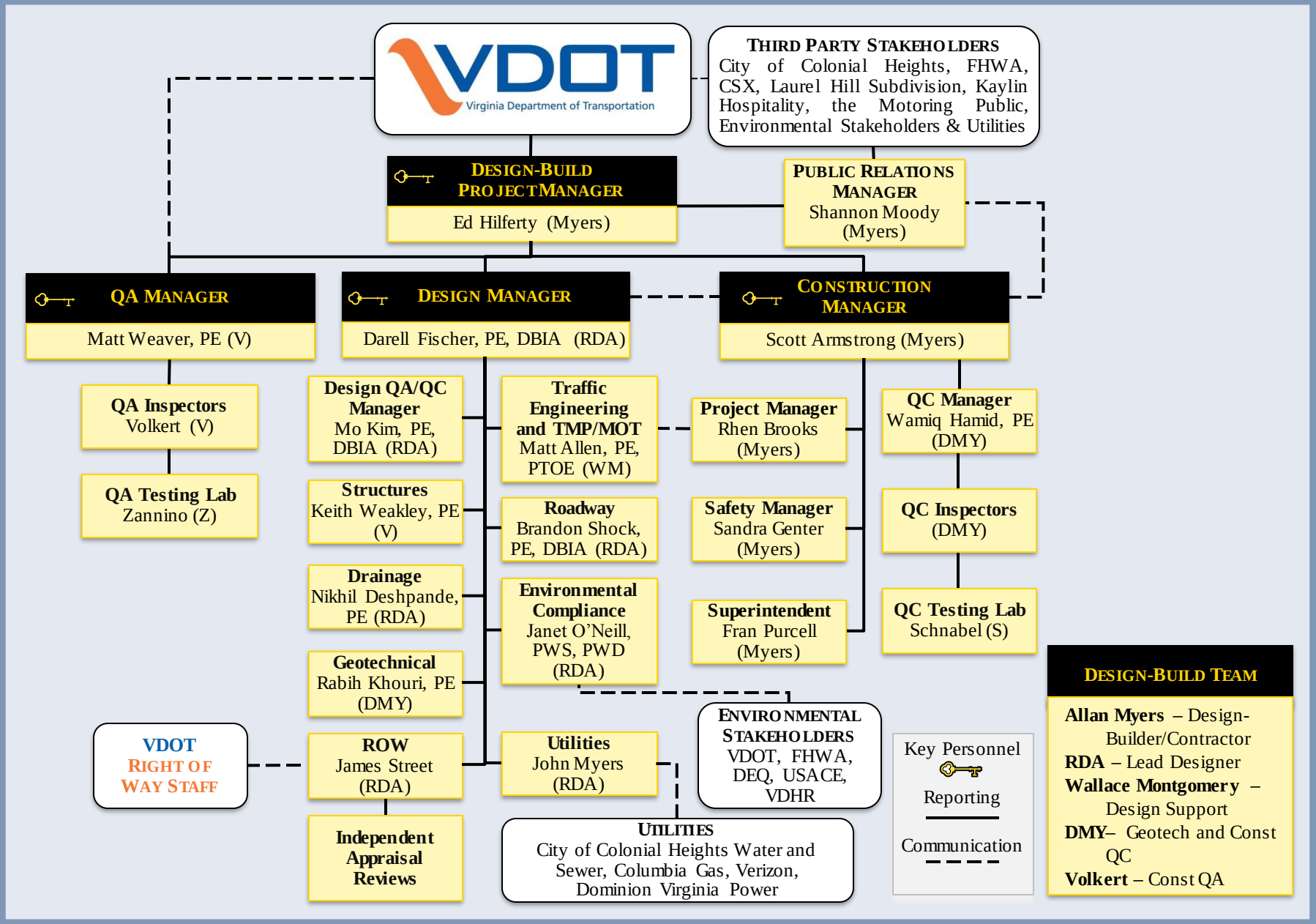
I-95/TEMPLE AVENUE INTERCHANGE IMPROVEMENTS
DESIGN-BUILD PROJECT



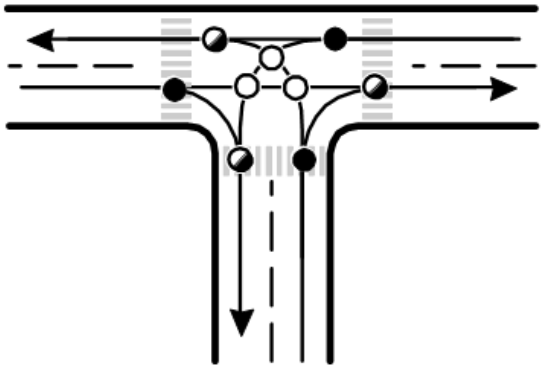
I-95 / Temple Avenue Interchange Improvements

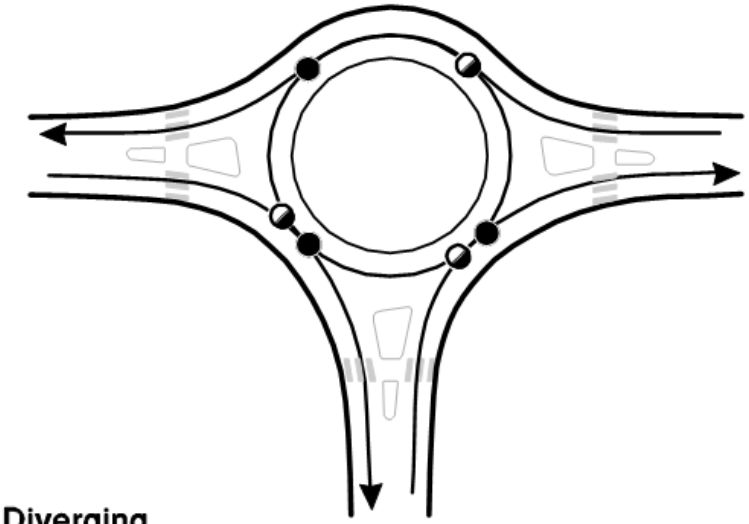
Project History

- 2009–2011 – Project partners studied nine potential interchange improvement options to solve high crash rates and congestion
- 2011 – VDOT worked with the City of Colonial Heights to identify the best solution
- 2011 (December) – Colonial Heights City Council voted to move forward with the roundabout option
- 2011–2013 – VDOT further developed the design to present to the public at 2 separate meetings
- 2013 (October) – VDOT issued an RFQ

Project History

Exhibit 5-1
Vehicle Conflict Points for T-Intersections with Single-Lane Approaches





