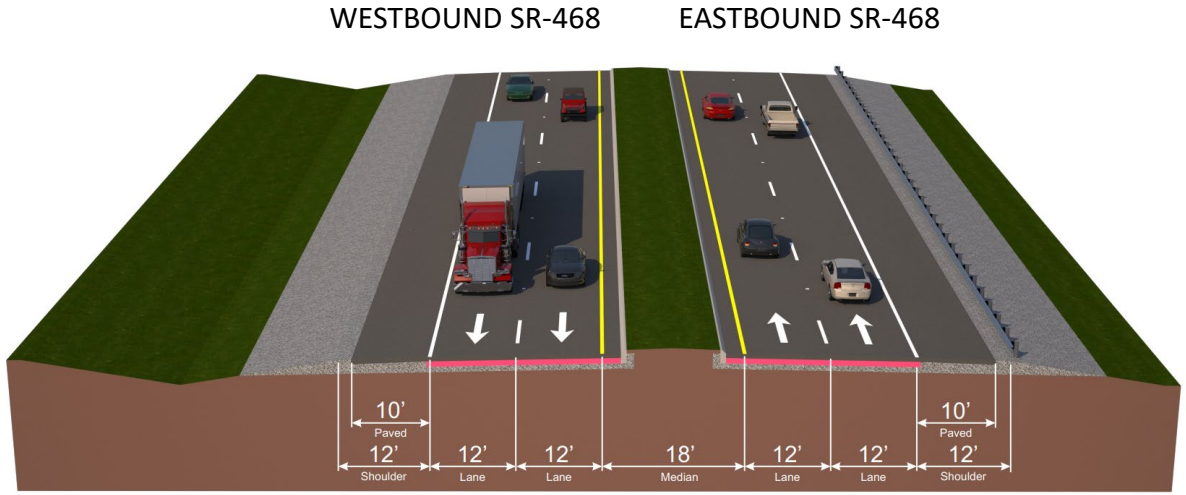
From Interstate 40 to new State Route 468

PROPOSED TYPICAL SECTION

SR-468 from Northern Connector to Fredonia Rd

SR-468 would consist of four 12-foot travel lanes (two lanes in each direction) separated by an 18-foot median (14-foot raised median and two-foot inside shoulders) and 12-foot outside shoulders. The proposed SR-468 would be a limited access-controlled facility to the MRM boundary (Fredonia Rd.).



