Soapstone Connector Feasibility Study

Public Informational Meeting
March 20, 2013

Presented by:

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And

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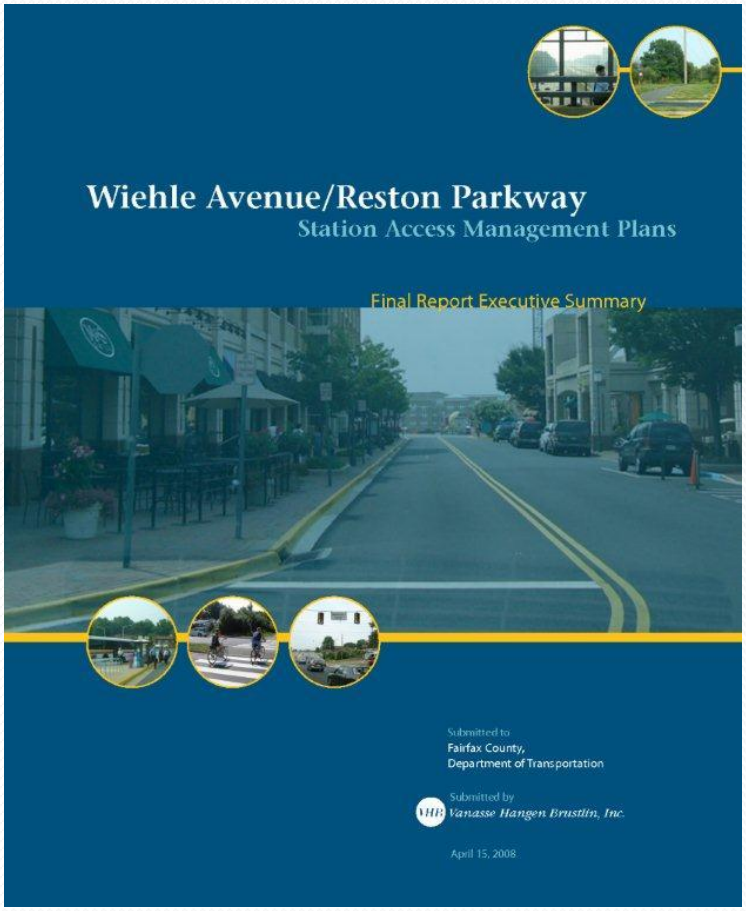
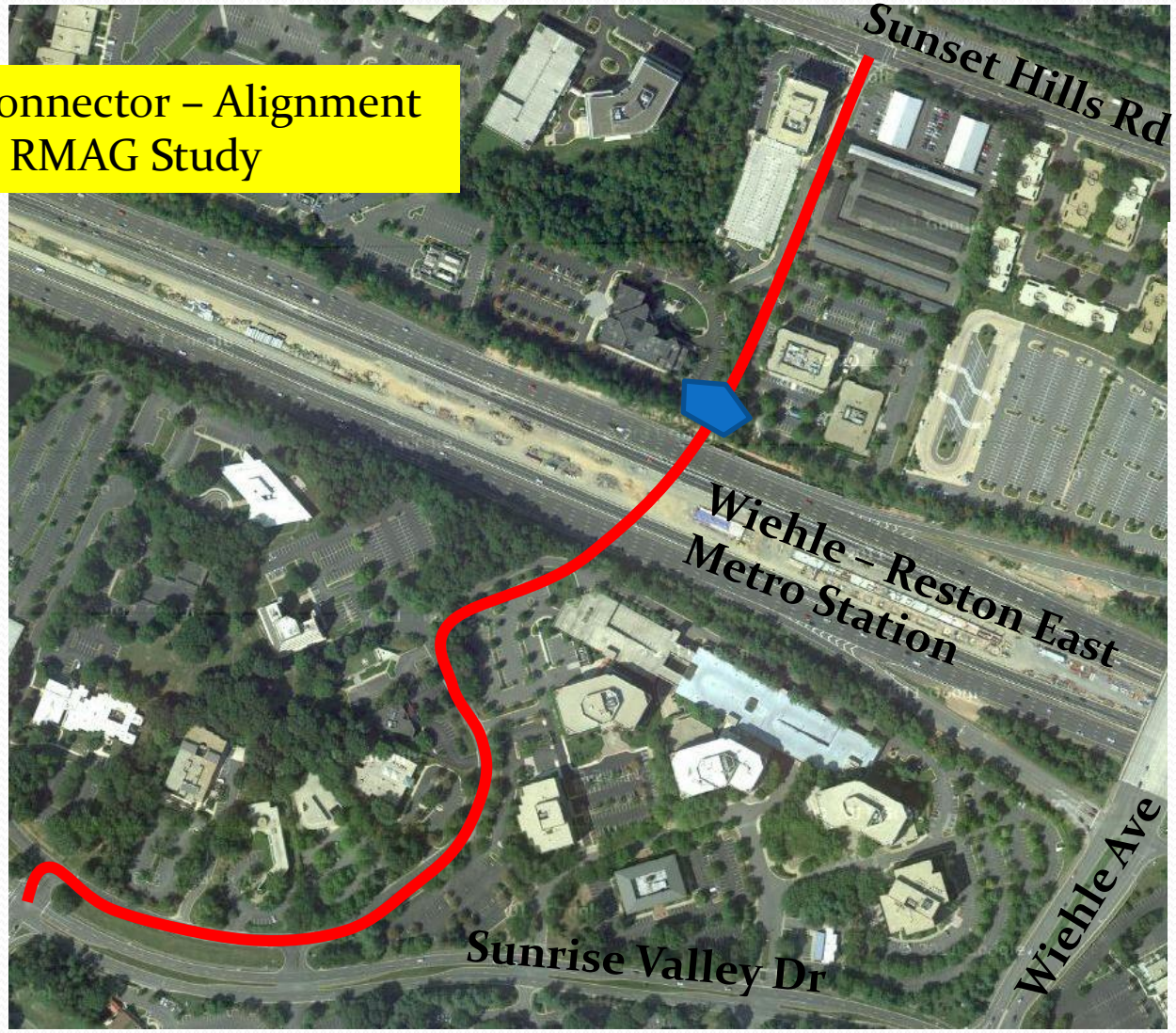
“Genesis” of Soapstone Connector

- Connector would improve/increase access to the Wiehle Avenue Metro Station
- Connector would reduce adverse traffic impact of New MetroRail Station on Wiehle Avenue
- RMAG Study Established the Need for this Improvement, “coined” the “Soapstone Drive Connector”
- Multi-modal Connector – Pedestrians, Bicyclists, Transit Users, Motorists



Alignment Identified in Prior Study

Soapstone Connector – Alignment Identified in RMAG Study



Legend

Metro Track Power Sub Station

RMAG Proposed Connector

- "Typical" Cross-Section:
  - Four lanes wide
  - Two General Purpose Lanes, one in each Direction
  - Two Shared Bus and Bicycle Lanes, one in each Direction
  - Facility Accommodation for Pedestrians

Table 3-16: Bicycle Recommendation for Wiehle Ave - South

	Side	Street	From	To	Recommendation
B12	Both	Soapstone Connector	Sunrise Valley Dr	Sunset Hills Rd	Construct shared bus/bike lanes on the proposed roadway extension

Goals for the Soapstone Connector

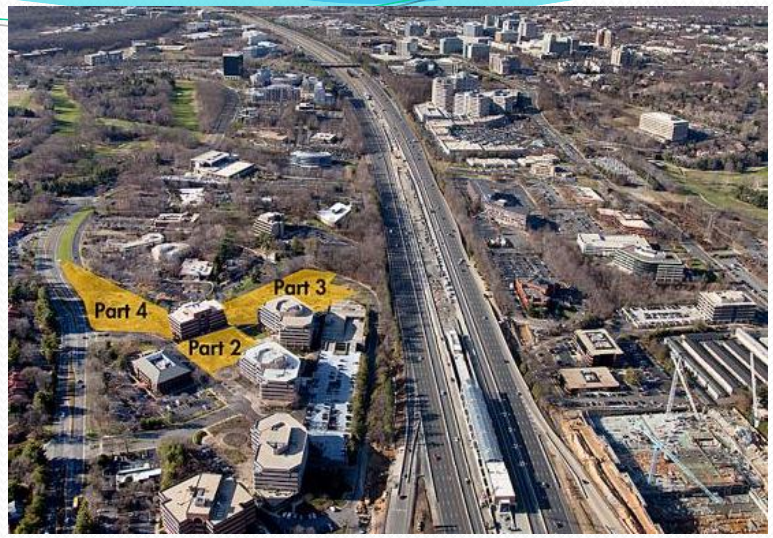
- Connect Two Major East-West Corridors: Sunset Hills Rd and Sunrise Valley Dr
- Reduce Traffic Impacts to Wiehle Avenue
- Improve Accessibility to the Wiehle - Reston East Metro Rail Station
- Integrate with Planned Grid of Streets in Reston
- Complement Existing and Future Developments in Area

