CD-ROM

Request for Proposal – Volume I
Design-Build Interstate 66 Widening
Prince William County, Virginia

State Project No.: 0066-076-003, P101, R201, C501, B674, B675
Federal Project No.: NH-5A01(194)
Contract ID Number: C00093577DB49

A Technical Proposal Submission from

CORMAN CONSTRUCTION

&

AMT
A. Morton Thomas and Associates, Inc.
Consulting Engineers

June 3, 2013

Submitted to: Virginia Department of Transportation
1401 E. Broad Street
Richmond, Virginia 23219

4.1 LETTER OF SUBMITTAL

CORMAN CONSTRUCTION

12001 Guilford Road
Annapolis Junction, MD 20701

Tel: 410-792-9400 Balt
Tel: 301-953-0900 DC
Fax: 301-953-0384

June 3, 2013

Mr. John C. Daoulas, PE
Virginia Department of Transportation
1221 East Broad Street
Richmond, VA 23219

RE: Letter of Submittal: Design-Build Interstate 66 Widening
State Project No.: 0066-076-003, P101, R201, C501, B674, B675
Federal Project No.: NH-5A01(194) / Contract ID Number: C00093577DB49

Dear Mr. Daoulas:

Corman Construction, Inc., along with our Design-Build Team, is pleased to submit ten (10) copies of our Technical Proposal, Volumes I and II, and one (1) CD-ROM containing the entire Technical Proposal in a PDF file to provide design-build services for the **Interstate 66 Widening** project. The Corman Design-Build Team confirms we received and included Addenda Numbers 1 & 2 to the RFP, dated April 5 & May 3, 2013, respectively, in our Technical Proposal.

4.1.2 Corman hereby declares our intent, if selected, to enter into a contract with VDOT for the project in accordance with the terms of this RFP.

4.1.3 Corman hereby declares that the offer represented by the Technical and Price Proposals will remain in full force and effect for 120 days after the Technical Proposal submission date.

4.1.4 Point of Contact:

Lou Robbins, PE, DBIA, Vice President of Design-Build lrobbins@cormanconstruction.com	Corman Construction, Inc. 12001 Guilford Road Annapolis Junction, MD 20701	703-772-8566 Phone 301-953-2611 Fax

4.1.5 Principal Officer of Legal Entity:

Arthur C. Cox, Vice President acox@cormanconstruction.com	Same as above	410-792-9400 Phone 301-953-0384 Fax

4.1.6 Substantial and Final Completion Date will be November 11th, 2016.

4.1.7 Attached in the Appendices is an executed **Proposal Payment Agreement (Attachment 9.3.1).**

4.1.8 **Certification Regarding Debarment Form(s)** as set forth in Part 1 of the RFP are signed and in the Appendix.

4.1.9 Our Technical Proposal is fully compliant with the Design Criteria Table and all other requirements of the RFP. We certify that our concept design limits of construction (including stormwater management facilities) are located within the right-of-way limits shown on the RFP plans with the exception of easements (other than permanent easement associated with SWM facilities). Our design concept does not require Design Exceptions/Waivers unless identified, or included in the RFP or Addendum.

In addition, the Corman Design-Build Team confirms that the information contained in the SOQ (submitted Feb. 10, 2012) remains true and accurate, except as modified in this Technical Proposal.

Sincerely,
CORMAN CONSTRUCTION, INC.

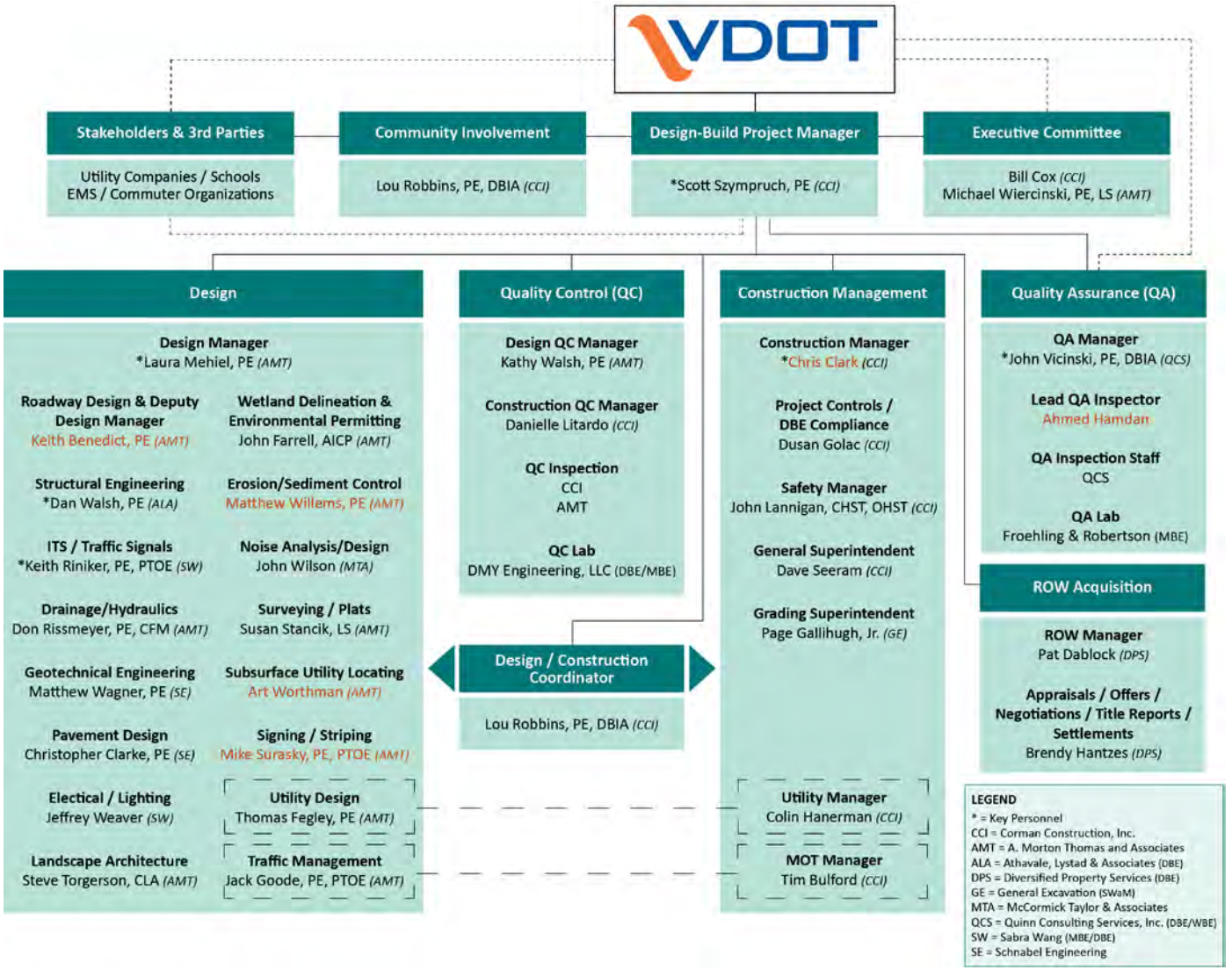
Jo Ellen Sines, DBIA, Vice President of Project Development

4.2 OFFEROR'S QUALIFICATIONS

4.2 OFFEROR'S QUALIFICATIONS

4.2.1 SOQ Confirmation & 4.2.2 Organizational Chart

The information and statements made in our SOQ remain true and accurate. The organizational chart narrative as provided in our SOQ is wholly incorporated into this Technical Proposal by reference. We updated our organizational chart to now include the required Lead QA Inspector and approved changes to both key and Non Key personal (shown in orange). We propose to assign Ahmed Hamdan of Quinn Consulting as the full time QA Inspector. Ahmed is uniquely qualified to hold this position having held positions including Quality Control Inspector on the I-495 HOT Lanes project (Fairfax, VA), Field Inspector on the Route 1 Interchange project (Alexandria, VA), and Roadway Inspector on the Russell Branch Parkway Extension (Ashburn, VA). In addition, Ahmed holds the following VDOT certifications: Soils and Aggregate Compaction, Asphalt Field, Hydraulic Cement Concrete Field, Pavement marking, and Flagger Certification. As the lead QA inspector, Ahmed will be on the project site full time while the Design-Build Team is performing construction services in the field. He will report directly to our Quality Assurance Manager (QAM), John Vicinski, PE, DBIA, manage other QA inspectors on site, and coordinate with the QA testing firm to ensure the testing frequency is performed as specified. Other changes in red below have been approved by VDOT as shown in the Appendix.



4.3 DESIGN CONCEPT

4.3 DESIGN CONCEPT

Offeror shall provide sufficient information to enable VDOT to understand and evaluate the Offeror's approach to designing the Project.

Our Design-Build team's design concept follows the roadway design criteria as identified in the Design Criteria Table included the RFP Technical Requirements (Part 2) as Attachment 2.2. Graphics of our conceptual roadway and structural plans are provided in Volume II of this proposal. Significant enhancements included within the Corman DB team's design include:

	Facilitates Quicker Construction / Earlier Completion	Reduces Grading Impacts and / or ROW	Reduces Cost	Reduces Impact to Traffic	Minimizes Impact to Community / Facility Use	Reduces Utility Impacts	Reduces Long term Maintenance
Shift of the alignment of Catharpin Road to offset it from the existing bridge alignment (while meeting VDOT and AASHTO design criteria)	•		•	•	•		
Shift of the alignment of Old Carolina Road to provide adequate horizontal separation between bridge parapet and OH lines (while meeting VDOT / AASHTO criteria)	•	•	•			•	
Maximize the use of existing serviceable cross culverts by supplementing with new smaller culverts (with VDOT approval during design)	•		•	•	•		
Redesign of culvert crossings to minimize length and depth of excavation for new pipe installation	•	•	•	•	•	•	•

Key elements of the design concept are highlighted below.

4.3.1 Concept Roadway Plans/Design

Roadway Geometry

The Corman DB Team's design will coordinate closely with adjacent projects including the planned I-66/Route 15 interchange reconfiguration project, I-66 ATMS project, Route 29/Linton Hall Road Interchange and the nearby Town of Haymarket reconstruction of Route 55. I-66 EB and WB will generally match the existing horizontal and vertical alignments, and will include interior and exterior base widening to achieve the required cross section width as reflected in the RFP concept typical sections and plans. Existing shoulders will be reconstructed/widened as full depth pavement. The proposed maximum grade on I-66 is approximately 1%, which matches the existing maximum grade. Superelevation of I-66 will be based on a maximum rate of 0.028 with transitions set to achieve 70 MPH design speed. Two "authorized vehicle only" crossovers will also be provided. Profiles of Old Carolina and Catharpin Road bridges will be coordinated and designed to coincide with the bridge design to ensure proper clearance is maintained over I-66, and required SSD, grades and super elevations maintained on the local roadways.

Old Carolina and Catharpin Roads will be offset from their existing alignments to enhance constructability and maintenance of traffic, create a more economical bridge solution, and set to achieve 35 MPH and 45 MPH design speeds respectively using AASHTO and VDOT design criteria. The vertical alignments of these two roadways will be established to meet 16'6" minimum clearance while achieving an economical girder depth, and the cross slopes will be a normal crown. As detailed in the RFP, a design waiver will be documented and obtained by VDOT for substandard clearance at the existing US 15 bridges over I-66.

The reconstructed ramps to and from US 15 within the project limits will be designed to meet a 40 MPH design speed and will generally follow the existing ramp alignments. The Corman DB Team's current concept for the US 15 exit ramp widening, for both economy and construction scheduling, is to set the left shoulder at the location of the existing left travel lane, and perform all ramp widening to the right (outside). Additional wedge resurfacing will be provided to achieve the proper shoulder cross slope.

Roadside Design

Catharpin Road and Old Carolina Road will have curb and gutter (CG-6) adjacent to the traffic lanes in accordance with Addendum No. 2 design criteria. Safety grading meeting the appropriate design speed for all roadways will be provided, unless otherwise mitigated by the use of traffic barrier. Several locations along the project include the use of retaining walls to minimize utility impacts, remain within the right-of-way, and/or avoid a conflict with other elements, as shown on the concept plans (i.e. bridges, approaches and SWM pond). The Corman DB Team proposes the use of high tension cable rail as a first option for hazard protection in the median. If cable rail does not achieve design requirements, W-beam guardrail will be used. If W-beam does not achieve the required protection per VDOT and AASHTO standards, concrete barrier (MB-7) will be used.

Pavement Design

Pavement sections are assumed to be as specified in the RFP. During the scope validation process, subsurface and nondestructive testing will be performed to verify the VDOT pre-bid assumptions and revised designs provided if required.

Maintenance of Traffic

As specified in the RFP, the MOT and traffic control plans will be developed to minimize adverse impacts to the traveling public. Twelve foot wide lanes will be maintained on I-66 throughout construction (unless the existing lanes are less than 12 feet, at which the existing lanes will be maintained). Temporary barriers will be offset a minimum of two feet from active travel lanes. Temporary pavement markings will meet VDOT standards. Lane restrictions specified in the RFP will be strictly followed. The reconstruction of Old Carolina and Catharpin bridges will not be conducted in a manner which disrupts traffic on both roadways concurrently. It is the Corman DB Team's current plan to offset the Catharpin Road bridge completely from the existing location, which will allow the existing bridge to remain in full service and open to both lanes of traffic while the new bridge is being constructed. This option was evaluated during our pre-bid analysis for cost effectiveness, impact on existing utilities and ROW as well as constructability and found to be viable. It will be more fully evaluated during post bid field evaluation, utility investigations and final design to prove its true benefits.

Stormwater Management

The Corman DB Team's stormwater management design includes the provision of four detention ponds matching the locations in the RFP Information Package. The Corman D/B team has reviewed the RFP Questions and Answers, which clearly state that the project falls under the "old" stormwater management

criteria. Considering the VDOT Q&A response, stormwater management was determined to be eligible for a SWM exemption west of STA 100+00 Westbound I-66, based on a disturbance of less than one acre within each of the individual outfall locations. The Corman DB Team's design assumes that the exemption will be granted, based on our analysis of the existing outfalls per MS-19. We have checked that Minimum Standard 19 (MS-19) is met for all outfalls, and at a minimum, velocities will match existing runoff condition at the outfall so we do not exacerbate erosion. All Stormwater management will be designed to meet VDOT's Stormwater Program Advisories 12-01 dated April 5, 2012. Our design will also include a SWPPP.

Utilities

Our multi-disciplined design team has already collaborated to create design solutions which minimize impacts to utilities where feasible. Examples of locations include (1) shifting the alignment of the new Old Carolina Road bridge such that the existing overhead lines adjacent to the bridge have sufficient clearance from the new bridge parapet to meet new current Crane Safety Regulation and (2) revising the grading of both SWM ponds and temporary sediment traps as compared to the RFP plans to maintain the appropriate cover over water lines and power facilities. We have accounted for the necessary cost and schedule needs for the anticipated utility impacts as shown on the concept plans and detailed further in section 4.2. We anticipate the Corman DB Team to design and construct relocations of any wet utilities or VDOT communications facilities. Design and construction of electric, communication and/or natural gas lines will be as specified by the owning utility based upon their policies, procedures and prior rights.

Sound Walls

Sound wall locations are shown on the roadway plans. The Corman DB Team will utilize caisson foundations or fan walls (if approved by VDOT) for the sound walls depending on the grading/sloping that can be achieved in each particular area and availability of excess excavated material. For sound walls which deviate from the location as provided in the RFP Information Package, we will perform a revised analysis for VDOT approval to ensure that the noise mitigation meets the required environmental commitments. Aesthetic treatment on sound walls will match Beverly Mill Dry Stack or approved equal on the roadway side, and New England Dry Stack or approved equal in the right-of-way side.

Traffic Control Devices *(Signing, Lighting, Signal Adjustments, Markings, ITS)*

The ITS elements as specified in the RFP will be fully included in the Corman DB Team's design and is reflected on the attached Concept Roadway Plans. We will provide appropriate coordination with the proposed I-66 ATMS contract presently just getting underway. Lighting will be provided on the bridges to match the fixtures stipulated in the RFP. Full interchange signing, upgraded to meet MUTCD 2009, will be provided along I-66 westbound approaching the Route 15 interchange, and along I-66 eastbound approaching the US 29 interchange. All overhead signs will be illuminated and powered by way of SE-9 or SE-5 electrical power services as appropriate. The signals at the Route 15 ramps will be adjusted to be compatible with the geometric ramp modifications, any underground conduits and existing junction boxes that are impacted will be relocated. Any necessary temporary signals will include pre-emption for emergency response..All existing CCTV and essential ITS equipment will be relocated as necessary and maintained operational using the existing equipment and communication service provider as necessary until the proposed cameras and vehicle detection is installed and made available early in the project. Proposed CCTV cameras will be compatible with the existing video decoders and may be upward compatible with future IP addressable systems. Response time to any request for service shall be in accordance with the RFP. Pavement markings Type B Class VI will be installed along the I-66 and ramp project pavement limits and will extend to the east of the US 29 interchange as instructed in Addendum No. 2. Pavement markings Type B Class I will be installed along Old Carolina and Catharpin Roads.

ITS Design Concept: ITS is a key element in maximizing the capacity and proper flow of the roadway. Prior to beginning any construction and during coordination with Northern Regional Operations (NRO), ITS implementation will be completed in these four phases:

Phase 1- Design: The Corman Team activates the three "C's" to expedite construction:

1. ***CONFIRM*** existing conduit locations through a comprehensive field investigation at all ITS implementation locations;
2. ***COORDINATE*** specialty work, such as utility investigation / test pits, surveys and soil borings early to kick start schedule critical path elements, structures design and procurement faster;
3. ***COMPLETE*** design packages by device type so items with faster designs and procurement, such as relocating the communications backbone, detectors and cameras, can be approved, ordered, and built to keep the project moving and grant early access by the Northern Region Operations Transportation Management Center (NRO TMC).

Phase 2- Submittals: Through the RFP process, the Corman DB Team identified the major ITS work elements to be submitted and will prepare submittal package documents. Designs will be performed to allow VDOT adequate time for review and approval.

Phase 3- Integration and Testing: ITS elements will be installed and tested before connecting and integrating with the NRO TMC. A System Acceptance Test Plan for each major element will be developed and tested for independent operations. Once each device passes the *"stand-alone"* test, it will be connected to the communications backbone and tested in an integrated environment. Equipment was specifically selected for compatibility with existing VDOT ITS deployments for a seamless integration into the NRO Advanced Transportation Management System (ATMS) platform. A Network Addressing Plan for the ITS devices will be developed in coordination with VDOT so that the ATMS database and network gear can be configured to support full integration into the NRO TMC.

Phase 4- ITS Operations Continuity: The Corman DB Team is committed to completing this project efficiently with limited disruption to VDOT and the traveling public. Our approach brings ITS devices online as we progress, allows VDOT beneficial early use of the devices, and permits the NRO TMC to exercise devices as they become available. This increases monitoring and control and provides detailed traffic information to the traveling public throughout the life of the project.

ITS Elements: Our solution is based on r eviewing the RFP plans, performing field research, and formulating a design to implement ITS elements. Our Conceptual ITS and Signing Plans are in Volume II. Equipment descriptions are chosen to match the existing hardware and software at the VDOT NROC; however, they may be modified during final design with approved equals to comply with current needs.

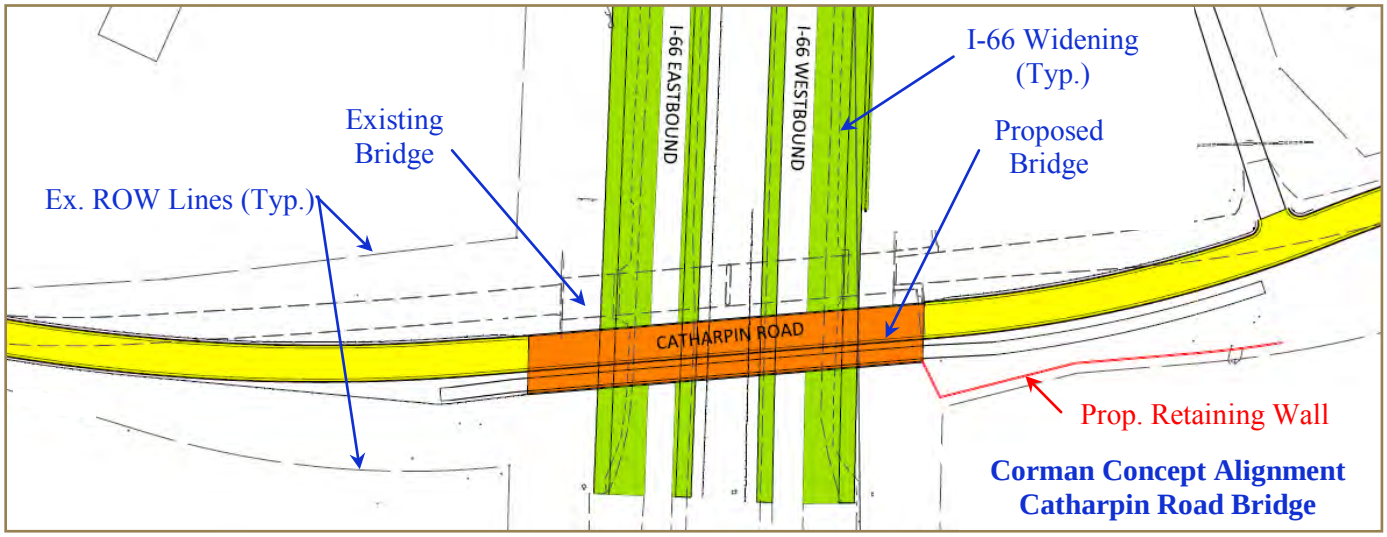
ALL ITS equipment and/or interface protocols were specifically selected to be fully compatible with the existing and proposed ATMS platform operating on the remainder of I-66, including the new ATMS project. Integration will be a matter of database and communications configuration and no new software drivers are anticipated.

4.3.2 Concept Structural Plans/Design

Bridge design will be based on r educing the long-term maintenance costs by using continuous span superstructure units and jointless bridge design technologies as indicated in the VDOT Manual of the Structure and Bridge Division, Volume V, Part 2, Chapter 17.

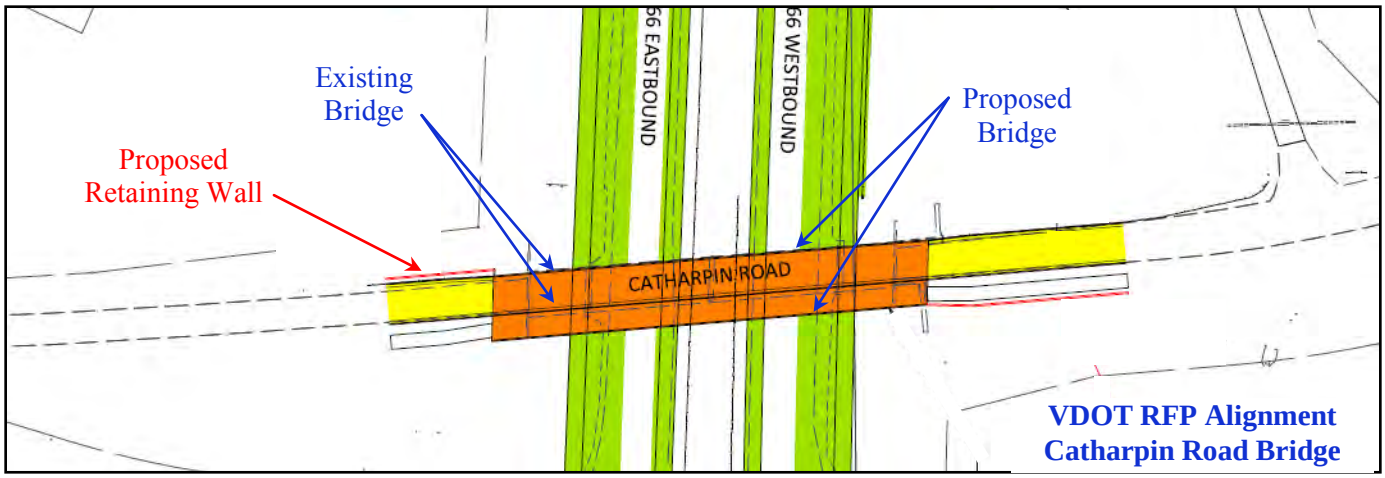
Bridge Geometry: As described in Section 4.3.1, the alignments of Old Carolina and Catharpin Roads will be offset from their existing alignments to enhance constructability, reduce MOT impacts, create a more economical bridge solution, and achieve design speed based on AASHTO and VDOT design criteria. The vertical alignments of these two roadways will be established to meet 16'-6" minimum clearance while achieving an economical girder depth, and the cross slopes will be a normal crown. The cross section of Old Carolina Road includes an open separation with an adjacent shared use path, and the cross section of Catharpin Road includes a barrier-separated section with an adjacent shared use path (see pg. 9).

Our enhanced design concept for the Catharpin Road bridge alignment, as compared to the RFP concept, is illustrated in the following graphics.



Key Benefits of the Corman DB Team approach to the new Catharpin Road bridge include:

- Both directions of travel can be maintained on Catharpin Road throughout construction.
- A greater separation is maintained between local traffic and the construction zone, thus increasing safety.
- The Catharpin Road bridge can be constructed concurrently with the Old Carolina Road bridge, thereby minimizing project duration.
- The bridge construction can be performed in a single stage, thus reducing both construction duration and cost
- The bridge demolition can occur in a single stage, reducing both construction duration and cost



Bridge Elements

VDOT's order of preference for abutment construction includes 1) full integral abutments, 2) semi-integral abutments, 3) deck extensions, and 4) Virginia-modified abutments. Based on VDOT answers to our proprietary questions, we will be using full integral abutments in accordance with appropriate VDOT policies, procedures and required analysis. The full integral abutments eliminate the deck joints at the abutment (the "bump at the bridge"), thereby reducing construction costs, construction time, and long-term maintenance costs while improving ride-ability. In addition, the full integral abutment also eliminates the girder bearings (semi-integral does not), reducing construction and maintenance costs, and overall construction time. The reduction in construction costs and time is not solely due to the elimination of the deck joints and bearings; the full integral abutment itself is much simpler in that it is a single row of piles (versus two required for semi-integral) with a reinforced concrete cap beam on top. The beams are supported by this cap and the deck ends are made integral with the abutment, so that it all moves as one under thermal expansion and contraction.

The Corman DB Team will evaluate the use of wall piers versus column piers in the I-66 median for both bridges. Wall piers are much simpler to form and construct than the typical column (bent) pier. Additionally, they can better absorb the required AASHTO LRFD impact load ("Equivalent static load" per RFP Attachment Section 2.3b), as well as accommodate the formliner finish. The pier will be supported by spread footings, thereby eliminating the requirement for costly piles. The piers will be designed for the crash-load guidelines of AASHTO LRFD Article 3.6.5 with revisions as outlined in the RFP Attachment 2.3. The steel girder bearings at the pier will be elastomeric to minimize future maintenance costs.

Stub abutments founded on piles will be utilized at the Catharpin and Old Carolina Road structures. We anticipate one row of HP 12 x 53 steel piles at each abutment. The piles will be designed as either end bearing on the underling rock or friction as determined during final geotechnical analysis and design.

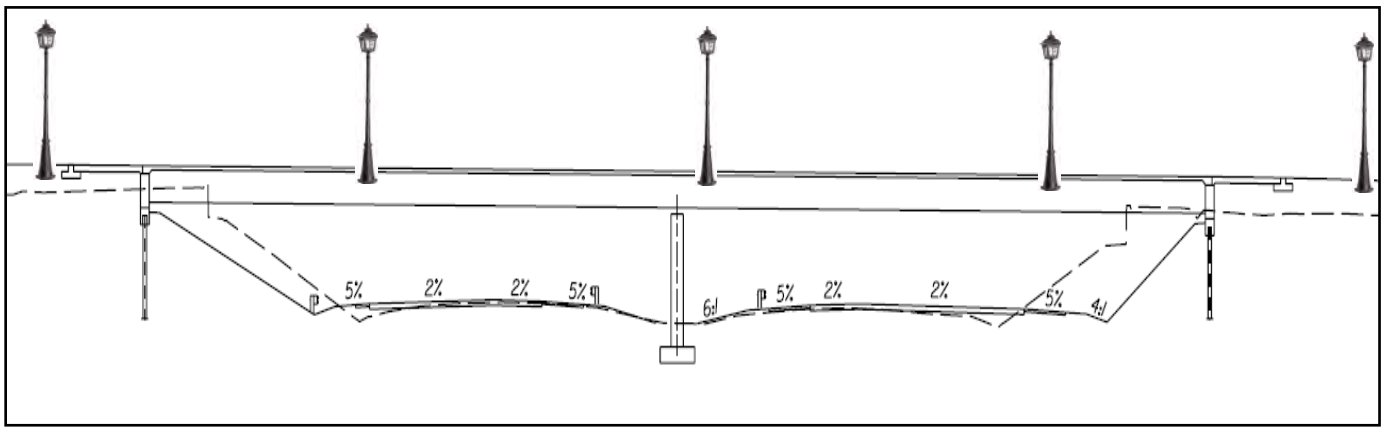
The RFP "Conceptual plans" for the two bridges show a five girder cross section with an out to out width of 46'-2". On the Catharpin Road bridge, however, our current plan is to reduce the overall bridge width by providing a BR27 barrier between the roadway and the shared use path in accordance with VDOT S&B Manual, Volume V, Part 2, File No. 06.04-12. Accordingly, the transition of the shared use path from the bridge to the approach roadway shall be as detailed in VDOT Road Design Manual, App. A, Figure A-5-9. The resulting out-to-out width of Catharpin Road is 43'-6", with a five girder section at 9'-6" spacing and a 2'-9" overhang on each side. The Old Carolina Road bridge will utilize the VDOT Concept Plan section of five girders at 10'-3" spacing with a 2'-7" overhang on each side.

Structural steel used in the bridges shall be weathering steel. Our structural design steel girder design software is Merlin-Dash using the AASHTO LRFD design method. This software will optimize the girder design to provide the most economical girder accommodating both quantity and fabrication issues. Precast prestressed Bulb-T and AASHTO beam sections were considered and preliminary design was performed; however, the results indicated that steel girders are more economical due to erection cost, span lengths, and required clearance over I-66. We will use CRR (Corrosion Resistant Reinforcing Steel) in accordance with the RFP, Part 2, Section 2.3 and VDOT I&IM-S&B 81. Use of CRR has been shown to substantially reduce maintenance costs and impacts to traffic due to required rehabilitation/repairs.

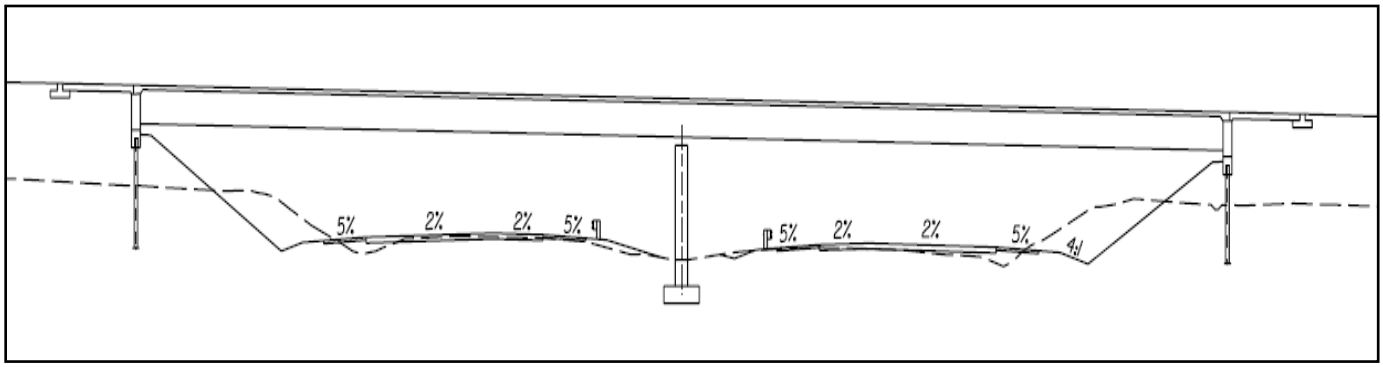
VDOT-standard BR27D Railings and ornamental pedestrian fencing will be used on the bridge in accordance with the RFP (Part 2, Section 2.3). We will use low-permeability concrete in accordance with the Special Provision for Low Permeability Concretes for Design-Build Projects. Architectural treatment will be incorporated in accordance with Attachment 2.3.4 of the RFP. Bridge lighting will also be

installed in accordance with Part 2, 2.8.5 of the RFP. Elevation views of our team's proposed bridges are shown in the following exhibits.

Old Carolina Road Bridge



Catharpin Road Bridge



Retaining Walls

Retaining wall locations are shown at four individual locations on our Concept Plans (two along Old Carolina Road, one along Catharpin Road, and a fourth at the SWM pond near Station 139, WB I-66) to maintain grading within the necessary ROW or easement limits. Others may be added by the Corman DB Team or those shown revised, as appropriate, during final design. The Corman DB Team will use VDOT approved MSE walls in fill condition where suitable. Soldier pile walls will be evaluated during final design for locations where the noise walls and retaining walls are coincidental. As specified in the RFP Attachment 2.3.4, architectural treatment shall be used on sound barrier walls. There is no architectural treatment proposed on the retaining walls.

Major Drainage Structures

The Corman DB Team's drainage design concept for culverts and pipe systems achieves several goals:

1. Hydraulic capacity, sized to meet the ultimate zoned land use based on the existing drainage area boundaries to the culverts;
2. Structural integrity, achieved through restoration of existing crossings and/or provision of new crossings;
3. Minimizes impacts to traffic;
4. Economical design/construction;
5. Avoidance of rock; and
6. Compatibility with adjacent projects and other elements of this project.

Our preliminary design for major culvert design solutions are shown and annotated in the concept roadway plans. The approach includes using the existing drainage culverts with VDOT approval, where deemed structurally sound, to the greatest extent possible, and supplementing these crossings with secondary crossings to provide supplemental capacity. We anticipate utilizing jacking and boring, tunneling or open cut to maintain traffic and expedite construction for the installation of new cross culverts as dictated by field conditions. A summary of the preliminary sizing and design approach is presented below.

Station Crossing WB	Station Crossing EB	Approx. Drainage Area (Ac.)	RFQ Diameter (VDOT)	Corman Culvert Diameter *	Corman Invert (downstream)	Estimated Rock Elevation
69+50	---	45	N/A	60”	331 ±	Unknown
78+60	---	38	N/A	54”	338 ±	Unknown
85+15	---	25	N/A	48”	341 ±	Unknown
109+00	308+50	28	66”	Ex. 48" RCP	352 ±	345 ±
117+25	316+75	16	66”	60" RCP	340 ±	329 ±
128+25	328+25	26	Twin 54”	48" RCP	342 ±	330 ±
145+00	344+30	30	60”	Ex. 54" CMP lined to 48" Plus new 30" RCP	338 ±	Unknown
147+00	347+50	32	66”	Ex. 54" RCP	338 ±	323 ±
162+50	362+60	29	60”	Ex. 54" RCP	342 ±	Unknown
174+25	373+75	19	Twin 42”	Ex. 36" CMP lined to 30" Plus New 36" RCP	341 ±	Unknown
190+25	389+50	68	72”	Ex. 66" RCP plus New 36" RCP	315 ±	Unknown
203+00	403+25	75	Twin 60”	Ex. Twin 54" RCP	312 ±	Unknown
Across US 15, South of I-66 318+50 EB		16	Not available	36”	346 ±	350 ±
Entry Ramp from US 15 to I-66 WB		42	Not available	54”	332 ±	323 ±
Entry Ramp from US 15 to I-66 EB 600+00		16	Not available	36”	348 ±	325 ±

**Pending inspection of existing culvert, rock elevation data, final design, and VDOT approval*

One of our major drainage design enhancements is the culvert located across US 15 south of I-66, as shown on page 18. Our concept design re-routes the drainage as compared to the RFP plans presented by VDOT creating a significant cost savings, as well as a reduction in the disruption to traffic associated with the culvert. ***Where the original concept design proposed by VDOT reflected a cut of 30 feet under US 15, where nearby soil borings indicate bedrock, our concept routes the pipe through a lower ground area closer to I-66, and will be located so as not to conflict with the future US 15 bridge replacement.***

4.4 PROJECT APPROACH

4.4 PROJECT APPROACH

4.4.1 Stakeholder Coordination/Public Outreach

Describe the Offeror's approach to coordinating, communicating, and cooperating with Stakeholders and the Public regarding the proposed design, the construction sequencing, the project schedule, and the impacts to traveling public and adjacent/affected property owners throughout the Project development and delivery. Identify the stakeholder(s) that the Offeror deems to be the most crucial (whose support and cooperation will lead) to the successful delivery of the Project.