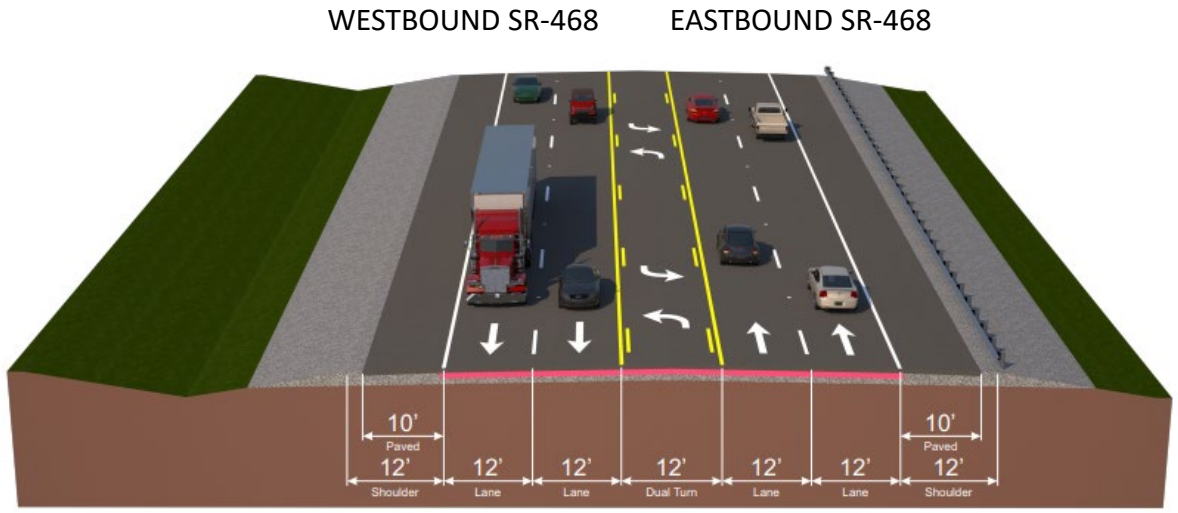


State Route 468
from State Route 194 Ext. to Fredonia Road

SR-468 TYPICAL SECTION

FROM FREDONIA ROAD TO INTERSECTION OF SR-222

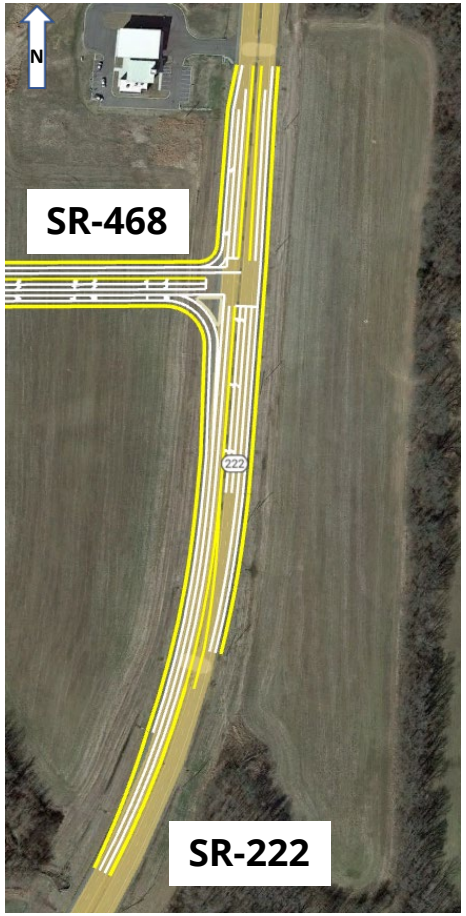
From the boundary of the MRM (Fredonia Rd.) to the intersection of SR-222, SR-468 would consist of four 12-foot travel lanes (two lanes in each direction) separated by a 12-foot two-way center turn lane.