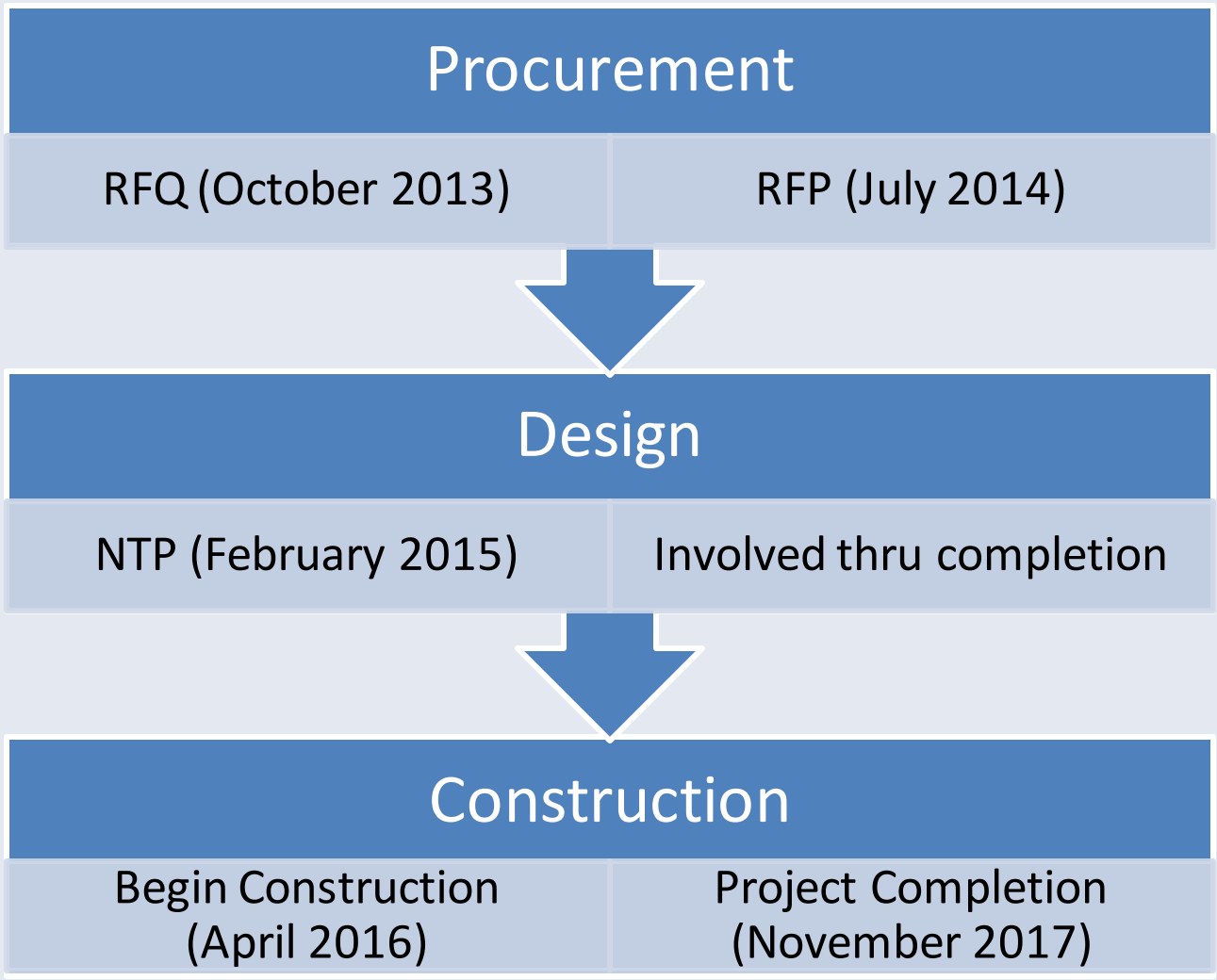
- Diverging
- Merging
- Crossing

Existing (No Build) Condition - Intesection Performance

			Eastbound		Westbound		Northbound	
			Thru	Right	Left	Thru	Left	Right
ld)	Peak	Approach LOS (Delay in seconds)	F (94.4)		D (43.4		E (55.4)	

2037 (Build)	AM Pe	(Delay in seconds)						
		Queue Length (Feet)	43.4	0.0	18.0	0.0	59.8	0.0
	PM Peak	Approach LOS (Delay in seconds)	A (7.5)		A (5.4)		C (21.2)	
		Queue Length (Feet)	99.9	0.0	60.1	0.0	248.4	0.0

Project Phases



Procurement Phase - RFQ

SOQ submission

- Submitted November 25, 2013
- 8 Teams

Shortlist

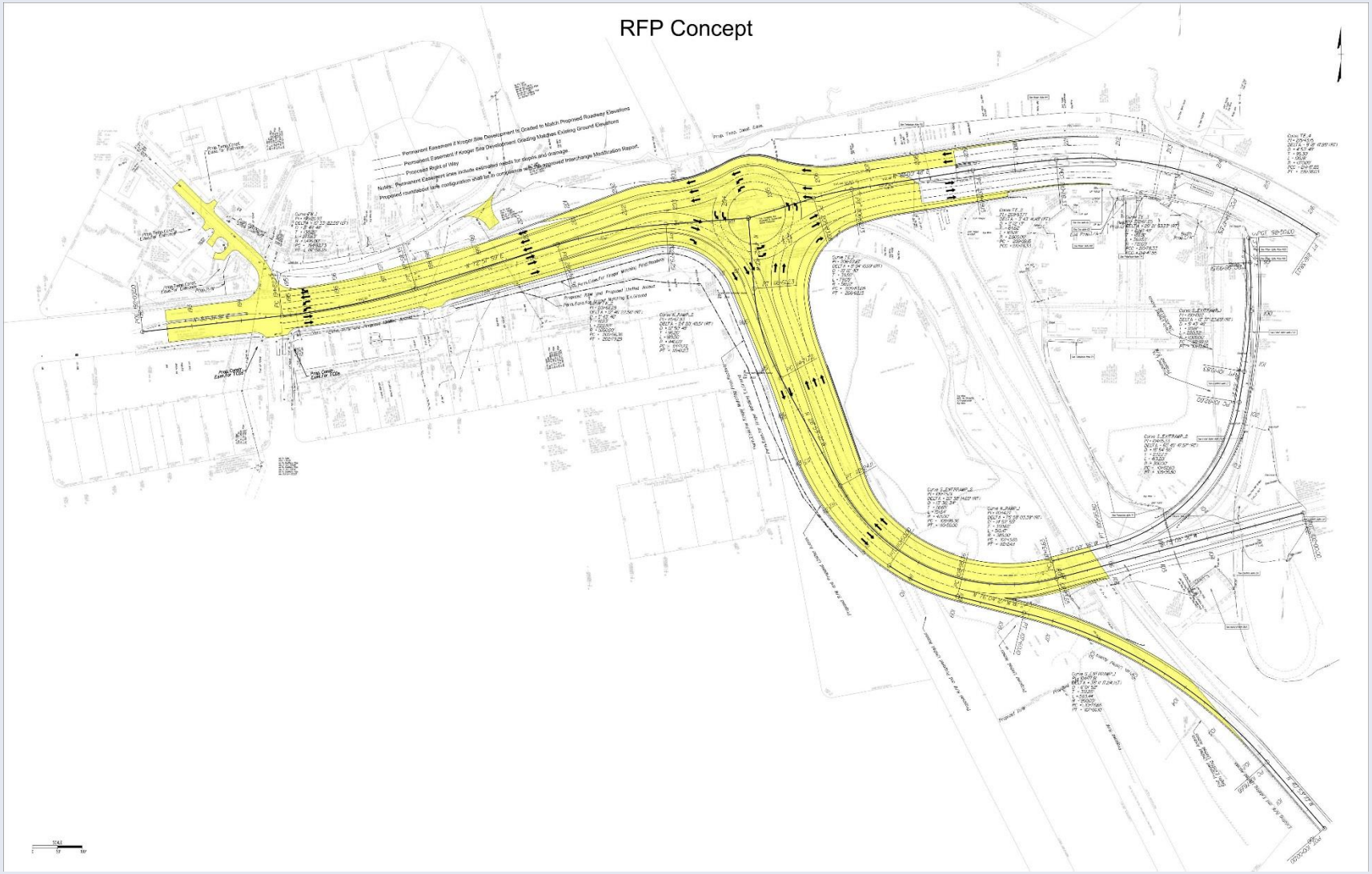
- January 29, 2014 Shortlist
- 3 Shortlisted
  - Allan Myers / RDA
  - Corman / AMT
  - Shirley / Dewberry