The Corman DB Team fully understands the importance of keeping the impacted stakeholders informed on the projects' progress and potential impacts. After a careful review, we offer the following as the key stakeholders most critical to the project's success, the role they play in the project, and the reason we included them:

STAKE HOLDER	ROLE IN PROJECT	KEY CONCERNS
VDOT	Owner	Quality; Cost; Safety; Impact on Local/Traveling Public, Town of Haymarket, Prince William Co., Local Business & Civic Associations; Coordination w/ Adjacent Projects.
FHWA	Funding and project oversight	Quality; Cost; Safety; Impact on Local/Traveling Public
Prince William County	Local Jurisdiction	Impact on Local and Traveling Public, Local Business and Civic Associations, and Town of Haymarket
Town of Haymarket	Local Jurisdiction	Impact on Local and Traveling Public, Local Business and Civic Associations, and Aesthetics
Town and/or County local EMS Responders	Emergency Responders	Flow of Traffic; Notice of Impacts; Route through Construction Zone; and Impacts on Response Time
Prince William School Dist., Private Schools (4 Pre-schools w/in Town limits)	Student Transport	Notice of Impacts; Marked Detours; and Route through Construction Zone
Heathcote Health Center - Prince William Hospital	Patient Access & Transport	Notice of Impacts; Marked Detours; Route through Construction Zone; and Impacts on Response time
Traveling Public (Commuter & Local)	User of the Facility - Route Impacted	Notice of Impacts; Marked Detours; Route thru Work Zone; Impacts on Travel Time; Access to Local Business
Haymarket – Gainesville Business Association	Represents Local Business Interests	Impacts to Access/Visibility; Congestion/travel time in the Area; Marked Detours; Route through Construction Zone
Local HOA Associations	Represent Local Communities	Congestion in the Area; Marked Detours; Route through Construction Zone; Dust and Noise; Aesthetics
Major Businesses (e.g. WalMart, Kohl's, Food Lion, Home Depot, Sheetz)	Local Impacted Business	Impacts on Accessibility and Visibility; Congestion in the Area; Marked Detours; Route through Construction Zone
Other Contractors Working in the Area	Adjacent Contractors	Coordination of TMP Planning and Implementation; Coordination of Design and Construction (I-66 ATMS, Linton Hall, RT 55 & RT15 / I-66 Interchange)
Utility Companies	Maintain / Operate Utilities within or across Corridor	Accessibility to Facilities; Communication of Relocation Needs; Impacts on Response Time to Outages; Congestion in the Area; Marked Detours; Route thru Construction Zone

Our outreach program will be extensive and inclusive to ensure we reach all critical stakeholders' needs plus a variety of additional stakeholders that would be impacted. Our program will be predicated on a series of proven techniques that have been successfully applied to other major transportation projects throughout the Commonwealth. Key to the program is a close relationship between VDOT and the Corman DB Team ensuring a continuous and cooperative dissemination of appropriate information to project stakeholders. Principal activities include:

- ***Weekly Updates:*** We will provide VDOT's NOVA District Office of Public Affairs, VDOT's Northern Virginia Transportation Operations Center, and the Town of Haymarket written project updates on a weekly basis suitable for posting to VDOT and the Town's respective websites. This information will include, at a minimum, proposed design, project overview, plan of work, overall project schedule, potential impacts to traffic and I-66, potential impacts to traveling public and adjacent/affected property owners, construction sequencing, crossroads or detour routes (i.e. temporary lane closures, bridge closings, milling or paving operations for the following two weeks), up-to-date project photos, and emergency contact information.

- ***Relationship Management:*** The Community Involvement Manager, Lou Robbins, will act as a liaison between VDOT and the DB Construction Manager to ensure compliance with local ordinances and provide appropriate notification to affected stakeholders and property owners. He will also act as liaison with project stakeholders, media, and the general public to facilitate communication during the design and construction of the new facilities. He will be accessible through an 800 phone number to allow the public to request information and/or express concerns throughout the duration of the project.

- ***Traffic Alerts:*** Notify the NOVA District Office of Public Affairs of traffic alerts in the time frames specified.

- ***Bi-Weekly Meetings:*** Because of the project's visibility and importance, bi-weekly meetings were previously held between VDOT, FHWA, the County, and the Town to discuss the design of both this project as well at the proposed Route 15 and I-66 interchange. We would propose the meetings continue (or be restarted if suspended) and be expanded to occasionally include a limited number of the major stakeholders listed above.

- ***Coordination Meetings:*** Regular meetings between the Corman DB Team and adjacent construction contractors will be held to discuss the ongoing VDOT projects at Route 29 and Linton Hall Road, I-66 ATMS, the proposed VDOT project: Route 15 & I-66 Interchange, as well as the ongoing Town of Haymarket streetscape project on John Marshall Highway (Route 55) between Madison Street and St. Paul Drive.

- ***Online/Paper Notifications:*** Close coordination with the Town of Haymarket will be maintained to use their existing e-mail blast list, website, social network sites, and mailing lists to notify local residents of upcoming road closings, MOT changes, public meetings, etc. This could include rescheduling or relocating events held on John Marshal Highway that would close the major detour route past the construction site. These events include the Town parade, Car Show & Earth Day (spring), and Haymarket Day (September), as well as the 4th of July and Memorial Day.

- ***Newspaper Notifications:*** Place advertisements in local papers including Haymarket – Gainesville Times (weekly) and Haymarket Lifestyle (monthly) to notify local individuals or groups of upcoming public meetings or important changes to the traffic pattern. If appropriate, we will also consider placing similar notices in local newspapers to the west of Haymarket (Culpeper or Winchester) where many commuters that utilize I-66 reside.

- ***Website Links:*** If approved by VDOT purchase a short concise Web Domain name (I66W.com as an example) that is easily remembered and fits onto temporary message boards to provide an automatic link to the VDOT website. We have found this to be the most effective method to notify daily commuters that do not live locally of important travel or meeting information.

- ***Partnering Meetings:*** Key stakeholders will be invited to partnering meetings to discuss the schedule, identify issues that need to be resolved, and maintain close coordination.

The Corman DB Team will support VDOT in the conduct of informational meetings with interested stakeholders (in accordance with the department's Policy Manual for Public Participation in Transportation Projects, updated November 2012). Meetings will include discussions of up-to-date maintenance of traffic plans, bridge closings, and detour routes to keep the interested parties updated on the various design and construction phases. Appropriate graphics and other informative tools will be developed to describe the impacts. To ensure appropriate notice, mailers and hand out informational flyers, press releases announcing conditions and progress, local TV and/or radio ads, social media sites, and websites, as partially described above, may be used to advertise the meetings. These same tools will be utilized to provide information to those individuals that cannot attend the meetings.

4.4.2 Utilities/Drainage

Describe the Offeror's approach for utility coordination, adjustments, installation and relocations. Identify which utilities the Offeror believes to be in conflict with the design, as well as potential solutions for accommodating those utilities. Indentify the Offeror's approach for installation of utilities to include storm water pipes and/or culverts crossing beneath Interstate 66. Discuss mitigation strategies to offset the potential impacts of utility relocations and installation exceeding estimated timeframes or unidentified/ non-located utilities being discovered during construction. Demonstrate that the utility coordination, adjustments, installation and relocations are well integrated into the Project sequencing as to minimize the possibility of schedule delays.

Private Utilities: Our DB Team approach to utility coordination, adjustments, and relocations focuses on a design that minimizes schedule delays and impacts to existing utilities. Our approach is to avoid utility relocations, but if they should be required, we will start early. In fact, some efforts have already been set in motion, as we have proactively contacted ***all*** of the affected utility companies and once awarded the project, we will:

1. Hold a UFI meeting with each utility and prepare Prior Right UT-9 Forms
2. Personally meet at required intervals (or more frequently if appropriate) to coordinate designs and relocations smoothly on schedule
3. Notify each affected utility in person and in writing of our schedule, design, and cost approvals

The utility process has traditionally impacted schedule on both DB and DBB projects. On this project, utilities have been discussed in detail during each team meeting during the proposal stage and will continue to be under close scrutiny during design and construction to ensure they are integrated into the schedule to allow time (with available float) to coordinate, design, and construct. During our bi-weekly look ahead schedule reviews should we note the utility work (design or construction) is exceeding scheduled time frames our Utility Manager Colin Hanerman, will immediately contact the affected utility and as necessary escalate the issue to the DBPM Scott Sympruch for further action. Delays by the utility Companies in design or relocations will not be allowed to fester and negatively impact the project progress.

We have already reviewed our proposed design and known facilities with each utility owner. Individual utility impacts within the project site, and their expected impacts and possible mitigation are as follows:

STATION	UTILITY	UTILITY OWNER	CONFLICT		CONFLICT DESCRIPTION	MITIGATION
			VDOT Plan	Corman Design		
WB 77+10	OH Wire	Dominion	No	No	None - median widening will not violate clearance to overhead line	None required
WB 103+50	OH Wire	Dominion	No	No	None - median widening will not violate clearance to overhead line	None required
WB 107+29.92	12-inch gas in 16-inch steel casing pipe	Washington Gas	No	No	None - median widening will not violate cover	None required
Ramp - SB 15 to WB I-66	12-in gas inside existing 20' easement	Washington Gas	Potentially	No	Proposed drainage channel/riprap	Maintain cover over gas line w/grading design
509+70 Ramp	Power pole w/light and guy QE49 B2015	Dominion	Potentially	No	Grading adjacent to pavement widening	Adjust grading to avoid pole
EB 336+00, Rt	Traffic Control cabinet, HH, conduits	VDOT	Yes	Yes	Soundwall; Grading	Provide temp. facility to maintain ITS
West of Old Carolina Rd SB	Telephone pole line (OH) - 5 poles	Verizon	Yes	No	Widening for shared use path	Shift alignment of Old Carolina Rd
706+90 Old Carolina	2 Power poles - SC35; No Number	Dominion	Potentially	No	Pond grading	Adjust pond layout to avoid the poles
NE Fillet Old Carolina Rd / Cheyenne Way	Water Valves (2)	PWCSA	Potentially	Yes	ADA Sidewalk Ramp	Adjust valve location
700+50 Old Carolina	Power pole w/light and 3 guys RB92 B2015 SB01	Dominion	Potentially	Potentially	Retaining wall adjacent to widening for new shoulder	Face of Wall approximately 5' from pole - Relocation may be required for constructability
Along Jordan Lane	Recently constructed fiber	Verizon	Yes	No	Pond side slope/ pond outfall pipe	Adjust pond layout and outfall to avoid the new utility
Along Jordan Lane	Recently constructed power	Dominion	Yes	No	Pond side slope/ pond outfall pipe	Adjust pond layout and outfall to avoid the new utility

STATION	UTILITY	UTILITY OWNER	CONFLICT		CONFLICT DESCRIPTION	MITIGATION
			VDOT Plan	Corman Design		
WB 142+75	Telephone pedestal	Verizon	Yes	No	Pond outfall pipe	Adjust pond layout and outfall to avoid
WB 144+67.1	10” sanitary sewer in 16” steel casing pipe	PWCSA	Potentially	Potentially	Noise Barrier 5; Culvert Crossing; SWM Pond Outfall	Span w/noise wall caissons; Set culvert and SWM outfall above sewer
WB 157+54.8	18-inch Water	PWCSA	Potentially	Potentially	Noise Barriers 2-1 & 5	Span water w/noise wall caissons
EB 357+50	OH Wire	Dominion	Yes	Yes	Noise Barriers 2-1 & 5	Raise elevation of OH Lines - taller poles
EB 380+00	OH Wire	Dominion	Yes	Yes	Noise Barriers	Raise elevation of OH Lines - taller poles
EB 382+25	Communication duct, cabinet, pole	VDOT	Yes	Yes	Embankment	May need temp. facility to maintain ITS
WB 189+33.61	18-inch sanitary sewer	PWCSA	Potentially	Potentially	Noise Barrier 2-3 & 5; SWM Pond Outfall Pipe	Span w/noise wall caissons; Set SWM outfall above sewer
EB 401 to 402	Communication Duct	VDOT	Yes	Potentially	Temporary sediment trap	Design E/S to avoid line or install temp. comm. duct
EB 403+80	Communication Duct	VDOT	Yes	Yes	Pavement Widening	Provide temp. facility to maintain ITS
WB 206+80.75	8- 1.5" Conduit Fiber Optic Duct Bank	Fiberlight	Potentially	No	Bridge abutment	Abutment foundation significantly above fiber
WB 206+95	Tel Pole (No #) 2/OH Line	Verizon	No	Yes	Share use path	Relocate pole
WB 206+96.88	UG Telephone - Abandoned	Verizon	No	No	Bridge abutment	Confirm abandoned line
WB 206+99.63	UG Telephone - Abandoned	Verizon	No	No	Bridge abutment	Confirm abandoned line
WB 207+04.75	Fiber	AT&T	No	Potentially	Bridge wingwall/ retaining wall	Span line with pile foundation or provide sleeve

STATION	UTILITY	UTILITY OWNER	CONFLICT		CONFLICT DESCRIPTION	MITIGATION
			VDOT Plan	Corman Design		
WB 207+12.35	Fiber	AT&T	No	Potentially	Bridge wingwall/ retaining wall	Span line with pile foundation or provide sleeve
WB 207+31.39	Fiber	Verizon	No	Potentially	Bridge wingwall/ retaining wall	Span line with pile foundation or provide sleeve
WB 207+60.42	Fiber	Verizon	No	Potentially	Bridge wingwall/ retaining wall	Span line with pile foundation or provide sleeve
806+40 Catharpin	Cable TV Hand Hole	Comcast	No	Potentially	Shared use path	Raise hand hole to grade
808 +/- Catharpin	Three ATT Hand Holes	AT&T	No	Potentially	Embankment	Raise hand hole to grade
807+10 Catharpin	Elec. Cab. 208 AI 2098	Dominion	No	Yes	Shared use path/grading	Relocate cabinet
Catharpin south abutment	Communication Duct and HH	VDOT	Yes	Yes	Bridge wingwall/ abutment	Use temporary facility to maintain ITS
Catharpin south abutment	Elect. Duct and MH	VDOT	Yes	Yes	Bridge wingwall/ abutment	Use temporary facility to maintain ITS
WB 208+51.13	18-inch water w/in 48-inch encasing pipe	PWCSA	No	No	None	Beyond limit of widening

Plan to Minimize Schedule Impacts

To avoid unexpected utilities within the limits of work, a utility mosaic and status reporting spread sheet will be prepared at the start of the project to pinpoint any unidentified utilities early. The mosaic will be developed by reviewing existing utility mapping and records, field mark outs performed by Miss Utility, VDOT and local government archives, and SUE performed by our lead designer, AMT. Test pitting to confirm locations of critical utilities will be performed by the Corman DB Team during the scope validation or design stages, as appropriate. The status report will be discussed with each utility company, in person, to verify all active facilities are listed and determine which are abandoned. Should we discover unidentified/non-located utilities during construction, our Utilities Manager will immediately contact the utility representative(s) for an onsite meeting with our designers, QC, QAM, and construction personnel. VDOT's office will be notified

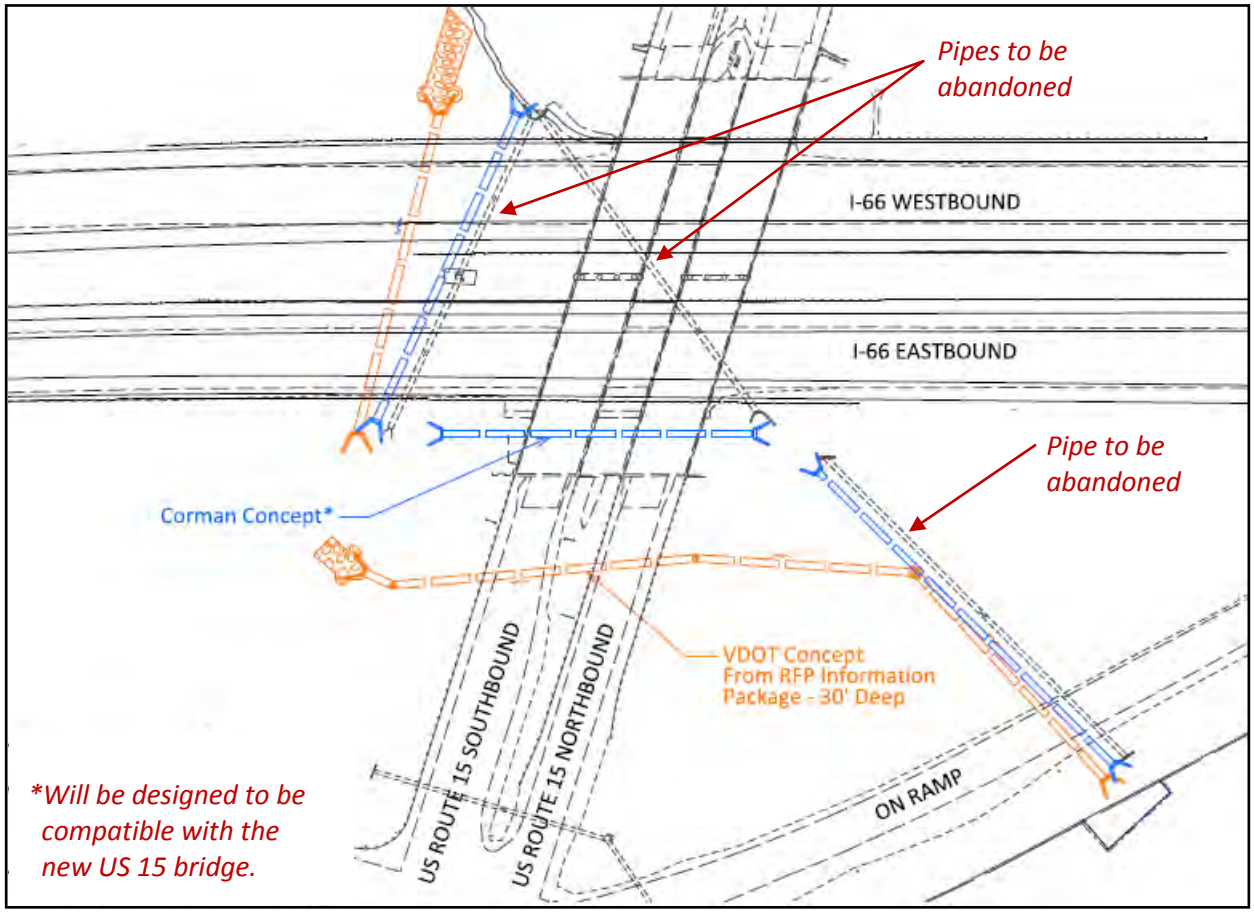
On our Design-Build Intercounty Connector Contract A (ICC-A) project, Scott Szympruch, Corman and the rest of the design build team (including AMT) successfully completed relocations at more than 100 l ocations including water, sewer, power/electrical, cable lines, and fiber optic, both underground and overhead. On our Design-Build Intercounty Connector Contract B (ICC-B) project, we coordinated major utility relocations with over 10 utility companies, including Verizon, AT&T, Williams Gas, and others. In addition, the Corman team has extensive experience working with the VDOT Traffic Operations Centers with signal and lighting on many projects including our recently completed Telegraph Road / I-95 / 495 project.

alerting them if they wish to participate. During this meeting, issues will be discussed and solutions identified to avoid the utility and eliminate relocation(s); if we cannot avoid the utility, we will develop the quickest, most cost-effective relocation scheme to maintain the projects schedule and budget. So as to not exceed estimated timeframes, keep construction moving and minimize motorist impacts, this may involve a temporary relocation and then a more permanent relocation at a later phase.

To summarize, our "Minimize Schedule Impact Plan" of the utility process is fueled by personalized attention from our DBPM and Utility Manager, open/honest/frequent communication with utility companies, and early/quick/effective high-level responses.

Drainage Facilities: In addition to the traditional dry and wet utilities on this project, the drainage facilities under I-66 must be considered. For these installations, our designers have already run H&H modeling of the contributory area and performed hydraulic calculations to size both the cross pipes and associated SWM structures. Our goal is to pass the offsite water under the roadway, in new or existing pipes, and manage the flow from the pavement through the use of SWM ponds and other appropriate BMP's. In the early stages of the project design, we will inspect the existing cross drainage by either TV or visual inspections, and determine if any of the existing piping can be reused. It is our intent to line all reusable corrugated metal pipes (CMP) by inserting a thick wall, high density plastic, smooth bore liner and pressure grouting the void between the liner and existing pipe. If there are reinforced concrete pipes, the evaluation will look for cracks, or other structural failures that could require repair or prevent their reuse. New cross culverts will be installed by jacking and boring, tunneling, or open cutting as appropriate for each location, depending upon size of new pipe, rock elevation and disruption to traffic. In some locations, a combination of these methods would be the most appropriate – both from a cost and MOT perspective. An initial analysis of several of the cross culverts indicates the size of the new culvert can be reduced in half from that shown in the RFQ concept plans - 54" or 72" dia. to 24" or 42" dia. by maintaining the existing pipe conduits as a parallel crossings, as long as the existing crossing can meet the structural and functional requirements by improvement as described above. This reduced pipe size for the new supplemental pipe will allow for more economical and less intrusive jacking and boring operations, as opposed to open cut which would most likely be required for the larger round or low head RCP culverts. The use of the smaller diameter pipes would be even more desirable if rock is encountered at the crossings. Based upon our preliminary review of the geotechnical information, this is expected at one locatios. Should the existing pipes not be reusable by lining or other methods described, they would be replaced as appropriate.

As shown on the attached concept plans in Volume II we have already started detail design and suggested relocating several crossing configurations, to minimize pipe lengths, proximity to expected rock ledges, crossing of Rte. 15, deep pipe excavations, and to provide adequate cover or improve hydraulics. This analysis will continue during final design to identify the most economic and less disruptive storm drainage system possible. As a example of our innovative approaches to the drainage design a graphic illustrating our revised design approach at Route 15 just south of I-66 is shown below. This alternate design avoids a major traffic impact by eliminating the construction of a new drainage pipe across US 15 which would have required a cut of approximately 30 feet.



4.4.3 Geotechnical

Describe the Offeror's approach to identifying and mitigating geotechnical risks through knowledgeable application of geotechnical subsurface exploration, design and analysis practices, and construction methods. Also describe the role that the Offeror's design geotechnical engineer will have during construction.

Our team will identify and mitigate geotechnical risks through a well planned and executed soil sampling, testing plan, knowledgeable application of geotechnical design and analysis practices, and an integrated team approach to construction methods. The majority of the geotechnical analysis will be required for the settlement and stability of the cuts and fills to widen the existing roadway and ramps and at the bridge approaches, ability of subgrade to support the new pavements, excavation of temporary sediment traps, SWM ponds, and foundations for new structures including the two bridges, noise walls and retaining walls. Paramount in this analysis will be determining the elevations of sound and weathered rock during the scope validation and design stage. Other construction items requiring geotechnical input during design are:

- Sign, traffic signal and lighting foundations
- Stormwater drainage/SWM installations and utility/ITS installations or relocations
- Pavement sections and underdrain pipe installation

During construction, the Geotechnical Engineer will be on site to observe, approve and guide the following:

- Removal of topsoil and unacceptable overburden, re-use of excavated materials and undercut of roadway sections
- Suitability of subgrade for spread footings and pile installations for bridge, noise wall or retaining wall construction
- Rock blasting
- Compaction of borrow fills and trench backfills
- Design and construction of traffic signal, signs, and lighting pole foundations

The DBPM, CM, and QC and QA Managers will be authorized to ask for the Geotechnical Engineer to visit the site and evaluate any issues that arise. Based on past experience, Corman discovered that having the Geotechnical Engineer or his representative visit the site at pre-determined hold points helps discover issues before they become major problems. Specific areas needing special attention and proposed mitigation strategies include:

Working in the Vicinity of Existing Foundations: We will be working in close proximity to the existing Catharpin Road Bridge. Our geotechnical and structural engineers will need to verify that the existing bridge foundations to remain during the proposed new bridge construction maintain the specified factors of safety for stability and do not settle beyond tolerable limits during construction of the new adjacent bridge. Construction and monitoring methods will be devised to minimize impacts and reduce ground movements from adjacent excavation as well as potential blasting in the general vicinity. Anticipated mitigation includes sheeting and temporary Support of Excavation structural supports (Tie backs etc.).

Maintaining or Reconstructing Existing Slopes: Re-grading of existing slopes will occur for the new widening, SWM ponds, and ramps. Based upon a review of the RFP preliminary geotechnical report and borings, we expect 2H:1V slopes, as shown on the preliminary plans, will be suitable. Exceptions may exist where sound rock is encountered in cut sections. Based upon experience with similar projects, topsoil placement and landscaping activities tend to loosen the surface soils. Proper dressing (compacting of the surface slopes), and temporary E&S controls will be critical to maintain slope stability and prevent excessive sediment runoff.

Maintaining the Integrity of the Existing Interstate: Due to the number of existing drainage culverts crossing under the roadway as well as the need to install additional new cross culverts under the active roadway, the reuse of existing and installation of new culverts becomes critical in maintaining the integrity of travel on I-66. Existing pipes will be evaluated during the proposal and scope validation period for potential reuse. If appropriate, the existing CMP's will be reused by inserting a thick wall, high density plastic, smooth bore liner and pressure grouting the void between the liner and existing pipe. If there are reinforced concrete pipes, cracks, or other structural failures that could prevent their reuse, this will be evaluated. New cross culverts will be installed by jacking and boring, tunneling, or open cutting as appropriate for each location, depending upon size of new pipe, rock elevation or disruption to traffic. Special consideration will be given to these operations for potential soil loss or creation of voids under the roadway.

Fill Suitability: Based on the Geotechnical Data Report (GDR), OL/OH organic soils and CH soils that were encountered, may not be suitable for support of new pavements or embankment fills, or for reuse as compacted fill. Additionally, the highly plastic, fine-grained soils (CH, MH) and existing unsuitable fill soils were typically encountered at shallower depths, while the suitable, low plasticity and granular soils were encountered deeper in the test borings. Soils that met the fill classification requirement had moisture contents of 14 to 30 percent which is expected to be near or above the optimum moisture contents. Therefore, some drying is expected depending on the weather conditions. Due to the limited project

footprint, soil modification or drying with lime may not be practical, and importing fill may be required. The GDR also requires that all fill soils have a CBR of at least 10 for pavement support, but most of the upper soils described above may not be expected to meet these requirements (see below – Pavement Subgrades). These items will be verified during scope validation and, if necessary, additives or pavement strengthening added to the scope of work.

Pavement Subgrades: Based on the GDR, the existing I-66 mainline and shoulder pavements are supported by about six inches of cement stabilized subgrade. Therefore, we consider the existing I-66 pavement subgrades to be suitable for support of new pavements and fills and no undercutting is expected. Pavement and fill subgrades in currently unpaved areas are expected to generally consist of new or previously placed compacted fills or natural soils. Fifteen CBR tests were included in the GDR, indicating that the natural subgrade soils have CBR values ranging from 4 to 14. The RFP requires the stipulated pavement section be built on subgrade with a minimum CBR value of 10 for pavement support. Additionally, the GDR indicates that all unsuitable soils (CH and MH, < CBR of 10) within three feet of the pavement or fill subgrades should be removed and replaced with suitable materials. Alternatively, stabilization of the subgrades may also be used to provide suitable support for the new pavements. Again, during the scope validation period, further analysis will be performed of the existing soils and, if necessary, additives or pavement strengthening added to the scope of work.

Pavement Build–Up Suitability: The GDR and typical sections specified a two inch mill replaced with a 4.5 inch maximum overlay of the existing pavements to be salvaged, built up, or resurfaced, and emphasized that additional evaluations are needed to verify the suitability of the planned build up due to traffic volume, pavement conditions, and subgrade conditions. During the scope validation period, the specified additional analysis will be performed on the proposed pavement section and modifications made to the scope of work to minimize the required overlay while still maintaining the desired pavement design life.

The impacts on the project from the potential geotechnical and pavement risk areas, if not managed properly, could result in additional cost and time to complete the project. The costs could result from additional pavement patching, increased milling and overlaying, pavement drainage, drying of onsite soils, importing of suitability fill and wasting of unsuitable fill, and modification or undercutting of pavement subgrades. VDOT could be impacted by reduced pavement life and increased maintenance costs, and the public by additional construction traffic and lane closures if the areas of distressed pavements are not properly identified and repaired. Additional time and associated delay costs would be required to mitigate all of the above. ***However the Corman DB Team proposes the following proven Mitigation strategies to minimize risk to all parties – Owner, Contractor and designer.***

Mitigation Strategies: General mitigation strategies implemented during the design phase will reduce the number of unknowns and be incorporated into the design, and those implemented during the construction phase will minimize costs and delays. A summary of these strategies is as follows:

- The Geotechnical Engineer will work closely with the Corman DB Team to evaluate and verify that the proposed construction means and methods do not impact the existing structures, pavements and utilities. Work closely with the contractor to understand their means and methods, and provide recommendations to reduce the impact to any facility that may be affected by new construction.
- Evaluate and verify that new slopes have the required factors of safety. Perform triaxial shear strength testing on residual soils and use results to perform global slope stability analyses.
- Perform additional subsurface exploration to better determine rock removal and existing soils depths so the construction plans can be developed to avoid rock removal and unsuitable fill soils before the first shovel hits the ground.

- Supply recommendations for temporary slope maintenance to prevent surface water from causing erosion and provide temporary stabilization to prevent slope instability. The geotechnical engineer will visit the site periodically, or whenever requested, to check slope construction and provide recommendations for additional measures.
- Perform additional coring and CBR testing during the Scope Validation period to confirm the existing pavement sections and subgrade conditions, and verify the proposed mill and build up thickness and locations.
- Provide recommendations for the proper installation of new or reused cross culverts under I-66.
- Perform pavement condition index surveys and provide patching estimates during the scope validation period to identify and documents areas that require full depth patching.
- Include detailed notes on the construction and project special provisions, when necessary, to address earthwork, E&S control, pavement subgrades and structure installations.
- Reduce geotechnical risks by verifying that the geotechnical and pavement recommendations are properly interpreted and incorporated into the construction documents. This will be accomplished by the geotechnical engineer reviewing construction documents and verifying that the recommendations have been properly interpreted and assumptions, forming the basis of our recommendations, are still valid.

Geotechnical Support During Construction: A primary source of risk occurs during construction when the subsurface conditions encountered are different than those used for the design. The geotechnical engineer will be onsite during preconstruction meetings, hold points, and key phases of construction to evaluate soil conditions encountered and provide alternative recommendations as necessary. During construction, our Geotechnical Engineer will evaluate the geologic conditions relative to foundation, embankment and pavement subgrades in support of the Corman DB Team's QC and QA responsibilities. The purpose of these evaluations is to document that the construction of the project is performed in accordance with the contract plans and specifications.

4.5 Construction of Project

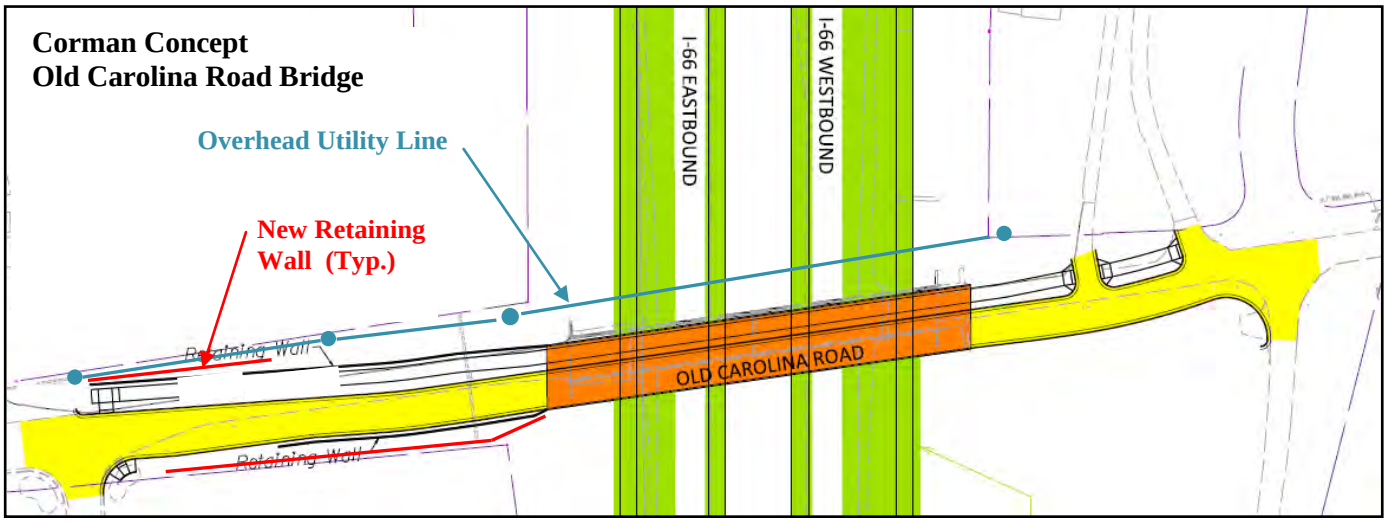
4.5 CONSTRUCTION OF THE PROJECT

4.5.1 Bridge Reconstruction

Describe approach to reconstruct the two overpasses. Describe means and methods for reconstruction of these two overpasses to avoid or minimize impacts to the traveling public, maintain the schedule and how to mitigate any potential risks related to the bridge reconstruction efforts.

Old Carolina Bridge

The existing Old Carolina Bridge will be demolished and replaced with a new structure. The new structure will be shifted slightly to the East so that the west parapet line of the new structure will be in approximately the same location as the existing west parapet line. This maintains a safe working distance from the existing adjacent overhead utilities to mitigate any relocation or outages for safety reasons. This shift will require a relatively low retaining wall along Jefferson Street on the southeast approach to the structure to stay within the ROW and avoid utilities. However the shift will eliminate the need for a significant length of high retaining wall along the east side of Jefferson Street.



The new structure will utilize full integral abutments, solid shaft or multi- column pier, and a steel beam superstructure. The bridge will width will be 46'-2" and will include a shared use path offset from the travel lanes, with a 6" curb separation.

Traffic Management: Jefferson Street/Old Carolina Road will be fully closed in the immediate vicinity of the bridge to allow for the demolition and reconstruction of the Old Carolina Road overpass. Allowable lane closures will be utilized on I-66 for demolition and reconstruction as necessary during the reconstruction period. Closure of the Old Carolina Road Overpass be coordinated with the approved plan for reconstruction of the Catharpin Bridge to provide two way traffic flow on Catharpin during reconstruction of the Old Carolina Road overpass.

Demolition: Demo of the existing bridge will be performed using by conventional means of munching and/or breaking the concrete and dropping to the ground or directly into trucks where feasible. For the portion over the lanes of I-66, lane closures will be utilized and the concrete demolished directly into trucks with adequate shields to provide protection from traveling vehicles. Only a small portion of the bridge is actually located over travel lanes resulting in minimal lane closures.

To mitigate risk in demolition of the existing structure above the active I-66 traffic lanes, the demolition plan will be developed by a VA Registered Professional Engineer and include provisions for proper MOT

on I- 66. Advance testing will be performed on the existing beams to determine if lead paint is present and a lead abatement program developed for the project, if required. The existing bridge has continuous girders that will be cut into sections, removed by cranes and disposed of appropriately.