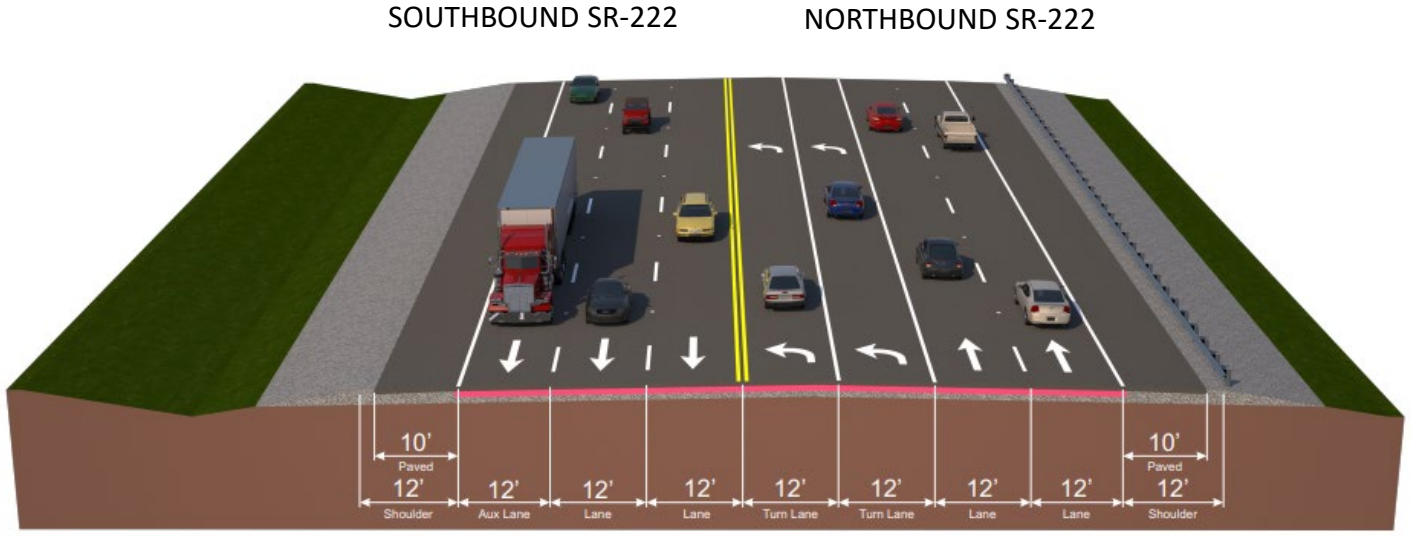


State Route 468
from Fredonia Road to State Route 222

SR-222 Typical Section at Intersection of SR-468

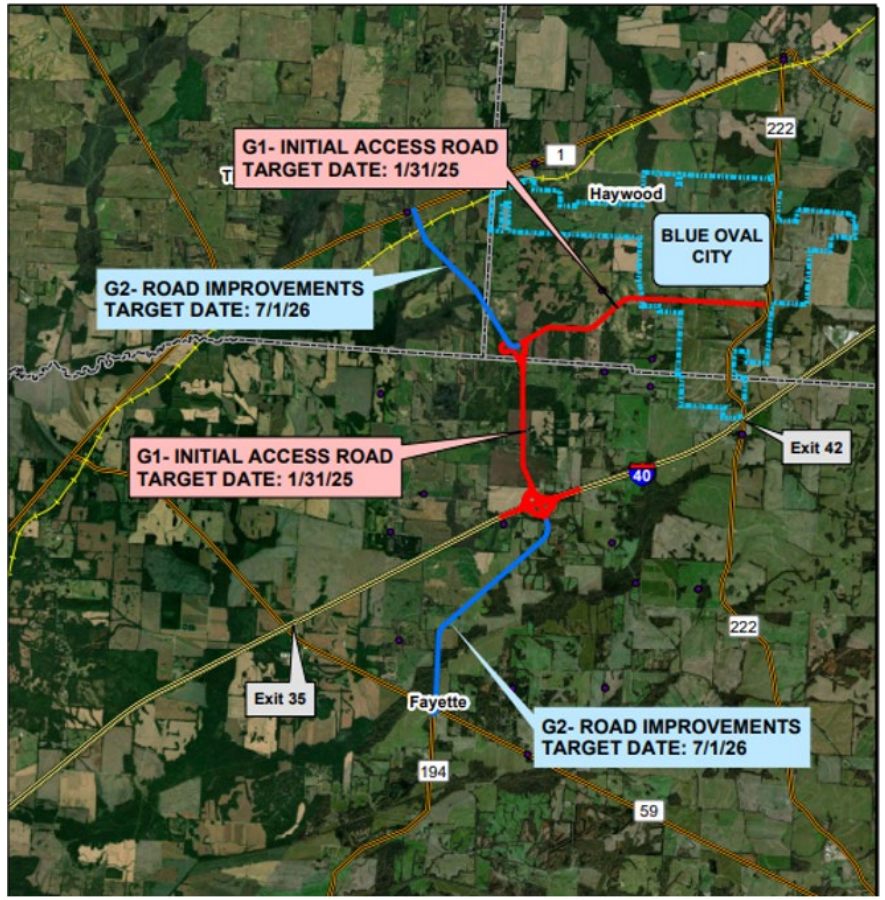
At the intersection of the SR-468 and SR-222 a signalized intersection is proposed.