RFP

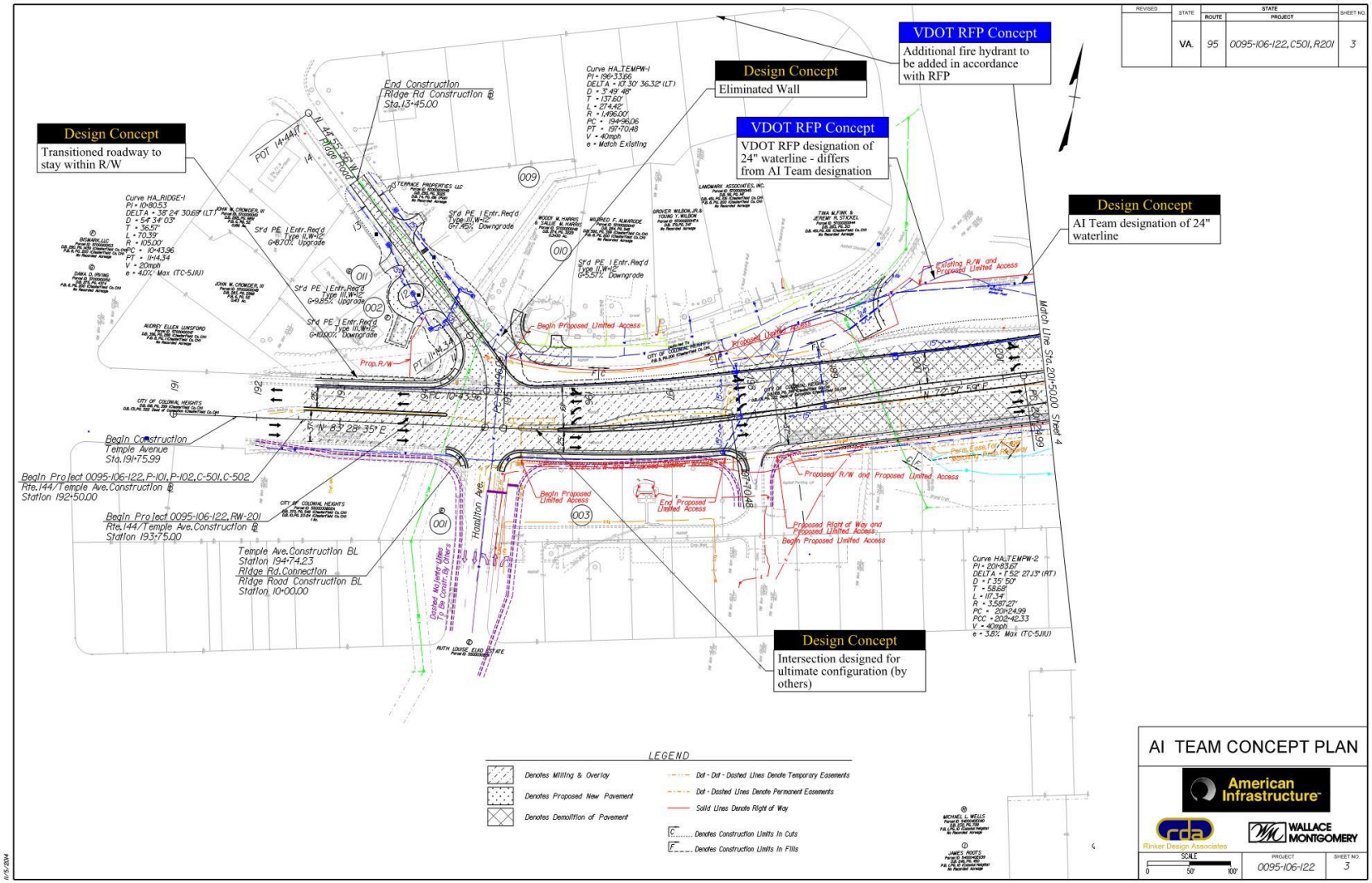
Procurement Phase - RFP

- RFP issued on 7/7/14
  - Proprietary Meeting – August 26, 2014
  - Technical Proposal Due – September 19, 2014
  - Price Proposal Due – October 29, 2014
  - NTP – January 12, 2015
- Addendum 1 issued on 10/17/14
  - Proprietary Meeting – September 2, 2014
  - Technical Proposal Due – November 7, 2014
  - Price Proposal Due – December 11, 2014
  - NTP – February 25, 2015
- Addendum 2 issued on 11/4/14
  - No changes in dates