Study Objectives

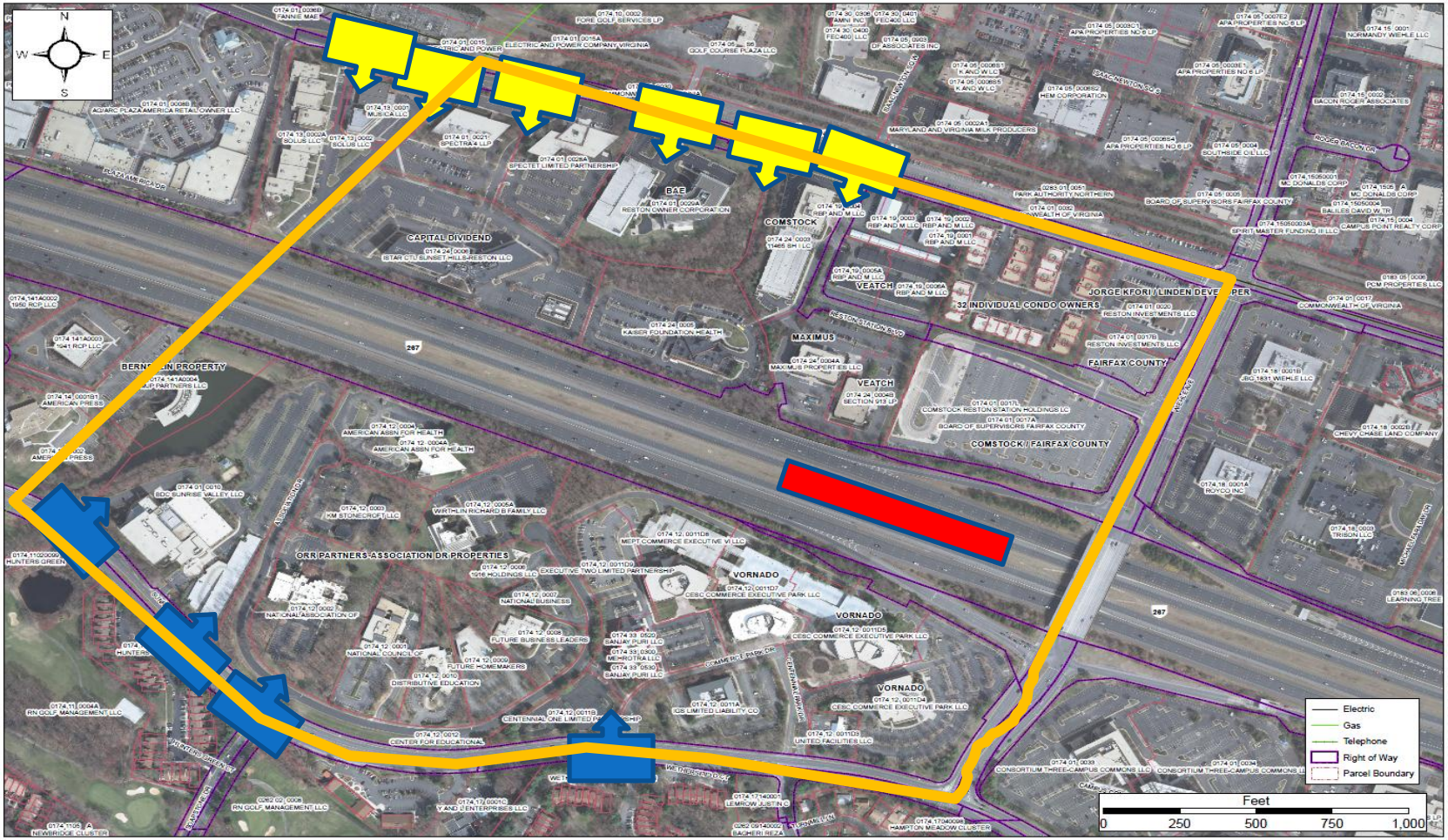
- Determine Feasibility of a Soapstone Connector
- Identify Most Promising Alignment(s)
- Conduct a Type, Size and Location (TS&L) Analysis of a New Bridge over the Dulles Toll Road
- Identify and Quantify Differences Among Alternatives, in terms of Land Use, Traffic, Environment and Engineering Considerations
- Identify Key Challenges and Mitigating Strategies for Advancing to the Preliminary Design Phase
- Develop a “Rough Order of Magnitude” Cost Estimate

Consultant's Scope

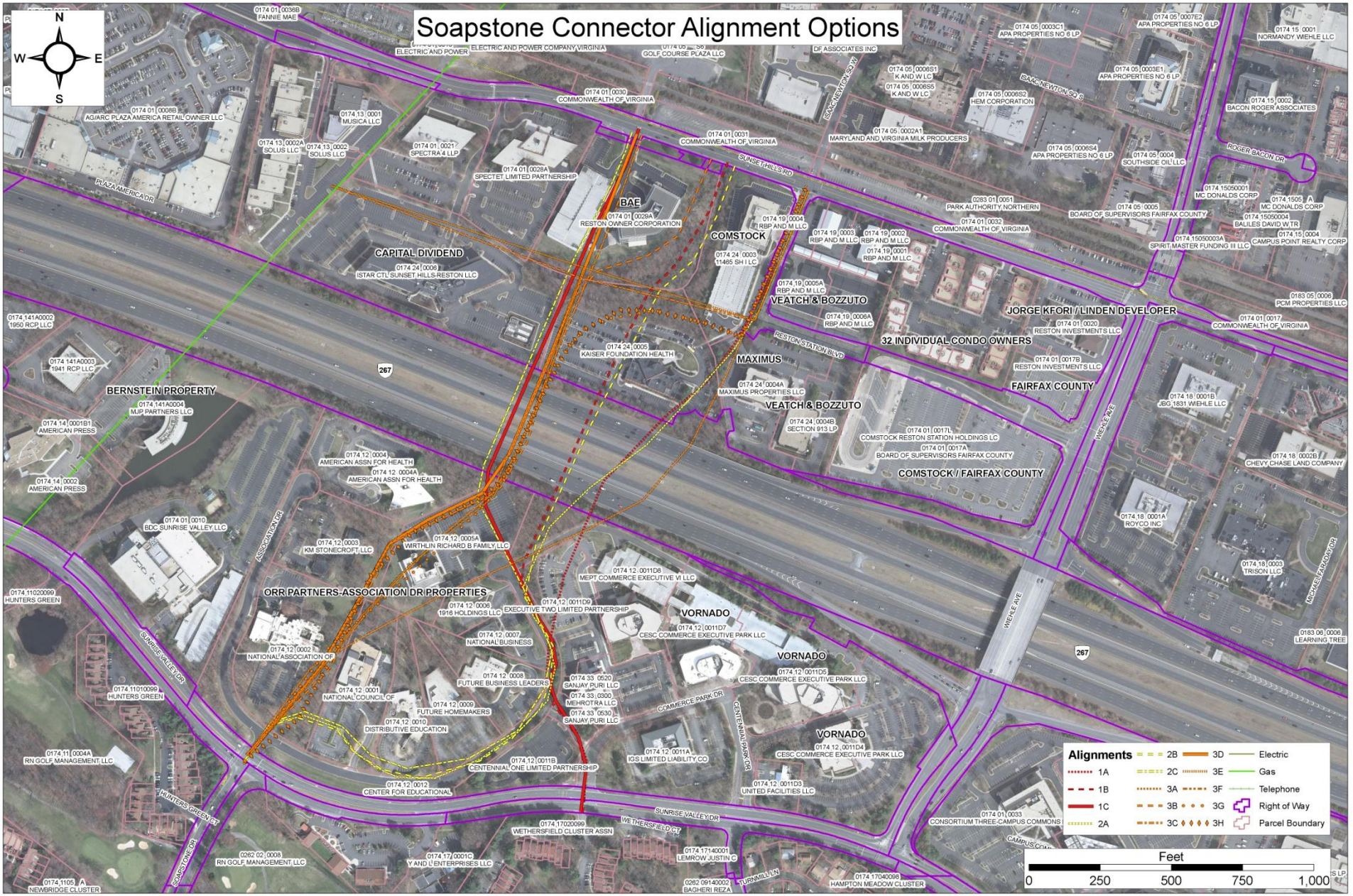
- Data Gathering
- Screening of Horizontal Alignment Alternatives
- Alternatives Refinement
- Alternatives Evaluation
- Recommendations
- Documentation
- Public Involvement