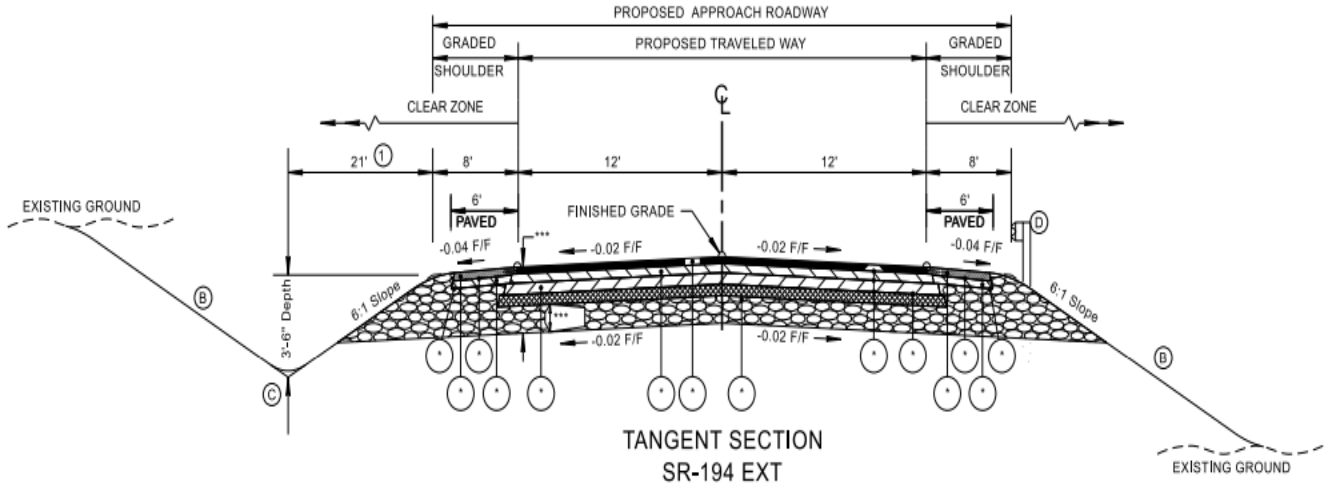


State Route 222
Widening at new State Route 468

SR-194 G2 North and South – Typical Section