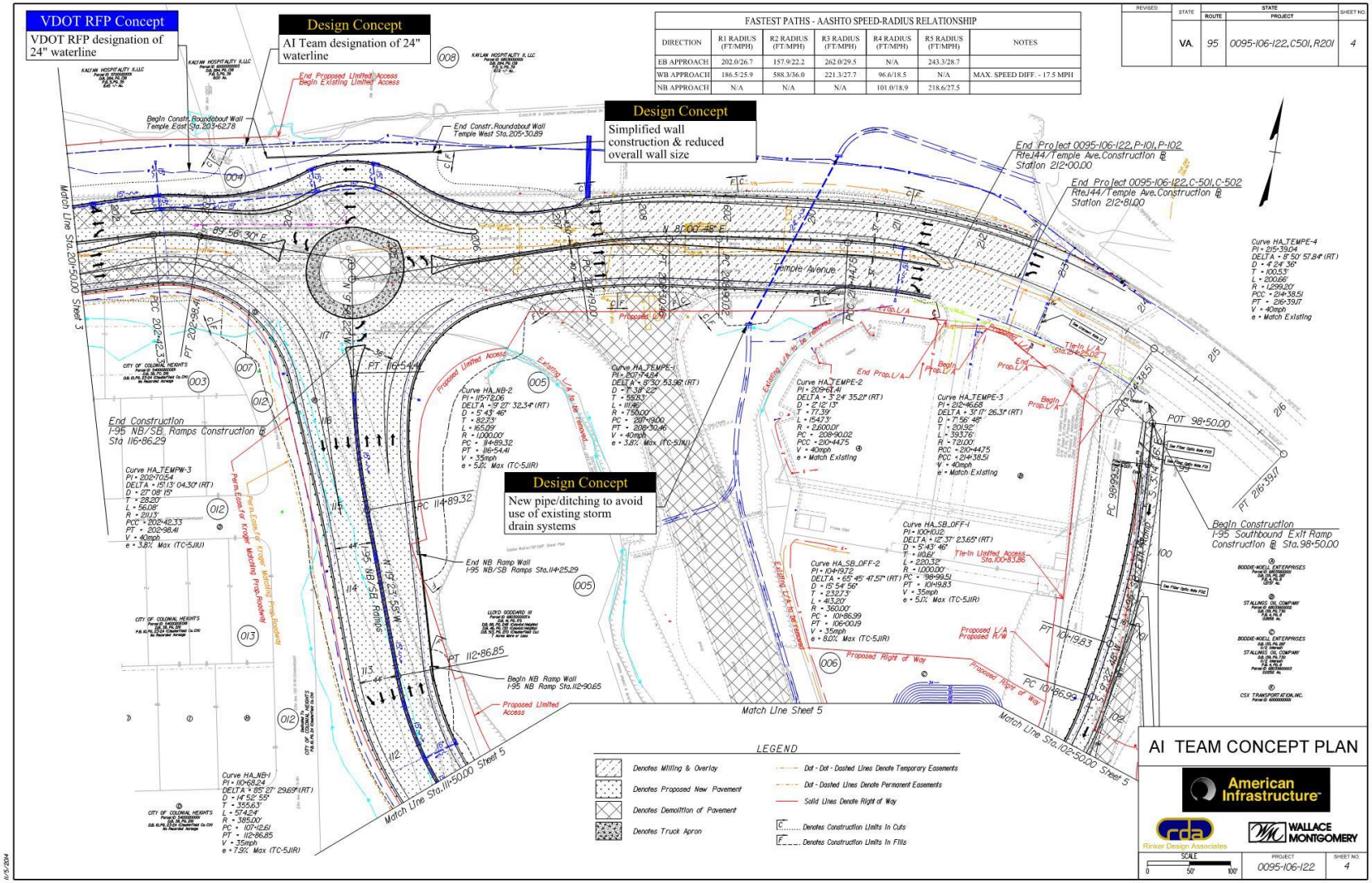
Procurement Phase - RFP



Procurement Phase - RFP



Procurement Phase - RFP