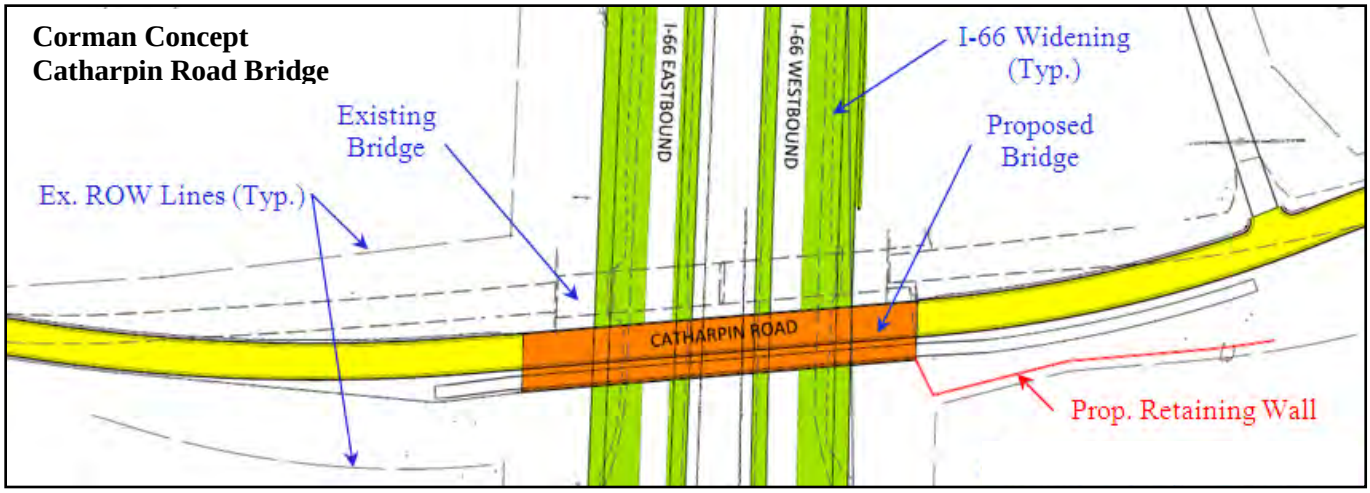
Construction: To mitigate any foundation risks a detailed geotechnical exploration will be performed prior to final design, supplemented with the Geotechnical Engineer or Record being available to visit the site should any concerns arise. Full integral abutments will be constructed of steel pile foundations and stub abutments. Pier construction will be performed behind temporary concrete barrier walls and will consist of spread footings with a solid shaft pier with designated architectural treatments. Company owned plate-girder or European-style modular formwork systems will be used to provide a high quality finish in accordance with the aesthetic requirements in the RFP. Steel beams will be placed and the ends encapsulated in the poured integral backwalls. The deck and approach slabs will both bear on the integral backwall to provide jointless construction, and therefore, lower future maintenance at the bridge approaches. Deck construction will progress with standard stay in place forms and modular or stick built overhang systems. Parapet walls will be constructed. Approach roadwork with associated retaining wall structures will be completed during and/or after the bridge construction as work areas are assessable.

Catharpin Bridge

The existing Catharpin Bridge will be demolished and replaced with a new structure. The new structure will be shifted slightly to the East (within the ROW of the original pre I-66 Catharpin Road) so that the alignment of the new structure will be adjacent to the existing structure allowing the entire bridge to be constructed during one phase. This shift will require a retaining wall along Catharpin Road at the Northeast Corner due to the shift in alignment. By moving the bridge east so as to maintain two active travel lanes at all times (except for short term lane closures as needed and approved by VDOT), we will be providing a tremendous benefit to the public as compared to the concept include in the RFP plans and will facilitate public acceptance by:

The Corman D/B Team's design concept allows two travel lanes on Catharpin Bridge to remain open while the new bridge is constructed, thereby allowing concurrent Catharpin and Old Carolina Bridge construction. This enhancement reduces the construction schedule and cost – a win-win scenario for the public, VDOT, and the Corman DB Team.

- Providing two way traffic at all times on Catharpin Road
- Increasing safety for vehicles using the road including emergency vehicles and buses
- Increasing pedestrian and bicycle safety
- Shortening duration of the project
- Increasing separation between construction zones and the traveling public



The new structure will utilize full integral abutments, solid shaft or multi- column pier, and a steel beam superstructure. The bridge out-to-out width will be 43'-6" and will include a shared use path separated from the travel lanes by a BR-27D barrier. On the approaches, the shared use path will shift slightly away from the travel lane in accordance with VDOT Road Design Manual, Appendix A, Figure A-5-9, thus avoiding the need for a separate attenuator.

Traffic Management: By relocation the new bridge to the east from the location shown in the RFP concept plans, two lanes of traffic will be maintained at all times during construction on the new Catharpin Bridge. This will eliminate the need for partial demolition of the existing structure while one lane traffic is maintained in close proximity to the construction operations. MOT will be greatly enhanced and connectivity maintained between the Fire House and George G. Tyler Elementary School on US 55 just west of Catharpin Road and the new communities to the north of I-66.

Once the new bridge is complete, traffic will be switched onto the new structure and the old structure will be demolished. Allowable lane closures will be utilized on I-66 for demolition and reconstruction as necessary during the reconstruction period. It should be noted that the Old Carolina Road overpass closure period will be coordinated with the approved plan for reconstruction of the Catharpin Bridge to provide two traffic flow on Catharpin Road during reconstruction of the Old Carolina Road. This will be easily accomplished based on our team's current concept to shift the alignment of Catharpin Road.

Demolition: Demo of the existing bridge will be performed in the same manner as that described above for Old Carolina Road. The demolition plan for the existing structure will be developed by a VA Registered Professional Engineer and include provisions for proper MOT on I-66.

Construction: As with the Old Carolina Road Bridge, to mitigate any foundation risks a detailed geotechnical exploration will be performed prior to final design, supplemented with the Geotechnical Engineer or Record being available to visit the site should any concerns arise. Full integral abutments will be constructed of steel pile foundations and stub abutments. Pier construction will be performed behind temporary concrete barrier walls and will consist of spread footings with a solid shaft or multi-column pier with designated architectural treatments. Company owned plate-girder or European-style modular formwork systems will be used to provide a high quality finish in accordance with the aesthetic requirements in the RFP. Steel beams will be placed and the ends encapsulated in the poured integral backwalls providing low maintenance jointless construction at the bridge approach. The deck and approach slabs will both bear on integral backwall. Deck construction will progress with standard stay in place forms and modular or stick built overhang systems. Parapet walls, and the barrier for separation of the shared use path, will be constructed.

Approach roadwork with associated retaining wall structures will be completed during and/or after the bridge construction as work areas are accessible.

4.5.2 Sequence of Construction

Describe the Offeror's approach to construction phasing including the general sequence of activities required to complete the Project by the Final Completion date indentified in Section 4.1.5. Describe how the Offeror's approach has considered public safety and has included measures to limit disruptions to vehicular and pedestrian traffic through the work area and adjacent public transportation facilities/roadways.

During the bid preparatory phase, our team comprised of designers, project managers, superintendents, and estimators were tasked independently to review the RFP plans and specifications and bring forth ideas on how to best approach the construction of this project. Streamlining our approach by limiting phases,

traffic switches, and lane closures will greatly reduce the disruptions to vehicular and pedestrian traffic. Geotechnical reports were reviewed to analysis how rock excavation affects our construction operations. Careful attention was paid to how we optimize earthwork and paving operations during spring, summer, and fall months, thus eliminating winter weather delays that often push schedule into the spring of another year. Following this thorough review, we developed the staging plan as described below.

Project Sequence and Packages

To eliminate multiple phases and start the project early, we broke the project into two (2) sections. **Section A** encompasses the area from the US 15 interchange to the west end of the project (WB STA 56+66 to 129+00). On I-66, this area requires only the median widening, no utility relocation work, and no ROW acquisition. Our construction in this section will also include the critical ramp improvements at US 15, which can be constructed prior to the drainage easement acquisition with some temporary work, and will be completed with final rip-rap once the easement is acquired. **Section B** will encompass the remaining work area back to east end of the project (WB 129+00 to 207+80). We have optimized the sections by limiting the stages and traffic switches within each section.

Please refer to the graphics on the following page to better understand our "Sequence of Construction".

Section A – Station STA 56+66 to 109+00*, Westbound I-66 and Off -Ramp to US 15 Ramp

Section A Stage 1 *(US 15/ I-66 Ramp, and temporary paving on I-66 outside shoulder)*

- Construct US 15 & I-66 ramp construction as first order of work.
- Switch traffic and open the newly expanded ramp to *provide early relief for the traveling public*.
- During night operations using a lane closure perform a 6' wide mill & wedge section on the existing I-66 outside shoulder to provide structural build-up for traffic.*
- Shift two 12' lanes towards the outside using the temporary paving

** The temporary paving and MOT set up for Section A shall extend to approximately STA 129+00, in order to provide the transition zone required for the upcoming traffic shift*.

Section A Stage 2 *(Median Widening I-66 WB)*

- During night operations using a lane closure install temporary concrete barrier (TCB) along the median edge of pavement for WB & EB.
- Install cross culverts and drainage works
- Construct widening in the median
- Install temporary pavement markings for inside lanes of the median
- During night operations using a lane closure shift temporary concrete barrier (TCB) towards the outside shoulder. Then shift two (2) lanes of traffic following the temporary pavement markings towards the median.

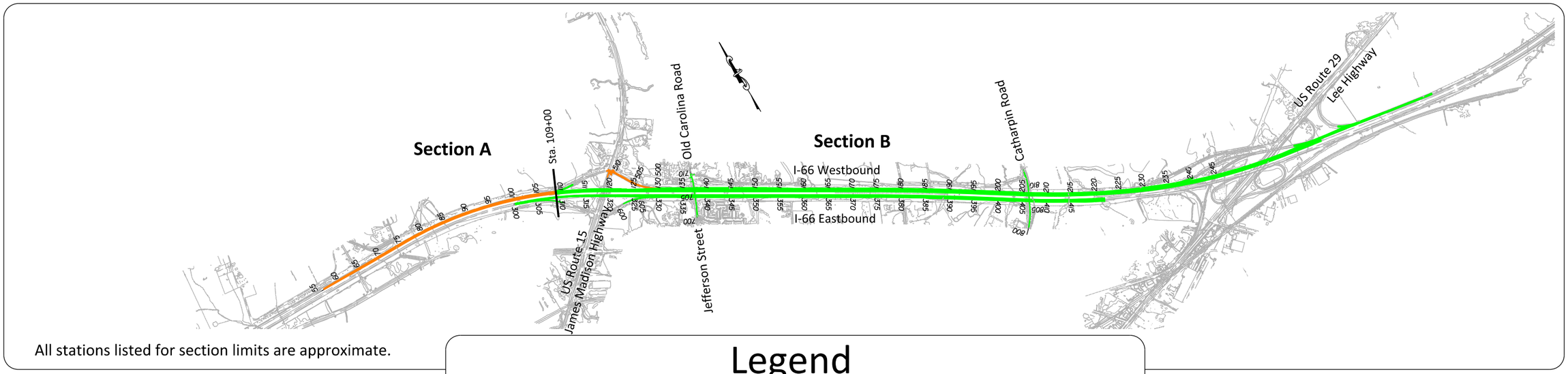
Section A Stage 3 *(Outside Shoulder I-66 WB)*

- Saw cut then remove and replace existing outside shoulders. Additional widening beyond the outside shoulder replacements occurs as we transition through the US 15 interchange from Section A to Section B.

Section A Stage 4 *(Mill and overlay – performed concurrently with Section B Stage 3)*

- Mill and overlay both WB lanes and installing permanent marking using the drums for traffic shifts
- Make final adjustments to the permanent signage
- Place final roadway into service

Sequence of Construction Summary



All stations listed for section limits are approximate.

Legend

Section A Section B

Narrative

The project has been divided into two (2) sections to allow for efficiency of construction. Each section was created to allow for orderly construction of the project, minimum number of traffic shifts, eliminate delays due to right-of-way (ROW), and to minimize impacts to surrounding neighborhoods. Our intent is to perform construction simultaneously on both sections; however, by designing the sections as individual packages, we retain flexibility should some construction elements be delayed by design approvals, permits, ROW, or utilities.

Section A STA. 59+00 to STA. 109+00

Section A is approximately 0.95 miles long and includes improvements to Interstate 66 (I-66) on the westbound lanes, west of the existing US Route 15 interchange. Section A also includes improvements to the off-ramp from westbound I-66 to US Route 15.

To build the I-66 widening, a temporary 6 inch deep “wedge/mill”will be constructed on the existing outside shoulder of westbound Interstate 66, varying in width from 0 feet to 9 feet. This "wedge/mill" course is necessary to build up the pavement to support traffic loads during a subsequent temporary lane shift. The temporary pavement work is estimated to be completed within one week using nightly single lane closures. After the "wedge/mill" course is completed, traffic will shift to the outside shoulder and construction will commence on the new full depth median roadway widening and shoulder. After work on the median shoulder is completed, traffic will shift toward the median, and the "wedge/mill" course will be removed and the outside shoulder constructed.

Section B STA. 109+00 to 207+83

Section B is approximately 1.87 miles long and includes widening of both westbound and eastbound I-66, and the new bridges at Old Carolina Road and Catharpin Road. To build this section, traffic will first remain in the current lane configuration, with proposed construction occurring on the outside shoulders. After the outside shoulders are constructed, traffic will shift to the outside and proposed construction will take place on the inside shoulders.

The existing bridge carrying Route 625 (Old Carolina Road/Jefferson Street) over I-66 will be closed during construction, during which time the bridge will be demolished and reconstructed with a widened section, including a shared use path. The new bridge will accommodate the proposed section of I-66. The bridge centerline will be offset from the current alignment to avoid potential impacts to the existing overhead utility wires that span I-66 to the immediate west of the existing bridge. The new bridge will be located entirely within existing VDOT right-of-way.

The existing bridge carrying Route 676 (Catharpin Road) over I-66 will remain open during construction, with a new bridge that allows for the proposed section of I-66 being constructed. The alignment of the new bridge will be shifted approximately 40 feet to the east in order to allow the existing bridge to remain completely open during construction. Once the new bridge is completed, traffic will be shifted onto the new bridge and the old bridge will be demolished. The new bridge will be located entirely within the existing VDOT right-of-way.

Section B – Westbound I-66 Station 129 & Eastbound I-66 Station 300+25 to the US 29 interchange

Section B Stage 1 *(outside widening for both EB & WB I-66, and bridge reconstruction)*

For I-66, this stage encompasses the 32' wide outside widening improvements from the east end of the project to the Section A / B interface - including the removal of the existing shoulder and the construction of two new 12' lanes and a new 12' full roadway section shoulder. The new full depth shoulder will allow us to shift traffic to far outside and use it for a travel lane during MOT phases thus creating a greater safe zone between the traveling public and the work zones. This stage also includes improvements to the US 15 ramps entering and existing eastbound I-66.

- During night operations using a lane closure, set TCB on the existing outside shoulders on both EB & WB of I-66. Safe entry points will be used along the TCB to provide easy access for crew and material deliveries with minimal disturbance to the traveling public.
- Create early access points to noise wall locations. Early installation of the noise walls is one of our priorities. *They will help to lessen the impacts to the local residents*.
- Early installation of the communication multi-duct bank and three Cameras along the outside EB paved shoulder is another priority. *Placing the new cameras into service early will help VDOT and Fairfax County to better inform the traveling public of congestion points along I-66*.
- Extend cross culverts and realign ditches beyond the proposed widening and maintain their usage. Install only the section of new cross culverts (both WB & EB) up to the TCB and bulkhead.
- The existing water and sewer lines will be relocated where impacted by excavation associated with the widening.
- Construct widening (both I-66 and US 15 ramps to/from EB I-66). Install temporary pavement markings on the new I-66 widened outside shoulder to handle two (2) lanes of traffic safely.

As the outside widening is progressing we will start the bridge construction. Our team has developed an approach to shift the new Catharpin Bridge towards the east and maintain traffic on the existing bridge thus eliminating the time consuming phased bridge construction as shown in the concept drawings. Since our sequence maintains two way traffic on Catharpin road at all times, which meets the technical requirements in the RFP, we will build the new bridges simultaneously. This will minimize adverse impacts to the public and save valuable time on our schedule – enabling the Corman Team to deliver the project early.

Old Carolina Bridge

- During night operations using a lane closure install temporary concrete barrier (TCB) around the existing pier in the median
- Install MOT items and close the existing bridge, detouring traffic to US 15
- Demo existing bridge. Critical demolition work (existing beam removal) over I-66 will done during night operations to lessen the impact to the traveling public
- Install SOE as required for pier and abutments foundation work
- Install abutment piles and continue through completion of the new bridge. Some bridge items that require stopping traffic (i.e. beam erection) will be done during night operations to lessen the impact to the traveling public
- Remove MOT items and place the bridge into service

Catharpin Bridge

- During night operations using a lane closure install temporary concrete barrier (TCB) around the existing pier and include the location for the new pier offset to the east.
- Install MOT items to protect work zone and maintain traffic across the old bridge.
- Verify and relocate/protect/realign critical utilities as necessary for bridge construction
- Install SOE as required for pier and abutments foundation work
- Install abutment piles and continue through completion of the new bridge. Some bridge items that require stopping traffic (beam erection) will be done during night operations to lessen the impact to the traveling public.
- During off-peak operation, using lane closure, carefully perform a traffic shift onto the new bridge and place the new bridge into service prior to the next rush hour.
- Demo existing bridge. Critical demolition work over I-66 (existing beam removal) will done during night operations to lessen the impact to the traveling public.

Section B Stage 2 *(median widening and shoulders between EB & WB I-66)*

After the temporary pavement markings have placed the previous stage, we will perform a traffic shift during night operations moving the two (2) lanes of traffic on both WB & EB existing roadways onto the outside widened sections. The abutments of the two new bridges will be far enough beyond the shoulder to allow the widening to occur with some temporary works to tie in the grade.

Carefully placed safe transition zones will be used as we connect to the projects east end and to the Section A improvements. The existing TCB on the old existing shoulder will be moved towards the median just onto the existing roadway in both WB & EB directions, with safe entry points as described in Stage 1. The closer the construction activities are to a TCB, the greater the risk for distracting the traveling public becomes. Our sequence here will be:

- Install only the sections of new cross culverts within the median up to the TCB and bulkhead.
- The existing water and sewer lines will be relocated where impacted by excavation associated with the widening.
- Create temporary ditches and create positive drainage while completing the proposed median roadside drainage improvements.
- Grade and complete the median pavement widening and shoulder, including underdrains.
- Complete the portion of the outside widening where the TCB had been placed during Stage 1, approximately 6’ in width
- Eradicate the existing I-66 marking in both WB & EB directions. Install temporary markings along the inside median area.
- During night operations, safely remove the TCB and bring in traffic drums for the next phase.

Section B Stage 3 *(Mill and overlay WB & EB I-66 – performed concurrently with Section A Stage 4)*

- Mill and overlay both WB & EB lanes and installing permanent marking using the drums for traffic shifts.
- Make final adjustments to the permanent signage
- Place final roadway into service

4.5.3 Transportation Management Plan

Explain how the Offeror will maintain traffic through all phases of construction. Describe in detail any proposed lane or ramp closures, temporary detours, time of day restrictions, flagging operations, minimum lane widths and work zone speed reductions required to construct the project using the Offeror's means and methods. Identify major project stakeholders located near the Project and discuss how they will be impacted during construction.

The project will require a **Transportation Management Plan (**TMP) Type B and will follow Project Management Process (PMP) Category III. Our team will work with VDOT to develop the TMP, including the development of the TMP's three major components: Temporary Traffic Control (TTC) Plans, Public Communications (PC) Plan, and Transportation Operations (TO) Plan. An important part of the TMP will be the inclusion of an extensive public information program to inform the public of changes in traffic patterns and major impact activities (i.e. bridge steel removal, delivery and placement). This will involve close coordination with VDOT and other key stakeholders as summarized at the end of this section. During the design development, the Corman DB Team will establish an MOT task force that meets weekly to address traffic conditions and our construction sequence. As the design progresses the post will have input and assist with the final MOT design. The TMP will also consider provisions for transit users, pedestrians, and cyclists who will be accommodated throughout the construction project.

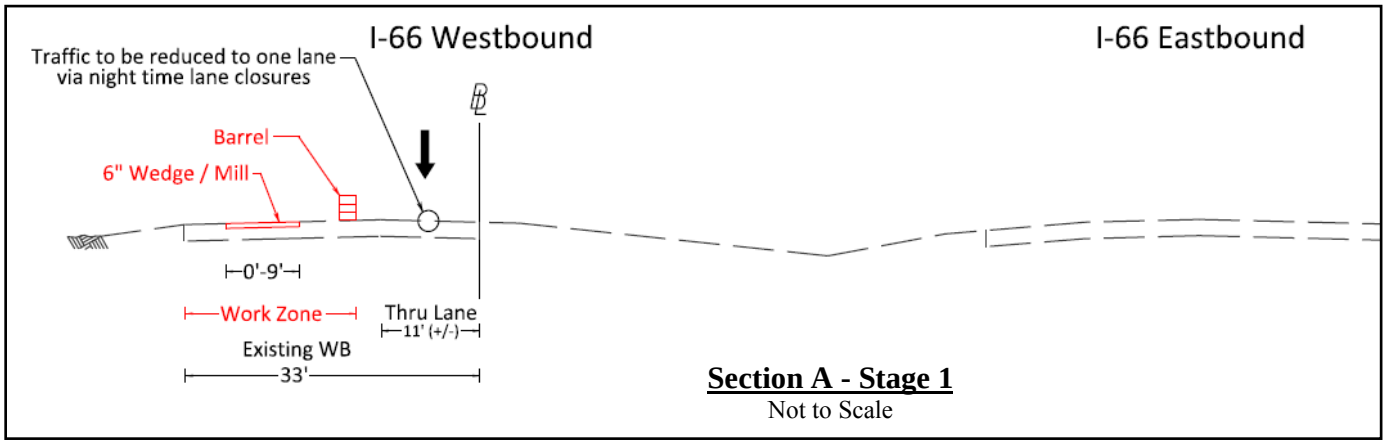
As part of the TMP a traffic model will be developed in order to optimize traffic operations during construction and minimize disruption and delay to motorists. Traffic analysis for MOT conditions will be performed in advance of the work and modified as conditions warrant. As necessary we will perform traffic analysis for the different MOT conditions, including:

- Traffic analysis will be performed for lane closure conditions and detour conditions.
- Signal timing and phasing plans along the affected cross roads will be evaluated for MOT conditions.

Our team will adhere to the maximum queuing as stipulated in the RFP technical requirements. Below is a general description of the traffic management associated with each stage our or construction sequence.

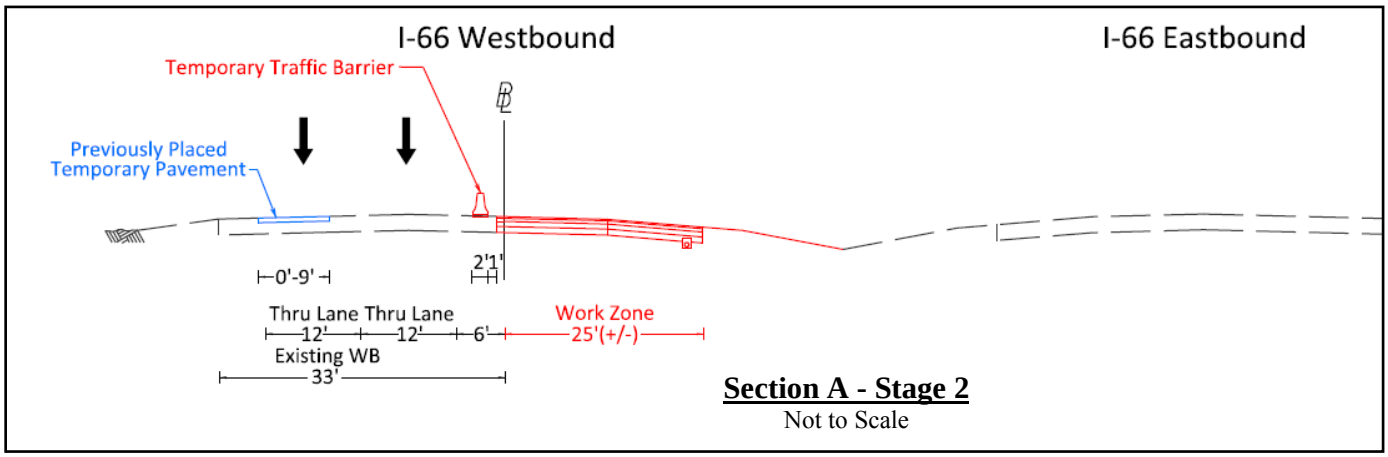
Section A – Station STA 56+66 to 129+00, Westbound I-66 and Off -Ramp to US 15 Ramp

Stage 1 – Construct US 15 & I-66 ramp during normal working hours. Separate new work on I-66 mainline from existing traffic with TCB. Install a temporary 6' wide mill & wedge section on the existing outside shoulders during night operations using a lane closure. Upon completion shift two 12' lanes towards the outside using the temporary paving.



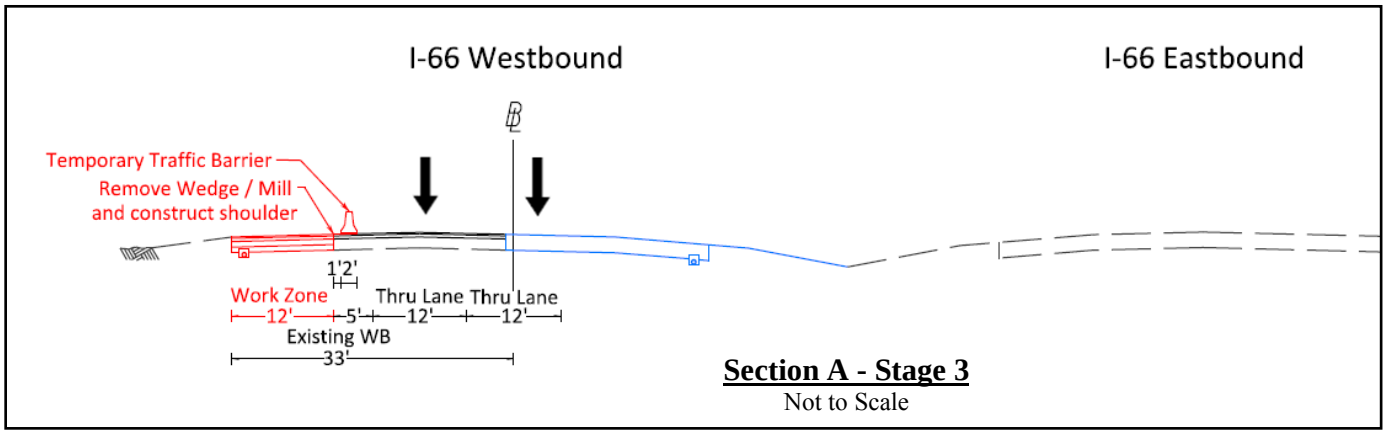
Section A - Stage 1
Not to Scale

Stage 2 - During night operations using a lane closure install temporary concrete barrier (TCB) along the median edge of pavement for WB. Perform new construction within the median work area behind TCB.



Section A - Stage 2
Not to Scale

Stage 3- Upon completion of the inside median work, during night operations using a lane closure shift temporary concrete barrier (TCB) towards the outside shoulder. Shift I-66 mainline (two lanes) to the new median widening and construct the new full depth outside shoulder.



Section A - Stage 3
Not to Scale

Stage 4 - Mill and overlay both WB lanes and installing permanent marking using the drums for temporary traffic shifts (performed concurrently with Section B Stage 3).

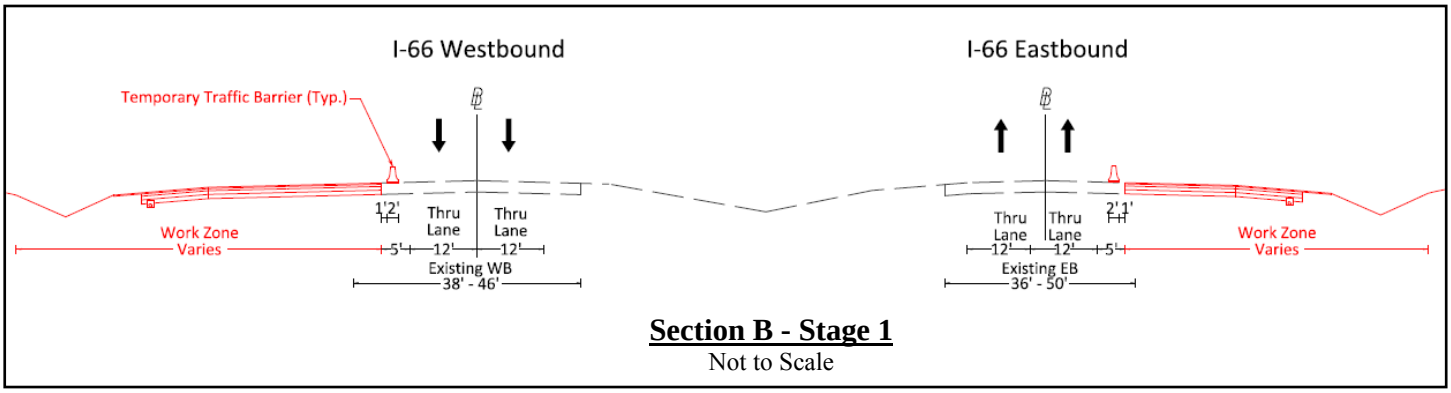
Section B – Westbound I-66 Station 129 & Eastbound I-66 Station 300+25 to the US 29 Interchange

Stage 1 - During night operations using a lane closure set TCB on the existing right shoulders on both EB & WB of I-66. Perform all outside construction behind the TCB leaving a 4-6' gap in the existing shoulder the TCB sits upon. Install temporary pavement markings on the new widened outside shoulder to handle two (2) lanes of traffic safely, plus auxiliary lanes at interchanges.

Concurrent with the work in this stage, during night operations using a lane closure install temporary concrete barrier(TCB) around the existing pier in the median and right shoulder at both Old Carolina and Catharpin Rd bridges. Maintain two way traffic on Catharpin Road Bridge in its current alignment protected from the new bridge

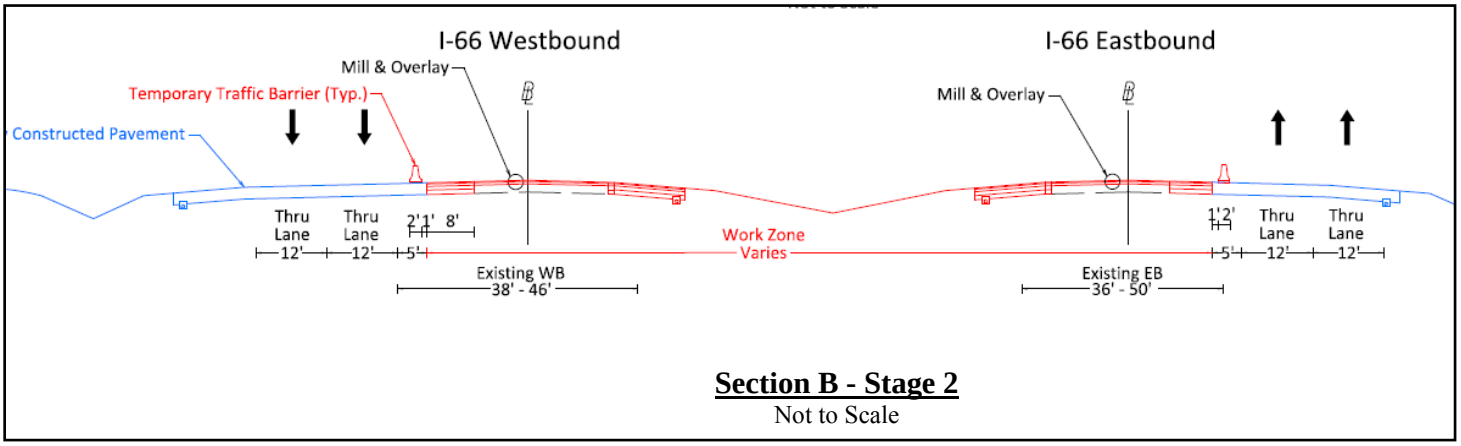
Utilizing Corman's proposed realignment of Catharpin Road, no detours (vehicles, pedestrians, or cyclists) will be required for the construction of the new bridge. This is a significant improvement over the VDOT RFP concept.

construction by TCB. Close Old Carolina Road bridge with appropriate MOT and detour signing directing traffic to US 15 via Heathcote Blvd. and Route 55, with appropriate signing for pedestrians and cyclists. We anticipate we will be well underway when the construction starts on the US 15 bridge over I-66. If conflicts do occur we will coordinate our efforts with the Design Build team selected to perform that work and adjust our detour as required.



Section B - Stage 1
Not to Scale

Stage 2 - After the temporary pavement markings have placed in stage 1, we will perform a traffic shift of I-66 lanes during night operations moving the two (2) lanes of traffic on both WB & EB existing roadways onto the newly outside widened sections. Install TCB between our work zone and the I-66 traffic. Construct the median pavement widening and shoulder, including underdrains, and complete the portion of the outside widening where the TCB had been placed during Stage 1, approximately 6' in width. At the completion of this phase, during night operations safely remove the TCB and bring in traffic drums for stage 3.



Section B - Stage 2
Not to Scale

Stage 3 - Mill and overlay both WB & EB lanes and installing permanent marking using the drums for temporary traffic shifts.

The above described phases will be performed meeting the following requirements:

Minimum Lane Widths:

- 12' on I-66, or existing lane width when traffic is using existing lanes (which in some locations I-66 lanes are less than 12 feet)
- 11' on all other roads/ramps, or existing lane width when traffic is using existing lanes (which in some locations is less than 11 feet)

Work Zone Speed: Corman's plan includes a work zone speed on I-66 of 60 MPH and maintains existing speed limits for all other roadways.

Time of Day Restrictions: We will meet the required lane closure restrictions contained in the RFP:

Location	Monday - Thursday	Friday	Saturday	Sunday
I-66 EB	10 am to 3:30 pm; 8 pm to 5 am	10 am to noon; 9 pm to 5 am	9 pm to 9 am	9 pm to 9 am
I-66 WB	9 am to 2:30 pm; 9:30 pm to 6 am	9 am to noon; 9:30 pm to 6 am	9 pm to 9 am	9 pm to 9 am
US Rte 15	9:30 am to 3 pm; 10 pm to 5 am	9:30 am to 2 pm; 10 pm to 9 am	10 pm to 9 am	10 pm to 8 am

Flagging Operations as required will be performed in accordance with Virginia Work Area Protection Manual and MUTCD.

Transportation Management Plan Deliverables

Our phased construction plans, including Transportation Management Plans (TMPs) and Maintenance of Traffic (MOT) drawings, will be prepared in an integrated, multi-disciplinary manner, with significant involvement from the construction team. The TMP/MOT design team will receive critical input from construction professionals on access needs, haul routes, staging areas, and construction durations. Our TMPs and MOT plans also address pedestrian access and safety. Our construction phasing plan has also taken consideration earthwork balance, pre-consolidation of embankments, and intra-site access.

Our MOT plans will provide for and address all construction components, including ITS, drainage facilities (temporary and permanent), utilities, sound walls, bridges, stormwater management, and erosion and sediment control.

Transportation Management Plan Stakeholders

The Corman DB Team fully understands the importance of keeping the impacted stakeholders informed on the projects' progress and potential impacts. Key to our outreach program are three main components:

1. Inclusion of the appropriate stakeholders during the preparation of the TMP and traffic control plans, to obtain input on important stakeholder issues such as access to properties, bus routes, detours and emergency response considerations.
2. Formation of an MOT Task Force, which will include select stakeholders as well as VDOT, to facilitate sharing of detailed maintenance of traffic issues such as upcoming traffic switches, upcoming bridge girder installation, and other items that have an impact on traffic flow and access.
3. A close working relationship between VDOT and the Corman DB Team ensuring a continuous and cooperative dissemination of appropriate information to project stakeholders.

The Major Stakeholders as identified in section 4.1.1, along with their role in the project and the key anticipated risks or impacts to them, are shown on the following page.