Delivery Method- Traditional Design-Bid-Build



TANGENT SECTION
SR-194 EXT

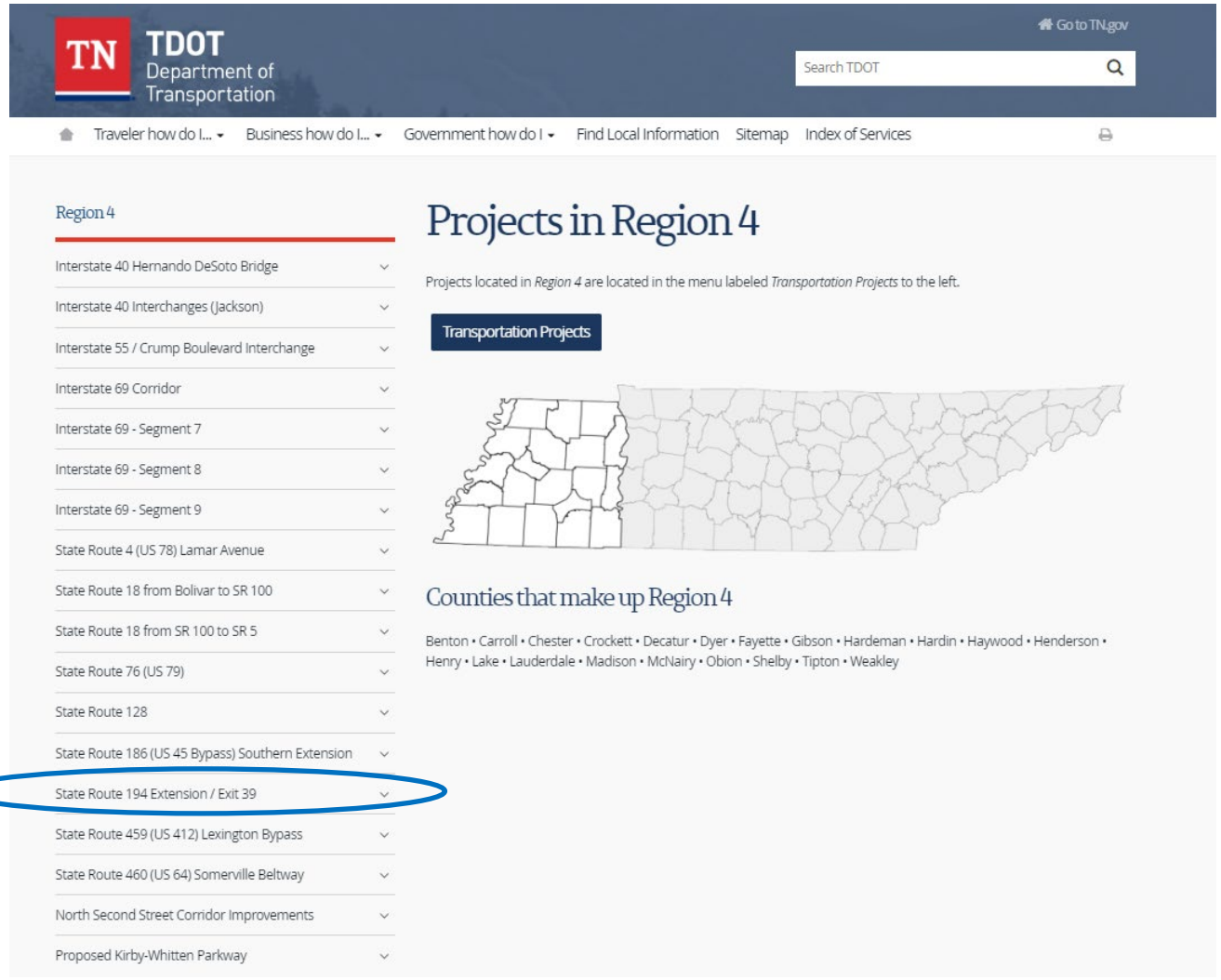
SR-194 Ext. I-40 Exit 39 Project Recourses