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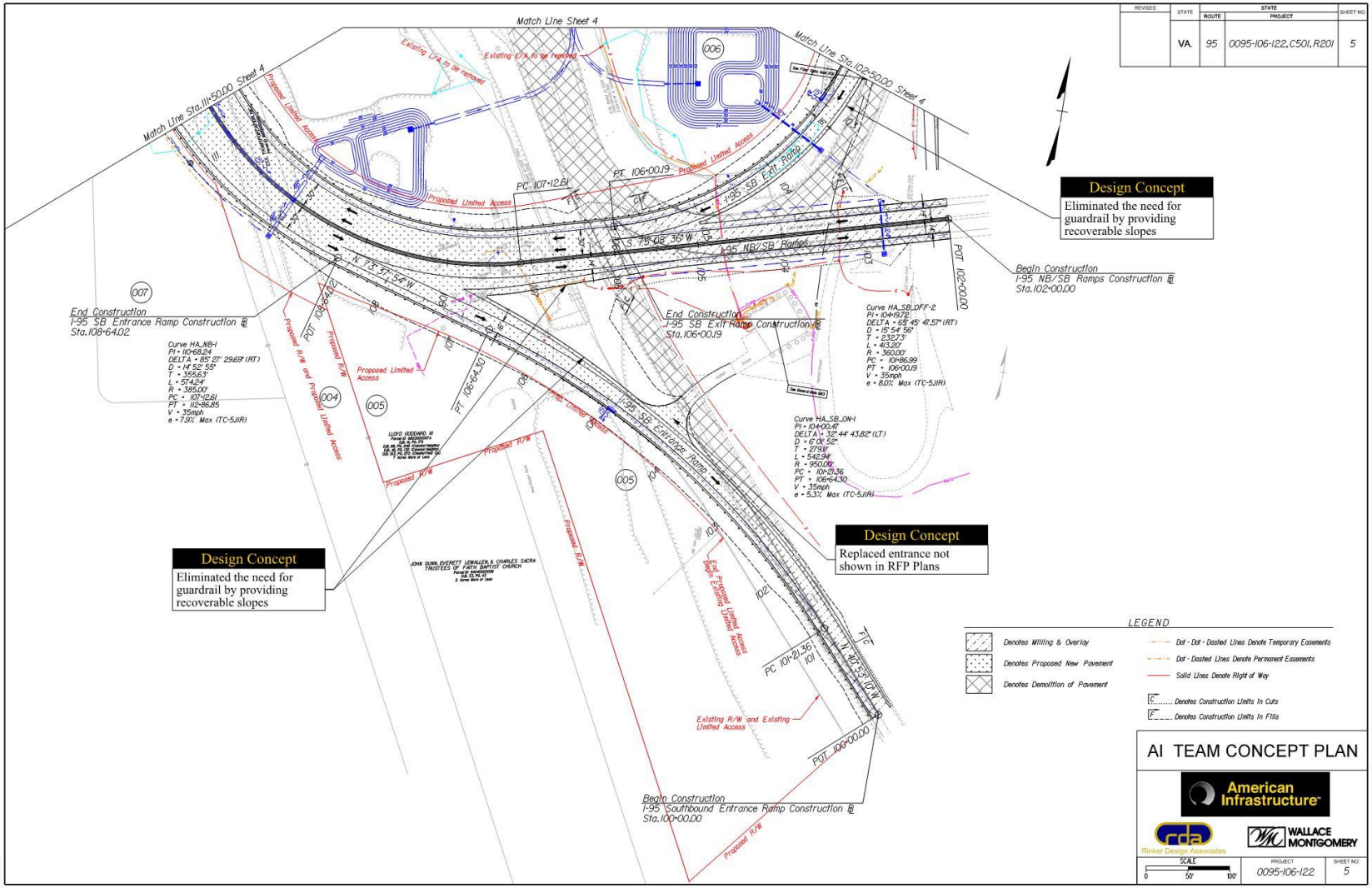
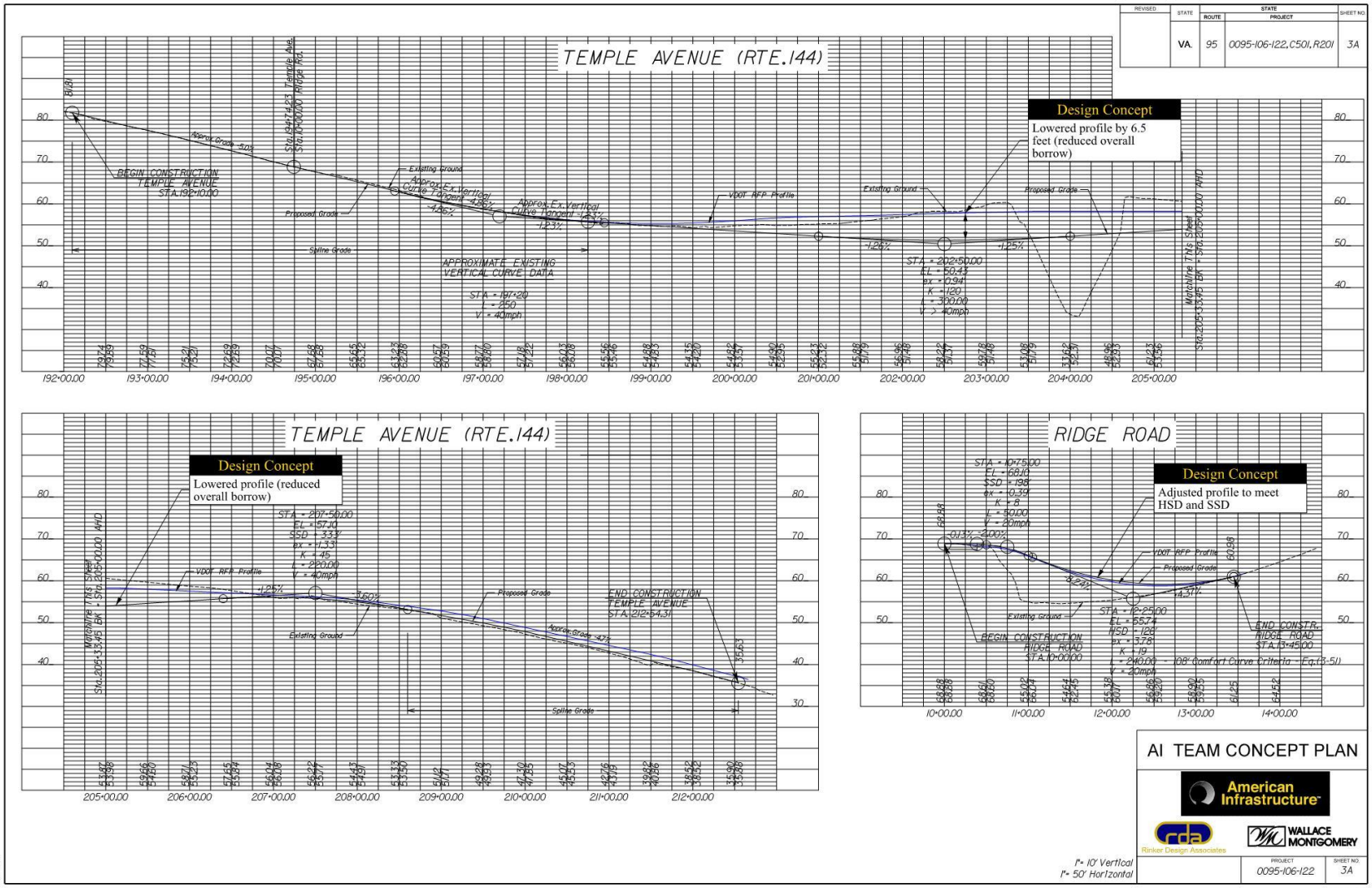
Procurement Phase - RFP