STAKE HOLDER	ROLE IN PROJECT	IMPACTS DURING CONSTRUCTION
VDOT	Owner	Work Zone Safety; Coordination with adjacent Projects; Traffic Backups or Inadequate Public Outreach
FHWA	Funding and project oversight	Work Zone Safety; Coordination with adjacent Projects; Traffic Backups or Inadequate Public Outreach
Prince William County	Local Jurisdiction	Coordination with adjacent Projects; Traffic Backups or Inadequate Public Outreach
Town of Haymarket	Local Jurisdiction	Coordination with adjacent Projects; Traffic Backups or Inadequate Public Outreach; Dust and Noise
Town and/or County local EMS Responders	Emergency Responders	Emergency Response Routes impacted by detours or temporary lane closures
Prince William School Dist., Private Schools (4 Pre-schools w/in Town limits)	Student Transport	Bus Routes impacted by detours or temporary lane closures
Heathcote Health Center - Prince William Hospital	Patient Access & Transport	Emergency Response Routes impacted by detours or temporary lane closures
Traveling Public (Commuter & Local)	User of the Facility - Route Impacted	Bus Routes impacted by detours or temporary lane closures; Travel time through work zone impacted by reduced speeds and/or back-ups
Haymarket – Gainesville Business Association	Represents Local Business Interests	Access to individual businesses may be temporarily impacted during construction
Local HOA Associations	Represent Local Communities	Routes impacted by detours or temporary lane closures; Travel time through work zone impacted by reduced speeds and/or back-ups; Dust and Noise
Major Businesses (e.g. WalMart, Kohl's, Food Lion, Home Depot, Sheetz)	Local Impacted Business	Access to individual businesses may be temporarily impacted during construction
Other Contractors Working in the Area	Adjacent Contractors	Scheduling of construction operations may be impacted in order to not impact the I-66 widening project activities
Utility Companies	Maintain / Operate Utilities within or across Corridor	Accessibility to Facilities through Work Zones; Impacts on Response Time to Outages

4.6 PROPOSAL SCHEDULE

4.6 SCHEDULE

Schedule Description

The Corman DB Team has thoroughly evaluated the Project RFP documents, performed site visits of I-66, attended pre-proposal meetings, participated in proprietary meeting discussions, and had working sessions among our construction and design teams. Through this progression, we developed a simplified solution to the project to deliver the project through our sequencing plan. This narrative explains how we plan to deliver a positive experience to VDOT and the stakeholders of the area. The project completion date is as shown in the RFP of November 11, 2016.

The proposal schedule can be found in this proposal section beginning on page S5.

Project Milestones

Notice of Intent to Award Date	July 12, 2013
CTB Approval/Notice to Award	August 14, 2013
Notice to Proceed	September 19, 2013
Substantial Completion of Project	November 11, 2016
Final Completion of Project:	November 11, 2016

Work Breakdown Structure

The baseline schedule integrates design and construction into a Work Breakdown Structure (WBS) as shown below.

Level 1: Schedule Milestones – Overall schedule review of progress.

Level 2: Scope Validation Period – Includes verification of utilities, geotechnical investigations and conceptual pavement designs, and spot checking the survey and base maps.

Level 3: Design – Includes detailed and final design cycles with time allocated for engineering services, plan development, QA/QC reviews, VDOT, FHWA and other regulatory agency reviews and approvals of plans. This section includes a second level of WBS structure to group design by construction work areas.

Level 4: Environmental Permitting – Includes preparation and approvals of Erosion and Sediment Control plans, JPA, SWPPP, VSMP, etc.

Level 5: Right of Way Acquisition - Includes title research, appraisals, offers and negotiations.

Level 6: Utility Relocations – Includes activities for the UFI meetings, finalizing UT-9 Forms, preparation of the preliminary engineering estimates, utility relocation design by the our team and utility owners, approval of P & E estimates, utility design approvals, and utility relocations.

Level 7: Construction – Includes all components of roadway construction, as well as maintenance of traffic, ITS, erosion & sediment controls, stormwater management, culvert extensions, bridge demolition and construction, ditches/drainage, lighting, and roadside improvements. Q A/QC witness and hold points are incorporated in this section. The section has WBS second and third levels which segment the construction by work areas. Public Relations are included in the general section of this phase.

Calendars

Three project calendars were used in the schedule and include:

"I-66 - Calendar Day" – this calendar is based on seven days per week and is used for design and review periods.

"I-66 - Winter Calendar" – This calendar is based on a non-work period from December 22 through February 28 for weather dependent activities, such as asphalt paving.

"I-66 - Construction Calendar" – this calendar is based on five working days per week and is used for construction activities and includes holiday restrictions and anticipated weather days.

Design Phase

The design phase includes preparation, QA/QC reviews, and submissions of the design plans at required stages of the bridge and roadway design process. Included are 21-day review activities for VDOT review periods. Included to support the plan preparation is survey coordination and mapping, geo-technical investigations, and utility designations. Activities are included for geotechnical investigations, reports and a 45-day period for VDOT's review of the geotechnical report prior to submitting the final roadway package. The design phase will begin immediately upon Notice of Intent to Award to begin work advancing the concept plans to the intermediate stage.

Environmental Permitting

Activities have been incorporated for the full project wide concept SWM/ES Plan, Complete Wetland Delineation, Confirm Jurisdictional Determinations, Virginia Water Protection (VWP) Permit, Individual Wetland Permit and the VSMP Permit.

This portion of the schedule should not impact the project's critical path.

Right-of-Way Acquisition

ROW will be required for permanent and temporary easements for drainage facilities and SWM ponds, and for temporary construction access.

Utility Relocations

The utility relocations are sequenced to match the required work operations.

Construction

Construction is scheduled to begin once the Roadway plans are approved and will begin by setting out all advance warning signs.

Plan to Execute the Work

In general, the design will be completed in two major packages that divides the project into Sections A and B. Work will begin in Section A and consists of work from Route 15 to the west including work at the Route 15 interchange. Section B consists of the remainder of the project including reconstruction of the bridges and final surfacing of the entire project. Final Completion Date of the project is scheduled for 11/11/16.

Critical Path

The Critical Path of the Project is shown in this proposal section beginning on page S12. The critical path for the project flows through the design of the roadway plans for Section A, the initial phase of construction (On-Ramp for Rte. 15 f orm WB I-66 and improvements on I-66 West of Route 15), construction of WB I-66 outside widening (cross culverts, grading and paving), construction of EB I66 outside widening (MOT, ESC, clearing, earthwork, and cross culverts), construction of the Catharpin Bridge, and the median roadway widening activities WB and EB of I66, and final surface paving of I66.

Managing the Schedule

Open and honest communication leads to effective coordination. Face to face meetings and the construction schedule are the primary means for the Corman DB Team to communicate the construction plan to the rest of the Corman DB Team and other stakeholders. The schedule provides the framework for planning and scheduling the day-to-day work while regular meetings allow the team find out objectives and make suggestions to improve the plan in an interactive and collaborative atmosphere. The schedule also serves as the yardstick to monitor and measure progress, is a tool for identifying the impact of unexpected events or conditions, and used for revising the construction plan to mitigate the impact of potential delays.

The schedule will be constantly reviewed and maintained to avoid slippage and impacts. Any deviations from the approved schedule will be discussed as part of the monthly partnering process. Mitigation and recovery solutions, should they be needed, will be identified and initiated during the appropriate meeting identified below. Systems to manage the design and construction sequencing will be clear and concise, and include:

1. Weekly design/construction scheduling and coordination meetings during the design phase
2. Weekly construction scheduling meetings during the construction phase
3. Utility relocation tracking sheets during the design and construction phases
4. ROW progress tracking spreadsheets during the design and construction phases
5. Review and approval tracking spreadsheets of design element submittals
6. Shop drawings status tracking sheets
7. Material submittals and delivery schedules
8. Non-conformance logs by QC and QA for design and construction
9. RFI logs
10. Monthly internal project review meetings by Corman's Executive Review Committee
11. Monthly progress/partnering meetings with the major stakeholders, including VDOT, Corman, designers, major subcontractors/vendors, local municipalities and businesses. Affected utilities will also be invited for the current stage of the work.

At the internal weekly meetings, issues/concerns will be identified utilizing the above tracking aids, and action items identified and assigned to the responsible party who can resolve it. Two-week, 30 day and 60 day "look-ahead schedules" will be prepared and discussed to analyze schedule and quality impacts. Similar information will be discussed and action items assigned at the Monthly Progress/Partnering meetings with key stakeholders. Other stakeholders may be invited to the monthly meetings as required for anticipated issues. For example, in the Haymarket area, there is new construction going on to enlarge the existing hospital in the northwest quadrant of the interchange as well as Wal-Mart, Home Depot, and Krolls in the southwestern quadrant. Representatives from these facilities will be invited to the meetings

prior to impacts on existing traffic patterns. Similarly, local police, fire and rescue companies will be invited to stay current on any construction impacts that may affect their routes or response time.

The Executive Review Committee will meet monthly, usually one week prior to the Monthly Progress/Partnering meeting, to review actual progress and identify resources (manpower, equipment, materials) for upcoming scheduled items. Should issues be identified at these meetings, resolutions and recovery strategies can be agreed upon prior to the monthly meeting, so the Corman DB Team can inform stakeholders of potential issues and solutions.

The tracking sheets, submittal logs, and meeting action item lists, along with all other tracking and correspondence, will be contained in Viewpoint (our project management database system) which allows integration with the schedule.

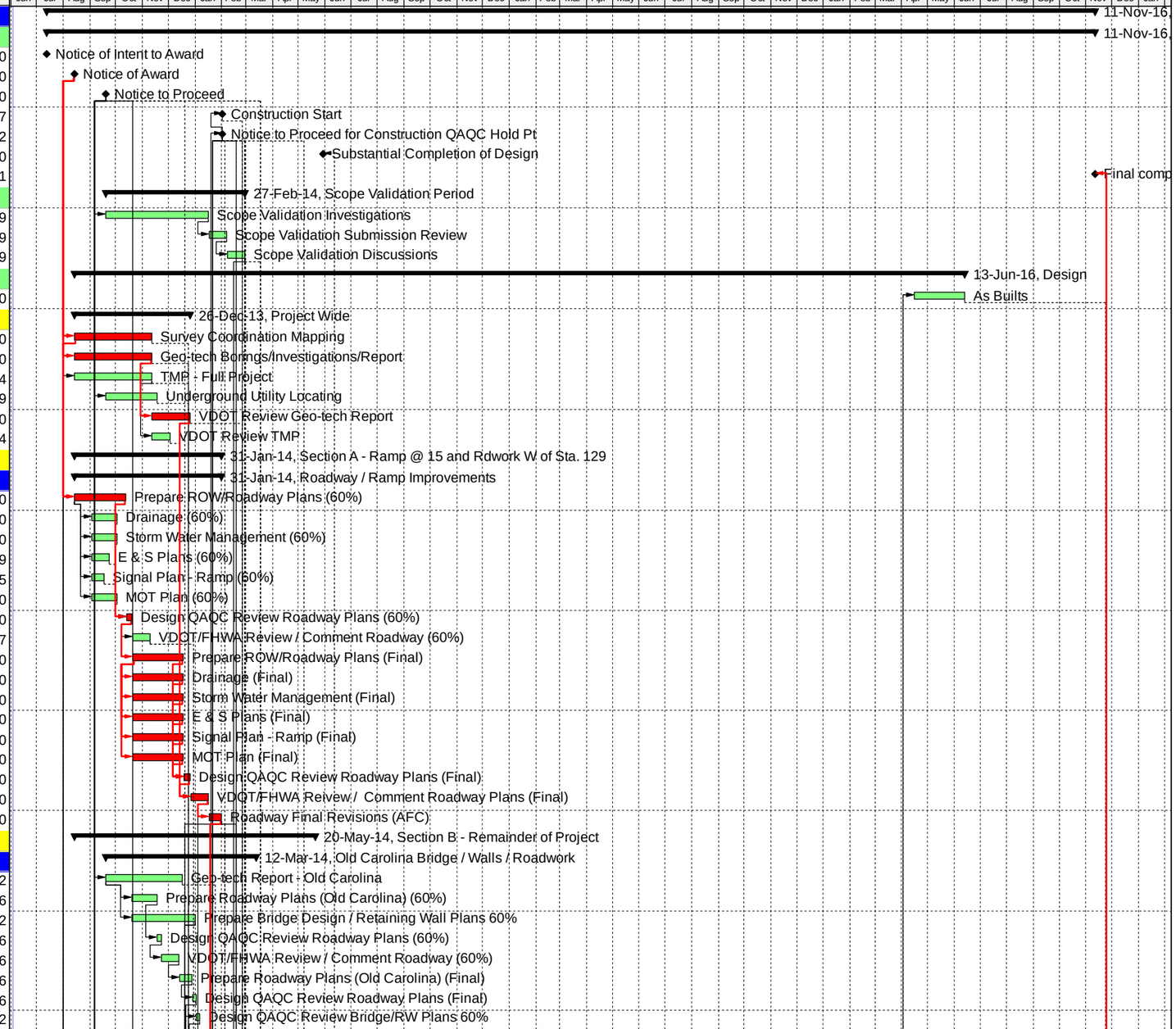
Meeting design milestones are key to successful design-build projects. The Corman DB Team will use performance evaluation tools, mainly the earned value method, to track the progress of the design consultants and other team members. This provides the design status to the management team as the job progresses. Constructability reviews are crucial and will be performed by all parties to avoid schedule delays of field design changes. At the regularly scheduled project control meeting, the individual discipline manager (whether it be design or field) will report on his group's progress and how it fits into the overall CPM schedule.

The Corman DB Team has proven management systems (shown below) that keep the project on track:

- **Weekly** scheduling and supervisory meetings with the Construction Manager, Project Engineer, Construction QC Manager, QAM, superintendents, foreman, and engineers to establish the two-week schedules. These schedules include detailed QC testing needs.
- **Weekly** site meetings during construction include the design team, ROW acquisition, public relations, and utility coordination until design work is complete and then as needed for the remainder of construction.
- **Bi-weekly** onsite progress meetings include all relevant parties to review schedule progress, design issues, QA/QC matters, unresolved construction problems, safety performance, administration issues, and general project management matters.
- **Monthly Progress/Partnering Meetings** are held by the DBPM, as well as all other project meetings. The DBPM will develop and review the schedule and work closely with the Public Relations Manager to implement the public outreach plan. When construction starts, the DBPM coordinates construction activities through the CM and holds monthly progress meetings to review progress, conflicts, safety, and quality. Corman will keep minutes of all meetings and distribute them to all stakeholders within 48 hours.
- **During Construction**, design engineers will remain available to discuss and meet about field changes that may occur during construction.

This project will be administered using our Viewpoint Project Management System, which manages the project lifecycle, including design plans, contract management, RFI control, change orders, submittal/ transmittal control, meetings, QA/QC documents, issue logs and lists, and more. It will help ensure that the project is administered timely to prevent schedule delays. Viewpoint offers secure remote access by all appropriate stakeholders via the web. It is designed to give Corman, designers, VDOT, subcontractors, utilities, and vendors access to the project data they need, when they need it, 24/7. As specified, submittals to VDOT and other agencies will be tracked utilizing "Contract Manager" software.

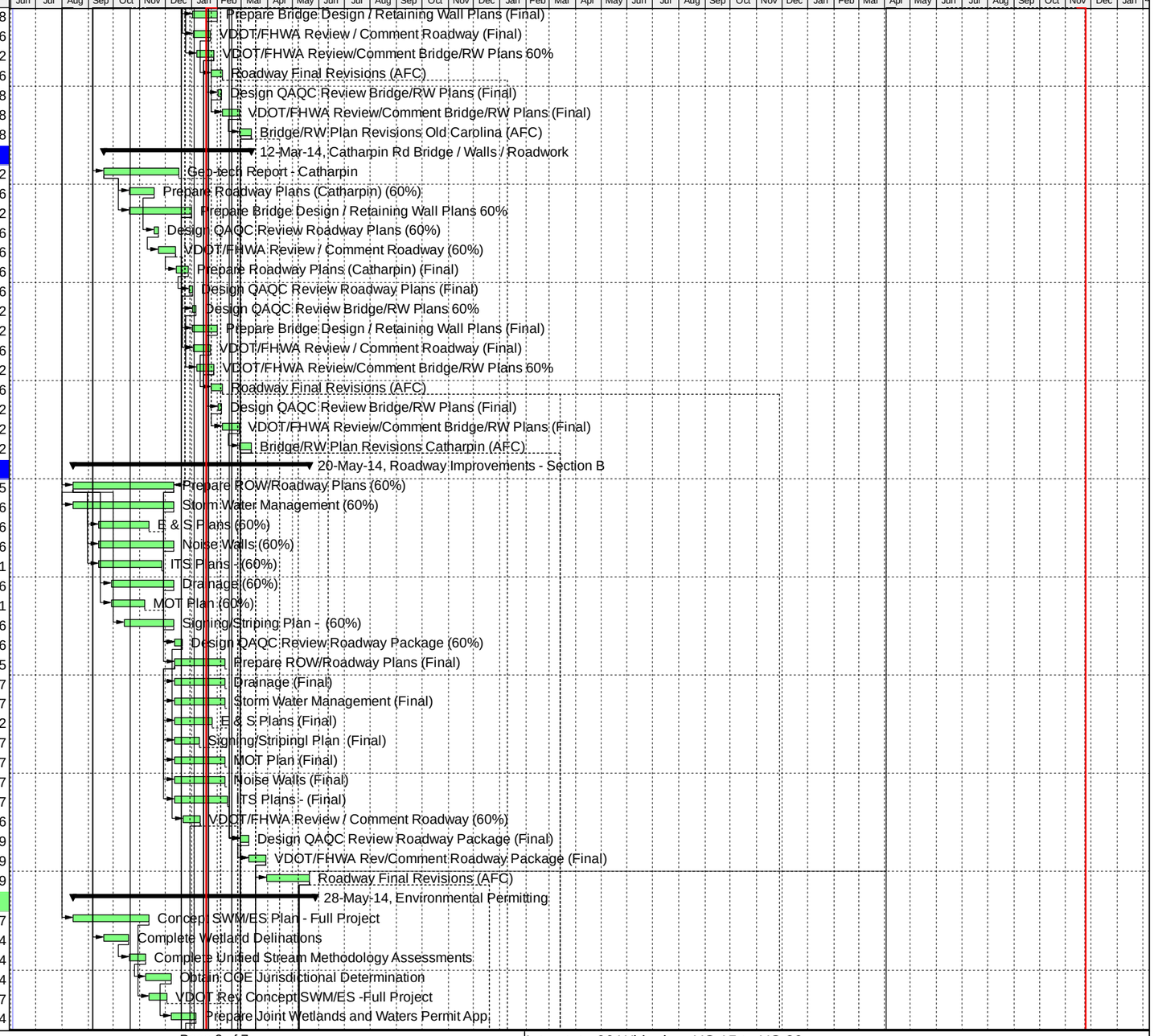
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Interstate 66 Widening - PW County					
Schedule Milestones					
M100	Notice of Intent to Award	0	12-Jul-13*		0
M105	Notice of Award	0	14-Aug-13*		0
M110	Notice to Proceed	0	19-Sep-13*		0
M130	Construction Start	0	01-Feb-14		37
M115	Notice to Proceed for Construction QAQC Hold Pt	0	01-Feb-14		2
M150	Substantial Completion of Design	0		29-May-14*	0
M140	Final completion of Project	0		11-Nov-16*	-1
Scope Validation Period					
SV100	Scope Validation Investigations	120	19-Sep-13	16-Jan-14	9
SV110	Scope Validation Submission Review	21	17-Jan-14	06-Feb-14	9
SV120	Scope Validation Discussions	21	07-Feb-14	27-Feb-14	9
Design					
DAB100	As Builts	60	15-Apr-16	13-Jun-16	150
Project Wide					
DPW100	Survey Coordination Mapping	90	14-Aug-13	11-Nov-13	0
DPW120	Geo-tech Borings/Investigations/Report	90	14-Aug-13	11-Nov-13	0
DPW130	TMP - Full Project	90	14-Aug-13	11-Nov-13	24
DPW110	Underground Utility Locating	60	19-Sep-13	17-Nov-13	49
DPW121	VDOT Review Geo-tech Report	45	12-Nov-13	26-Dec-13	0
DPW131	VDOT Review TMP	21	12-Nov-13	02-Dec-13	24
Section A - Ramp @ 15 and Rdwork W of Sta. 129					
Roadway / Ramp Improvements					
DAR100	Prepare ROW/Roadway Plans (60%)	60	14-Aug-13	12-Oct-13	0
DAR110	Drainage (60%)	30	03-Sep-13	02-Oct-13	10
DAR120	Storm Water Management (60%)	30	03-Sep-13	02-Oct-13	10
DAR130	E & S Plans (60%)	21	03-Sep-13	23-Sep-13	19
DAR140	Signal Plan - Ramp (60%)	15	03-Sep-13	17-Sep-13	25
DAR105	MOT Plan (60%)	30	03-Sep-13	02-Oct-13	10
DAR150	Design QAQC Review Roadway Plans (60%)	7	13-Oct-13	19-Oct-13	0
DAR170	VDOT/FHWA Review / Comment Roadway (60%)	21	20-Oct-13	09-Nov-13	47
DAR180	Prepare ROW/Roadway Plans (Final)	60	20-Oct-13	18-Dec-13	0
DAR182	Drainage (Final)	60	20-Oct-13	18-Dec-13	0
DAR184	Storm Water Management (Final)	60	20-Oct-13	18-Dec-13	0
DAR185	E & S Plans (Final)	60	20-Oct-13	18-Dec-13	0
DAR186	Signal Plan - Ramp (Final)	60	20-Oct-13	18-Dec-13	0
DAR181	MOT Plan (Final)	60	20-Oct-13	18-Dec-13	0
DAR190	Design QAQC Review Roadway Plans (Final)	8	19-Dec-13	26-Dec-13	0
DAR195	VDOT/FHWA Reivew / Comment Roadway Plans (	21	27-Dec-13	16-Jan-14	0
DAR220	Roadway Final Revisions (AFC)	15	17-Jan-14	31-Jan-14	0
Section B - Remainder of Project					
Old Carolina Bridge / Walls / Roadwork					
DOLD370	Geo-tech Report - Old Carolina	90	19-Sep-13	17-Dec-13	42
DOLD300	Prepare Roadway Plans (Old Carolina) (60%)	30	19-Oct-13	17-Nov-13	186
DOLD380	Prepare Bridge Design / Retaining Wall Plans 60%	75	19-Oct-13	01-Jan-14	42
DOLD310	Design QAQC Review Roadway Plans (60%)	5	18-Nov-13	22-Nov-13	186
DOLD320	VDOT/FHWA Review / Comment Roadway (60%)	21	23-Nov-13	13-Dec-13	186
DOLD330	Prepare Roadway Plans (Old Carolina) (Final)	15	14-Dec-13	28-Dec-13	186
DOLD340	Design QAQC Review Roadway Plans (Final)	5	29-Dec-13	02-Jan-14	186
DOLD390	Design QAQC Review Bridge/RW Plans 60%	5	02-Jan-14	06-Jan-14	42



Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
DOLD410	Prepare Bridge Design / Retaining Wall Plans (Final)	30	02-Jan-14	31-Jan-14	88
DOLD350	VDOT/FHWA Review / Comment Roadway (Final)	21	03-Jan-14	23-Jan-14	186
DOLD400	VDOT/FHWA Review/Comment Bridge/RW Plans 6	21	07-Jan-14	27-Jan-14	42
DOLD360	Roadway Final Revisions (AFC)	14	24-Jan-14	06-Feb-14	186
DOLD420	Design QAQC Review Bridge/RW Plans (Final)	5	01-Feb-14	05-Feb-14	88
DOLD430	VDOT/FHWA Review/Comment Bridge/RW Plans (I	21	06-Feb-14	26-Feb-14	88
DOLD440	Bridge/RW Plan Revisions Old Carolina (AFC)	14	27-Feb-14	12-Mar-14	88
Catharpin Rd Bridge / Walls / Roadwork					
BCAT500	Geo-tech Report - Catharpin	90	19-Sep-13	17-Dec-13	42
BCAT510	Prepare Roadway Plans (Catharpin) (60%)	30	19-Oct-13	17-Nov-13	466
BCAT520	Prepare Bridge Design / Retaining Wall Plans 60%	75	19-Oct-13	01-Jan-14	42
BCAT530	Design QAQC Review Roadway Plans (60%)	5	18-Nov-13	22-Nov-13	466
BCAT540	VDOT/FHWA Review / Comment Roadway (60%)	21	23-Nov-13	13-Dec-13	466
BCAT550	Prepare Roadway Plans (Catharpin) (Final)	15	14-Dec-13	28-Dec-13	466
BCAT560	Design QAQC Review Roadway Plans (Final)	5	29-Dec-13	02-Jan-14	466
BCAT570	Design QAQC Review Bridge/RW Plans 60%	5	02-Jan-14	06-Jan-14	42
BCAT580	Prepare Bridge Design / Retaining Wall Plans (Final)	30	02-Jan-14	31-Jan-14	152
BCAT590	VDOT/FHWA Review / Comment Roadway (Final)	21	03-Jan-14	23-Jan-14	466
BCAT600	VDOT/FHWA Review/Comment Bridge/RW Plans 6	21	07-Jan-14	27-Jan-14	42
BCAT610	Roadway Final Revisions (AFC)	14	24-Jan-14	06-Feb-14	466
BCAT620	Design QAQC Review Bridge/RW Plans (Final)	5	01-Feb-14	05-Feb-14	152
BCAT630	VDOT/FHWA Review/Comment Bridge/RW Plans (I	21	06-Feb-14	26-Feb-14	152
BCAT640	Bridge/RW Plan Revisions Catharpin (AFC)	14	27-Feb-14	12-Mar-14	152
Roadway Improvements - Section B					
DBR100	Prepare ROW/Roadway Plans (60%)	120	14-Aug-13	11-Dec-13	25
DBR130	Storm Water Management (60%)	120	14-Aug-13	11-Dec-13	26
DBR140	E & S Plans (60%)	60	13-Sep-13	11-Nov-13	56
DBR122	Noise Walls (60%)	90	13-Sep-13	11-Dec-13	26
DBR151	ITS Plans - (60%)	75	13-Sep-13	26-Nov-13	41
DBR120	Drainage (60%)	75	28-Sep-13	11-Dec-13	26
DBR110	MOT Plan (60%)	40	28-Sep-13	06-Nov-13	61
DBR150	Signing/Striping Plan - (60%)	60	13-Oct-13	11-Dec-13	26
DBR160	Design QAQC Review Roadway Package (60%)	10	12-Dec-13	21-Dec-13	26
DBR180	Prepare ROW/Roadway Plans (Final)	60	12-Dec-13	09-Feb-14	25
DBR182	Drainage (Final)	60	12-Dec-13	09-Feb-14	27
DBR184	Storm Water Management (Final)	60	12-Dec-13	09-Feb-14	27
DBR185	E & S Plans (Final)	45	12-Dec-13	25-Jan-14	42
DBR186	Signing/Stripingl Plan (Final)	30	12-Dec-13	10-Jan-14	57
DBR181	MOT Plan (Final)	60	12-Dec-13	09-Feb-14	27
DBR183	Noise Walls (Final)	60	12-Dec-13	09-Feb-14	27
DBR187	ITS Plans - (Final)	45	12-Dec-13	12-Feb-14	17
DBR170	VDOT/FHWA Review / Comment Roadway (60%)	21	22-Dec-13	11-Jan-14	26
DBR190	Design QAQC Review Roadway Package (Final)	10	28-Feb-14	09-Mar-14	9
DBR200	VDOT/FHWA Rev/Comment Roadway Package (Fi	21	10-Mar-14	30-Mar-14	9
DBR210	Roadway Final Revisions (AFC)	51	31-Mar-14	20-May-14	9
Environmental Permitting					
PER100	Concept SWM/ES Plan - Full Project	90	14-Aug-13	11-Nov-13	97
PER120	Complete Wetland Delinations	30	19-Sep-13	18-Oct-13	244
PER130	Complete Unified Stream Methodology Assessments	20	19-Oct-13	07-Nov-13	244
PER140	Obtain COE Jurisdictional Determination	30	08-Nov-13	07-Dec-13	244
PER110	VDOT Rev Concept SWM/ES -Full Project	21	12-Nov-13	02-Dec-13	97
PER150	Prepare Joint Wetlands and Waters Permit App.	30	08-Dec-13	06-Jan-14	244



Actual Work | Remaining Work | Critical Remaining Work | Milestone | Summary

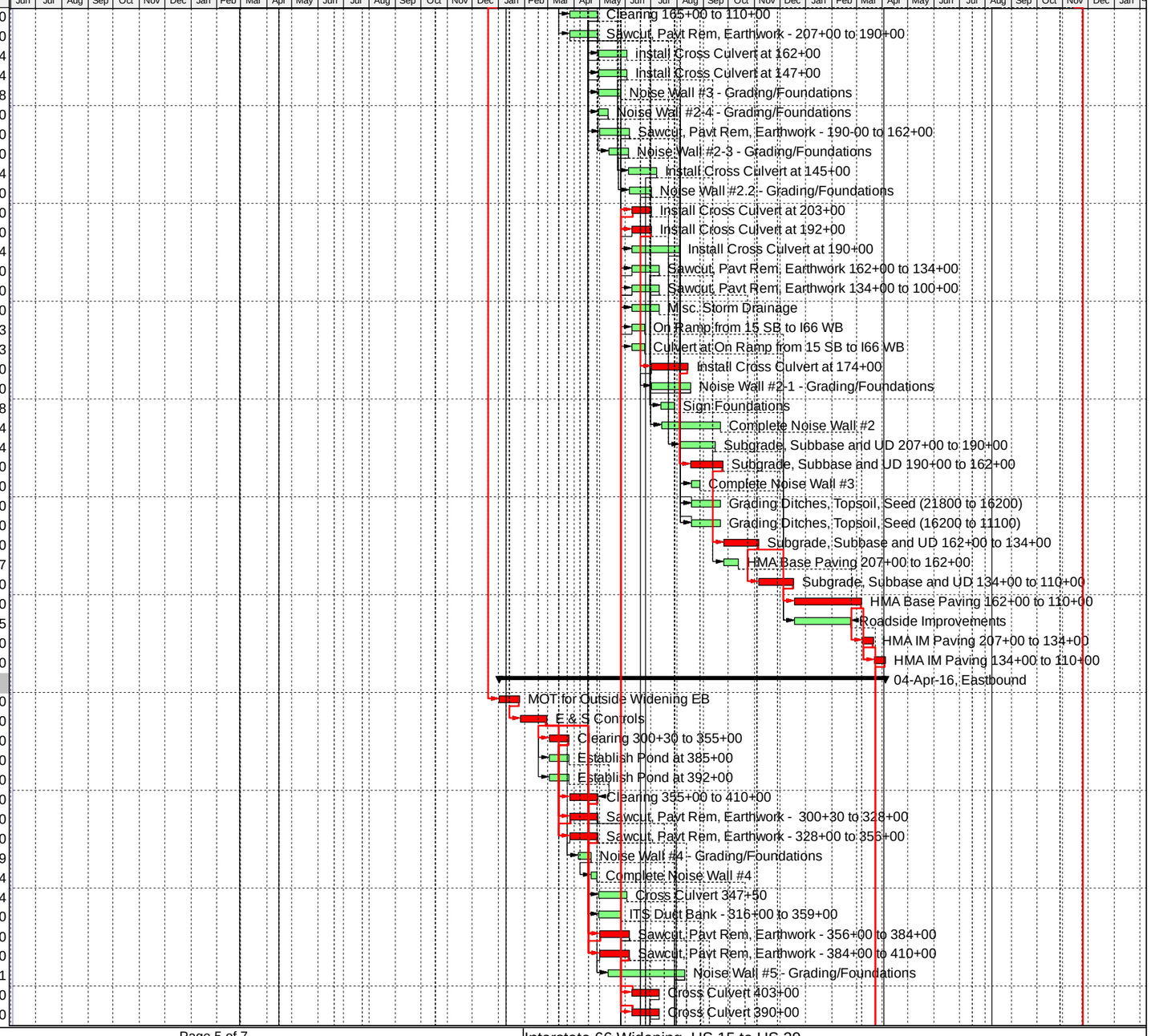
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
PER160	Corman Acquires Environmnetal Mitigation	21	07-Jan-14	27-Jan-14	244
PER200	Prepare and Submit LD 445/VSMP/SWPPP Permit	10	17-Jan-14	26-Jan-14	20
PER210	Agency Review of VSMP Permit	21	27-Jan-14	16-Feb-14	20
PER170	Submit Joint Permit App. (JPA) for IACM Meeting	0	28-Jan-14	28-Jan-14	244
PER180	Agency Review of JPA	120	28-Jan-14	27-May-14	244
PER220	VSMP Permit Approved	1	17-Feb-14	17-Feb-14	20
PER230	Update LD-455E and SWPPP Gen Info. Sheet (1)	1	31-Mar-14	31-Mar-14	276
PER240	Update LD-455E and SWPPP Gen Info. Sheet (2)	1	31-Mar-14	31-Mar-14	276
PER190	JPA Approved	0	28-May-14	28-May-14	244
Right-Of-Way Acquistion					
Project ROW Acquistions					
ROW100	Prepare Title Reports	20	12-Jan-14	31-Jan-14	144
ROW110	Prepare Appraisals	45	01-Feb-14	17-Mar-14	144
ROW120	Independent Appraisal Review	30	18-Mar-14	16-Apr-14	144
ROW130	VDOT Appraisal Review	21	17-Apr-14	07-May-14	144
ROW140	Prepare and Deliver offers	5	08-May-14	12-May-14	144
ROW150	Negotiations/Settlements	90	13-May-14	10-Aug-14	144
Utility Relocation					
UR100	Supplemental Utility Designation/Location	120	19-Sep-13	16-Jan-14	21
UR102	Submit Preliminary Utility Status Report	120	19-Sep-13	16-Jan-14	21
UR101	Meet with VDOT Regional Utility Manager	1	03-Nov-13	03-Nov-13	95
UR110	Hold Utility Field Inspection Meeting	1	17-Jan-14	17-Jan-14	21
UR120	Utility Plan and Estimates	180	18-Jan-14	16-Jul-14	21
UR130	Corman Approve Utility Plan and Estimates	10	17-Jul-14	26-Jul-14	21
UR140	Relocate Utilities - Catharpin Bridge	180	27-Jul-14	22-Jan-15	98
UR150	Relocate Utilities - Old Carolina Bridge	180	27-Jul-14	22-Jan-15	21
UR160	Relocate Utilities - Waterline at 157+50	30	27-Jul-14	25-Aug-14	188
UR170	Relocate Utilities - Overhead Line at 146+00	180	27-Jul-14	22-Jan-15	144
UR180	Reolcate Utilities - Overhead Line at 155+50	180	27-Jul-14	22-Jan-15	237
UR190	Relocate Utilities - Sewer at 190+00 if required	30	27-Jul-14	25-Aug-14	154
UR200	Relocate Utility - Overhead Line 357+50	180	27-Jul-14	22-Jan-15	237
UR210	Relocate Utility - OH 380+00	180	27-Jul-14	22-Jan-15	237
UR220	Relocate Utility - Duct 403+80	180	27-Jul-14	22-Jan-15	98
Construction					
Project Wide					
CPW130	Public Relations Outreach Program	1148	19-Sep-13	09-Nov-16	1
CPW120	Set-up Field Office	15	02-Jan-14	22-Jan-14	7
CPW140	Maintenance of Traffic PIM - Hold Point	0		31-Jan-14	0
CPW100	Mobilization	10	03-Feb-14	18-Feb-14	0
CPW150	Erosion & Sediment Control PIM - Hold Point	0		03-Feb-14	30
CPW160	Clearing PIM - Hold Point	0		03-Feb-14	234
CPW170	Drainage & Structures PIM - Hold Point	0		03-Feb-14	290
CPW190	Underdrains PIM - Hold Point	0		03-Feb-14	32
CPW200	Aggregate Base PIM - Hold Point	0		03-Feb-14	32
CPW220	Guardrail PIM - Hold Point	0		03-Feb-14	32
CPW230	Concrete Flatwork PIM - Hold Point	0		03-Feb-14	32
CPW240	Signalization PIM - Hold Point	0		03-Feb-14	37
CPW250	Traffic Signs PIM - Hold Point	0		03-Feb-14	32
CPW260	Pavement Markings PIM - Hold Point	0		03-Feb-14	32
CPW180	Earthwork PIM - Hold Point	0		17-Feb-14	23
CPW110	Advance Warning Signs Project Wide	10	20-Feb-14	07-Mar-14	0

Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CPW210	Asphalt Base PIM - Hold Point	0		03-Mar-14	16
CPW280	Retaining Walls PIM - Hold Point	0		13-Mar-14	193
CPW290	Reinforcing Steel PIM - Hold Point	0		13-Mar-14	91
CPW300	Beam Erection PIM - Hold Point	0		13-Mar-14	167
CPW270	ITS PIM - Hold Point	0		20-May-14	304
Shop Drawings / Procurement					
SPP115	Demolition Plan - Old Carolina Bridge	30	02-Jan-14	12-Feb-14	82
SPP116	Demolition Plan - Catharpin Bridge	30	02-Jan-14	12-Feb-14	328
SPP100	SOE Design Submittal/Approval	90	28-Jan-14	27-Apr-14	42
SPP110	Structural Steel Shop Drwgs Submittal/Approval	60	28-Jan-14	28-Mar-14	72
SPP117	Beam Erection Plan	30	28-Jan-14	10-Mar-14	198
SPP140	Procure Structural Steel	120	29-Mar-14	26-Jul-14	138
SPP120	Sign Structure Shop Drawing Submittal/Approval	60	21-May-14	19-Jul-14	325
SPP180	Noise Wall Shop Drawings Submittal/Approval	120	21-May-14	17-Sep-14	214
SPP150	Procure Noise Wall Panels	150	18-Sep-14	14-Feb-15	214
SPP160	Fabricate Sign Structures	150	05-Feb-15	04-Jul-15	325
Section A - Sta. 56+66 to 129+00, WB I-66 & Ramps @ 15					
Stage 1 - Rte. 15 / I66Ramp, Temp Pave I66 Outside Shlldr					
CA1700	MOT	10	10-Mar-14	25-Mar-14	0
CA1701	E & S Controls	2	27-Mar-14	28-Mar-14	0
CA1702	Ramp Improvements	15	31-Mar-14	23-Apr-14	0
CA1703	Signal Modifications at Rte. 15	10	31-Mar-14	14-Apr-14	5
CA1704	Temp Outside Shldr Improvements for MOT	5	24-Apr-14	01-May-14	0
Stage 2 - Median Widening I66					
CA2720	MOT for Inside Widening (129+00 to 56+66)	10	02-May-14	16-May-14	0
CA2721	E & S Controls	10	19-May-14	03-Jun-14	0
CA2722	Cross Culverts (Sta. 69, 78, 85, 100, 117)	60	19-May-14	25-Aug-14	0
CA2725	Sawcut, Pavement Removal and Earthwork	15	28-May-14	20-Jun-14	20
CA2726	Subgrade, Subbase, and UD	20	23-Jun-14	23-Jul-14	20
CA2728	HMA Base and IM Paving	5	26-Aug-14	03-Sep-14	0
CA2729	Roadside Improvements	5	04-Sep-14	10-Sep-14	0
Stage 3 - I66 Outside Shldr Improvements					
CA3740	MOT for Outside Shldr Upgrade/Widening (129+00	10	11-Sep-14	26-Sep-14	0
CA3741	E & S Controls	10	29-Sep-14	13-Oct-14	0
CA3742	Sawcut, Pavement Removal and Earthwork	15	14-Oct-14	06-Nov-14	0
CA3743	Subgrade, Subbase, and UD	15	07-Nov-14	02-Dec-14	0
CA3745	HMA Base and IM Paving	10	04-Dec-14	19-Dec-14	0
CA3746	Roadside Improvements	5	22-Dec-14	30-Dec-14	0
Stage 4 - Mill / Overlay WB Lanes					
CA4800	Mill and Overlay WB Lanes	30	22-Aug-16	10-Oct-16	18
Section B - I66 WB Sta.129 / EB Sta. 300+25 to US 29 Interchange					
Stage 1 - Outside Widening I66 EB/WB & Bridge Construction					
Outside Widening I66 EB/WB					
Westbound					
WB400	MOT for Outside Widening WB	15	02-Jan-15	26-Jan-15	20
WB403	E & S Controls	20	27-Jan-15	27-Feb-15	20
WB406	Excavate and Establish Pond at 200+00	20	02-Mar-15	03-Apr-15	55
WB409	Excavate and Establish Pond at 188+00	10	02-Mar-15	17-Mar-15	55
WB418	Clearing 218+00 to 165+00	15	02-Mar-15	25-Mar-15	20
WB412	Excavate and Establish Pond at 172+00	10	18-Mar-15	03-Apr-15	55
WB415	Excavate and Establish Pond at 139+00	10	18-Mar-15	03-Apr-15	55

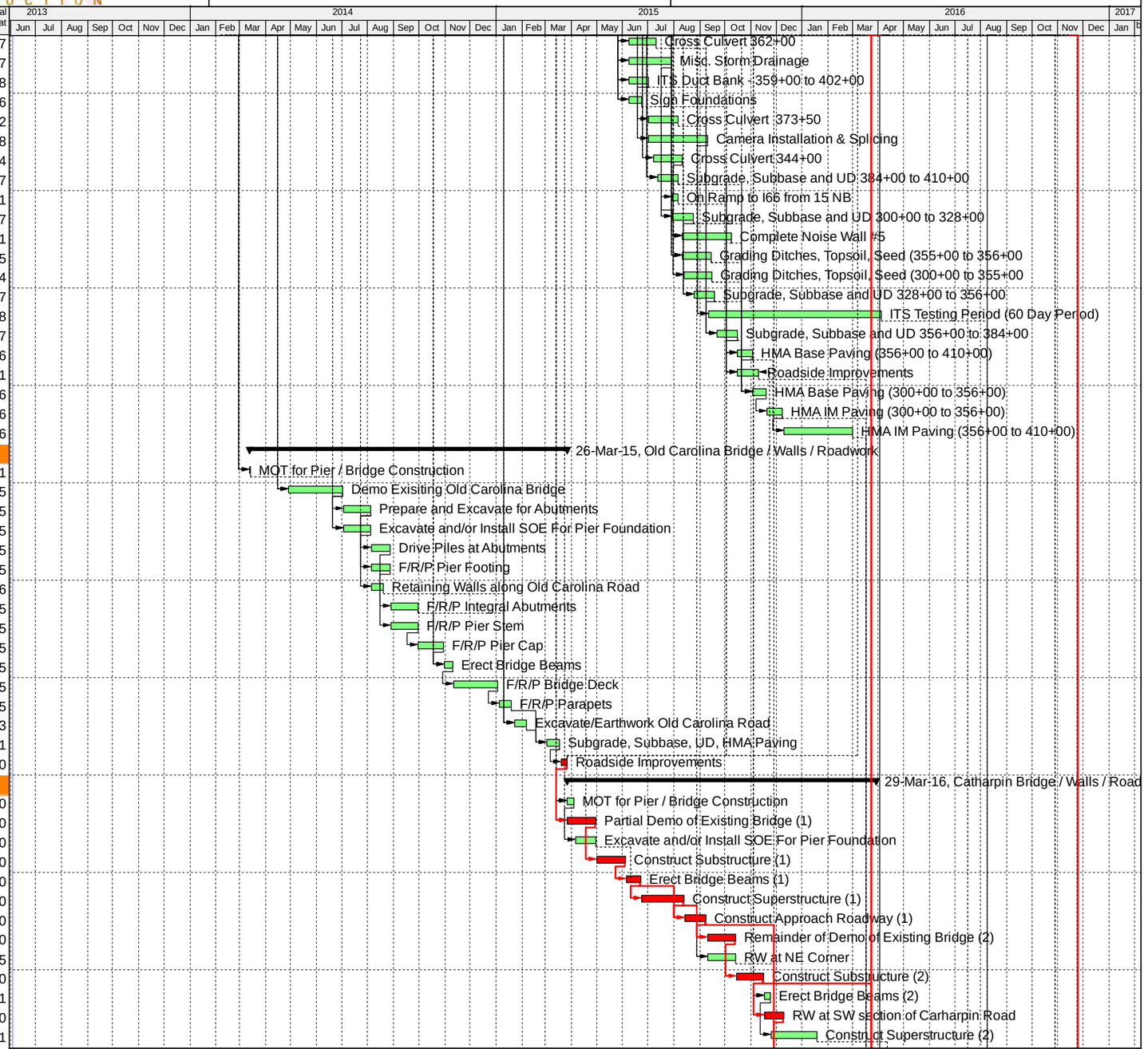
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
WB421	Clearing 165+00 to 110+00	20	27-Mar-15	29-Apr-15	20
WB457	Sawcut, Pavt Rem, Earthwork - 207+00 to 190+00	20	27-Mar-15	29-Apr-15	40
WB433	install Cross Culvert at 162+00	20	30-Apr-15	02-Jun-15	24
WB436	Install Cross Culvert at 147+00	20	30-Apr-15	02-Jun-15	24
WB442	Noise Wall #3 - Grading/Foundations	15	30-Apr-15	26-May-15	138
WB445	Noise Wall #2-4 - Grading/Foundations	7	30-Apr-15	11-May-15	90
WB460	Sawcut, Pavt Rem, Earthwork - 190-00 to 162+00	20	01-May-15	05-Jun-15	20
WB448	Noise Wall #2-3 - Grading/Foundations	14	12-May-15	04-Jun-15	90
WB439	Install Cross Culvert at 145+00	20	04-Jun-15	07-Jul-15	24
WB451	Noise Wall #2.2 - Grading/Foundations	16	05-Jun-15	01-Jul-15	90
WB424	Install Cross Culvert at 203+00	15	08-Jun-15	01-Jul-15	0
WB427	Install Cross Culvert at 192+00	15	08-Jun-15	01-Jul-15	0
WB430	Install Cross Culvert at 190+00	33	08-Jun-15	03-Aug-15	44
WB463	Sawcut, Pavt Rem, Earthwork 162+00 to 134+00	20	08-Jun-15	10-Jul-15	20
WB466	Sawcut, Pavt Rem, Earthwork 134+00 to 100+00	20	08-Jun-15	10-Jul-15	20
WB499	Misc. Storm Drainage	20	08-Jun-15	10-Jul-15	20
WB505	On Ramp from 15 SB to I66 WB	10	08-Jun-15	23-Jun-15	103
WB508	Culvert at On Ramp from 15 SB to I66 WB	10	08-Jun-15	23-Jun-15	103
WB434	Install Cross Culvert at 174+00	25	02-Jul-15	14-Aug-15	0
WB454	Noise Wall #2-1 - Grading/Foundations	26	02-Jul-15	17-Aug-15	90
WB511	Sign Foundations	10	13-Jul-15	28-Jul-15	108
WB496	Complete Noise Wall #2	40	14-Jul-15	21-Sep-15	134
WB469	Subgrade, Subbase and UD 207+00 to 190+00	25	04-Aug-15	15-Sep-15	44
WB472	Subgrade, Subbase and UD 190+00 to 162+00	23	17-Aug-15	24-Sep-15	0
WB493	Complete Noise Wall #3	7	18-Aug-15	28-Aug-15	90
WB514	Grading Ditches, Topsoil, Seed (21800 to 16200)	20	18-Aug-15	21-Sep-15	90
WB517	Grading Ditches, Topsoil, Seed (16200 to 11100)	20	18-Aug-15	21-Sep-15	90
WB475	Subgrade, Subbase and UD 162+00 to 134+00	25	25-Sep-15	05-Nov-15	0
WB481	HMA Base Paving 207+00 to 162+00	10	25-Sep-15	12-Oct-15	37
WB478	Subgrade, Subbase and UD 134+00 to 110+00	25	06-Nov-15	17-Dec-15	0
WB484	HMA Base Paving 162+00 to 110+00	8	18-Dec-15	07-Mar-16	0
WB502	Roadside Improvements	37	18-Dec-15	22-Feb-16	25
WB487	HMA IM Paving 207+00 to 134+00	8	08-Mar-16	21-Mar-16	0
WB490	HMA IM Paving 134+00 to 110+00	8	22-Mar-16	04-Apr-16	0
Eastbound					
EB1000	MOT for Outside Widening EB	15	02-Jan-15	26-Jan-15	0
EB1001	E & S Controls	20	27-Jan-15	27-Feb-15	0
EB1002	Clearing 300+30 to 355+00	15	02-Mar-15	25-Mar-15	0
EB1013	Establish Pond at 385+00	15	02-Mar-15	25-Mar-15	20
EB1023	Establish Pond at 392+00	15	02-Mar-15	25-Mar-15	20
EB1003	Clearing 355+00 to 410+00	20	27-Mar-15	29-Apr-15	0
EB1050	Sawcut, Pavt Rem, Earthwork - 300+30 to 328+00	20	27-Mar-15	29-Apr-15	0
EB1051	Sawcut, Pavt Rem, Earthwork - 328+00 to 356+00	20	27-Mar-15	29-Apr-15	0
EB1048	Noise Wall #4 - Grading/Foundations	9	06-Apr-15	20-Apr-15	99
EB1063	Complete Noise Wall #4	5	21-Apr-15	28-Apr-15	114
EB1044	Cross Culvert 347+50	20	30-Apr-15	02-Jun-15	64
EB1067	ITS Duct Bank - 316+00 to 359+00	15	30-Apr-15	26-May-15	100
EB1052	Sawcut, Pavt Rem, Earthwork - 356+00 to 384+00	20	01-May-15	05-Jun-15	0
EB1053	Sawcut, Pavt Rem, Earthwork - 384+00 to 410+00	20	01-May-15	05-Jun-15	0
EB1049	Noise Wall #5 - Grading/Foundations	53	11-May-15	10-Aug-15	21
EB1040	Cross Culvert 403+00	20	08-Jun-15	10-Jul-15	0
EB1041	Cross Culvert 390+00	20	08-Jun-15	10-Jul-15	0



Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

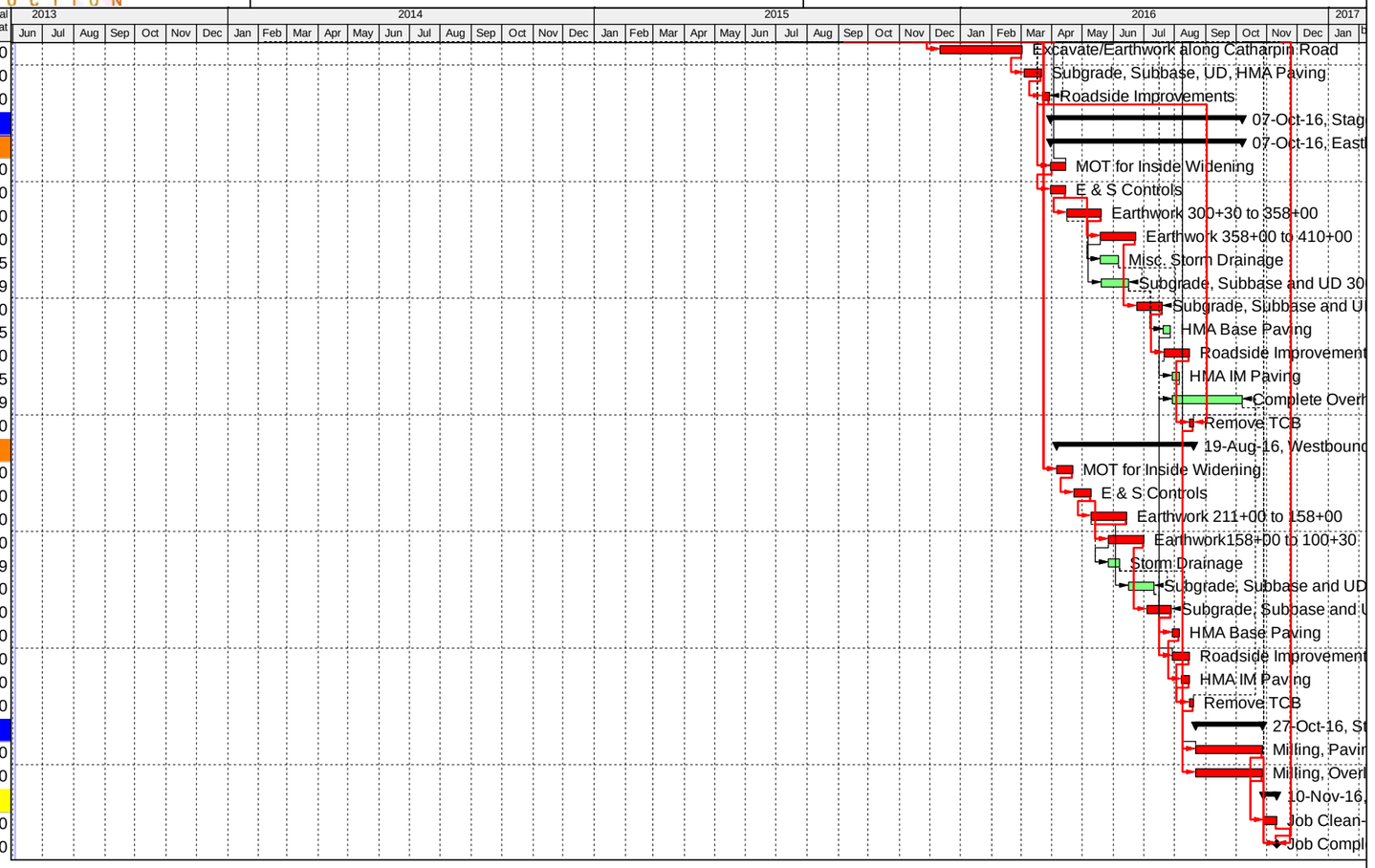
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
EB1043	Cross Culvert 362+00	20	08-Jun-15	10-Jul-15	57
EB1065	Misc. Storm Drainage	30	08-Jun-15	28-Jul-15	17
EB1068	ITS Duct Bank - 359+00 to 402+00	15	08-Jun-15	01-Jul-15	78
EB1070	Sign Foundations	10	08-Jun-15	23-Jun-15	146
EB1042	Cross Culvert 373+50	20	02-Jul-15	06-Aug-15	42
EB1069	Camera Installation & Splicing	40	02-Jul-15	10-Sep-15	78
EB1045	Cross Culvert 344+00	20	08-Jul-15	11-Aug-15	24
EB1058	Subgrade, Subbase and UD 384+00 to 410+00	15	13-Jul-15	06-Aug-15	57
EB1054	On Ramp to I66 from 15 NB	5	30-Jul-15	06-Aug-15	121
EB1055	Subgrade, Subbase and UD 300+00 to 328+00	15	30-Jul-15	24-Aug-15	17
EB1064	Complete Noise Wall #5	34	11-Aug-15	08-Oct-15	21
EB1074	Grading Ditches, Topsoil, Seed (355+00 to 356+00	20	11-Aug-15	14-Sep-15	35
EB1073	Grading Ditches, Topsoil, Seed (300+00 to 355+00	20	13-Aug-15	15-Sep-15	34
EB1056	Subgrade, Subbase and UD 328+00 to 356+00	15	25-Aug-15	18-Sep-15	17
EB1071	ITS Testing Period (60 Day Period)	120	11-Sep-15	04-Apr-16	78
EB1057	Subgrade, Subbase and UD 356+00 to 384+00	15	21-Sep-15	15-Oct-15	17
EB1060	HMA Base Paving (356+00 to 410+00)	10	16-Oct-15	02-Nov-15	16
EB1066	Roadside Improvements	15	16-Oct-15	09-Nov-15	81
EB1059	HMA Base Paving (300+00 to 356+00)	10	03-Nov-15	19-Nov-15	16
EB1061	HMA IM Paving (300+00 to 356+00)	10	20-Nov-15	08-Dec-15	16
EB1062	HMA IM Paving (356+00 to 410+00)	10	10-Dec-15	01-Mar-16	16
Old Carolina Bridge / Walls / Roadwork					
BOLD810	MOT for Pier / Bridge Construction	1	13-Mar-14	13-Mar-14	91
BOLD811	Demo Exisiting Old Carolina Bridge	40	28-Apr-14	02-Jul-14	25
BOLD812	Prepare and Excavate for Abutments	20	03-Jul-14	04-Aug-14	45
BOLD813	Excavate and/or Install SOE For Pier Foundation	20	03-Jul-14	04-Aug-14	25
BOLD814	Drive Piles at Abutments	15	05-Aug-14	27-Aug-14	45
BOLD815	F/R/P Pier Footing	15	05-Aug-14	27-Aug-14	25
BOLD816	Retaining Walls along Old Carolina Road	10	05-Aug-14	19-Aug-14	106
BOLD817	F/R/P Integral Abutments	20	28-Aug-14	29-Sep-14	45
BOLD818	F/R/P Pier Stem	20	28-Aug-14	29-Sep-14	25
BOLD819	F/R/P Pier Cap	20	30-Sep-14	30-Oct-14	25
BOLD820	Erect Bridge Beams	6	31-Oct-14	10-Nov-14	25
BOLD821	F/R/P Bridge Deck	30	11-Nov-14	02-Jan-15	25
BOLD822	F/R/P Parapets	10	05-Jan-15	19-Jan-15	25
BOLD823	Excavate/Earthwork Old Carolina Road	10	23-Jan-15	06-Feb-15	13
BOLD824	Subgrade, Subbase, UD, HMA Paving	10	02-Mar-15	17-Mar-15	1
BOLD825	Roadside Improvements	5	19-Mar-15	26-Mar-15	0
Catharpin Bridge / Walls / Roadwork					
BCAT850	MOT for Pier / Bridge Construction	5	27-Mar-15	03-Apr-15	30
BCAT851	Partial Demo of Existing Bridge (1)	20	27-Mar-15	30-Apr-15	0
BCAT852	Excavate and/or Install SOE For Pier Foundation	15	06-Apr-15	30-Apr-15	30
BCAT853	Construct Substructure (1)	20	01-May-15	04-Jun-15	0
BCAT854	Erect Bridge Beams (1)	10	05-Jun-15	22-Jun-15	0
BCAT855	Construct Superstructure (1)	30	23-Jun-15	13-Aug-15	0
BCAT856	Construct Approach Roadway (1)	15	14-Aug-15	08-Sep-15	0
BCAT857	Remainder of Demo of Existing Bridge (2)	20	10-Sep-15	13-Oct-15	0
BCAT858	RW at NE Corner	20	10-Sep-15	13-Oct-15	35
BCAT859	Construct Substructure (2)	20	15-Oct-15	16-Nov-15	0
BCAT860	Erect Bridge Beams (2)	6	17-Nov-15	24-Nov-15	41
BCAT861	RW at SW section of Carharpin Road	15	17-Nov-15	10-Dec-15	0
BCAT862	Construct Superstructure (2)	30	25-Nov-15	18-Jan-16	41



Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

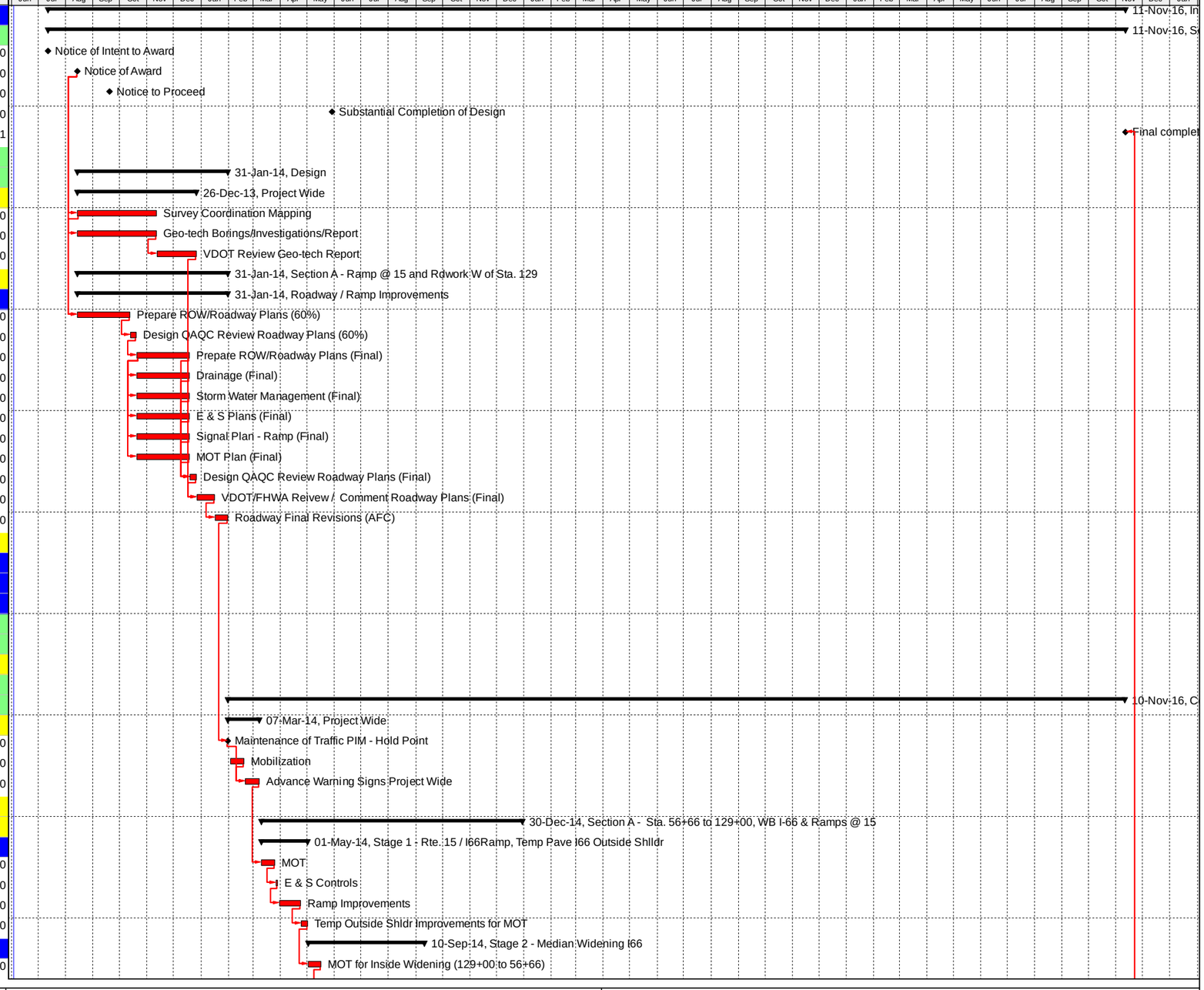
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
BCAT863	Excavate/Earthwork along Catharpin Road	10	11-Dec-15	02-Mar-16	0
BCAT864	Subgrade, Subbase, UD, HMA Paving	10	04-Mar-16	21-Mar-16	0
BCAT865	Roadside Improvements	5	22-Mar-16	29-Mar-16	0
Stage 2 - Median Widening and Complete Shldrs between EB/WB I66					
Eastbound Median Widening					
EBMED1200	MOT for Inside Widening	10	30-Mar-16	14-Apr-16	0
EBMED1201	E & S Controls	10	30-Mar-16	14-Apr-16	0
EBMED1202	Earthwork 300+30 to 358+00	20	15-Apr-16	19-May-16	0
EBMED1203	Earthwork 358+00 to 410+00	20	19-May-16	23-Jun-16	0
EBMED1208	Misc. Storm Drainage	10	19-May-16	06-Jun-16	25
EBMED1204	Subgrade, Subbase and UD 300+30 to 358+00	15	20-May-16	16-Jun-16	19
EBMED1205	Subgrade, Subbase and UD 358+00 to 410+00	15	24-Jun-16	19-Jul-16	0
EBMED1206	HMA Base Paving	5	20-Jul-16	27-Jul-16	5
EBMED1209	Roadside Improvements	15	21-Jul-16	15-Aug-16	0
EBMED1207	HMA IM Paving	5	29-Jul-16	05-Aug-16	5
EBMED1220	Complete Overhead Signing	40	29-Jul-16	07-Oct-16	19
EBMED1210	Remove TCB	3	16-Aug-16	19-Aug-16	0
Westbound Median Widening					
WBMED1000	MOT for Inside Widening	10	05-Apr-16	21-Apr-16	0
WBMED1001	E & S Controls	10	22-Apr-16	09-May-16	0
WBMED1002	Earthwork 211+00 to 158+00	20	10-May-16	14-Jun-16	0
WBMED1003	Earthwork158+00 to 100+30	20	27-May-16	01-Jul-16	0
WBMED1008	Storm Drainage	6	27-May-16	07-Jun-16	29
WBMED1004	Subgrade, Subbase and UD 211+00 to 158+00	15	16-Jun-16	11-Jul-16	10
WBMED1005	Subgrade, Subbase and UD 158+00 to 100+30	15	04-Jul-16	28-Jul-16	0
WBMED1006	HMA Base Paving	5	29-Jul-16	05-Aug-16	0
WBMED1009	Roadside Improvements	10	29-Jul-16	15-Aug-16	0
WBMED1007	HMA IM Paving	5	08-Aug-16	15-Aug-16	0
WBMED1010	Remove TCB	3	16-Aug-16	19-Aug-16	0
Stage 3 - Mill / Overlay WB / EB I66					
1300	Milling, Paving and Striping 245+10 to 58+60	40	22-Aug-16	27-Oct-16	0
1400	Milling, Overlay and Striping 300+30 to 444+02	40	22-Aug-16	27-Oct-16	0
Job Completion					
3001	Job Clean-up and De-Mobe	8	28-Oct-16	10-Nov-16	0
3000	Job Completion	0		10-Nov-16*	0



Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

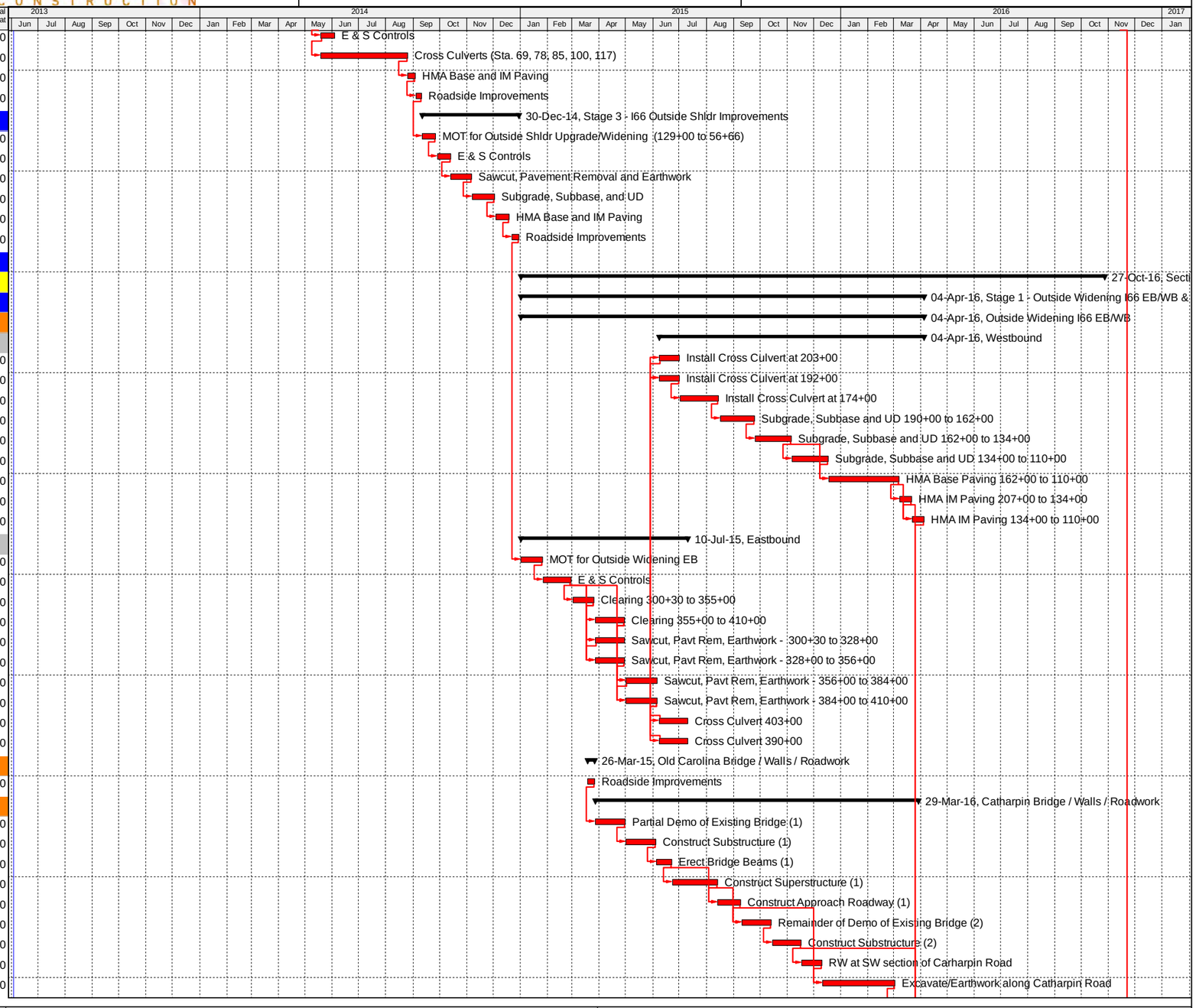
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Interstate 66 Widening - PW County					
Schedule Milestones					
M100	Notice of Intent to Award	0	12-Jul-13*		0
M105	Notice of Award	0	14-Aug-13*		0
M110	Notice to Proceed	0	19-Sep-13*		0
M150	Substantial Completion of Design	0		29-May-14*	0
M140	Final completion of Project	0		11-Nov-16*	-1
Scope Validation Period					
Design					
Project Wide					
DPW100	Survey Coordination Mapping	90	14-Aug-13	11-Nov-13	0
DPW120	Geo-tech Borings/Investigations/Report	90	14-Aug-13	11-Nov-13	0
DPW121	VDOT Review Geo-tech Report	45	12-Nov-13	26-Dec-13	0
Section A - Ramp @ 15 and Rdwork W of Sta. 129					
Roadway / Ramp Improvements					
DAR100	Prepare ROW/Roadway Plans (60%)	60	14-Aug-13	12-Oct-13	0
DAR150	Design QAQC Review Roadway Plans (60%)	7	13-Oct-13	19-Oct-13	0
DAR180	Prepare ROW/Roadway Plans (Final)	60	20-Oct-13	18-Dec-13	0
DAR182	Drainage (Final)	60	20-Oct-13	18-Dec-13	0
DAR184	Storm Water Management (Final)	60	20-Oct-13	18-Dec-13	0
DAR185	E & S Plans (Final)	60	20-Oct-13	18-Dec-13	0
DAR186	Signal Plan - Ramp (Final)	60	20-Oct-13	18-Dec-13	0
DAR181	MOT Plan (Final)	60	20-Oct-13	18-Dec-13	0
DAR190	Design QAQC Review Roadway Plans (Final)	8	19-Dec-13	26-Dec-13	0
DAR195	VDOT/FHWA Reivew / Comment Roadway Plans (	21	27-Dec-13	16-Jan-14	0
DAR220	Roadway Final Revisions (AFC)	15	17-Jan-14	31-Jan-14	0
Section B - Remainder of Project					
Old Carolina Bridge / Walls / Roadwork					
Catharpin Rd Bridge / Walls / Roadwork					
Roadway Improvements - Section B					
Environmental Permitting					
Right-Of-Way Acquistion					
Project ROW Acquistions					
Utility Relocation					
Construction					
Project Wide					
CPW140	Maintenance of Traffic PIM - Hold Point	0		31-Jan-14	0
CPW100	Mobilization	10	03-Feb-14	18-Feb-14	0
CPW110	Advance Warning Signs Project Wide	10	20-Feb-14	07-Mar-14	0
Shop Drawings / Procurement					
Section A - Sta. 56+66 to 129+00, WB I-66 & Ramps @ 15					
Stage 1 - Rte. 15 / I66Ramp, Temp Pave I66 Outside Shlldr					
CA1700	MOT	10	10-Mar-14	25-Mar-14	0
CA1701	E & S Controls	2	27-Mar-14	28-Mar-14	0
CA1702	Ramp Improvements	15	31-Mar-14	23-Apr-14	0
CA1704	Temp Outside Shldr Improvements for MOT	5	24-Apr-14	01-May-14	0
Stage 2 - Median Widening I66					
CA2720	MOT for Inside Widening (129+00 to 56+66)	10	02-May-14	16-May-14	0



Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CA2721	E & S Controls	10	19-May-14	03-Jun-14	0
CA2722	Cross Culverts (Sta. 69, 78, 85, 100, 117)	60	19-May-14	25-Aug-14	0
CA2728	HMA Base and IM Paving	5	26-Aug-14	03-Sep-14	0
CA2729	Roadside Improvements	5	04-Sep-14	10-Sep-14	0
Stage 3 - I66 Outside Shldr Improvements					
CA3740	MOT for Outside Shldr Upgrade/Widening (129+00	10	11-Sep-14	26-Sep-14	0
CA3741	E & S Controls	10	29-Sep-14	13-Oct-14	0
CA3742	Sawcut, Pavement Removal and Earthwork	15	14-Oct-14	06-Nov-14	0
CA3743	Subgrade, Subbase, and UD	15	07-Nov-14	02-Dec-14	0
CA3745	HMA Base and IM Paving	10	04-Dec-14	19-Dec-14	0
CA3746	Roadside Improvements	5	22-Dec-14	30-Dec-14	0
Stage 4 - Mill / Overlay WB Lanes					
Section B - I66 WB Sta.129 / EB Sta. 300+25 to US 29 Interchange					
Stage 1 - Outside Widening I66 EB/WB & Bridge Construction					
Outside Widening I66 EB/WB					
Westbound					
WB424	Install Cross Culvert at 203+00	15	08-Jun-15	01-Jul-15	0
WB427	Install Cross Culvert at 192+00	15	08-Jun-15	01-Jul-15	0
WB434	Install Cross Culvert at 174+00	25	02-Jul-15	14-Aug-15	0
WB472	Subgrade, Subbase and UD 190+00 to 162+00	23	17-Aug-15	24-Sep-15	0
WB475	Subgrade, Subbase and UD 162+00 to 134+00	25	25-Sep-15	05-Nov-15	0
WB478	Subgrade, Subbase and UD 134+00 to 110+00	25	06-Nov-15	17-Dec-15	0
WB484	HMA Base Paving 162+00 to 110+00	8	18-Dec-15	07-Mar-16	0
WB487	HMA IM Paving 207+00 to 134+00	8	08-Mar-16	21-Mar-16	0
WB490	HMA IM Paving 134+00 to 110+00	8	22-Mar-16	04-Apr-16	0
Eastbound					
EB1000	MOT for Outside Widening EB	15	02-Jan-15	26-Jan-15	0
EB1001	E & S Controls	20	27-Jan-15	27-Feb-15	0
EB1002	Clearing 300+30 to 355+00	15	02-Mar-15	25-Mar-15	0
EB1003	Clearing 355+00 to 410+00	20	27-Mar-15	29-Apr-15	0
EB1050	Sawcut, Pavt Rem, Earthwork - 300+30 to 328+00	20	27-Mar-15	29-Apr-15	0
EB1051	Sawcut, Pavt Rem, Earthwork - 328+00 to 356+00	20	27-Mar-15	29-Apr-15	0
EB1052	Sawcut, Pavt Rem, Earthwork - 356+00 to 384+00	20	01-May-15	05-Jun-15	0
EB1053	Sawcut, Pavt Rem, Earthwork - 384+00 to 410+00	20	01-May-15	05-Jun-15	0
EB1040	Cross Culvert 403+00	20	08-Jun-15	10-Jul-15	0
EB1041	Cross Culvert 390+00	20	08-Jun-15	10-Jul-15	0
Old Carolina Bridge / Walls / Roadwork					
BOLD825	Roadside Improvements	5	19-Mar-15	26-Mar-15	0
Catharpin Bridge / Walls / Roadwork					
BCAT851	Partial Demo of Existing Bridge (1)	20	27-Mar-15	30-Apr-15	0
BCAT853	Construct Substructure (1)	20	01-May-15	04-Jun-15	0
BCAT854	Erect Bridge Beams (1)	10	05-Jun-15	22-Jun-15	0
BCAT855	Construct Superstructure (1)	30	23-Jun-15	13-Aug-15	0
BCAT856	Construct Approach Roadway (1)	15	14-Aug-15	08-Sep-15	0
BCAT857	Remainder of Demo of Existing Bridge (2)	20	10-Sep-15	13-Oct-15	0
BCAT859	Construct Substructure (2)	20	15-Oct-15	16-Nov-15	0
BCAT861	RW at SW section of Carharpin Road	15	17-Nov-15	10-Dec-15	0
BCAT863	Excavate/Earthwork along Catharpin Road	10	11-Dec-15	02-Mar-16	0



Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
BCAT864	Subgrade, Subbase, UD, HMA Paving	10	04-Mar-16	21-Mar-16	0
BCAT865	Roadside Improvements	5	22-Mar-16	29-Mar-16	0
Stage 2 - Median Widening and Complete Shldrs between EB/WB I66					
Eastbound Median Widening					
EBMED1200	MOT for Inside Widening	10	30-Mar-16	14-Apr-16	0
EBMED1201	E & S Controls	10	30-Mar-16	14-Apr-16	0
EBMED1202	Earthwork 300+30 to 358+00	20	15-Apr-16	19-May-16	0
EBMED1203	Earthwork 358+00 to 410+00	20	19-May-16	23-Jun-16	0
EBMED1205	Subgrade, Subbase and UD 358+00 to 410+00	15	24-Jun-16	19-Jul-16	0
EBMED1209	Roadside Improvements	15	21-Jul-16	15-Aug-16	0
EBMED1210	Remove TCB	3	16-Aug-16	19-Aug-16	0
Westbound Median Widening					
WBMED1000	MOT for Inside Widening	10	05-Apr-16	21-Apr-16	0
WBMED1001	E & S Controls	10	22-Apr-16	09-May-16	0
WBMED1002	Earthwork 211+00 to 158+00	20	10-May-16	14-Jun-16	0
WBMED1003	Earthwork158+00 to 100+30	20	27-May-16	01-Jul-16	0
WBMED1005	Subgrade, Subbase and UD 158+00 to 100+30	15	04-Jul-16	28-Jul-16	0
WBMED1006	HMA Base Paving	5	29-Jul-16	05-Aug-16	0
WBMED1009	Roadside Improvements	10	29-Jul-16	15-Aug-16	0
WBMED1007	HMA IM Paving	5	08-Aug-16	15-Aug-16	0
WBMED1010	Remove TCB	3	16-Aug-16	19-Aug-16	0
Stage 3 - Mill / Overlay WB / EB I66					
1300	Milling, Paving and Striping 245+10 to 58+60	40	22-Aug-16	27-Oct-16	0
1400	Milling, Overlay and Striping 300+30 to 444+02	40	22-Aug-16	27-Oct-16	0
Job Completion					
3001	Job Clean-up and De-Mobe	8	28-Oct-16	10-Nov-16	0
3000	Job Completion	0		10-Nov-16*	0

Actual Work | Critical Remaining Work | Summary

Remaining Work | Milestone

4.7 DBE

4.7 DISADVANTAGED BUSINESS ENTERPRISES ("DBE")

The Corman Design-Build Team is committed to achieving a 13% DBE participation goal for the entire value of the contract. The following summary of our DBE Subcontractor Participation Plan narrates how we will achieve this goal during design and construction:

Strategies to Meet/Exceed the Goal: Our DB Team encompasses highly regarded DBE members, including Athavale Lystad & Associates, Diversified Property Services, Quinn Consulting Services, Sabra Wang & Associates, and DMY Engineering. Although they were selected based on their premium work and abilities, they will also assist the Corman DB Team in achieving the 13% DBE participation goal through their designated project roles. During the design and/or construction process, these firms will assist with structural design, ROW acquisition, quality assurance, ITS/traffic and electrical/lighting design, and quality control.

Corman always maintains a substantial database of DBE firms qualified to work on our projects. Outreach efforts are continuous as a way to connect with additional qualified DBE firms. Corman routinely meets and exceeds the DBE requirements on projects. So much so, that the Maryland Washington Minority Contractors Associations awarded Corman as "*Prime Contractor of the Year for Minority Business"* in 2011.

Corman will use their standard DBE Subcontracting Plan, modified to meet the requirements and challenges of the 13% participation goal. The following checklist specifies ways we solicit DBE firms during pre-construction:

1. Publish Proposal Notifications/Bid Notices in local and minority newspapers 30 and 10 days prior to bid.
2. Post Bid Notices 30 days and every subsequent Tuesday prior to bid on the Maryland Washington Minority Contractors Association (MWMCA) website. This circulation reaches 10,000 companies, many based in Virginia.
3. Post plans and specifications on the Corman FTP site for subcontractors to view.
4. Based on available scopes of work, identify potential DBE firms from our company DBE Firm Database.
5. Corman's Estimating Assistants will reach out to identify DBE firms, respond to project inquiries, and furnish requested information.
6. Maintain a spreadsheet with DBE subcontractor/supplier contact information and correspondence.
7. Validate qualifications of certified DBE subcontractors/suppliers applicable to specific requirements.

During bidding, we prepare comprehensive lists for DBE participation. In addition to our standardized DBE solicitations, our estimating staff personally reaches out to DBE subcontractors/suppliers and educates them on jobsite opportunities. Face-to-face meetings are often held with DBE firms where we explain the project, accommodate their concerns and needs, and provide opportunities within their scope of work.

When preparing price proposals, we track the status of our DBE participation. This creates an awareness to maintain and/or increase our efforts to successfully meet the goals. As the bid date approaches, design and construction DBE participation goals are evaluated and finalized to ensure they are met.

During design and construction, the project team monitors DBE participation for compliance with the required goal.

APPENDICES

Attachment 4.0.1.1

Technical Proposal Checklist and Contents

ATTACHMENT 4.0.1.1

INTERSTATE 66 WIDENING

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Offerors shall furnish a copy of this Technical Proposal Checklist, with the page references added, with the Technical Proposal.

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Technical Proposal Checklist and Contents	Attachment 4.0.1.1	Section 4.0.1.1	no	Appendix A1 - A3
Acknowledgement of RFP, Revisions, and/or Addenda	Attachment 3.6 (Form C-78-RFP)	Sections 3.6, 4.0.1.1	no	Appendix A4
Letter of Submittal	NA	Sections 4.1		1
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	yes	1
Offeror's Full Legal Name and Address	NA	Section 4.1.1	yes	1
Authorized representative's original signature	NA	Section 4.1.1	yes	1
Declaration of intent	NA	Section 4.1.2	yes	1
120 day declaration	NA	Section 4.1.3	yes	1
Offeror's Point of Contact Information	NA	Section 4.1.4	yes	1
Principal Officer information	NA	Section 4.1.5	yes	1
Substantial and Final Completion Date	NA	Section 4.1.6	yes	1
Proposal Payment Agreement or Waiver of Proposal Payment	Attachment 9.3.1 or 9.3.2	Section 4.1.7	no	Appendix A5 - A8
Certification Regarding Debarment Forms	Attachment 11.8.6(a) Attachment 11.8.6(b)	Section 4.1.8	no	Appendix A9 - A19
Written Statement of Compliance	NA	Section 4.1.9	yes	1

ATTACHMENT 4.0.1.1

INTERSTATE 66 WIDENING

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Offeror's Qualifications	NA	Section 4.2		2
Confirmation that the information provided in the SOQ submittal remains true and accurate or indicates that any requested changes were previously approved by VDOT	NA	Section 4.2.1	yes	2
Organizational chart with any updates since the SOQ submittal clearly identified	NA	Section 4.2.2	yes	2
Revised narrative when organizational chart includes updates since the SOQ submittal	NA	Section 4.2.2	yes	2
Design Concept	NA	Section 4.3		3
Conceptual Roadway Plans and description	NA	Section 4.3.	yes	3
Conceptual Structural Plans and description	NA	Section 4.3	yes	6
Project Approach	NA	Section 4.4		11
Stakeholder Coordination/Public Outreach	NA	Section 4.4.1	yes	11
Utilities/Drainage	NA	Section 4.4.2	yes	13
Geotechnical	NA	Section 4.4.3	yes	18
Construction of Project	NA	Section 4.5		22
Bridge Reconstruction	NA	Section 4.5.1	yes	22

ATTACHMENT 4.0.1.1

INTERSTATE 66 WIDENING

TECHNICAL PROPOSAL CHECKLIST AND CONTENTS

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Included within page limit?	Technical Proposal Page Reference
Sequence of Construction	NA	Section 4.5.2	yes	24
Transportation Management Plan	NA	Section 4.5.3	yes	29
Proposal Schedule	NA	Section 4.6		S1 - S14
Proposal Schedule	NA	Section 4.6	no	S5 - S14
Proposal Schedule Narrative	NA	Section 4.6	no	S1 - S4
Proposal Schedule in electronic format (CD-ROM)	NA	Section 4.6	no	CD-ROM
Disadvantaged Business Enterprises (DBE)	NA	Section 4.7		34
Written statement of percent DBE participation	NA	Section 4.7	yes	34
DBE subcontracting narrative	NA	Section 4.7	yes	34

Attachment 3.6

Acknowledgement of RFP, Revisions and/or Addenda

ATTACHMENT 3.6

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFP NO. C00093577DB49

PROJECT NO.: 0066-076-003, P101, R201, C501, B674, B675

ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA

Acknowledgement shall be made of receipt of the Request for Proposals (RFP) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Letter of Submittal submission date shown herein. Failure to include this acknowledgement in the Letter of Submittal may result in the rejection of your proposal.

By signing this Attachment 3.6, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of June 1, 2012 – RFP
   (Date)
2. Cover letter of April 5, 2013 – RFP Addendum #1
   (Date)
3. Cover letter of May 3, 2012 – RFP Addendum #2
   (Date)

SIGNATURE

6/3/13
DATE

Arthur C. Cox, Vice President
PRINTED NAME AND TITLE

Attachment 9.3.1

Proposal Payment Agreement

ATTACHMENT 9.3.1
PROPOSAL PAYMENT AGREEMENT

THIS PROPOSAL PAYMENT AGREEMENT (this "Agreement") is made and entered into as of this 3rd day of June, 2013, by and between the Virginia Department of Transportation ("VDOT"), and Corman Construction, Inc. ("Offeror").

WITNESSETH:

WHEREAS, Offeror is one of the entities who submitted Statements of Qualifications ("SOQs"), to the Virginia Department of Transportation ("VDOT), pursuant to VDOT's December 20, 2011 Request for Qualifications ("RFQ") and was invited to submit proposals in response to a Request for Proposals ("RFP") for the Interstate 66 Widening, Project No. 0066-076-003, P101, R201, C501, B674, B675 ("Project"), under a design-build contract with VDOT ("Design-Build Contract"); and

WHEREAS, as part of the procurement process for the Project, Offeror has already provided and/or furnished to VDOT, and may continue to provide and/or furnish to VDOT, certain intellectual property, materials, information and ideas, including, but not limited to, such matters that are: (a) conveyed verbally and in writing during proprietary meetings or interviews; and (b) contained in, related to or associated with Offeror's proposal, including, but not limited to, written correspondence, designs, drawings, plans, exhibits, photographs, reports, printed material, tapes, electronic disks, or other graphic and visual aids (collectively "Offeror's Intellectual Property"); and

WHEREAS, VDOT is willing to provide a payment to Offeror, subject to the express conditions stated in this Agreement, to obtain certain rights in Offeror's Intellectual Property, provided that Offeror submits a proposal that VDOT determines to be responsive to the RFP ("Offeror's Proposal"), and either (a) Offeror is not awarded the Design-Build Contract; or (b) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror; and

WHEREAS, Offeror wishes to receive the payment offered by VDOT, in exchange for granting VDOT the rights set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are acknowledged by the parties, the parties agree as follows:

1. **VDOT's Rights in Offeror's Intellectual Property**. Offeror hereby conveys to VDOT all rights, title and interest, free and clear of all liens, claims and encumbrances, in Offeror's Intellectual Property, which includes, without restriction or limitation, the right of VDOT, and anyone contracting with VDOT, to incorporate any ideas or information from Offeror's Intellectual Property into: (a) the Design-Build Contract and the Project; (b) any other contract awarded in reference to the Project; or (c) any subsequent procurement by VDOT. In receiving all rights, title and interest in Offeror's Intellectual Property, VDOT is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Offeror's Intellectual Property, and Offeror agrees that it shall, at the request of VDOT, execute all papers and perform all other acts that may be necessary to ensure that VDOT's rights, title and interest in Offeror's Intellectual Property are protected. The rights conferred herein to VDOT include, without limitation, VDOT's ability to use Offeror's Intellectual Property without the obligation to notify or seek permission from Offeror.

2. **Exclusions from Offeror's Intellectual Property**. Notwithstanding Section 1 above, it is understood and agreed that Offeror's Intellectual Property is not intended to include, and Offeror does not convey any rights to, the Escrow Proposal Documents submitted by Offeror in accordance with the RFP.

3. **Proposal Payment**. VDOT agrees to pay Offeror the lump sum amount of forty thousand and 00/100 Dollars ($40,000.00) ("Proposal Payment"), which payment constitutes payment in full to Offeror for the conveyance of Offeror's Intellectual Property to VDOT in accordance with this Agreement. Payment of the Proposal Payment is conditioned upon: (a) Offeror's Proposal being, in the sole discretion of VDOT, responsive to the RFP; (b) Offeror complying with all other terms and conditions of this Agreement; and (c) either (i) Offeror is not awarded the Design-Build Contract, or (ii) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror.

4. **Payment Due Date**. Subject to the conditions set forth in this Agreement, VDOT will make payment of the Proposal Payment to the Offeror within forty-five (45) days after the later of: (a) notice from VDOT that it has awarded the Design-Build Contract to another Offeror; or (b) notice from VDOT that the procurement for the Project has been cancelled and that there will be no Contract Award.

5. **Effective Date of this Agreement**. The rights and obligations of VDOT and Offeror under this Agreement, including VDOT's ownership rights in Offeror's Intellectual Property, vests upon the date that Offeror's Proposal is submitted to VDOT. Notwithstanding the above, if Offeror's Proposal is determined by VDOT, in its sole discretion, to be nonresponsive to the RFP, then Offeror is deemed to have waived its right to obtain the Proposal Payment, and VDOT shall have no obligations under this Agreement.

6. Indemnity. Subject to the limitation contained below, Offeror shall, at its own expense, indemnify, protect and hold harmless VDOT and its agents, directors, officers, employees, representatives and contractors from all claims, costs, expenses, liabilities, demands, or suits at law or equity ("Claims") of, by or in favor of or awarded to any third party arising in whole or in part from: (a) the negligence or wilful misconduct of Offeror or any of its agents, officers, employees, representatives or subcontractors; or (b) breach of any of Offeror's obligations under this Agreement, including its representation and warranty under Section 8 hereof. This indemnity shall not apply with respect to any Claims caused by or resulting from the sole negligence or wilful misconduct of VDOT, or its agents, directors, officers, employees, representatives or contractors.

7. Assignment. Offeror shall not assign this Agreement, without VDOT's prior written consent, which consent may be given or withheld in VDOT's sole discretion. Any assignment of this Agreement without such consent shall be null and void.

8. Authority to Enter into this Agreement. By executing this Agreement, Offeror specifically represents and warrants that it has the authority to convey to VDOT all rights, title, and interest in Offeror's Intellectual Property, including, but not limited to, those any rights that might have been vested in team members, subcontractors, consultants or anyone else who may have contributed to the development of Offeror's Intellectual Property, free and clear of all liens, claims and encumbrances.

9. Miscellaneous.

a. Offeror and VDOT agree that Offeror, its team members, and their respective employees are not agents of VDOT as a result of this Agreement.

b. Any capitalized term used herein but not otherwise defined shall have the meanings set forth in the RFP.

c. This Agreement, together with the RFP, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.

d. It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the Commonwealth of Virginia, validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

e. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.

IN WITNESS WHEREOF, this Agreement has been executed and delivered as of the day and year first above written.

VIRGINIA DEPARTMENT OF TRANSPORTATION

By: _____

Name: _____

Title: _____

[Insert Offeror's Name] Corman Construction, Inc.

By: _____

Name: Arthur C. Cox, Jr.

Title: Vice President

Attachment 11.8.6 (a)

Certification Regarding Debarment Primary Covered Transactions

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R210, C501, B674, B675

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

6/3/13

Signature Date

Arthur C. Cox, Jr.

Vice President

Title

Corman Construction, Inc.

Name of Firm

Attachment 11.8.6 (b)

Certification Regarding Debarment Lower Tier Covered Transactions

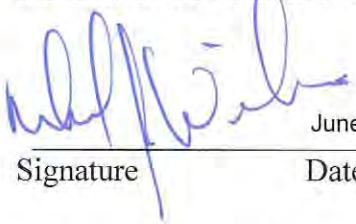
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



June 3, 2013	Principal
Signature Date	Title

A. Morton Thomas and Associates, Inc. (AMT)

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	May 29, 2013 Date	President Title

Athavale, Lystad & Associates, Inc.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Patricia E. Dibble 5/29/13 President

Signature Date Title

Diversified Property Services, Inc.

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

May 29, 2013 — Date

Vice President — Title

Signature

General Excavation, Inc.

Name of Firm

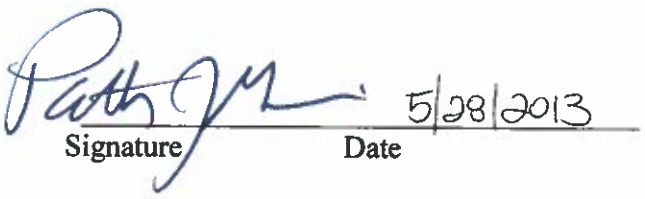
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



5/28/2013
Signature Date

Vice President of Finance
Title

McCormick Taylor, Inc.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	May 28, 2013	President
	Date	Title

Quinn Consulting Services, Inc.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	5/28/2013	President
	Date	Title

Sabra, Wang & Associates, Inc.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Edward G. Drake — May 28, 2013 — Principal

Signature | Date | Title

Schnabel Engineering

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	May 24, 2013 Date	President and CEO Title

DMY Engineering Consultants, LLC
Name of Firm

Karen

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0066-076-003, P101, R201, C501, B674, B675

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	5/24/2013 Date	President Title

Froehling & Robertson, Inc.
Name of Firm

Request for Change in Key & Non-Key Personnel Acceptance Letters

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Gregory A. Whirley
Commissioner

April 12, 2013

Mr. Louis Robbins
Corman Construction, Inc.
12001 Guilford Road
Annapolis Junction, MD 20701

Subject: Interstate 66 Widening
Prince William County, Virginia
Project No. 0066-076-003
Request for Change in Key Personnel

Mr. Robbins:

Thank you for your request to substitute Mr. Chris Clark for Mr. Dennis Brown as the Construction Manager for the referenced project. As you noted in your request Mr. Brown is no longer employed with your firm so you are proposing to replace Mr. Brown with Mr. Clark who is currently employed by your firm. After careful consideration and review of Mr. Clark's resume and work experience provided in your request, VDOT has determined it will grant the substitution of Mr. Clark for Mr. Brown.

Sincerely,

John C. Daoulas

John Daoulas, P.E.
Senior Project Delivery Engineer
Alternate Project Delivery Office

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Gregory A. Whirley
Commissioner

April 15, 2013

Mr. Louis Robbins
Corman Construction, Inc.
12001 Guilford Road
Annapolis Junction, MD 20701

Subject: Interstate 66 Widening
Prince William County, Virginia
Project No. 0066-076-003
Request for Change in Non-Key Personnel

Mr. Robbins:

Thank you for your request to substitute the following personnel for the referenced project.

Name	Position	Reason for Change	Replacement	Firm
Jamie Hansen	Construction QC Manager	Left Firm	Danielle Litardo	Corman
David Covington	Roadway Design and Deputy Design Manager	Left Firm	Keith Benedict, PE	AMT
Darin Miller	E&S Control	Left Firm	Matt Willems, PE	AMT
Glenn Fox	Subsurface and Utility Locating	Left Firm	Art Worthman	AMT
Ryan Thompson	Signing & Striping	Military Assignment	Michael Surasky, PE, PTOE	AMT

As you noted in your request, the reasons for the change were due to Mr. Hansen, Mr. Covington, Mr. Miller and Mr. Fox are no longer employed by their respective firms and Mr. Thompson is currently on Military Assignment. The persons that you have requested to substitute are not considered Key Personnel and the change in personnel will not impact the team structure included in your original SOQ. For these reason VDOT approves the substitution of

Ms. Litardo for Mr. Hansen, Mr. Benedict for Mr. Covington, Mr. Willems for Mr. Miller, Mr. Worthman for Mr. Fox, and Mr. Surasky for Mr. Thompson.

Sincerely,

John Daoulas, P.E.
Senior Project Delivery Engineer
Alternate Project Delivery Office

ORIGINAL
Copy 1 of 10

Request for Proposal – Volume II
Design-Build Interstate 66 Widening
Prince William County, Virginia

A Technical Proposal Submission from

CORMAN CONSTRUCTION

&

AMT
A. Morton Thomas and Associates, Inc.
Consulting Engineers

State Project No.: 0066-076-003, P101, R201, C501, B674, B675
Federal Project No.: NH-5A01(194)
Contract ID Number: C00093577DB49

June 3, 2013

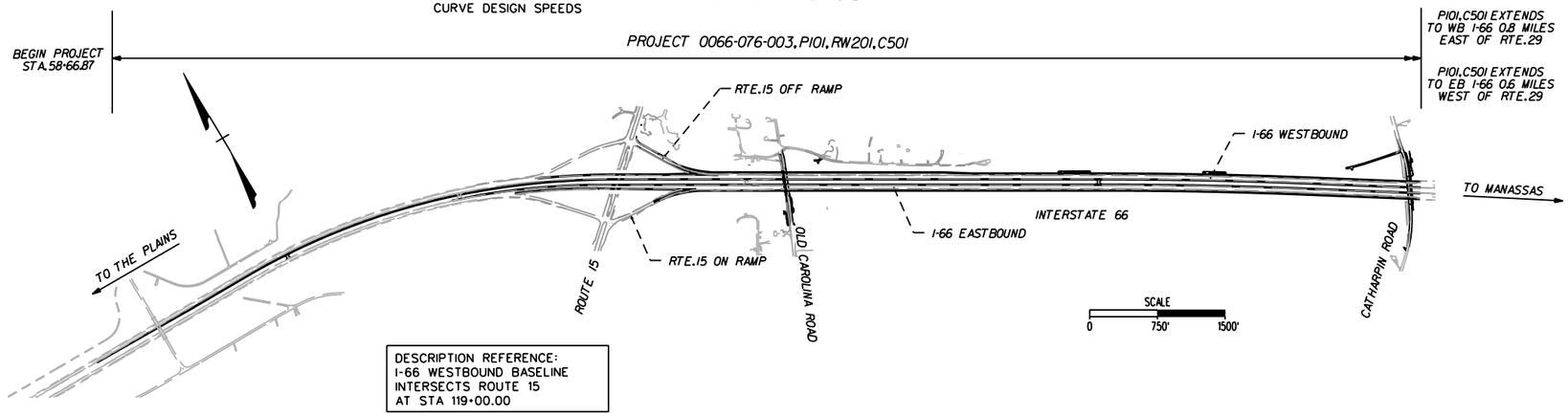
Submitted to: Virginia Department of Transportation
1401 E. Broad Street
Richmond, Virginia 23219

CORMAN DESIGN-BUILD TEAM CONCEPT PLANS

PRINCE WILLIAM COUNTY
I-66 WIDENING
FROM: APPROX. 1.2 MILES WEST OF RTE 15
TO: APPROX. 0.8 MILES EAST OF RTE 29

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA					
	INTERSTATE 66	ENTRANCE RAMP	EXIT RAMP	OLD CAROLINA	CATHARPIN
From: To:	INT. ROUTE 15 CATHARPIN RD. ROUTE 676	US-15 EB I-66	WB I-66 US-15	.03 MiS Cheyenne Way .03 MiS Jordan Lane	.29 MiS Rte. 55 .15 MiS Legend Dr.
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL (GS-5)	INTERCHANGE RAMP (GS-R)	INTERCHANGE RAMP (GS-R)	Local Street (GS-8)	Local Street (GS-8)
DESIGN SPEED	70	40	40	35	45
ADT (2011)	58,000	13,200	12,600	7,000	6,000
ADT (2036)	95,000	20,100	21,200	12,000	13,000
DHV	9,500	2,190	2,160	1,080	1,280
D (%) (design hour)	50	100	100	53	55
T (%) (design hour)	8	1.5	1	1	1
V (MPH)	65	35	35	25	40
TC STD.	TC-5.11	TC-5.11	TC-5.11	TC-5.11	TC-5.11
GEOMETRIC STD.	GS-5	GS-R	GS-R	GS-8	GS-8

▪ SEE PLAN AND PROFILE SHEETS FOR HORIZONTAL AND VERTICAL CURVE DESIGN SPEEDS



DESCRIPTION REFERENCE:
I-66 WESTBOUND BASELINE
INTERSECTS ROUTE 15
AT STA 119+00.00

Prince William County Population 430,289 (2012 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
					FEET	FEET	MILES	FEET	MILES			
0066-076-003	P-101	NH-5A01(194)	PENG	93577			4.5		4.5		PREL. ENGIN.	FROM: APPROX 1.2 Mi. WEST OF RTE 15
												TO: APPROX 0.8 Mi. EAST OF RTE 29
	RW-201	NH-5A01(194)	ROWA	93577			2.9		2.9		RIGHT OF WAY	FROM: APPROX 1.2 Mi. WEST OF RTE 15
												TO: APPROX 0.8 Mi. EAST OF RTE 29
	C-501	NH-5A01(194)	F000	93577			4.5		4.5		CONSTRUCTION	FROM: APPROX 1.2 Mi. WEST OF RTE 15
												TO: APPROX 0.8 Mi. EAST OF RTE 29
	B674	NH-5A01(194)		93577		310	0.06			292-03		
	B675	NH-5A01(194)		93577		310	0.06			292-04		

Project Lengths are based on the Construction Baselines.

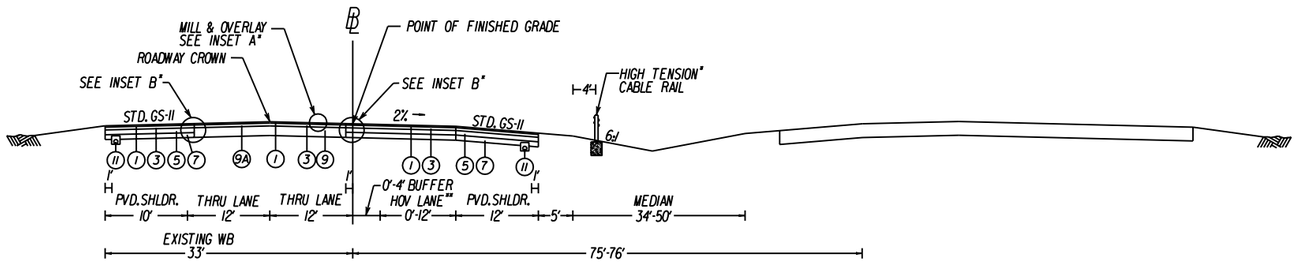
THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2007 ROAD AND BRIDGE SPECIFICATIONS, 2008 ROAD AND BRIDGE STANDARDS, 2005 WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC .PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.11, EXCEPT WHERE OTHERWISE NOTED.

TYPICAL SECTIONS

NOT TO SCALE

RTE.66 WESTBOUND



STA.58+66.87 TO STA.76+75.34

RTE.66 EASTBOUND

* SEE PAGE 40
** TAPERS FROM STA.58+66.87 TO STA.69+86.87

RTE.66 WESTBOUND

STA.76+75.34 TO STA.97+30.40
SUPERELEVATED SECTION

* SEE PAGE 40

RTE.66 EASTBOUND

RTE.66 WESTBOUND

STA.97+30.40 TO STA.109+25.99
SUPERELEVATED SECTION

* SEE PAGE 40
** GORE AREA VARIES FROM STA.107+57.53 TO 110+06.69
*** FULL WIDTH ENTRANCE LANE STA.102+66.81 to STA.109+25.99
EXIT LANE TAPER 0'-12" FROM STA.97+30.40 to STA.102+66.81

CONCEPT PAVEMENT SECTION NOTES

(PAVEMENT DESIGN TO BE CONFIRMED DURING DESIGN PROCESS)

1. SURFACE- 1.5" ASPHALT CONCRETE TYPE SMA-9.5 (PG 76-22) @ 181.5 LBS/SQ YD
2. SURFACE- 1.5" ASPHALT CONCRETE TYPE SM-9.5A @ 181.5 LBS/SQ YD
3. INTERMEDIATE- 3.0" OF ASPHALT CONCRETE TYPE IM-19.0D @ 244 LBS/SQ YD
4. INTERMEDIATE- 2.0" OF ASPHALT CONCRETE TYPE IM-19.0A @ 244 LBS/SQ YD
5. BASE - 10" ASPHALT CONCRETE TYPE BM-25.0A
6. BASE - 5" ASPHALT CONCRETE TYPE BM-25.0A
7. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
7A. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21A PUGMILL MIXED WITH 4% HYDRAULIC CEMENT BY WEIGHT
8. SUBBASE- 6" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
9. EXISTING PAVEMENT
9A. MILL 2" PRIOR TO BUILD-UP / OVERLAY
10. SURFACE- 2" ASPHALT CONCRETE TYPE SM-9.5A @ 240 LBS/SQ YD
11. VDOT ST'D UD-4 UNDERDRAIN REQ'D

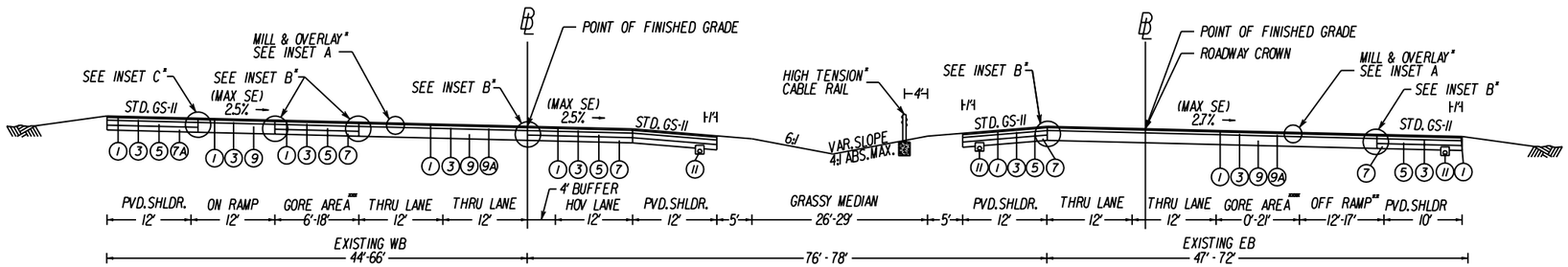
NOTES:

1. FOR LIMITS OF MILL AND OVERLAY, AS WELL AS FULL DEPTH PAVEMENT, REFER TO THE PLAN SHEETS.
2. FOR SUPERELEVATIONS AND TRANSITIONS REFER TO PROFILE SHEETS.
3. SHOULDER CROSS SLOPE SHALL MEET GS-11 STANDARD WITH A MAXIMUM CROSS SLOPE OF 6%.