- **State Route 194 Extension / Exit 39 (tn.gov)** - https://www.tn.gov/tdot/projects/region-4/sr-194-extension-exit-39.html

- **Memphis Regional Megasite - Tennessee Department of Economic and Community Development (tnecd.com)** - https://tnecd.com/sites/memphis-megasite/

- **Blue Oval City Community Information (tn.gov)** - https://www.tn.gov/ecd/rural-development/blue-oval-city-resources.html

R4 Major Construction Projects



TDOT – Various Studies

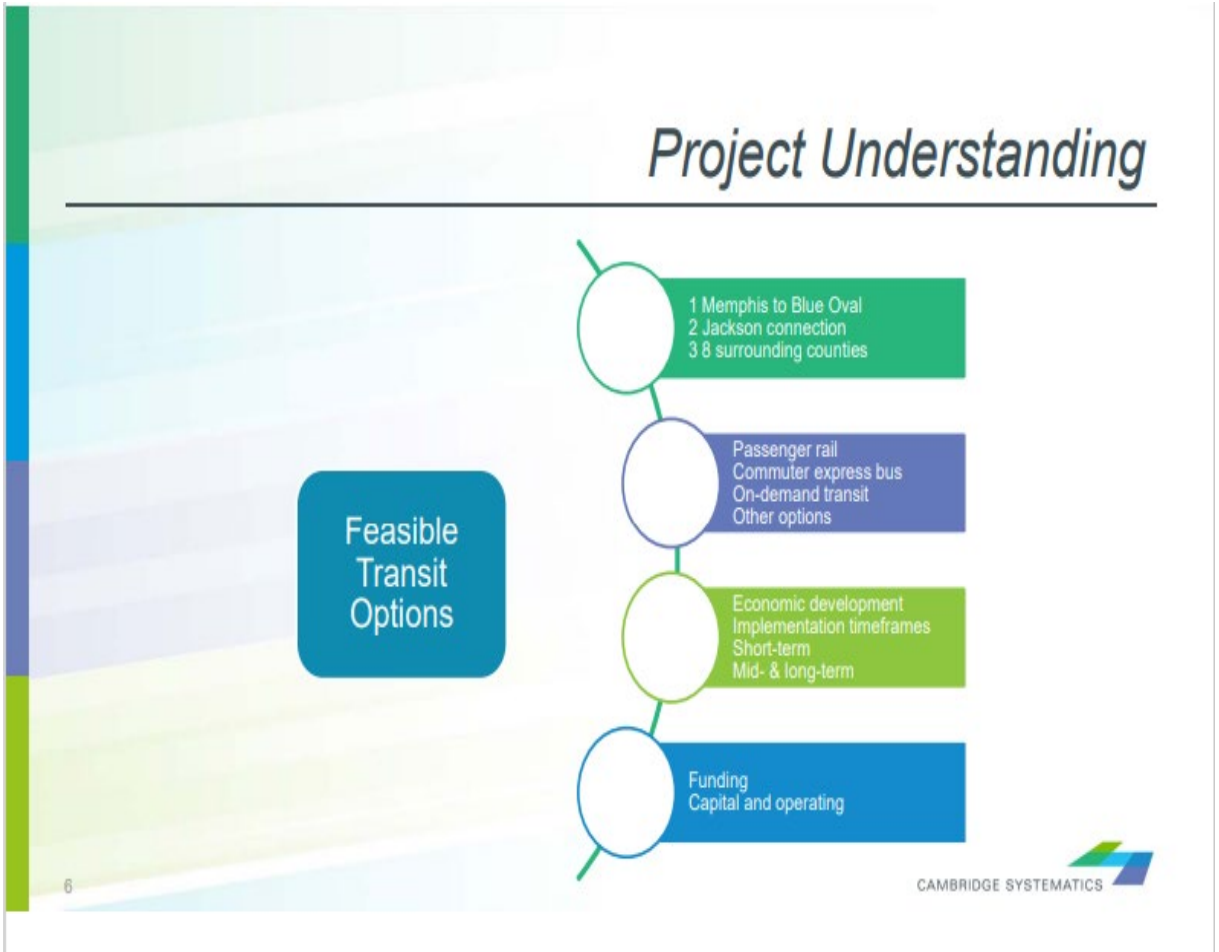
- **Freight Industry Issues & Trends Memo**
  - Mid-South Freight Flows & Industry Analysis
- **Transit Study**
  - Study to assess the feasibility of various transit options from Memphis, Tennessee to the future Ford Blue Oval facility in Haywood County, Tennessee, and eventually connecting to Jackson, Tennessee.
- **Office of Community Transportation (OCT)**
  - OCT's mission is to coordinate the state's transportation planning, local land use decisions, and community visions to guide the development of a safe and efficient statewide transportation system.

Freight Industry Issues & Trends Memo

- **MULTIMODAL TRENDS AND ISSUES**
  - E-Commerce, COVID-19 Pandemic & Distributed Manufacturing
- **TRUCKING TRENDS AND ISSUES**
  - Congestion, Safety, Pavements and Structures, Parking, Electrification, Vehicle Automation, & Driver Shortage
- **RAIL TRENDS AND ISSUES**
  - Network Bottlenecks/Intermodal Accessibility, Precision Scheduled Railroading, Intermodal Network Restructuring, Technology, Bridges and Structures, At-Grade Crossings, & Rail and Economic Development
- **WATER TRENDS AND ISSUES**
  - Multimodal Access, Condition of Facilities and Assets, Industrial Land Development, Container-on-Barge Growth Opportunities, & Industry Growth Opportunities
- **AIR CARGO TRENDS AND ISSUES**
  - Parcel Industry Developments & Accessibility
- **WAREHOUSING AND DISTRIBUTION TRENDS AND ISSUES**
  - Growth, Diversification, & Automation and Multi-Story Technologies
- **PIPELINE TRENDS AND ISSUES**

Transit Study

- The study will address providing any form of transit alternatives from the following counties to and from the Haywood County facility: Shelby, Fayette, Hardeman, Chester, Madison, Haywood, Tipton, Lauderdale, Dyer, Crockett, Gibson, and Madison



QUESTIONS?