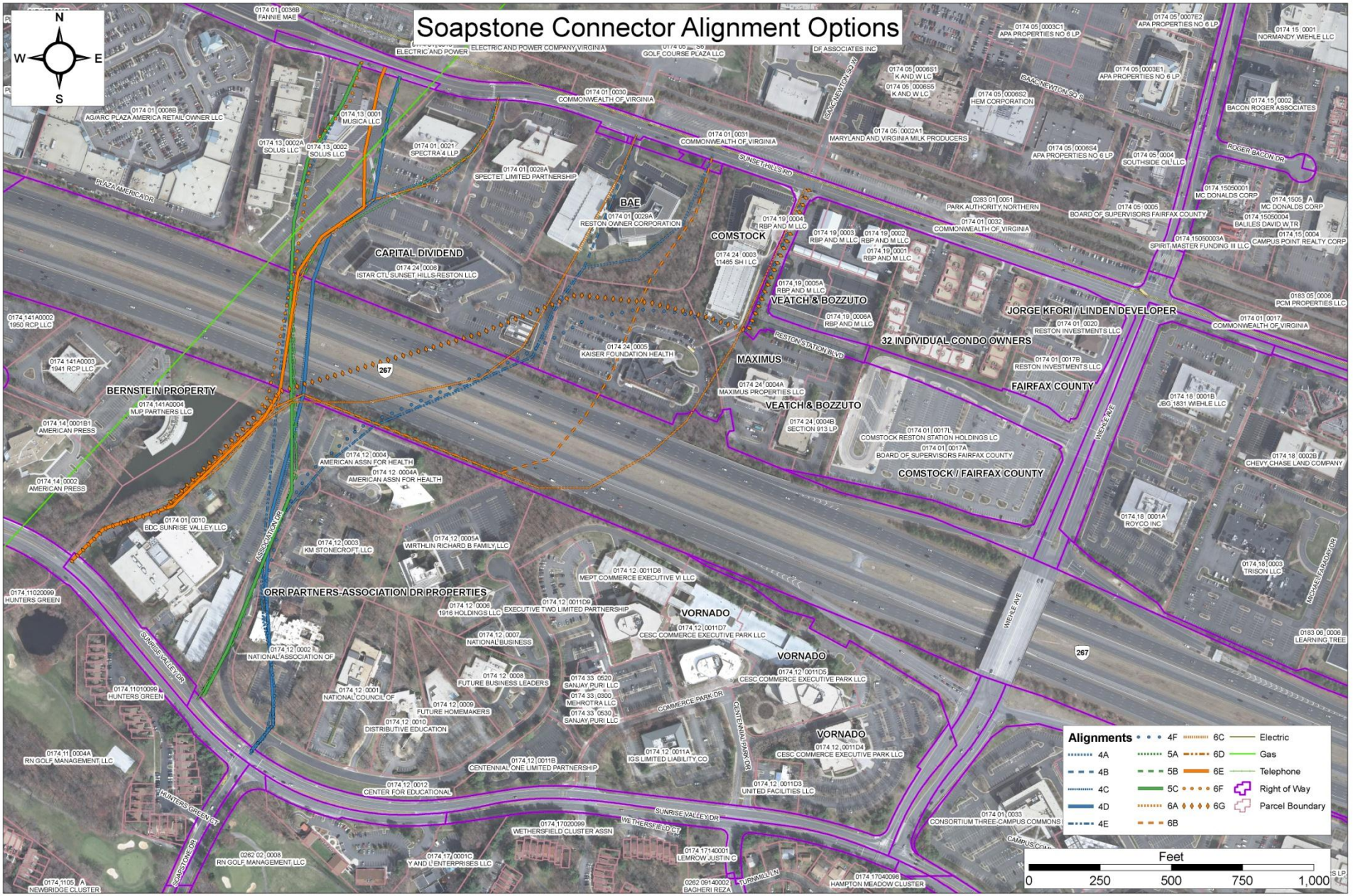
Horizontal Alignment Alternatives



Eastern Horizontal Alignment Alternatives

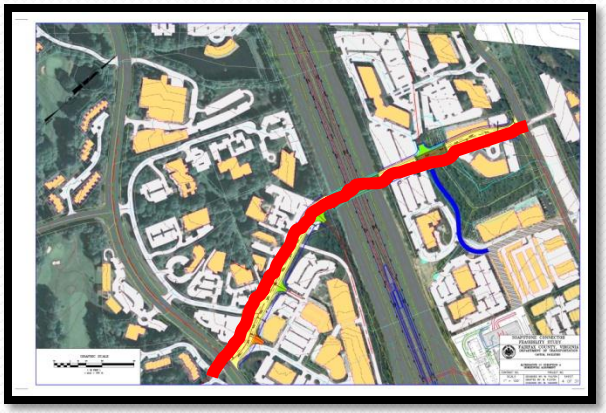


Western Horizontal Alignment Alternatives

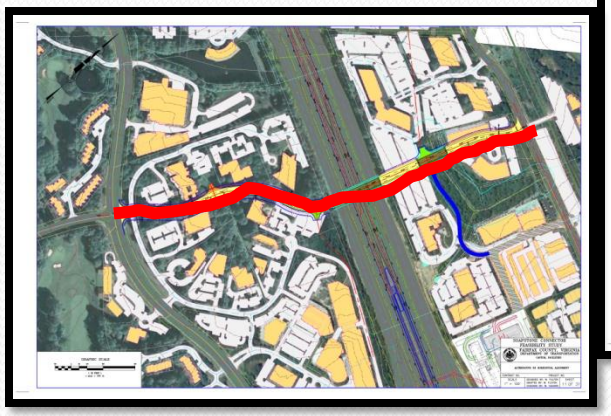


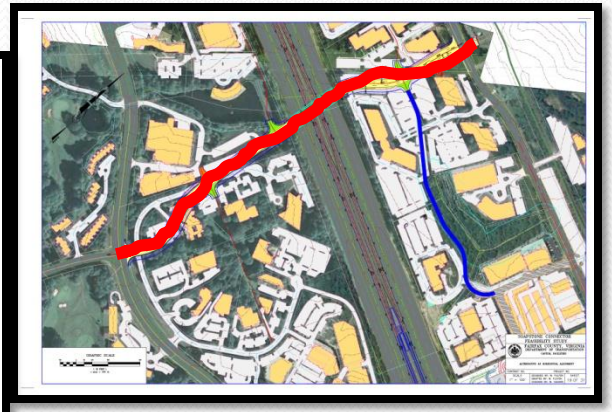
Alternatives Evaluated

1C