Procurement Phase - RFP



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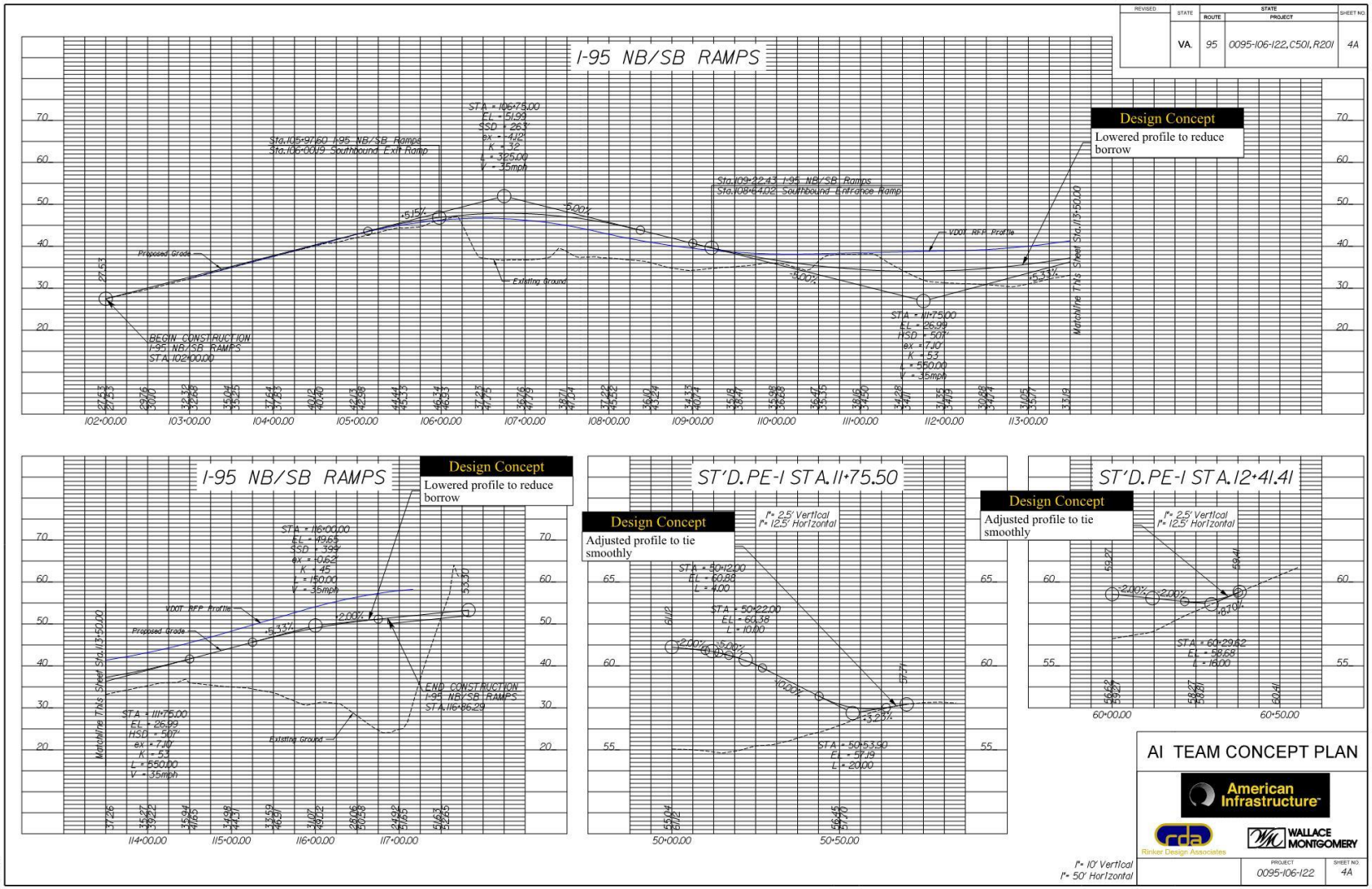
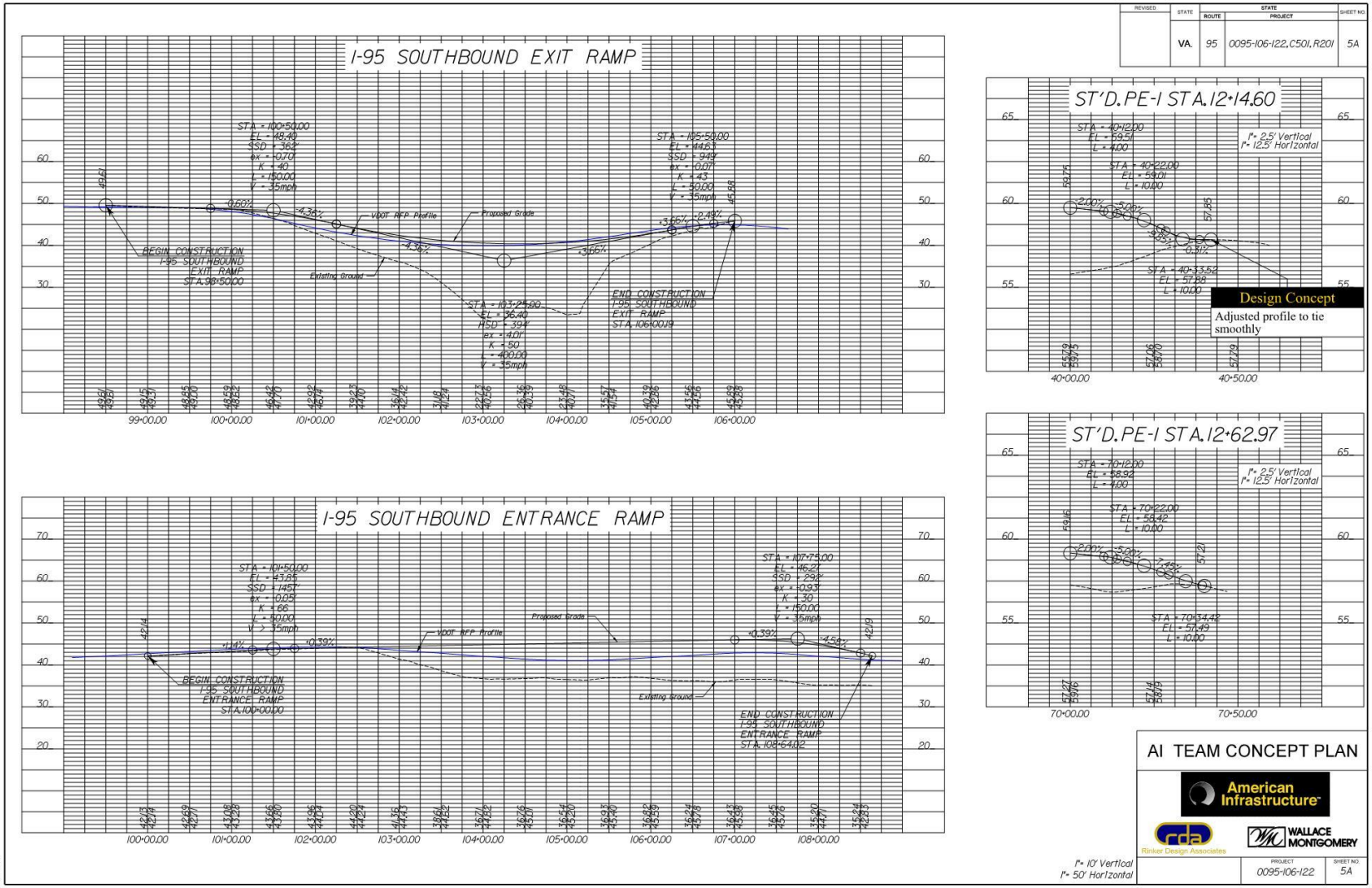
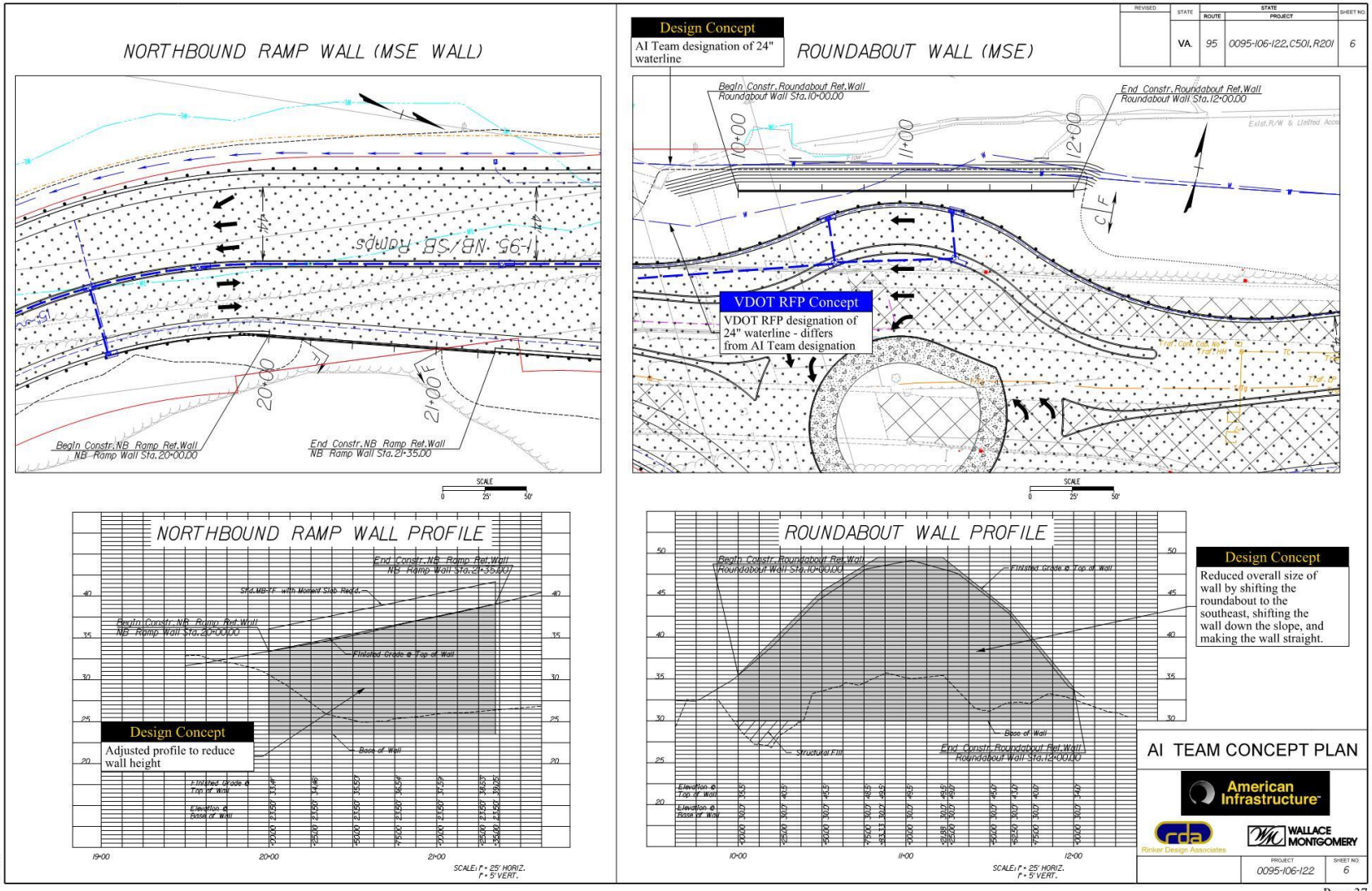
Procurement Phase - RFP