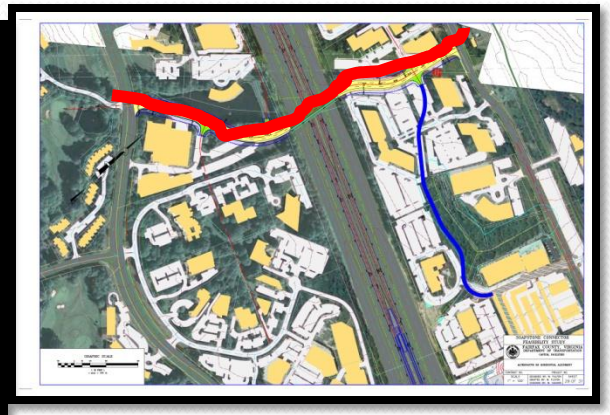
3D





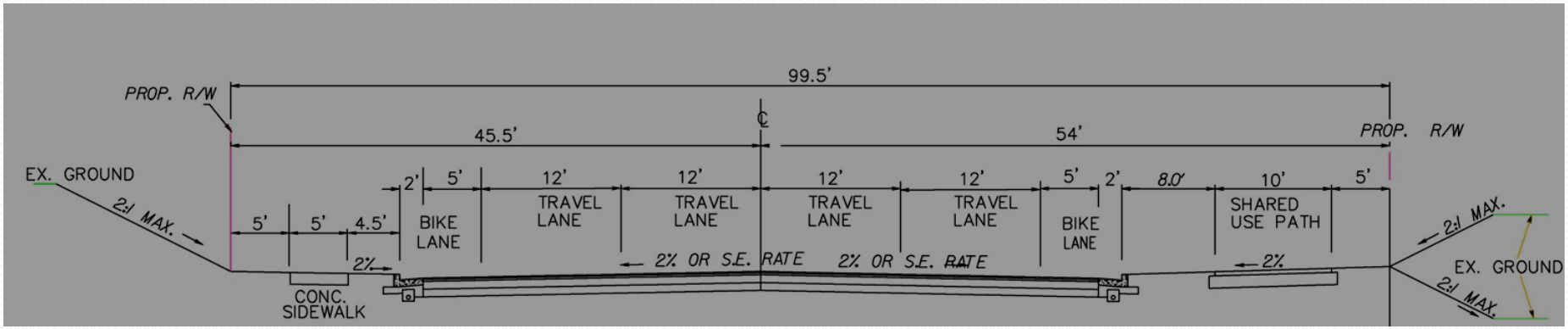
4D

5C

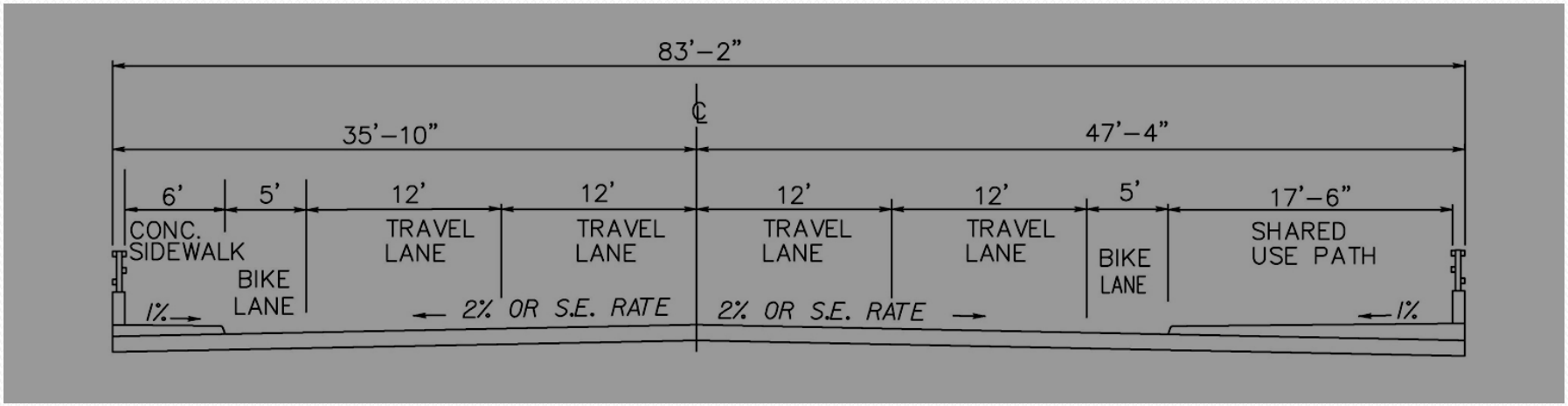


6E

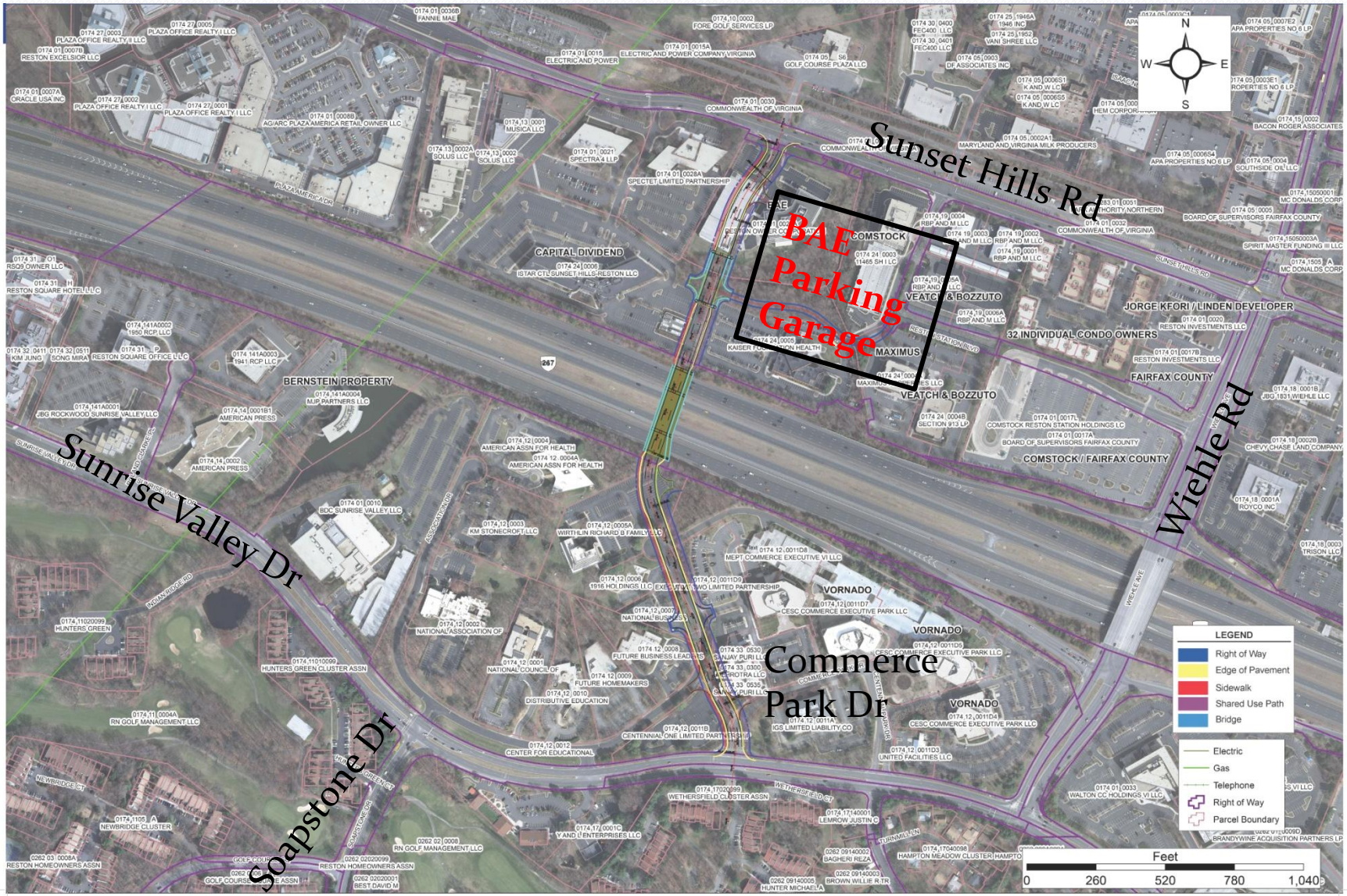
Typical Section - Roadway



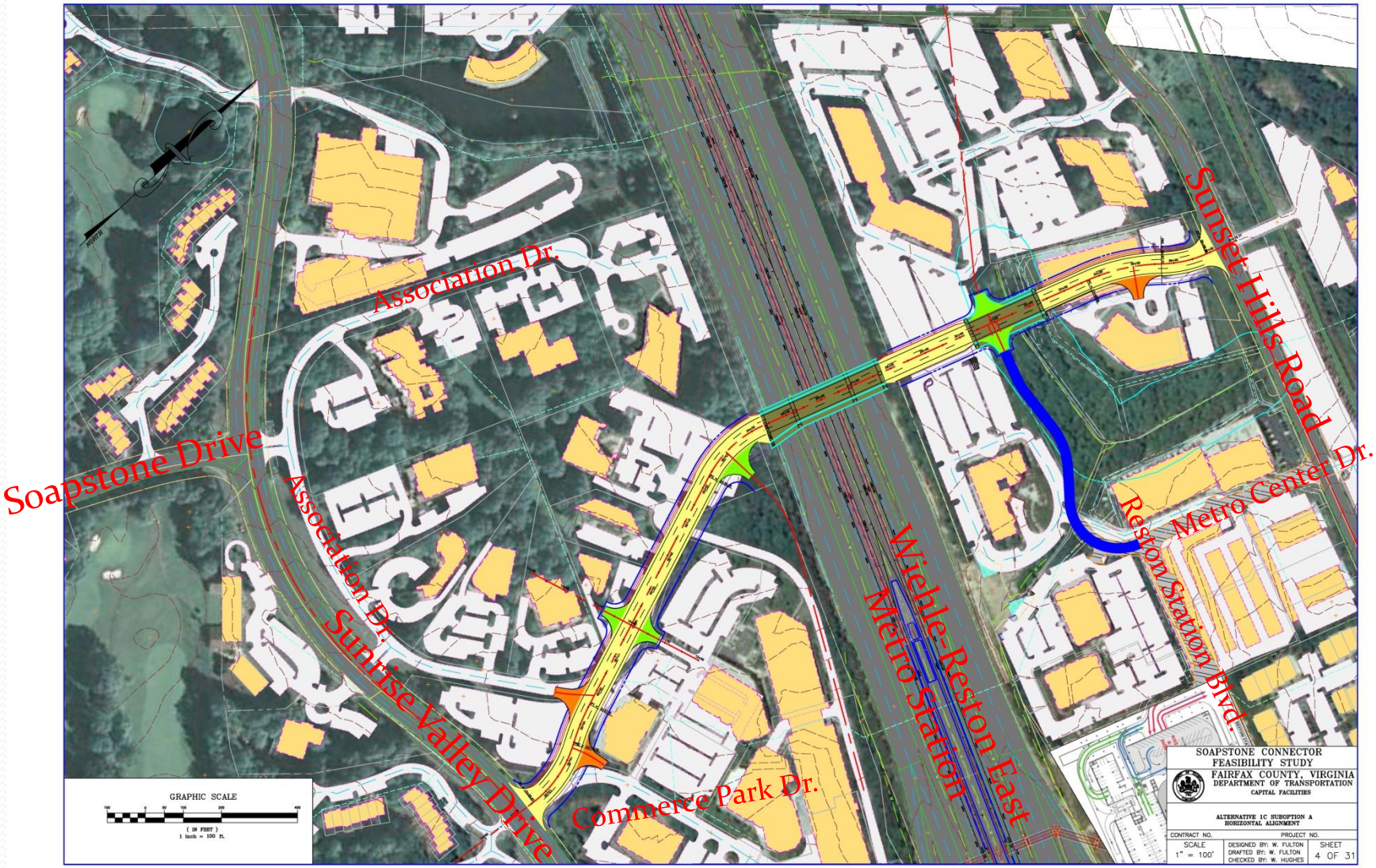
Typical Section - Bridge



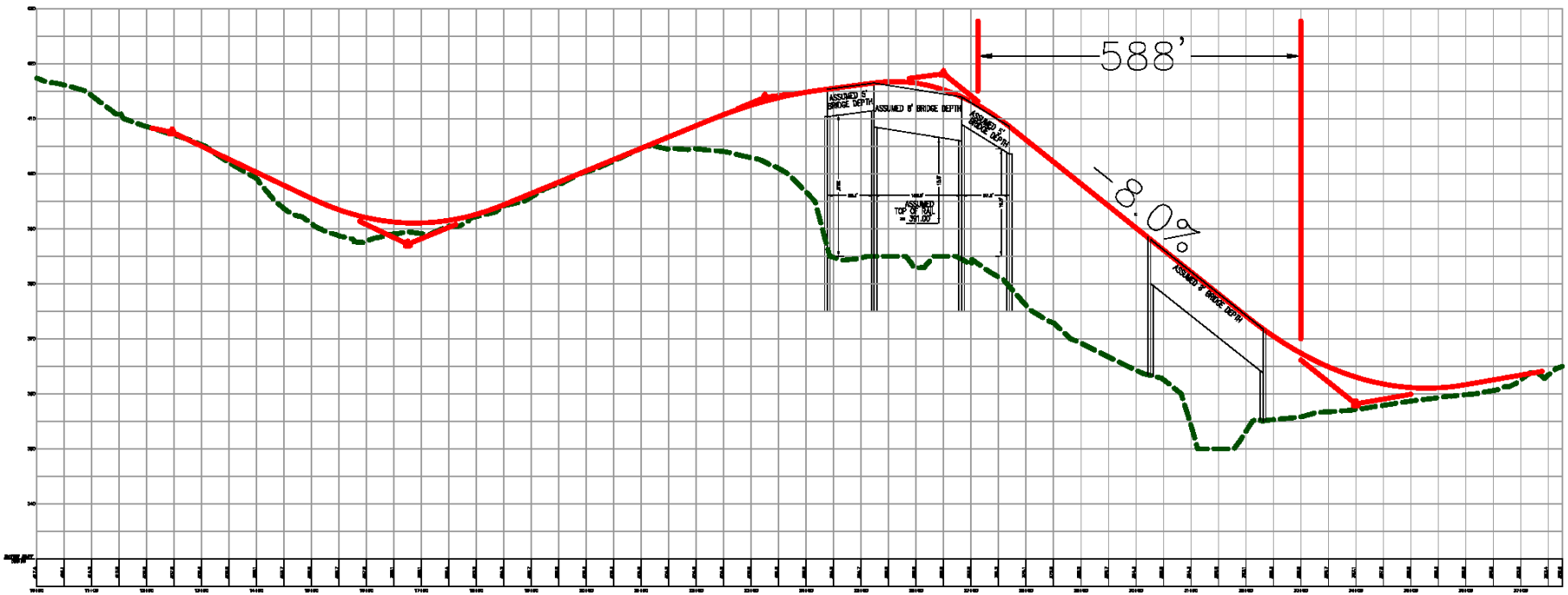
Alternative 1C – Plan



Alternative 1C – Plan



Alternative 1C - Profile



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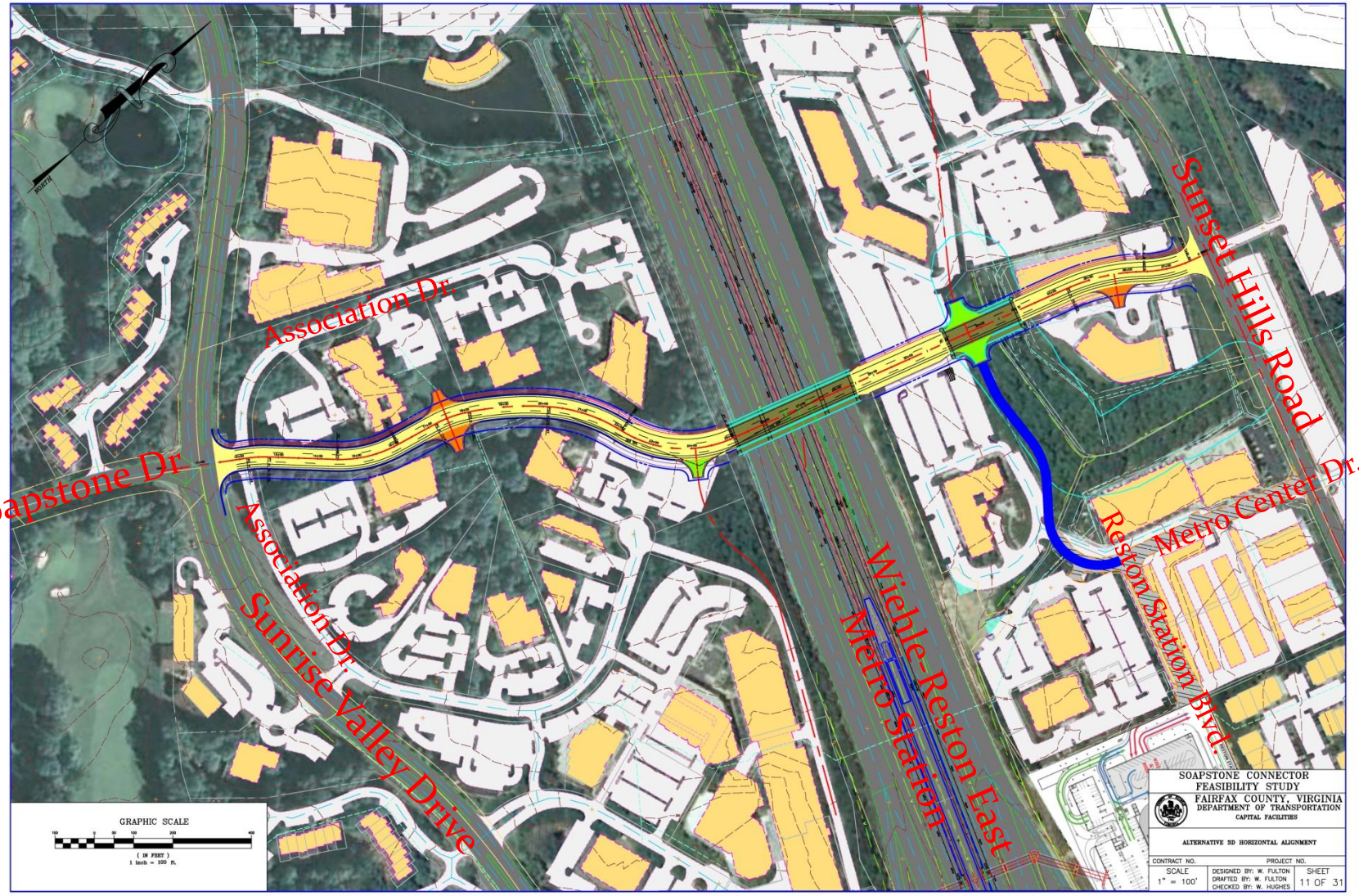
Alternative 3D – Plan

Alternative 3D – Plan



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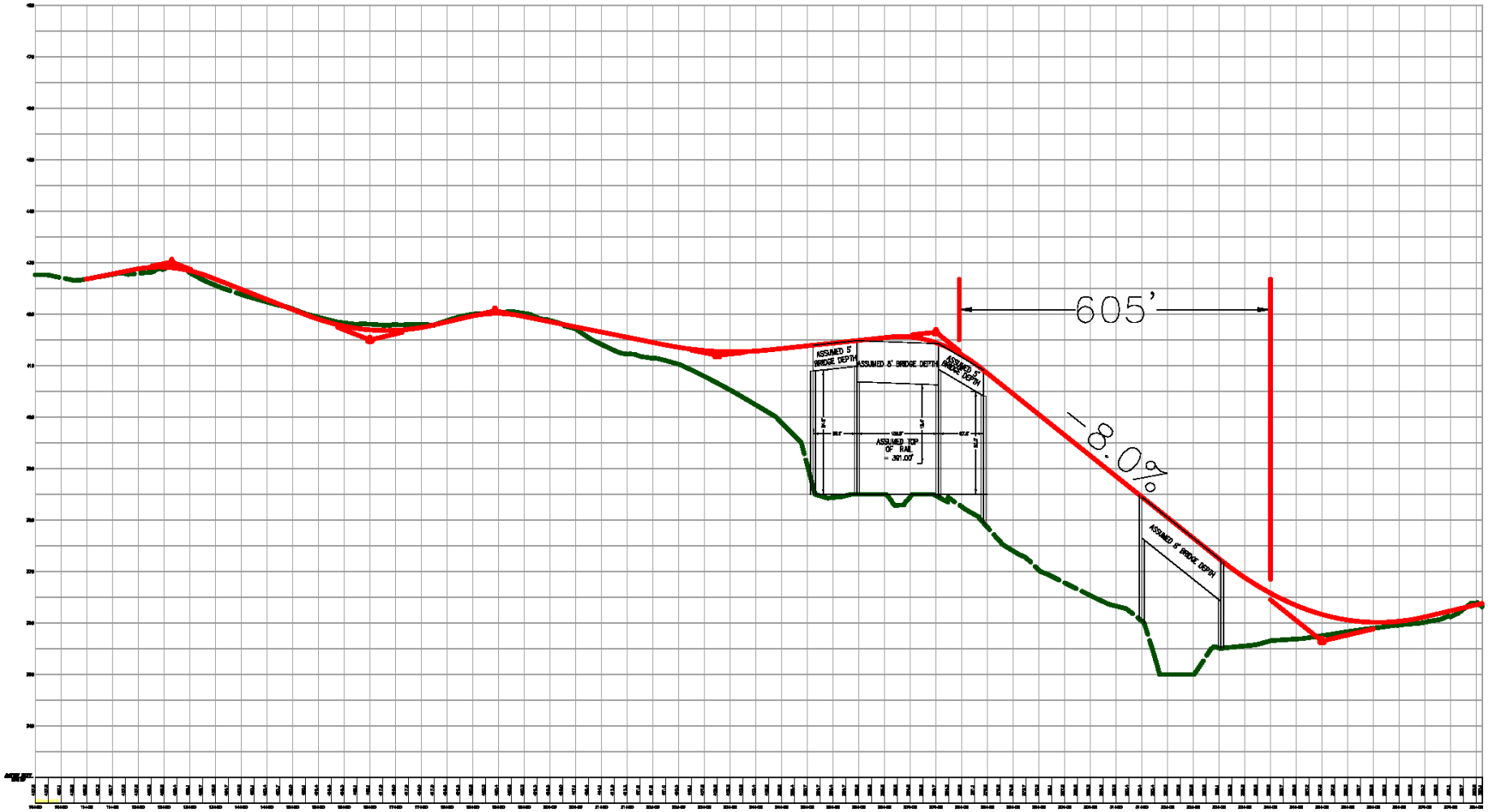