Procurement Phase - RFP



Procurement Phase - RFP



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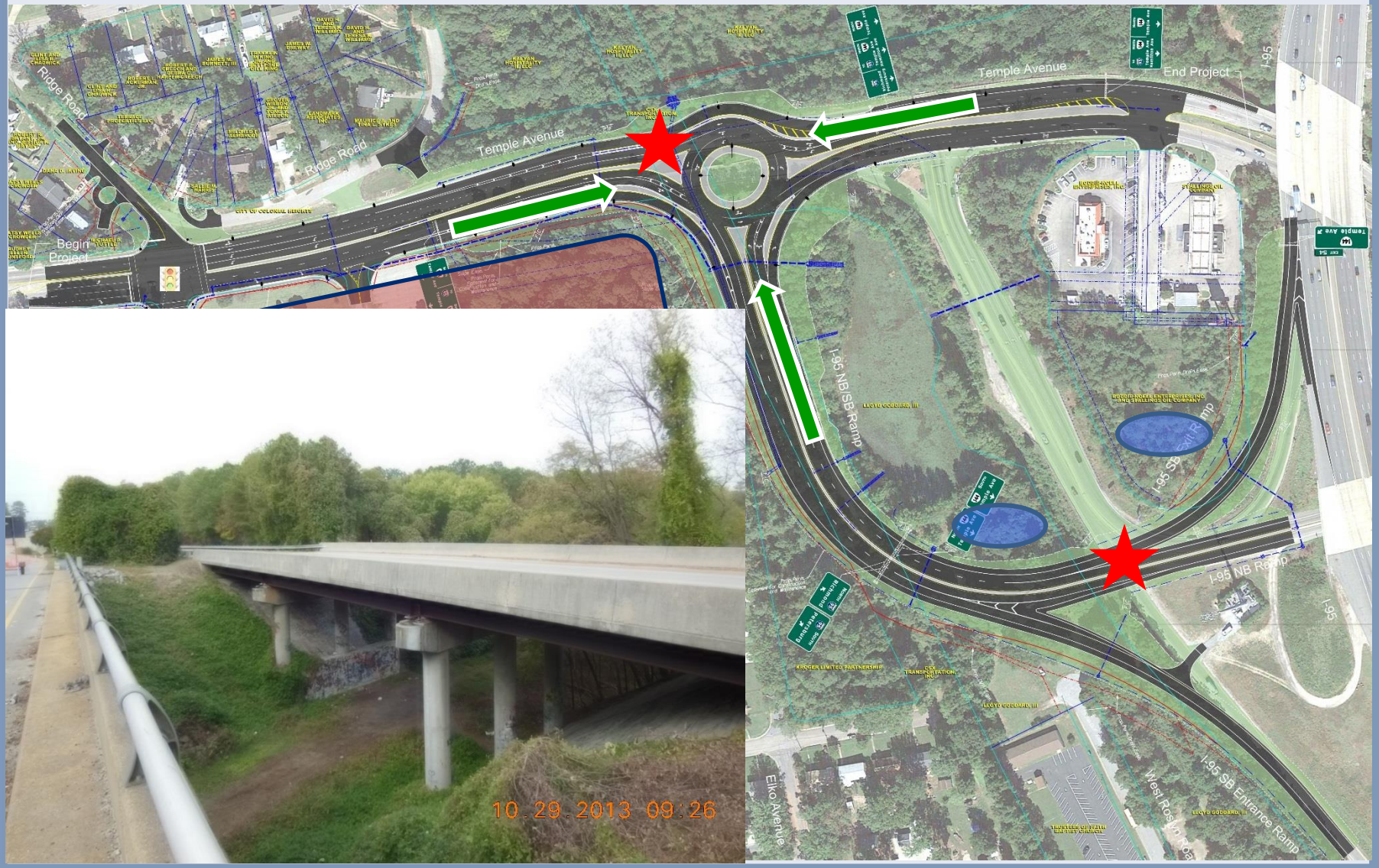
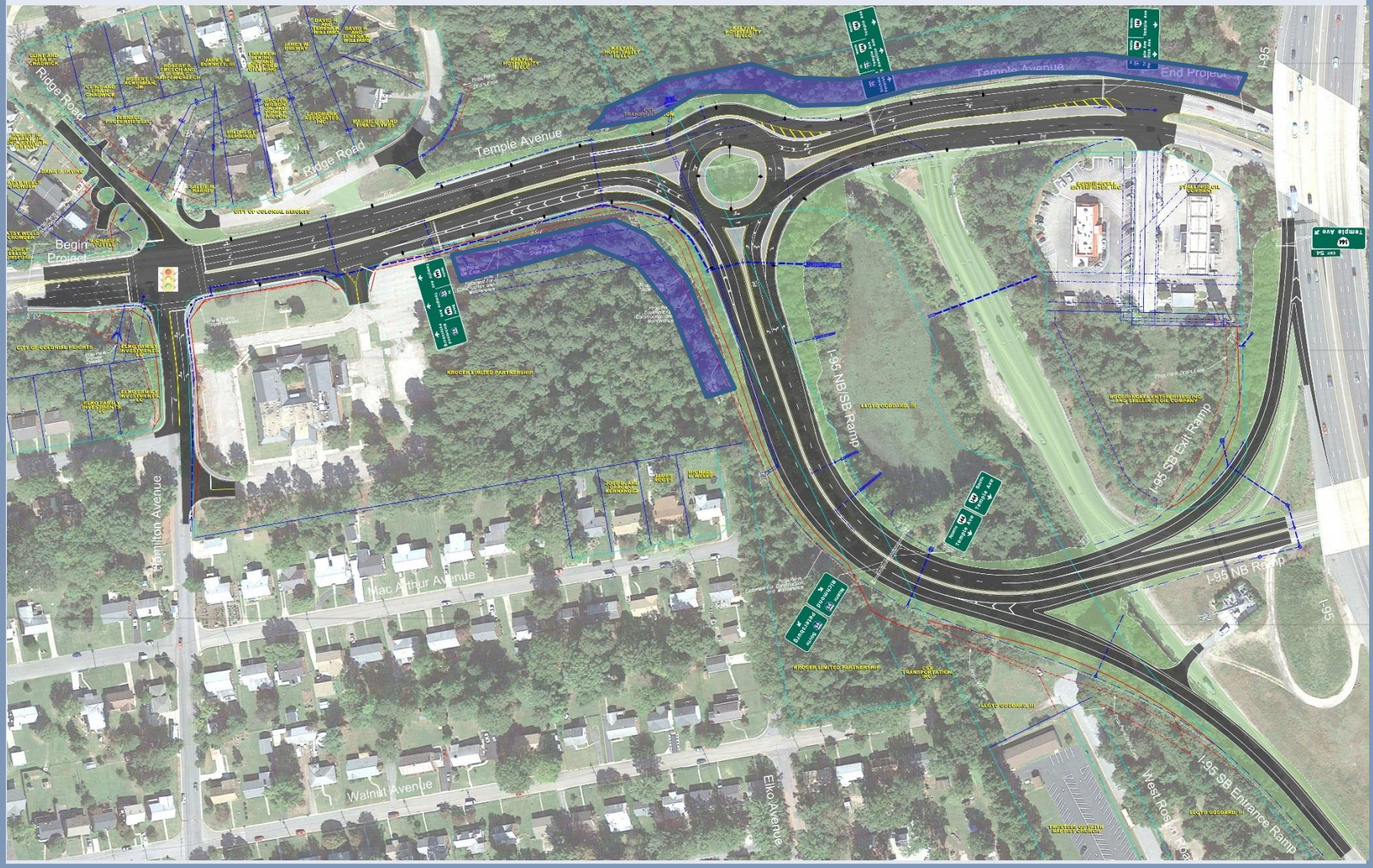
Design Phase (overlapped w/ Construction)

- Design developed in partnership with the contractor
  - Weekly design meetings
  - Focus
    - Design acceleration
    - Construction cost reduction
  - Integration of Kroger ® development
- Scope Validation
  - Pavement – the need for additional buildup
  - SWM – feasibility based on groundwater and HAZMAT
  - Kroger ® Development
  - Appomattox River Water Authority (ARWA)
  - Additional Required Fire Hydrant
  - Unsuitable Materials
- Design Challenges
  - SWM
  - Kroger ®
  - Fastest Path
  - MOT
  - Floodplain / Wetlands
  - Utilities / Right-of-Way

Design Phase



Design Phase

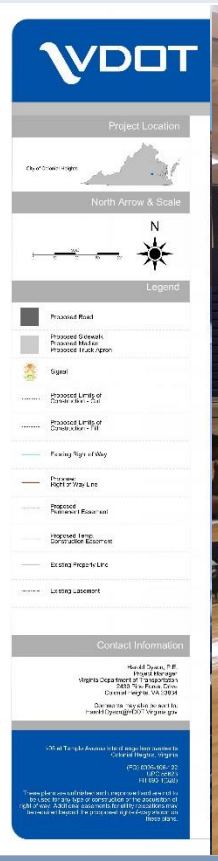


Construction Phase (overlapped w/ Design)

- Design Team stayed involved throughout construction
  - Addressed RFI's
  - Reviewed Shop Drawings
  - Worked with Allan Myers to implement NFC's when minor changes were needed
  - Developed NDC's when larger changes were warranted
- Allan Myers started with a limited NTCC
  - All VDOT owned property and parcels 002, 008 and 009

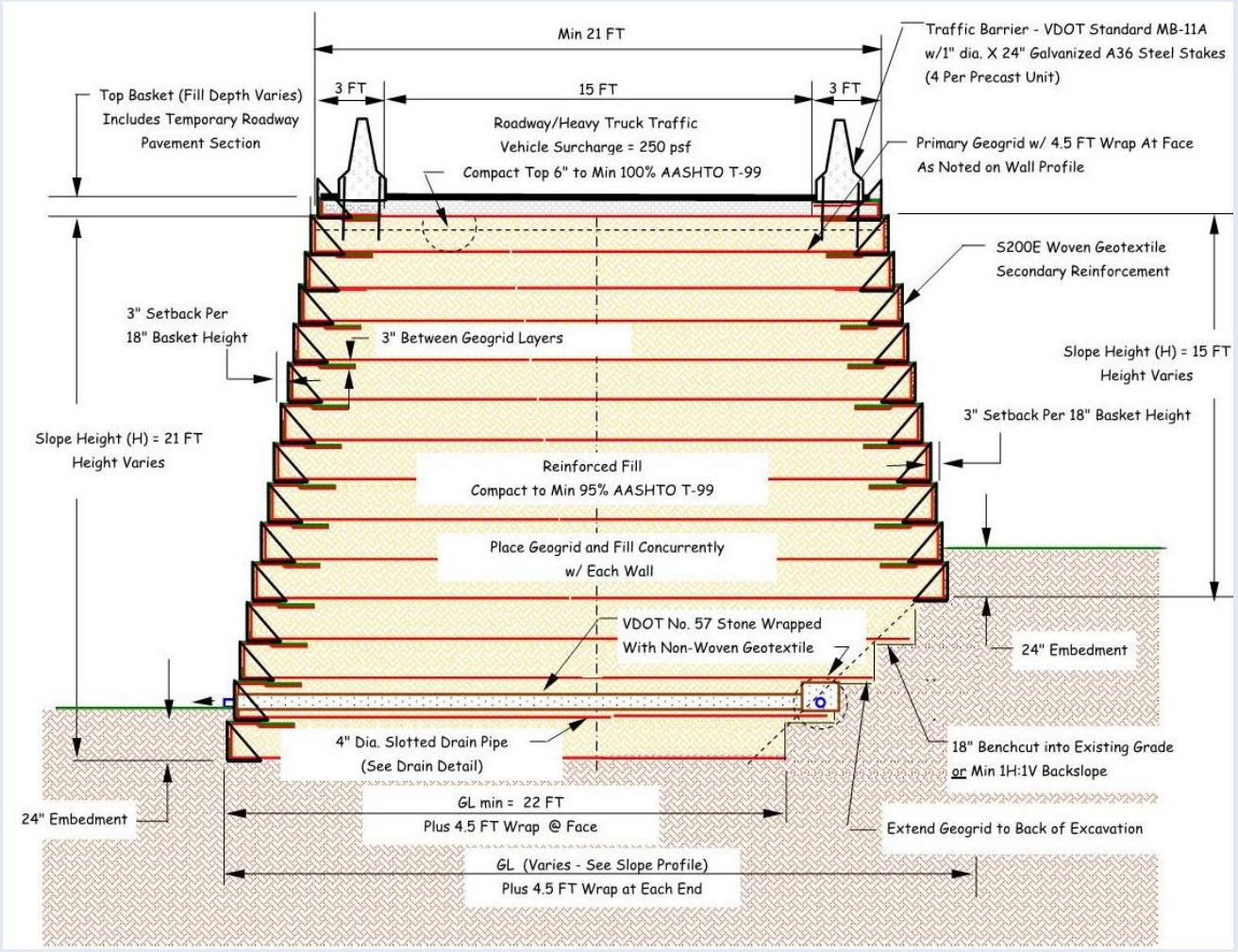
Construction Phase

- Educated the public
  - POD Meeting
  - Public Outreach Meetings
    - Older drivers
    - Newer drivers



Construction Phase (overlapped w/ Design)

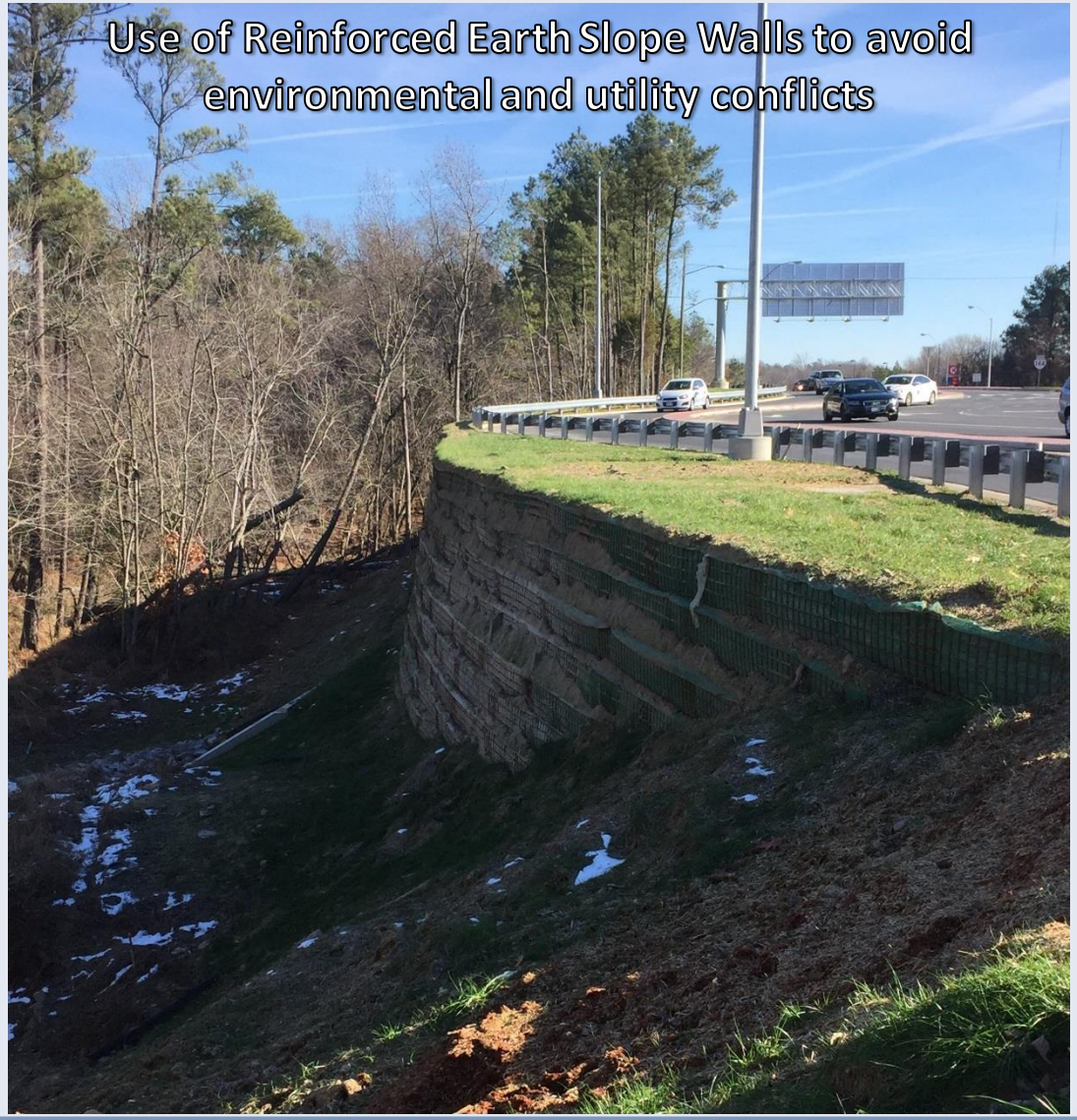
- Built the wire wall roadway



Construction Phase

Construction Phase

Construction Phase



Construction Phase

Project Completion

Project Successes

"Building a brand-new interstate interchange and ramps while keeping traffic moving through the area was a challenge we were eager to meet. We were able to complete most of the work off-road, with minimal traffic impacts. The new intersection will allow the 30,000 vehicles traveling through this area each day a smoother and safer ride" – Shane Mann, P.E., VDOT

"Solid project management, quality construction and close coordination with the local community have been key to this project's success…the entire project team has been committed to completing this project with the next few decades in mind" – Bart Thrasher, P.E., VDOT