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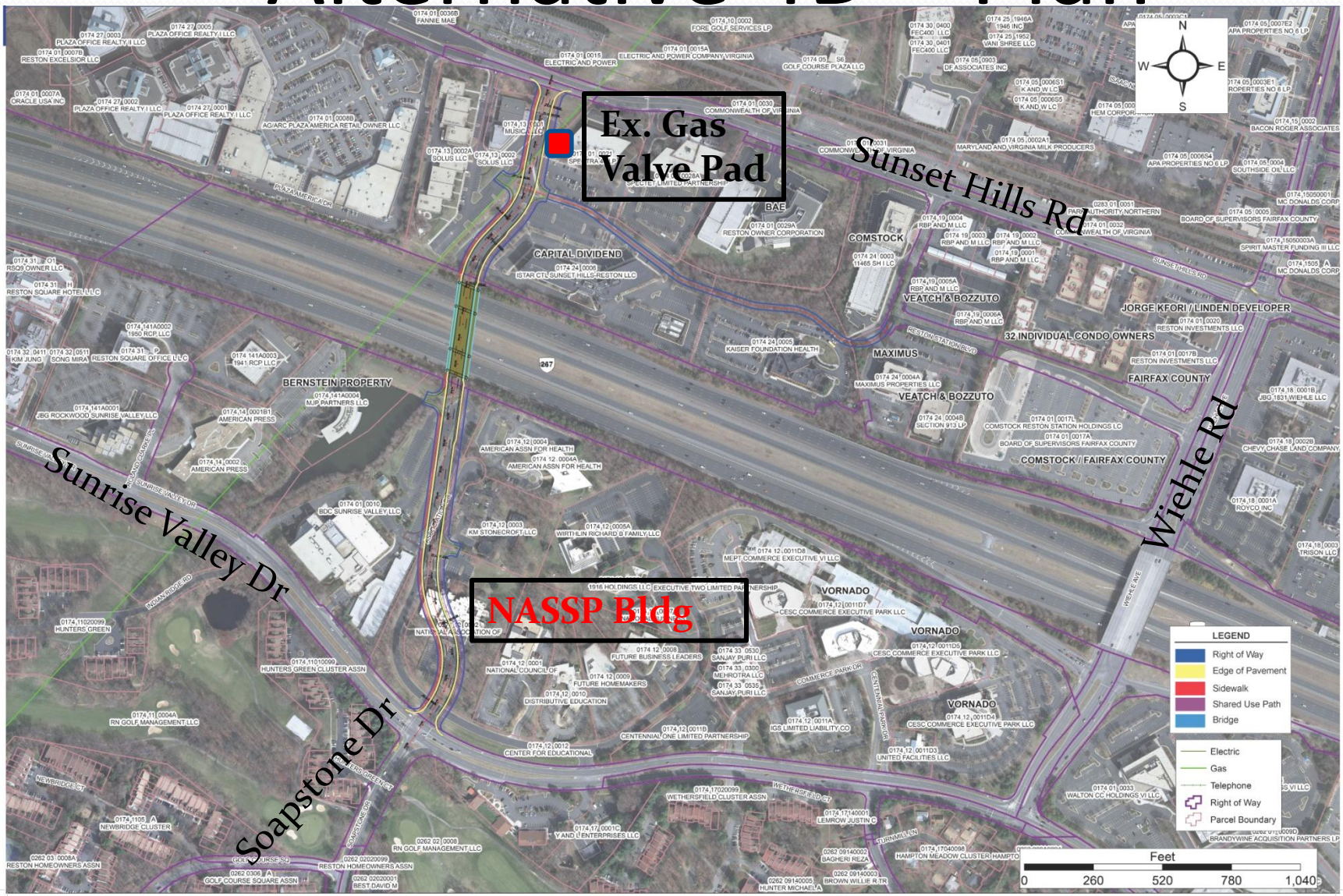
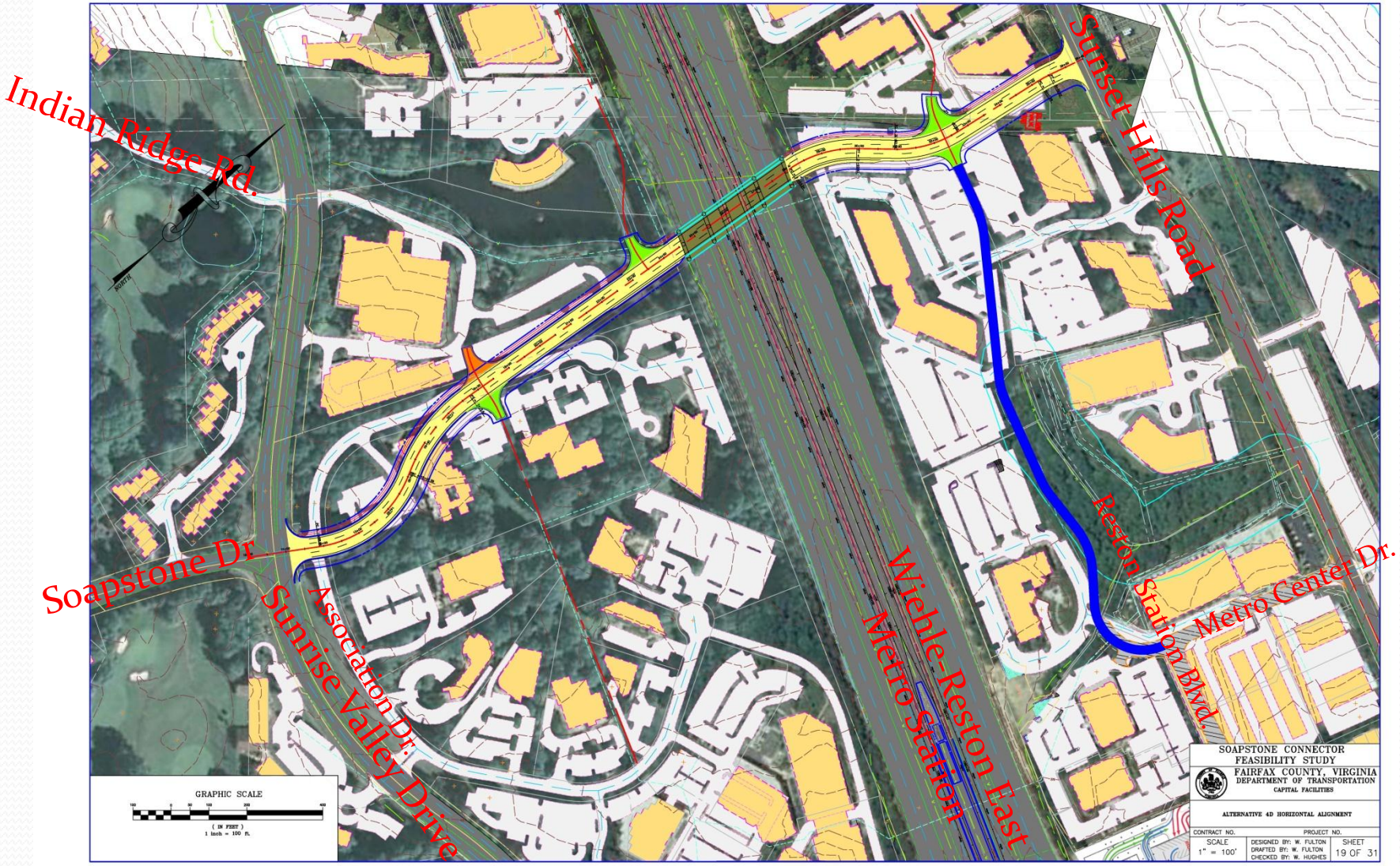
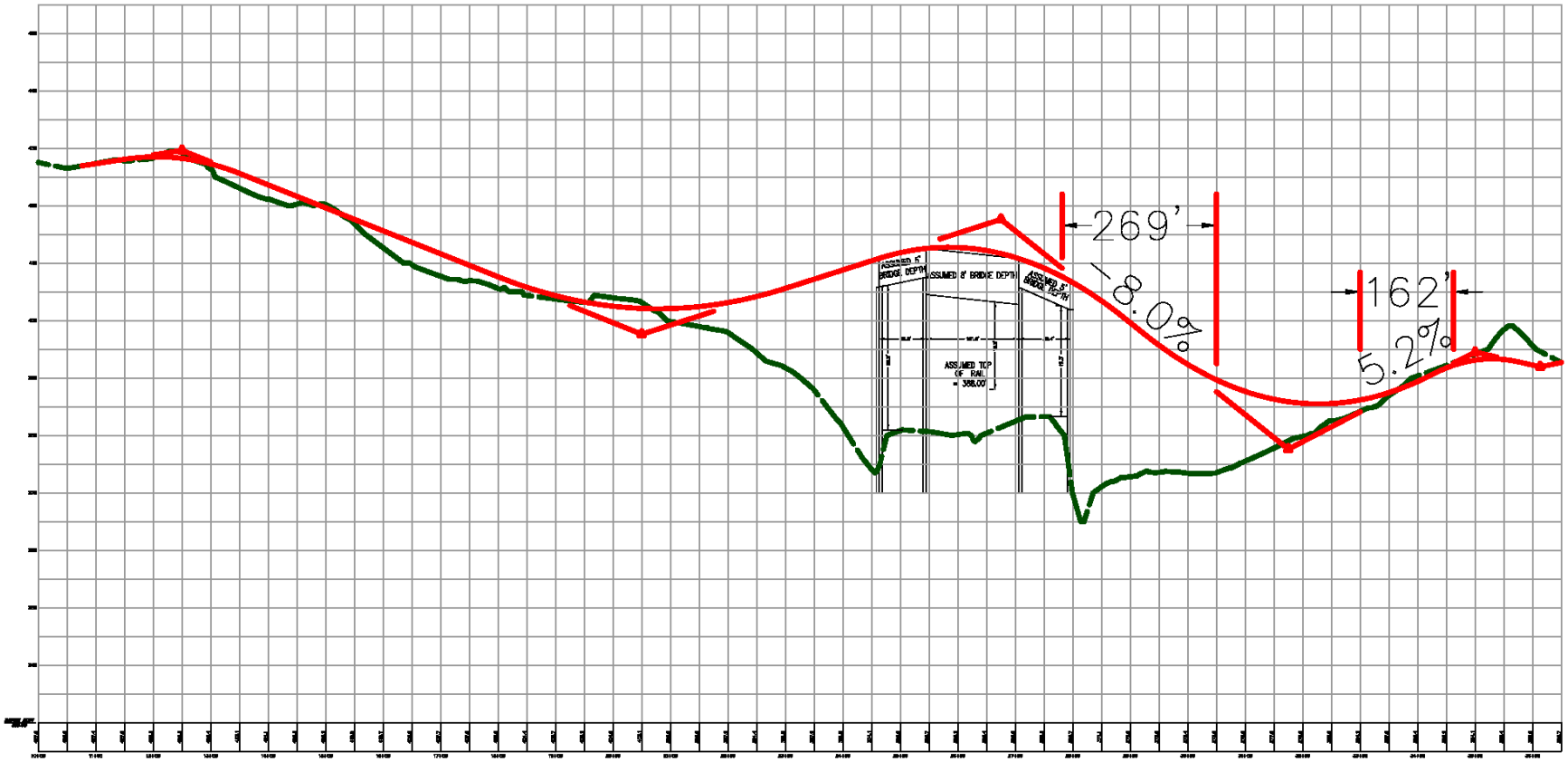
Alternative 4D – Plan



Alternative 4D - Plan



Alternative 4D - Profile



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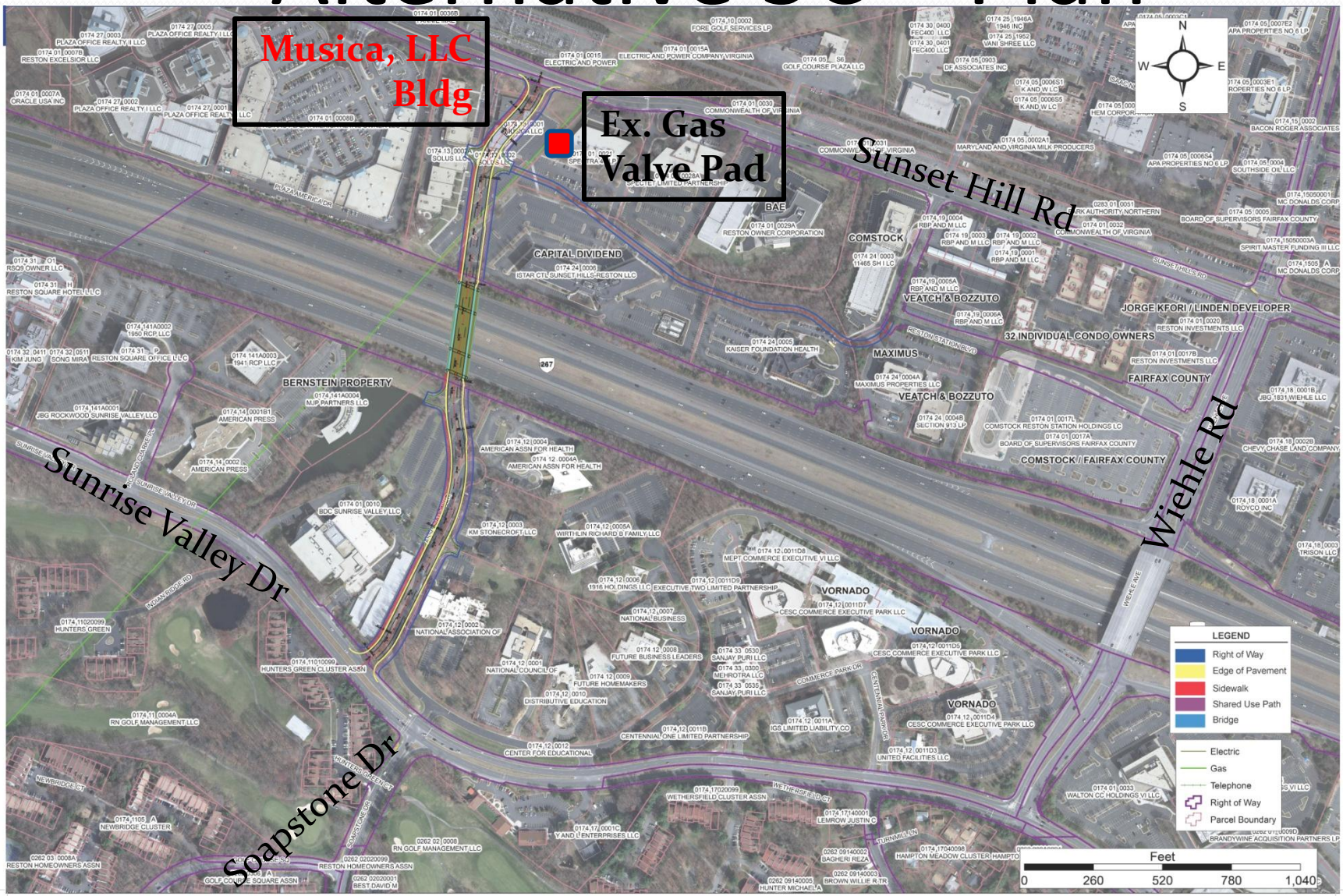
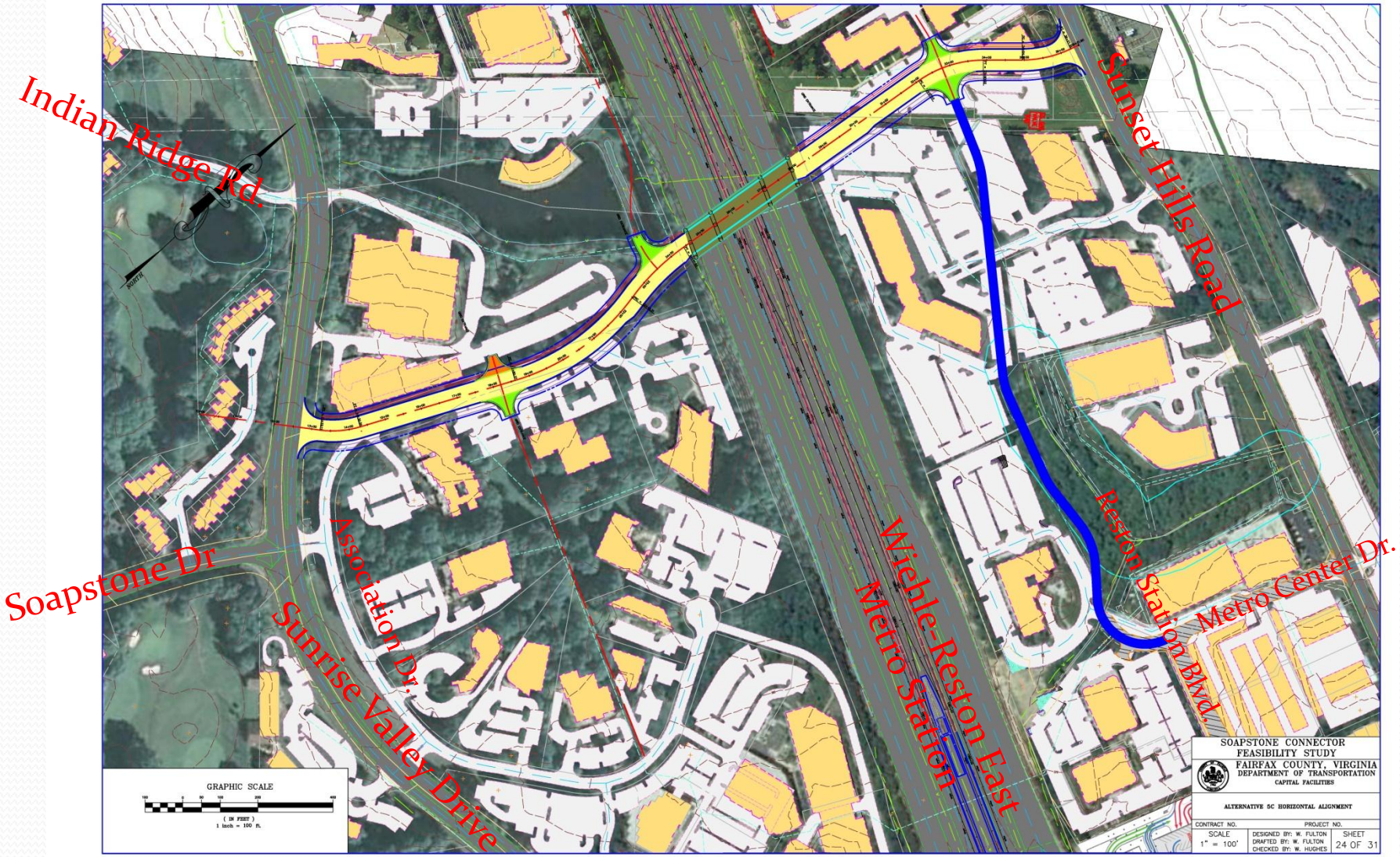
Alternative 5C – Plan



Alternative 5C - Plan



Alternative 5C – Profile

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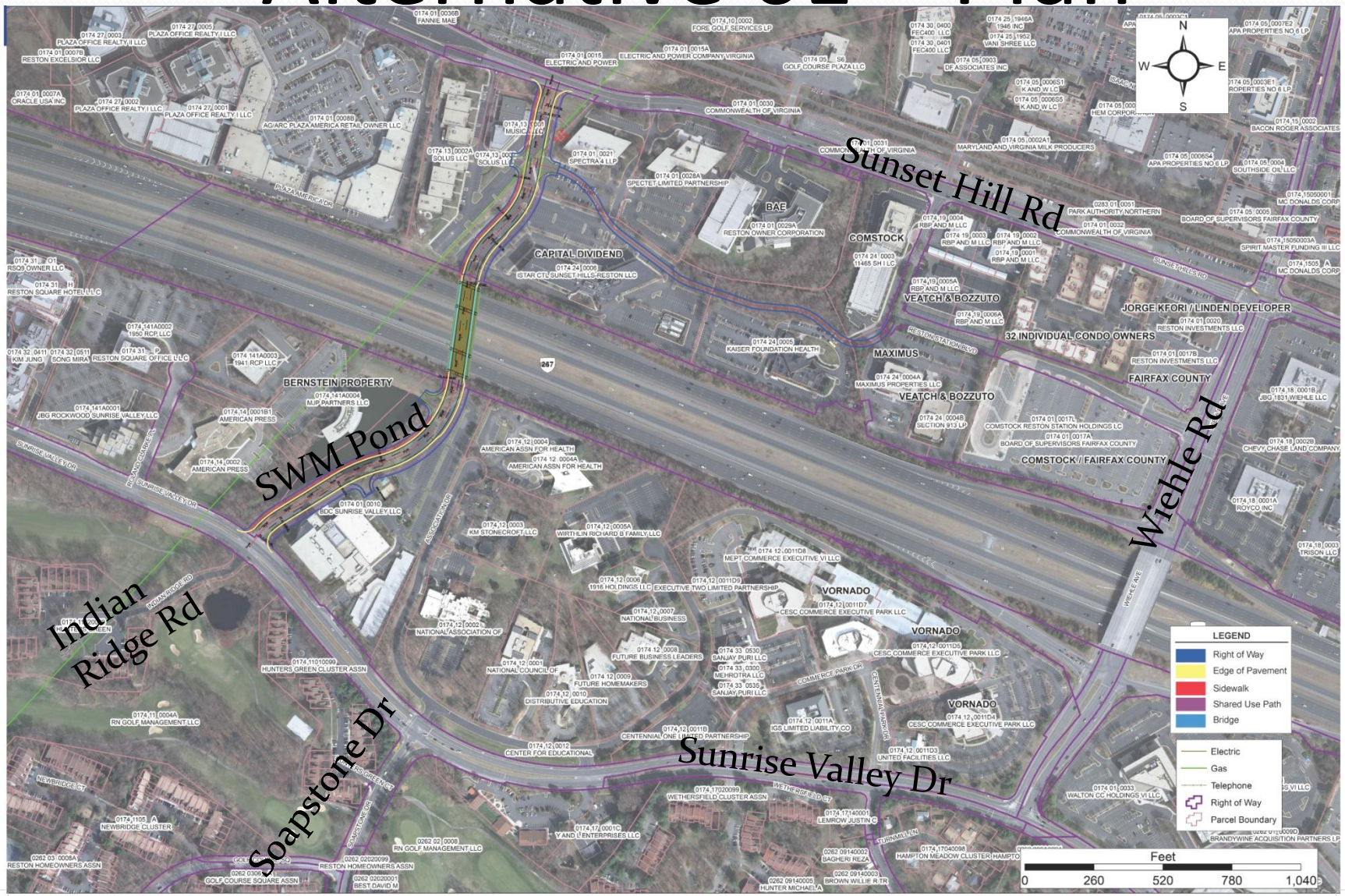
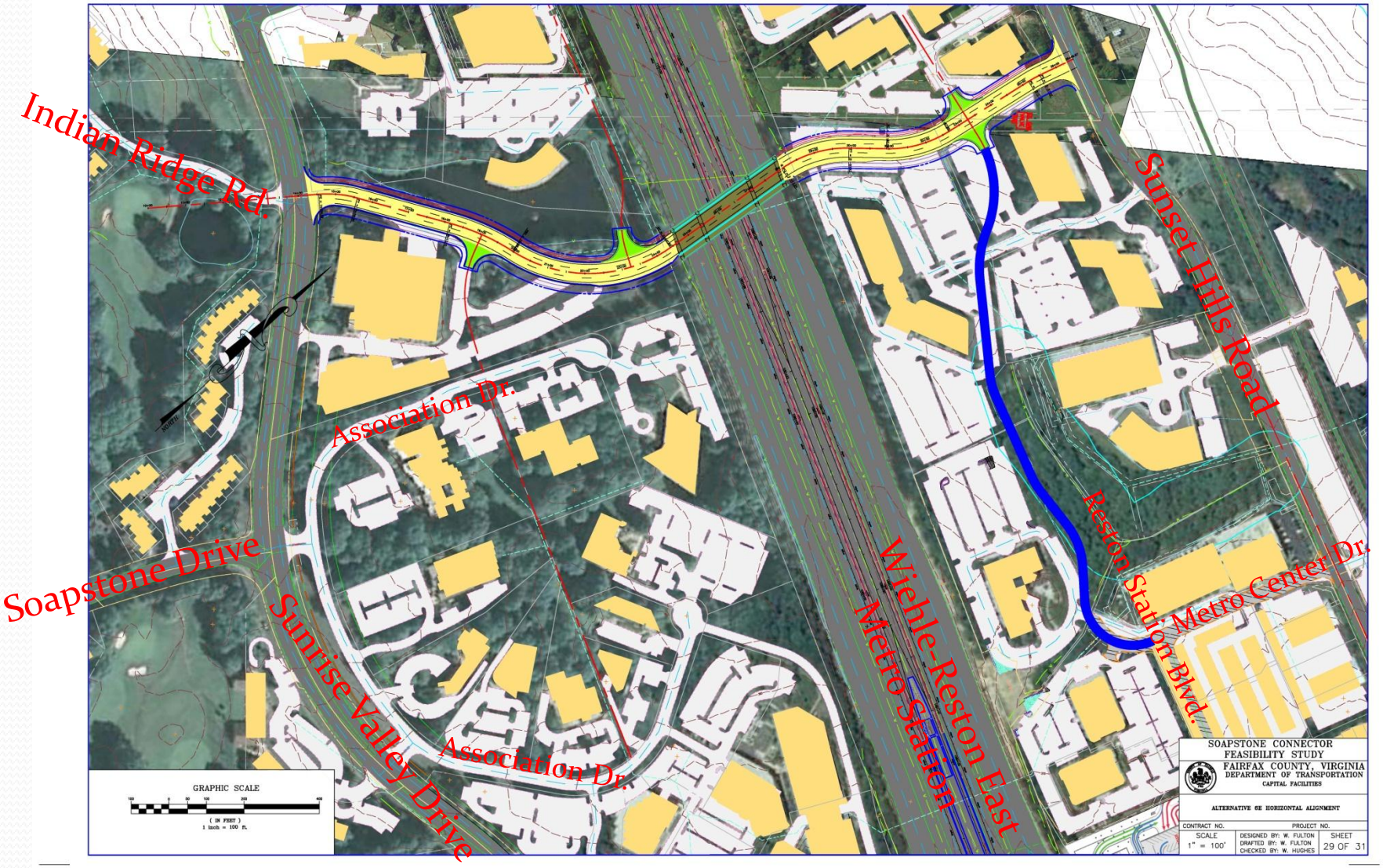
Alternative 6E – Plan



Alternative 6E - Plan



Preliminary Findings

- Alternatives to Connect Sunset Hills Rd and Sunrise Valley Dr are Feasible from Engineering & Environmental Perspectives

- Connector Would Reduce Traffic Impacts to Wiehle Avenue. Marginal traffic differences among alternatives

- Connector Could Be Integrated with Planned Grid of Streets and Existing and Future Development in Reston

- Connector Would Improve Accessibility to the Wiehle - Reston East Metro Rail Station

Comparison of Selected Items

Alternative	Length of Road	Bridge over DTR	Bridge over Creek	Area over Pipeline	Length @8% Grade	Total Length at 6 - 8% Grade	Buildings Impacted	Garages Impacted	Length along SWM Pond
	(mi)	1000 gsf	1000 gsf	1000 gsf	Lineal ft	Lineal ft	1000 gsf		Lineal ft
Alt 1C	0.52	30.8	22.6	0.0	590	590	0	1	0
Alt 3D	0.54	29.4	21.8	0.0	605	605	0	1	0
Alt 4D	0.51	29.4	0.0	25.4	270	270	1 (36K)	0	0
Alt 5C	0.46	29.9	0.0	21.3	0	215	1 (33K)	0	0
Alt 6E	0.45	29.8	0.0	25.4	300	300	0	0	755

Preliminary Cost Estimate

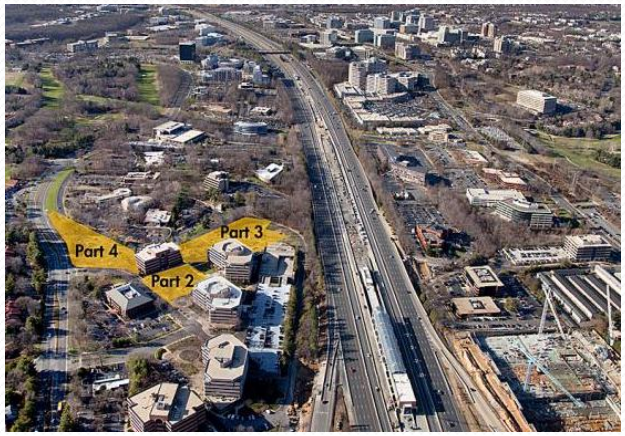
- Estimated Total Cost for Design, Right-of-Way Acquisition and Construction estimated to be $100-150 Million for the Alternatives
- Uncertainty with Respect to Land Acquisition and Land Impact Costs
- Land Acquisition and Land Impact Costs Could be a Large Portion of the Total Cost

Consultant's Preliminary Conclusions

- A Multi-Modal "Soapstone Connector" is Feasible
- Need for Connector had been Previously Established
- Thus Far, Consensus Public Sentiment "FOR" the Connector
- 5 Alternatives Identified (after Screening) and Evaluated
- Relative Benefits and Disadvantages for Each Alternative
- Key Challenges for Next Phase Include Vertical Alignment, Location, Design, Redevelopment, and Land Acquisition

Consultant's Preliminary Recommendations

1) Advance Soapstone Connector to the Next Stage - Preliminary Design
2) Conduct Geotechnical Investigation & Analyses and Establish Design Parameters
3) Build Consensus with Property Owners on Location and Redevelopment
4) Identify and Preserve / Obtain Right-of-Way
5) Include on Fiscally Constrained Long Range Transportation Plan
6) Investigate Funding Sources
7) Study the Extension of Reston Station Blvd



Open Discussion

- Questions
- Comments
- Potential Concerns and Issues