TYPICAL SECTIONS

NOT TO SCALE

RTE.66 WESTBOUND



STA.109+25.99 TO STA.110+06.69
SUPERELEVATED SECTION

RTE.66 EASTBOUND

STA.300+25 TO STA.307+29.74
SUPERELEVATED SECTION

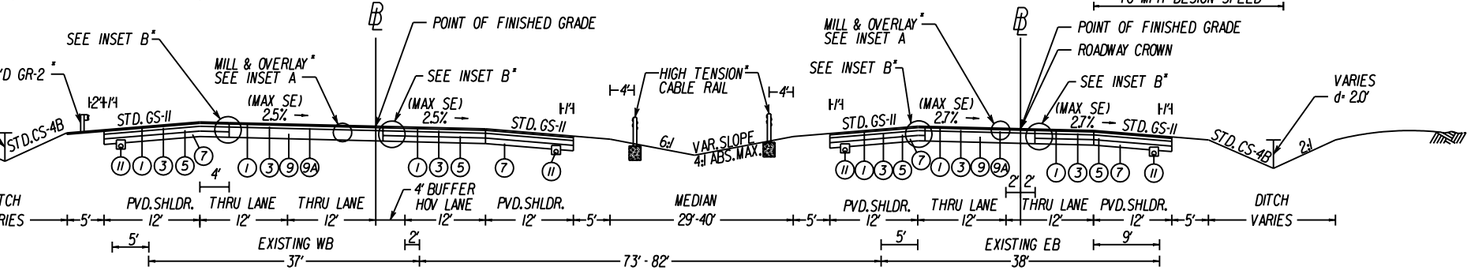
* SEE PAGE 40
** OFF RAMP VARIES FROM STA.300+25.00 TO 307+29.00
*** GORE AREA VARIES FROM STA.107+57.53 TO 110+06.69
**** GORE AREA VARIES FROM STA.304+65.55 TO 307+29.00

CONCEPT PAVEMENT SECTION NOTES

(PAVEMENT DESIGN TO BE CONFIRMED DURING DESIGN PROCESS)

1. SURFACE- 1.5" ASPHALT CONCRETE TYPE SMA-9.5 (PG 76-22) @ 181.5 LBS/SQ YD
2. SURFACE- 1.5" ASPHALT CONCRETE TYPE SM-9.5A @ 181.5 LBS/SQ YD
3. INTERMEDIATE- 3.0" OF ASPHALT CONCRETE TYPE IM-19.0D @ 244 LBS/SQ YD
4. INTERMEDIATE- 2.0" OF ASPHALT CONCRETE TYPE IM-19.0A @ 244 LBS/SQ YD
5. BASE - 10" ASPHALT CONCRETE TYPE BM-25.0A
6. BASE - 5" ASPHALT CONCRETE TYPE BM-25.0A
7. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
7A. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21A PUGMILL MIXED WITH 4% HYDRAULIC CEMENT BY WEIGHT
8. SUBBASE- 6" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
9. EXISTING PAVEMENT
9A. MILL 2" PRIOR TO BUILD-UP / OVERLAY
10. SURFACE- 2" ASPHALT CONCRETE TYPE SM-9.5A @ 240 LBS/SQ YD
11. VDOT ST'D UD-4 UNDERDRAIN REQ'D

RTE.66 WESTBOUND



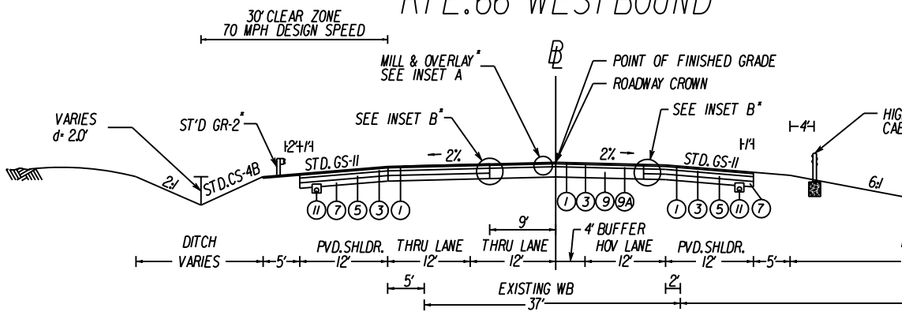
STA.110+06.69 TO STA.118+19.75
SUPERELEVATED SECTION

RTE.66 EASTBOUND

STA.307+29.74 TO STA.311+77.37
SUPERELEVATED SECTION

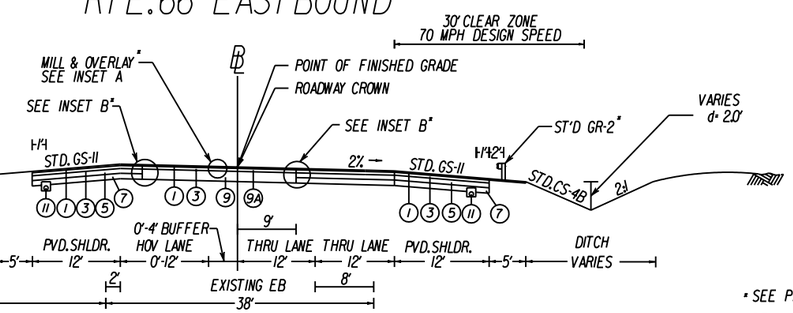
* SEE PAGE 40

RTE.66 WESTBOUND



STA.118+19.75 TO STA.123+62.41

RTE.66 EASTBOUND



STA.311+77.37 TO STA.326+04.31

NOTES:

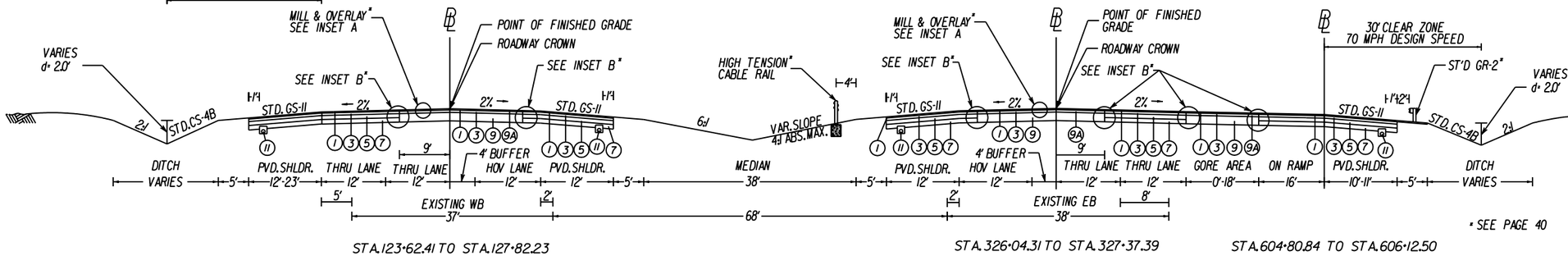
1. FOR LIMITS OF MILL AND OVERLAY, AS WELL AS FULL DEPTH PAVEMENT, REFER TO THE PLAN SHEETS.
2. FOR SUPERELEVATIONS AND TRANSITIONS REFER TO PROFILE SHEETS.
3. SHOULDER CROSS SLOPE SHALL MEET GS-II STANDARD WITH A MAXIMUM CROSS SLOPE OF 6%.

* SEE PAGE 40
** BEGIN 2% NORMAL CROWN AT STA.120+64.75 AND STA.319+01.06

TYPICAL SECTIONS

NOT TO SCALE

RTE.66 WESTBOUND



STA.123+62.41 TO STA.127+82.23

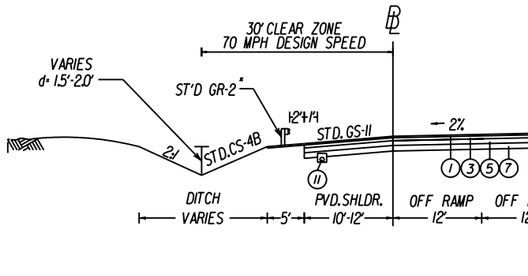
RTE.66 EASTBOUND ON RAMP

STA.326+04.31 TO STA.327+37.39

STA.604+80.84 TO STA.606+12.50

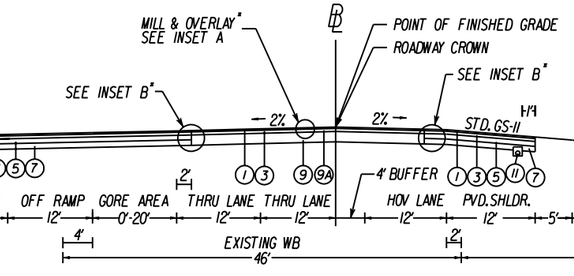
* SEE PAGE 40

OFF RAMP



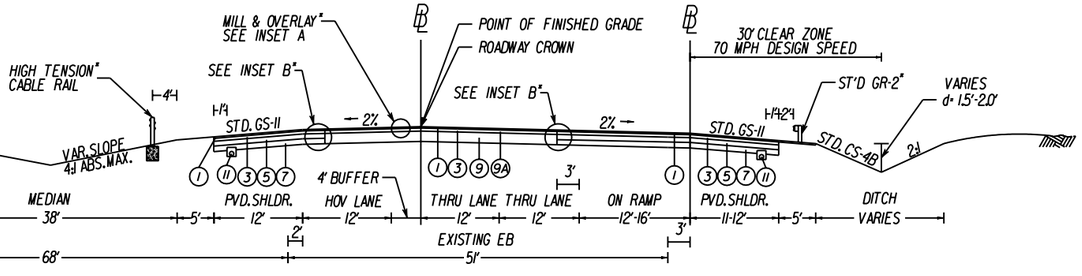
STA.500+00.00 TO STA.502+16.87

RTE.66 WESTBOUND



STA.127+82.23 TO STA.130+02.96

RTE.66 EASTBOUND ON RAMP



STA.327+37.39 TO STA.328+35.94

STA.606+12.50 TO STA.607+09.86

* SEE PAGE 40

CONCEPT PAVEMENT SECTION NOTES

(FINAL PAVEMENT DESIGN TO BE COMPLETED DURING DESIGN PROCESS)

(1) SURFACE- 1.5" ASPHALT CONCRETE TYPE SMA-9.5 (PG 76-22) @ 181.5 LBS/SQ YD

(2) SURFACE- 1.5" ASPHALT CONCRETE TYPE SM-9.5A @ 181.5 LBS/SQ YD

(3) INTERMEDIATE- 3.0" OF ASPHALT CONCRETE TYPE IM-19.0D @ 244 LBS/SQ YD

(4) INTERMEDIATE- 2.0" OF ASPHALT CONCRETE TYPE IM-19.0A @ 244 LBS/SQ YD

(5) BASE - 10" ASPHALT CONCRETE TYPE BM-25.0A

(6) BASE - 5" ASPHALT CONCRETE TYPE BM-25.0A

(7) SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21B

(7A) SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21A PUGMILL MIXED WITH 4% HYDRAULIC CEMENT BY WEIGHT

(8) SUBBASE- 6" AGGREGATE BASE MATERIAL TYPE I SIZE 21B

(9) EXISTING PAVEMENT

(9A) MILL 2" PRIOR TO BUILD-UP / OVERLAY

(10) SURFACE- 2" ASPHALT CONCRETE TYPE SM-9.5A @ 240 LBS/SQ YD

(11) VDOT ST'D UD-4 UNDERDRAIN REQ'D

NOTES:

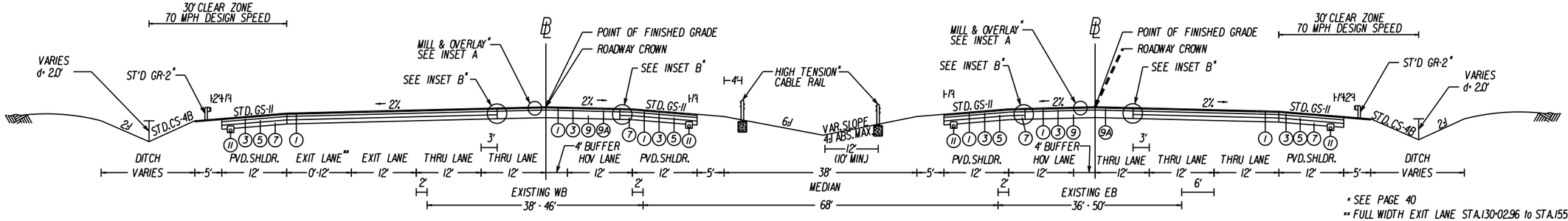
1. FOR LIMITS OF MILL AND OVERLAY, AS WELL AS FULL DEPTH PAVEMENT, REFER TO THE PLAN SHEETS.

2. SHOULDER CROSS SLOPE SHALL MEET GS-11 STANDARD WITH A MAXIMUM CROSS SLOPE OF 6%.

TYPICAL SECTIONS

NOT TO SCALE

RTE.66 WESTBOUND



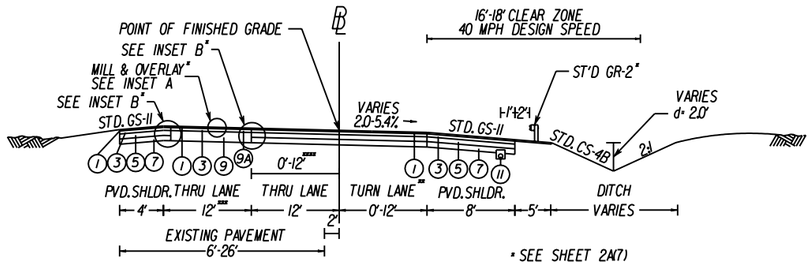
STA.130+02.96 TO STA.207+80.56

RTE.66 EASTBOUND

STA.328+35.94 TO STA.407+55.32

* SEE PAGE 40
** FULL WIDTH EXIT LANE STA.130+02.96 to STA.155+02.96
EXIT LANE TAPER 0'-12' FROM STA.155+02.96 to STA.158+03.07

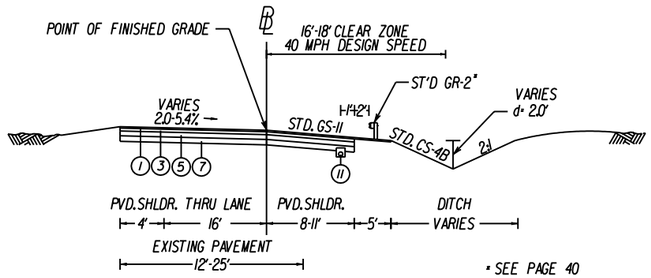
RTE.66 WESTBOUND OFF-RAMP



* SEE SHEET 2A(7)
** TAPERS FROM STA 504+84.65 to STA 506+94.86
*** FULL DEPTH PAVEMENT from STA 502+16.87 to STA 505+10.66
**** VARIES 0' to 12' from STA 505+10.66 to 509+66.44

STA.502+16.87 TO STA.509+66.92

RTE.66 EASTBOUND ON-RAMP



* SEE PAGE 40

STA.601+18.69 TO STA.604+80.84

CONCEPT PAVEMENT SECTION NOTES

(PAVEMENT DESIGN TO BE CONFIRMED DURING DESIGN PROCESS)

1. SURFACE- 1.5" ASPHALT CONCRETE TYPE SMA-9.5 (PG 76-22) @ 181.5 LBS/SQ YD
2. SURFACE- 1.5" ASPHALT CONCRETE TYPE SM-9.5A @ 181.5 LBS/SQ YD
3. INTERMEDIATE- 3.0" OF ASPHALT CONCRETE TYPE IM-19.0D @ 244 LBS/SQ YD
4. INTERMEDIATE- 2.0" OF ASPHALT CONCRETE TYPE IM-19.0A @ 244 LBS/SQ YD
5. BASE - 10" ASPHALT CONCRETE TYPE BM-25.0A
6. BASE - 5" ASPHALT CONCRETE TYPE BM-25.0A
7. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
7A. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21A PUGMILL MIXED WITH 4% HYDRAULIC CEMENT BY WEIGHT
8. SUBBASE- 6" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
9. EXISTING PAVEMENT
9A. MILL 2" PRIOR TO BUILD-UP / OVERLAY
10. SURFACE- 2" ASPHALT CONCRETE TYPE SM-9.5A @ 240 LBS/SQ YD
11. VDOT ST'D UD-4 UNDERDRAIN REQ'D

NOTES:

1. FOR LIMITS OF MILL AND OVERLAY, AS WELL AS FULL DEPTH PAVEMENT, REFER TO THE PLAN SHEETS.

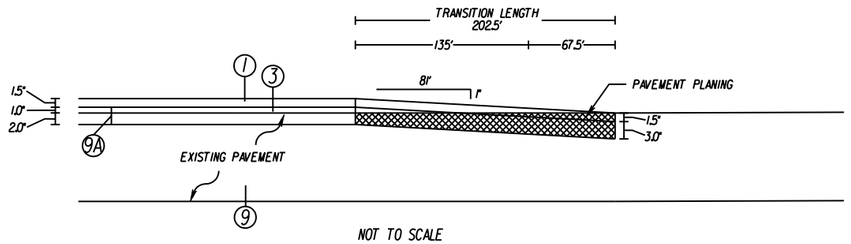
2. FOR SUPERELEVATIONS AND TRANSITIONS REFER TO PROFILE SHEETS.

3. SHOULDER CROSS SLOPE SHALL MEET GS-11 STANDARD WITH A MAXIMUM CROSS SLOPE OF 6%.

TYPICAL SECTIONS

NOT TO SCALE

PAVEMENT TIE-IN



PAVEMENT TIE-IN NOTES:

1. PAVEMENT TIE-IN SHALL BE USED TO PROVIDE A SMOOTH TRANSITION BETWEEN PAVEMENT OVERLAY AND EXISTING PAVEMENT.

2. PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315.05(C) OF THE SPECIFICATION EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE DESIGNED USING A 10-FOOT STRAIGHT EDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315.07(A) OF THE SPECIFICATIONS. THE VARIATION FROM THE TESTING EDGE OF THE STRAIGHT EDGE BETWEEN ANY TWO CONTACT POINTS WITH THE PAVEMENT SURFACE SHALL NOT EXCEED 1/4".

NOTES:

1. AT THE FOLLOWING LOCATIONS HIGH TENSION CABLE RAIL IS ANTICIPATED:

I-66 WESTBOUND
INSIDE SHOULDER - 64+00.00 TO 67+25.00; STA 117+24.20 TO STA 122+62.91; STA 136+74.25 TO STA 140+72.41; STA 199+50.00 TO STA 202+25.00; STA 205+52.14 TO STA 207+80.56

I-66 EASTBOUND
INSIDE SHOULDER - STA 300+25.00 TO STA 328+00.00; STA 333+50.00 TO STA 337+75.00; STA 399+00.00 TO STA 407+55.32

2. AT THE FOLLOWING LOCATIONS GR-2 IS ANTICIPATED:

OLD CAROLINA ROAD - STA 702+22.83 TO STA 704+00.00; STA 707+10.00 TO STA 708+19.97

CATHARPIN ROAD - STA 801+72.65 TO STA 802+60.75; STA 805+70.75 TO STA 808+19.25

I-66 WESTBOUND
OUTSIDE SHOULDER - STA 115+50.00 TO STA 122+50.00; STA 137+50.00 TO STA 152+50.00; STA 160+00.00 TO 167+89.55; STA 174+75.00 TO STA 183+90.18; STA 185+45.10 TO STA 205+50.00;

I-66 EASTBOUND
OUTSIDE SHOULDER - STA 314+00.00 TO STA 320+00.00; STA 328+35.94 TO STA 329+50.00; STA 333+75 TO STA 352+50.00; STA 358+00.00 TO STA 374+00.00; STA 385+00.00 TO STA 403+50.00

EXIT RAMP
OUTSIDE SHOULDER - STA 500+00.00 TO STA 506+07.28

ENTRANCE RAMP
OUTSIDE SHOULDER - STA 603+75.00 TO STA 607+09.86

5. AT THE FOLLOWING LOCATIONS MB-7F IS ANTICIPATED:

I-66 WESTBOUND OUTSIDE SHOULDER - STA 136+35.00 TO STA 138+00.00; STA 170+42.10 TO STA 174+75.00; STA 205+25.00 TO STA 206+90.00

I-66 EASTBOUND OUTSIDE SHOULDER - STA 336+50.00 TO STA 338+00.00; STA 405+25.00 TO STA 406+90.00

6. AT THE FOLLOWING LOCATIONS ORNAMENTAL WIRE FENCE IS ANTICIPATED:

OLD CAROLINA ROAD - STA 702+35.00 TO STA 704+00.00; STA 707+10.00 TO STA 707+75.00

CATHARPIN ROAD - STA 801+85.75 TO STA 802+60.75; STA 805+70.75 TO STA 807+10.75

7. AT THE FOLLOWING LOCATIONS RETAINING WALL IS ANTICIPATED:

OLD CAROLINA ROAD

RIGHT SHOULDER - STA 702+10 TO STA 704+00

LEFT SHOULDER - STA 700+80 TO STA 702+55

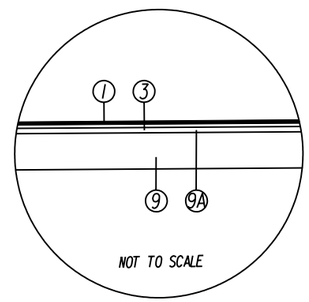
CATHARPIN ROAD

RIGHT SHOULDER - BRIDGE ABUTMENT TO STA 811+90

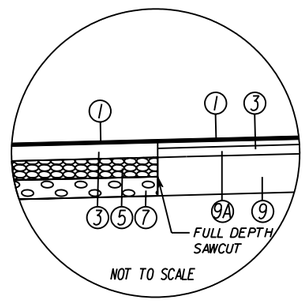
8. FOR LOCATIONS OF MILL AND OVERLAY AND FULL DEPTH PAVEMENT, SEE PLAN SHEETS.

9. FOR APPROXIMATE LOCATIONS AND WIDTHS OF TRAVEL LANES, SHOULDERS AND LANE TAPERS, SEE PLAN SHEETS.

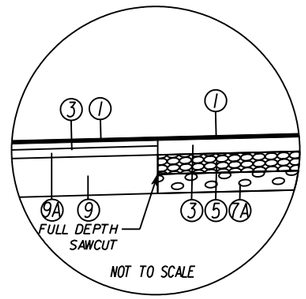
INSET A



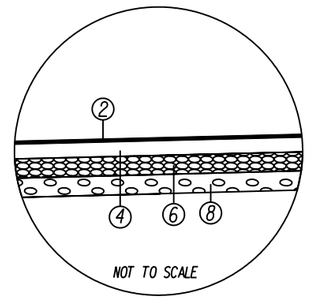
INSET B



INSET C



INSET D



CONCEPT PAVEMENT SECTION NOTES

(PAVEMENT DESIGN TO BE CONFIRMED DURING DESIGN PROCESS)

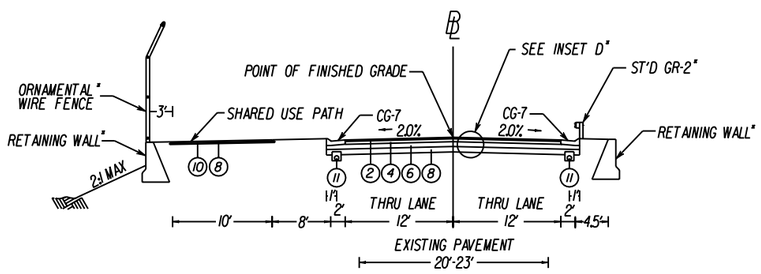
1. SURFACE- 1.5" ASPHALT CONCRETE TYPE SMA-9.5 (PG 76-22) @ 181.5 LBS/SQ YD
2. SURFACE- 1.5" ASPHALT CONCRETE TYPE SM-9.5A @ 181.5 LBS/SQ YD
3. INTERMEDIATE- 3.0" OF ASPHALT CONCRETE TYPE IM-19.0D @ 244 LBS/SQ YD
4. INTERMEDIATE- 2.0" OF ASPHALT CONCRETE TYPE IM-19.0A @ 244 LBS/SQ YD
5. BASE - 10" ASPHALT CONCRETE TYPE BM-25.0A
6. BASE - 5" ASPHALT CONCRETE TYPE BM-25.0A
7. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
7A. SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21A PUGMILL MIXED WITH 4% HYDRAULIC CEMENT BY WEIGHT
8. SUBBASE- 6" AGGREGATE BASE MATERIAL TYPE I SIZE 21B
9. EXISTING PAVEMENT
9A. MILL 2" PRIOR TO BUILD-UP / OVERLAY
10. SURFACE- 2" ASPHALT CONCRETE TYPE SM-9.5A @ 240 LBS/SQ YD
11. VDOT ST'D UD-4 UNDERDRAIN REQ'D

SCALE
0 50' 100'

TYPICAL SECTIONS

NOT TO SCALE

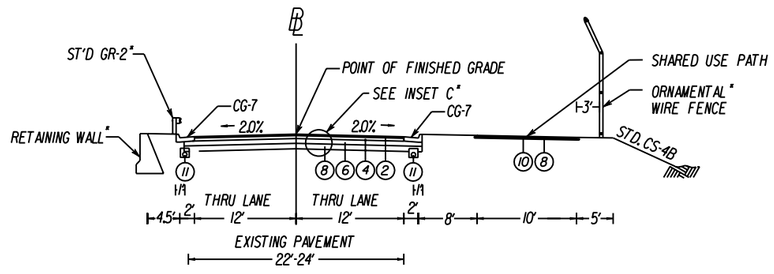
OLD CAROLINA ROAD



* SEE PAGE 40

STA.702+35.00 TO STA.704+00.00

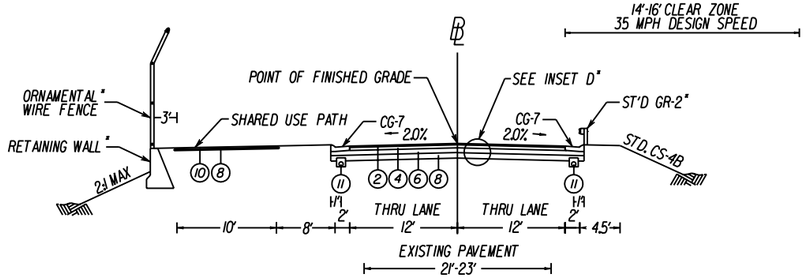
CATHARPIN ROAD



* SEE PAGE 40

STA.801+85.75 TO STA.802+60.75

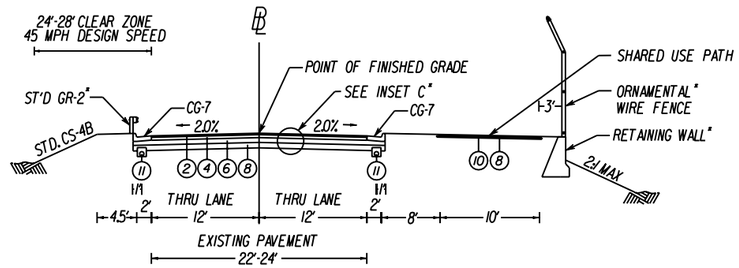
OLD CAROLINA ROAD



* SEE PAGE 40

STA.707+10.00 TO STA.708+10.00

CATHARPIN ROAD



* SEE PAGE 40

STA.805+70.75 TO STA.807+10.75

NOTES:

1. FOR LIMITS OF MILL AND OVERLAY, AS WELL AS FULL DEPTH PAVEMENT, REFER TO THE PLAN SHEETS.

2. FOR STA.704+00.00 TO STA.707+10.00 REFER TO BRIDGE DESIGN.

NOTES:

1. FOR LIMITS OF MILL AND OVERLAY, AS WELL AS FULL DEPTH PAVEMENT, REFER TO THE PLAN SHEETS.

2. FOR STA.805+70.75 TO STA.807+10.75 REFER TO BRIDGE DESIGN

PAVEMENT SECTION NOTES

(1) SURFACE- 1.5" ASPHALT CONCRETE TYPE SMA-9.5 (PG 76-22) @ 181.5 LBS/SQ YD

(2) SURFACE- 1.5" ASPHALT CONCRETE TYPE SM-9.5A @ 181.5 LBS/SQ YD

(3) INTERMEDIATE- 3.0" OF ASPHALT CONCRETE TYPE IM-19.0D @ 244 LBS/SQ YD

(4) INTERMEDIATE- 2.0" OF ASPHALT CONCRETE TYPE IM-19.0A @ 244 LBS/SQ YD

(5) BASE - 10" ASPHALT CONCRETE TYPE BM-25.0A

(6) BASE - 5" ASPHALT CONCRETE TYPE BM-25.0A

(7) SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21B

(7A) SUBBASE- 10" AGGREGATE BASE MATERIAL TYPE I SIZE 21A PUGMILL MIXED WITH 4% HYDRAULIC CEMENT BY WEIGHT

(8) SUBBASE- 6" AGGREGATE BASE MATERIAL TYPE I SIZE 21B

(9) EXISTING PAVEMENT

(9A) MILL 2" PRIOR TO BUILD-UP / OVERLAY

(10) SURFACE- 2" ASPHALT CONCRETE TYPE SM-9.5A @ 240 LBS/SQ YD

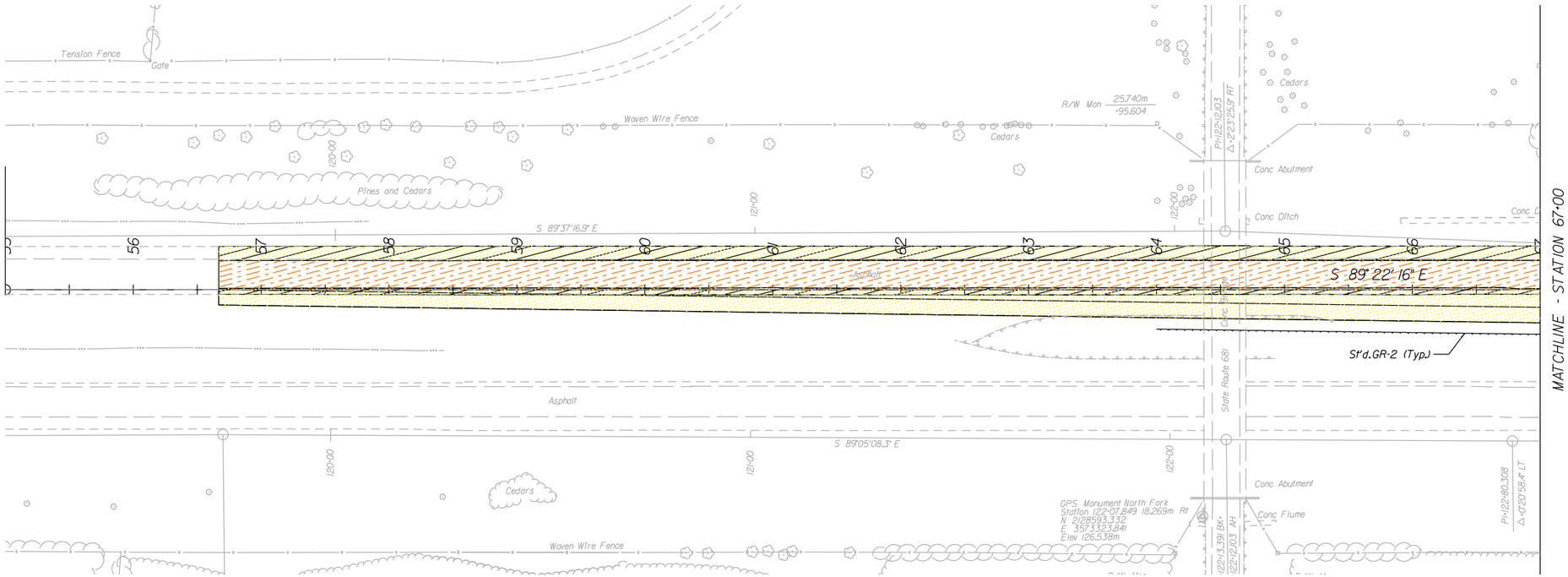
(11) VDOT ST'D UD-4 UNDERDRAIN REQ'D

CONCEPT PLAN & PROFILE

CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Grading Limits will be determined once field surveys are completed.



LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C _ _ Denotes Construction Limits In Cuts
- F _ _ Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features

NOTE: Profile in this region will be set to match existing once field surveys are completed.

SCALE
0 50' 100'

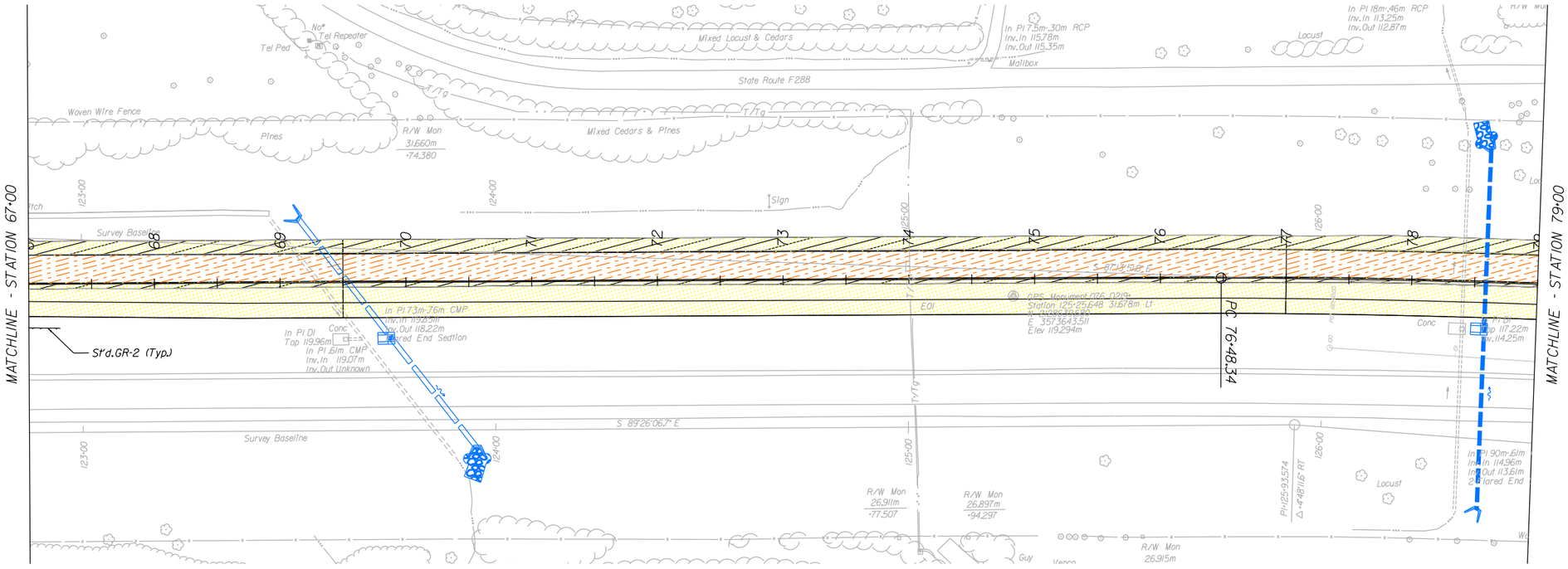
CONCEPT PLAN & PROFILE

Grading Limits will be determined once field surveys are completed.

Curve WB-1
PI = 89+76.89
DELTA = 19° 30' 15.28" (RT)
D = 0° 44' 28"
T = 1,328.55'
L = 2,631.38'
R = 7,730.00'
PC = 76+48.34
PCC = 102+79.72

CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



NOTE: Profile in this region will be set to match existing once field surveys are completed.

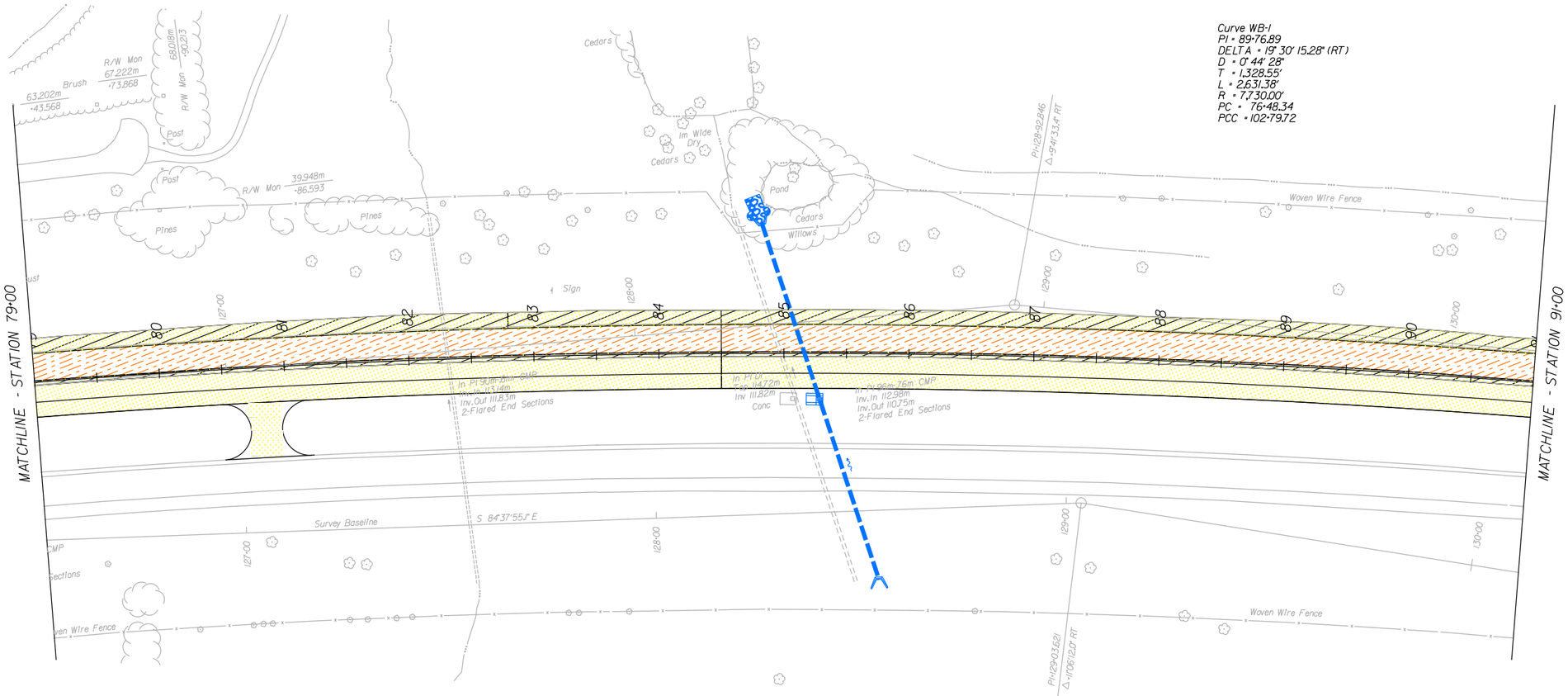
LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C _ _ Denotes Construction Limits In Cuts
- F _ _ Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features

SCALE
0 50' 100'

CONCEPT PLAN & PROFILE

Grading Limits will be determined once field surveys are completed.



CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LEGEND

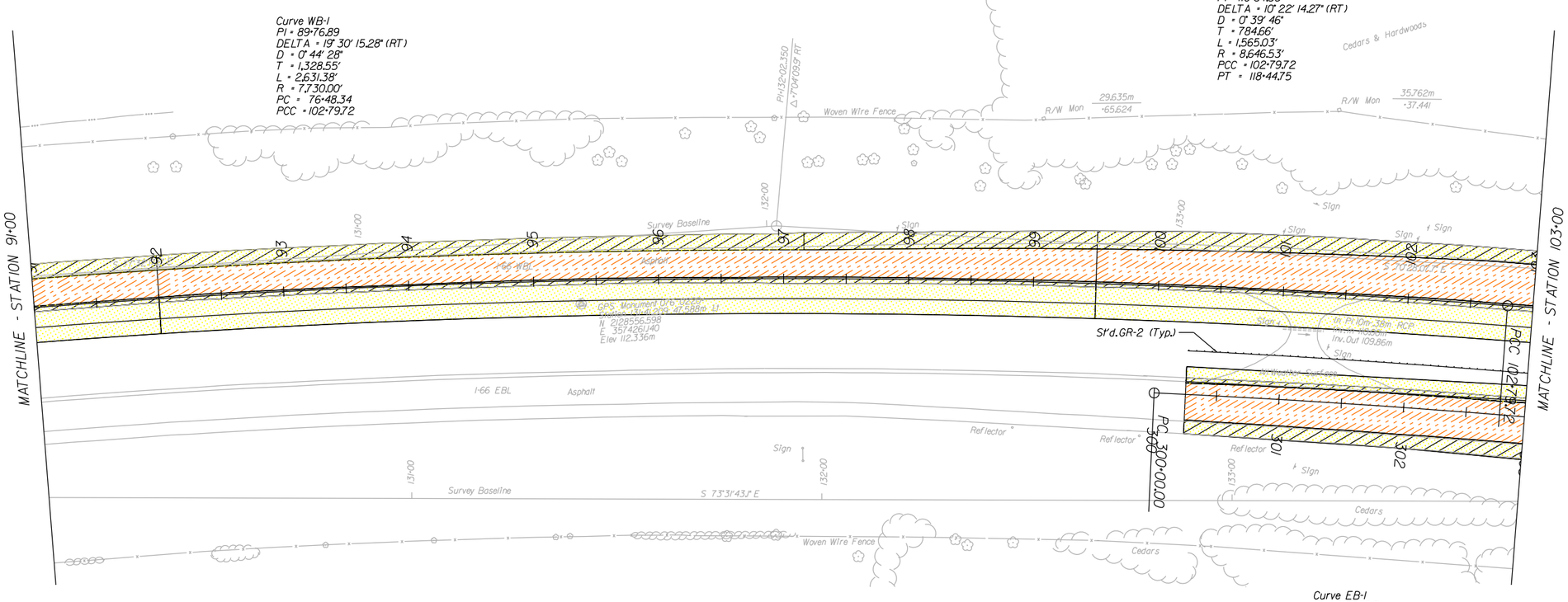
- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features

NOTE: Profile in this region will be set to match existing once field surveys are completed.

SCALE
0 50' 100'

CONCEPT PLAN & PROFILE

Grading Limits will be determined once field surveys are completed.



NOTE: Profile in this region will be set to match existing once field surveys are completed.

CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

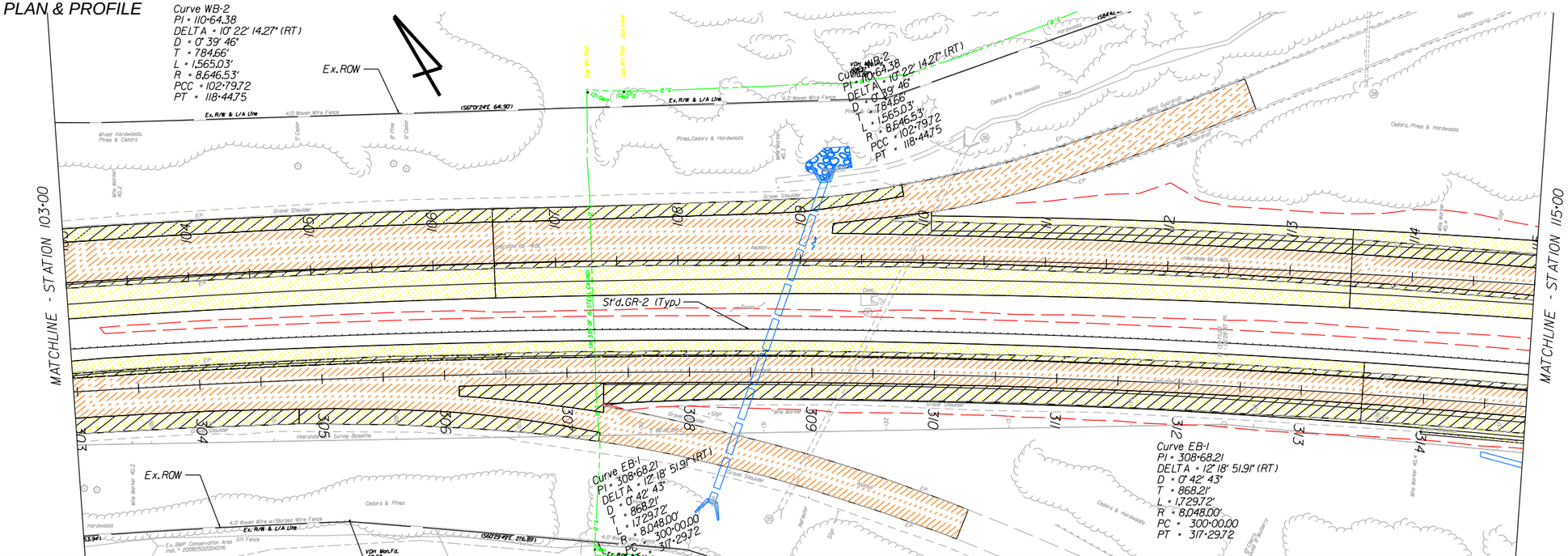
Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C _ _ Denotes Construction Limits in Cuts
- F _ _ Denotes Construction Limits in Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features

SCALE 0 50' 100'

CONCEPT PLAN & PROFILE



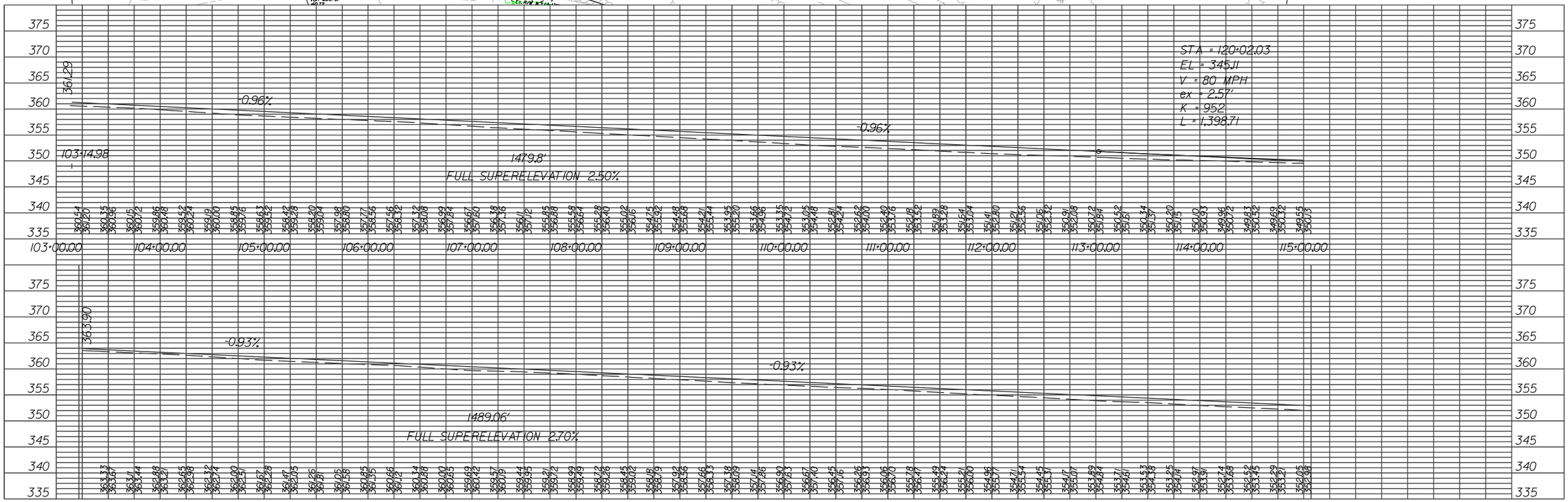
CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey Information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey Information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

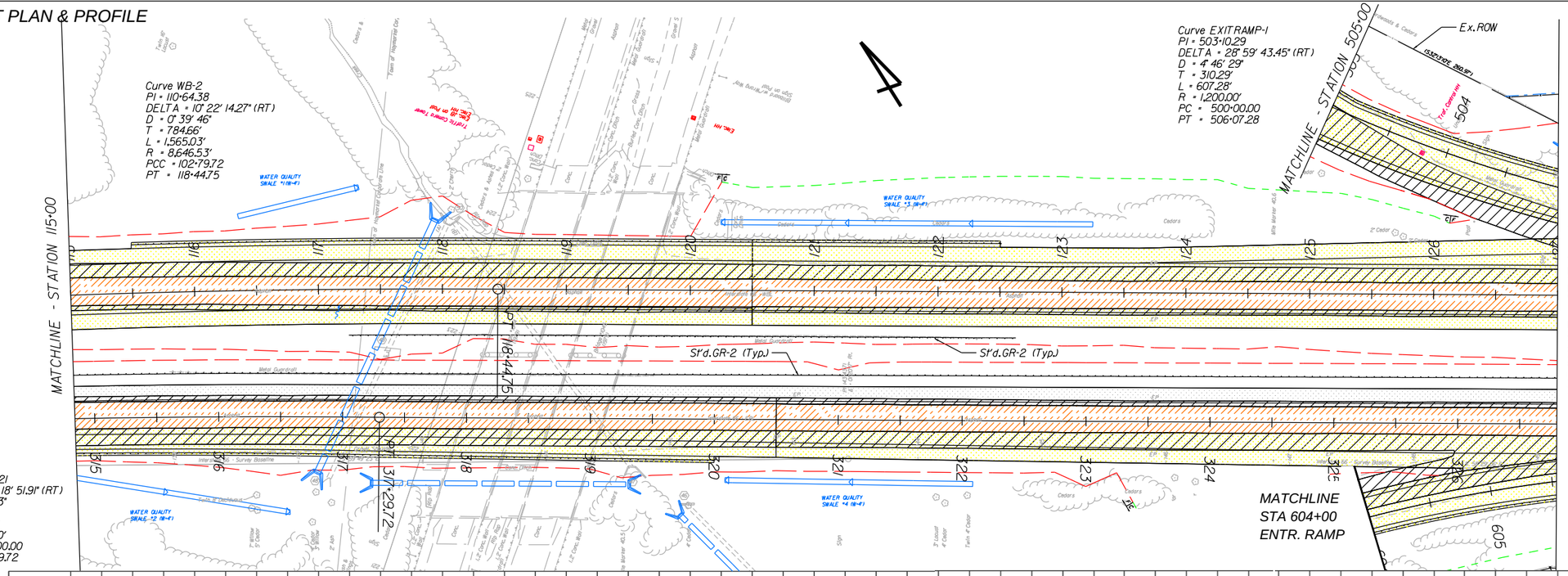
LEGEND

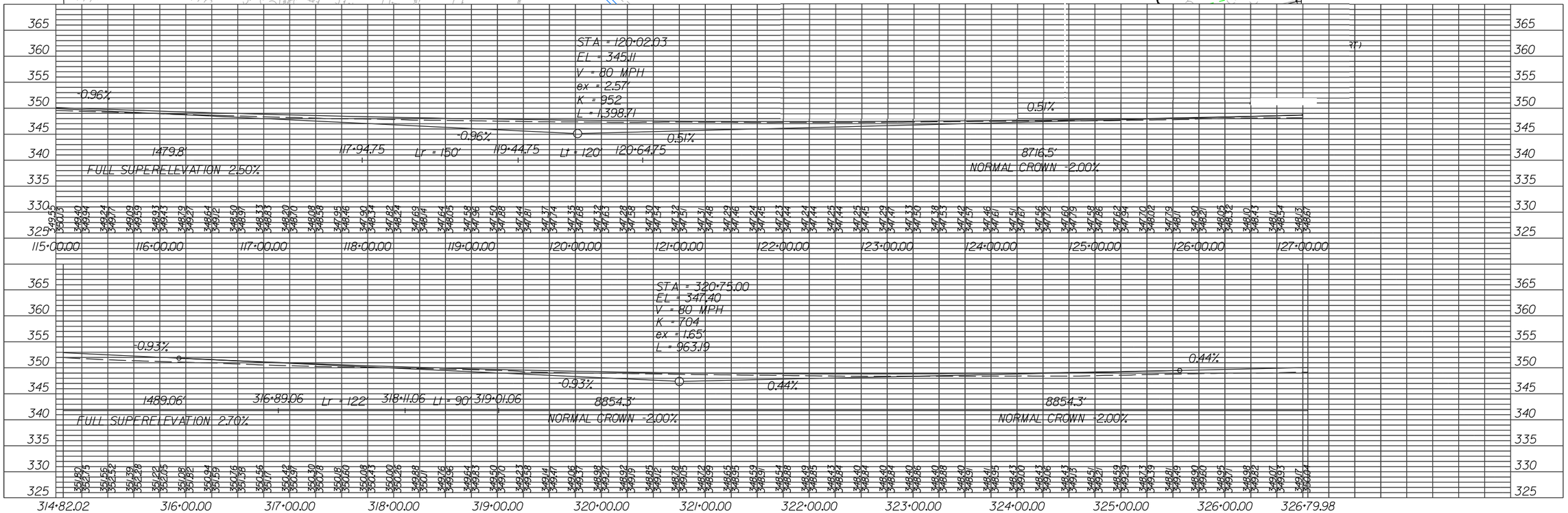
- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C — Denotes Construction Limits in Cuts
- F — Denotes Construction Limits in Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence



SCALE
0 50' 100'

CONCEPT PLAN & PROFILE





CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

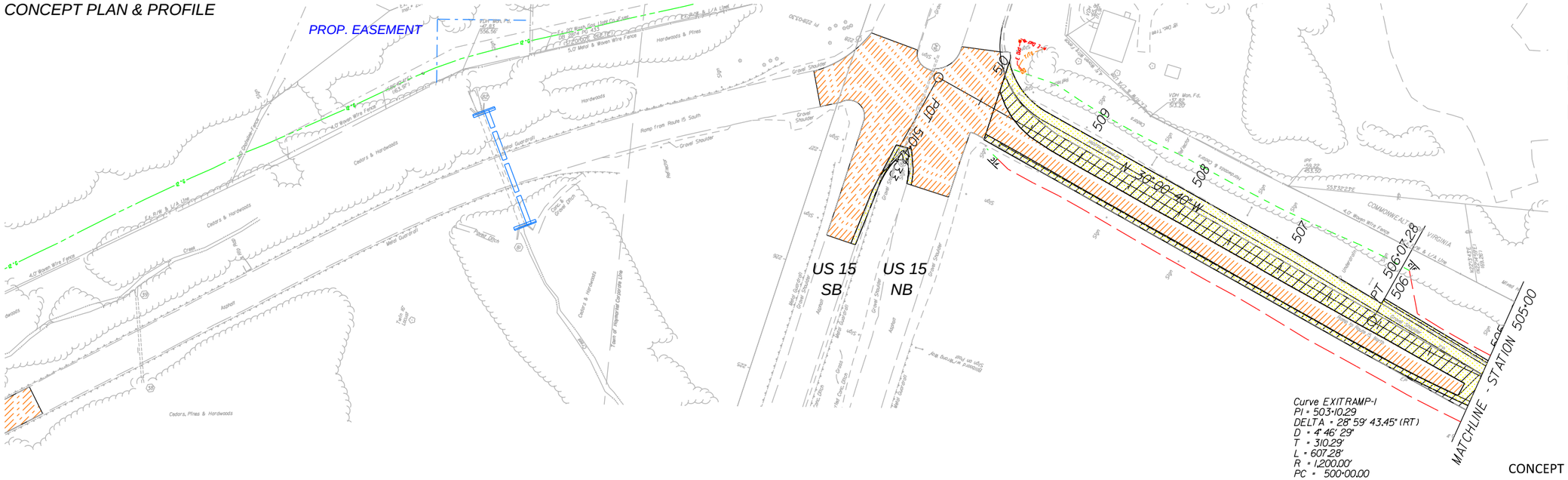
Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C — Denotes Construction Limits in Cuts
- F — Denotes Construction Limits in Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

SCALE 0 50' 100'

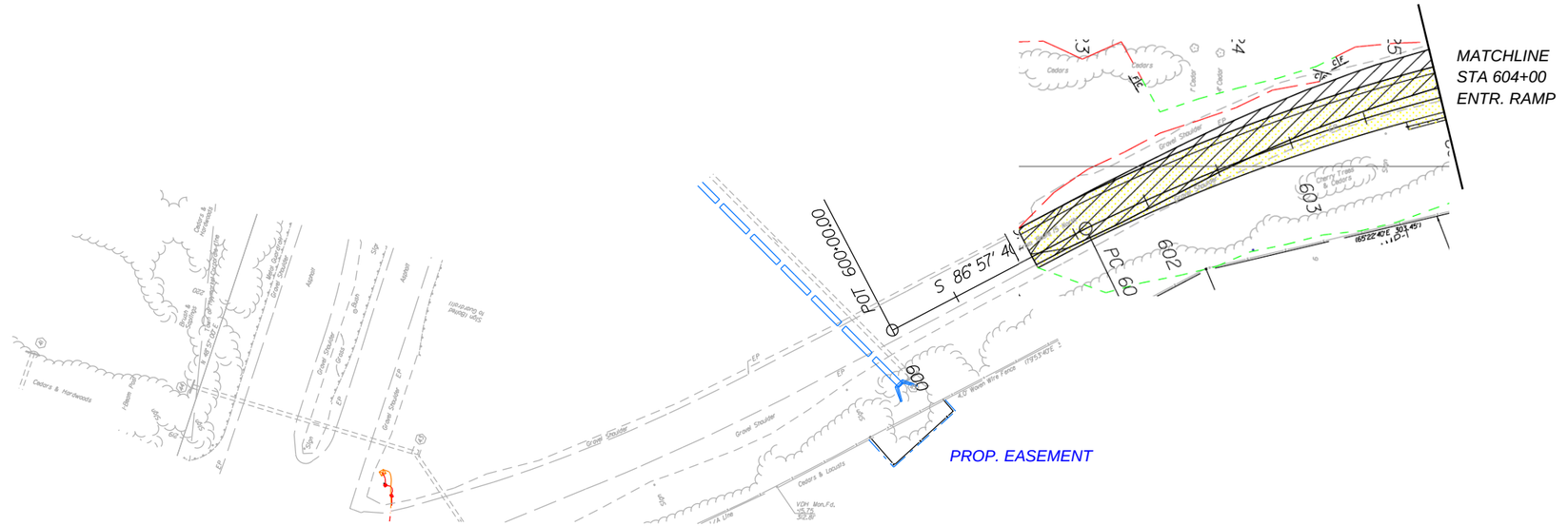
CONCEPT PLAN & PROFILE



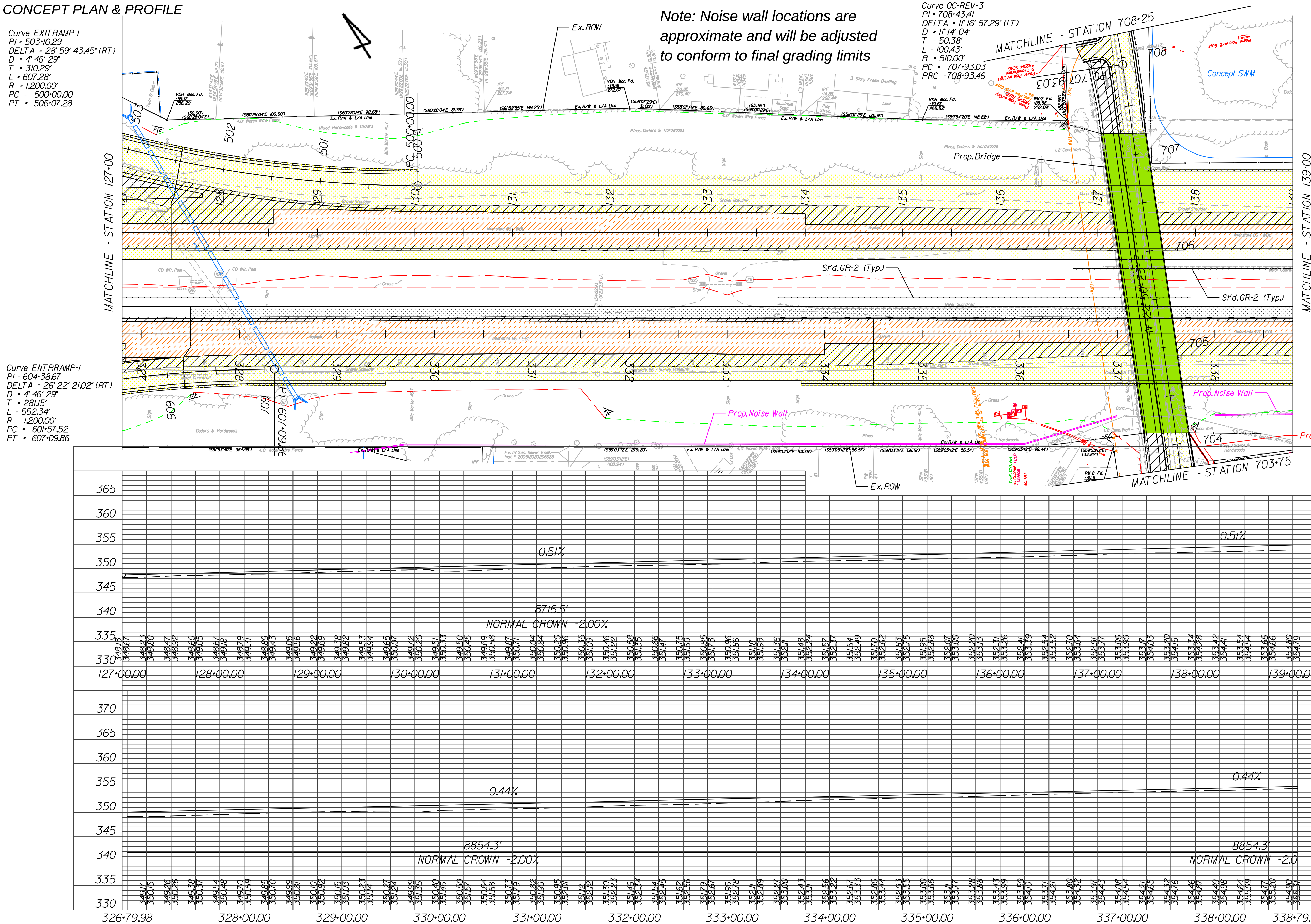
CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey Information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.



CONCEPT PLAN & PROFILE



CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

- Denotes Proposed Bridge
- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C Denotes Construction Limits in Cuts
- F Denotes Construction Limits in Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

SCALE 0 50' 100'

CORMAN CONSTRUCTION

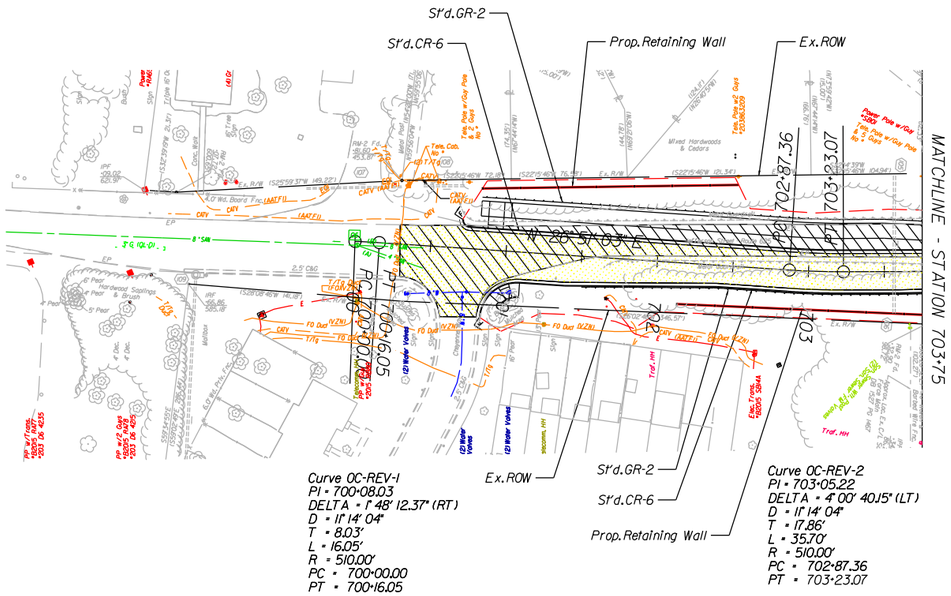
CONCEPT PLAN & PROFILE

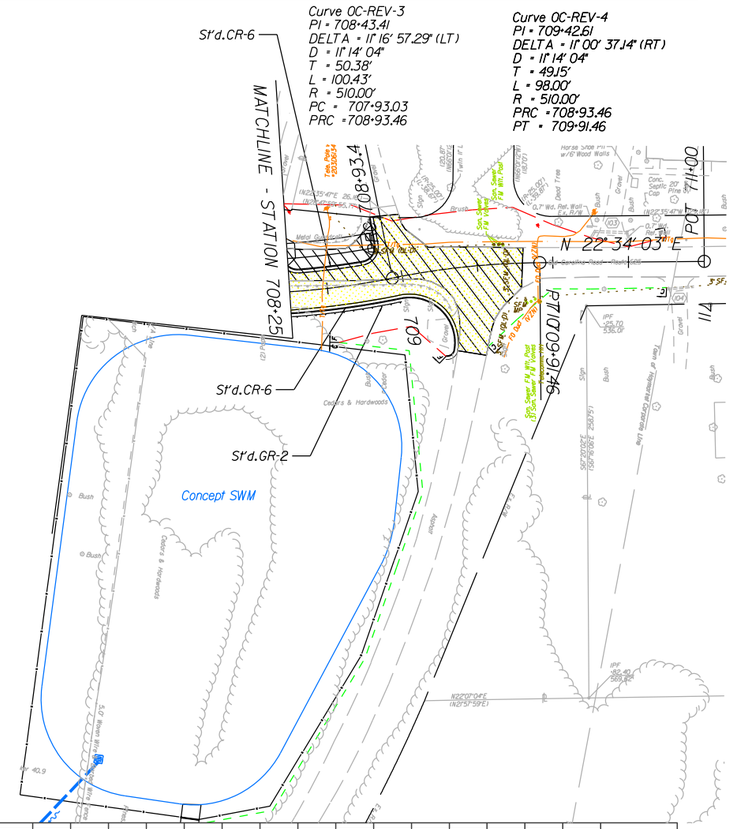
CONCEPT PLANS

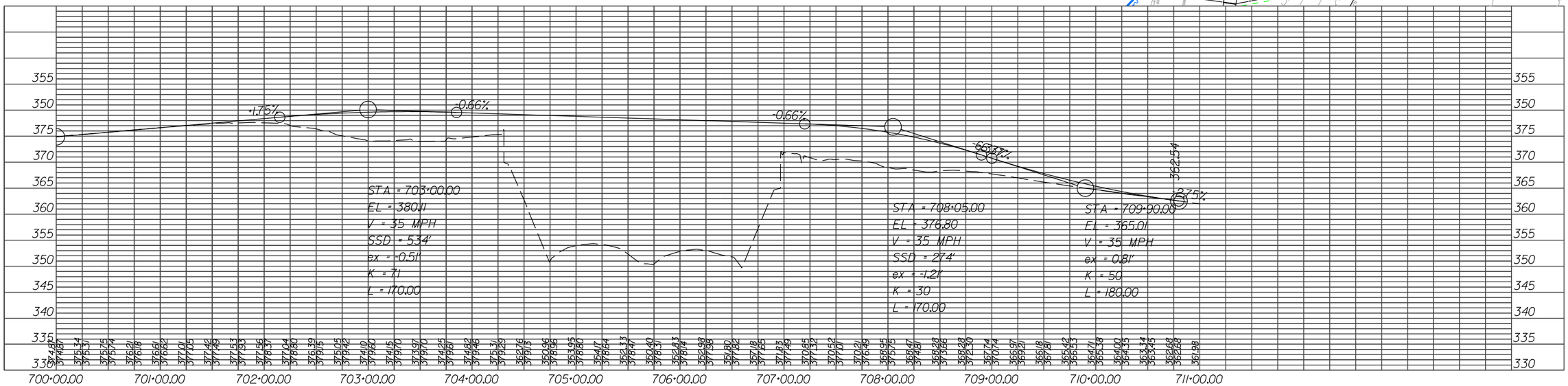
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C — Denotes Construction Limits In Cuts
- F — Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

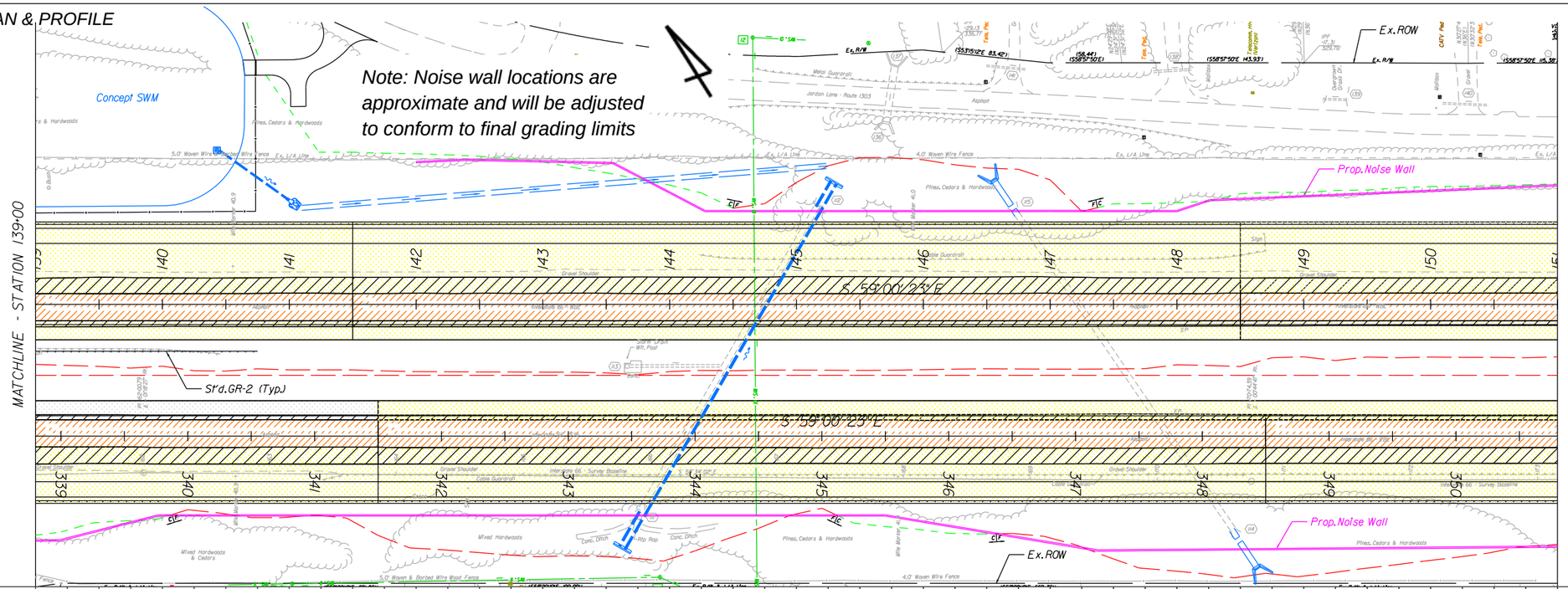


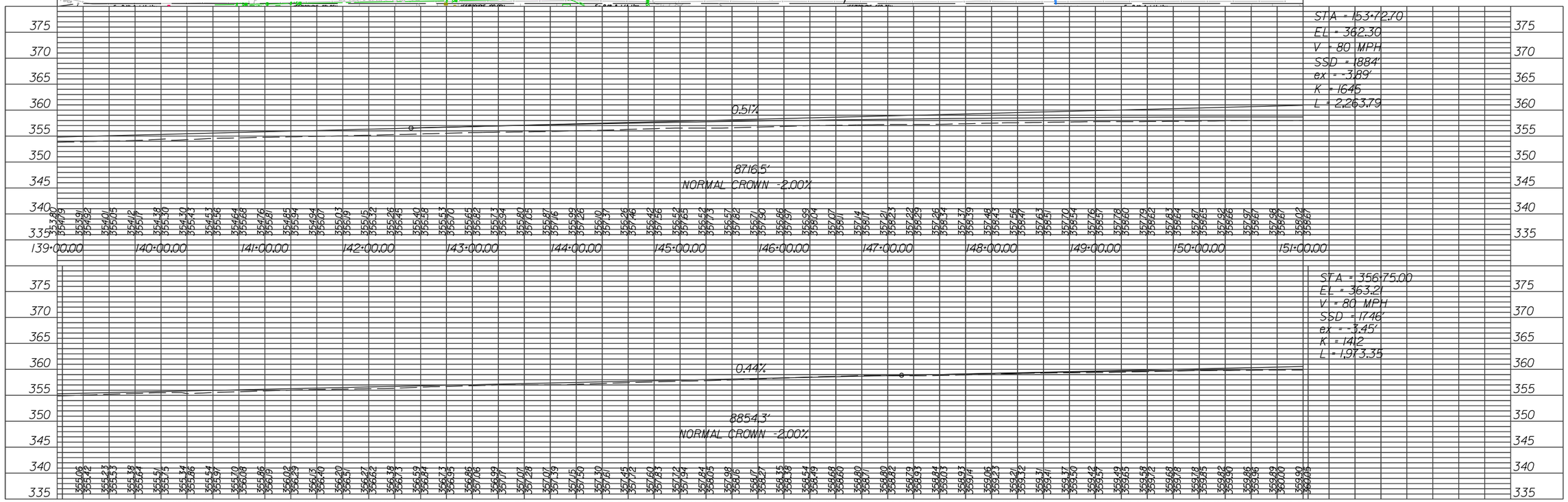




SCALE
0 50' 100'

CONCEPT PLAN & PROFILE





CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C — Denotes Construction Limits In Cuts
- F — Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

SCALE
0 50' 100'

CONCEPT PLAN & PROFILE

MATCHLINE - STATION 151+00

MATCHLINE - STATION 163+00

Note: Noise wall locations are approximate and will be adjusted to conform to final grading limits

Ex.ROW

Prop.Noise Wall

Ex.ROW

Prop.Noise Wall

STA = 153+72.70
EL = 362.30
V = 80 MPH
SSD = 1884'
ex = -3.89'
K = 1645
L = 2,263.79

0.51%

-0.87%

-0.87%

8716.5'
NORMAL CROWN -2.00%

STA = 356+75.00
EL = 363.21
V = 80 MPH
SSD = 1746'
ex = -3.45'
K = 1412
L = 1,973.35

0.44%

-0.96%

8854.3'
NORMAL CROWN -2.00%

151+00.00 152+00.00 153+00.00 154+00.00 155+00.00 156+00.00 157+00.00 158+00.00 159+00.00 160+00.00 161+00.00 162+00.00 163+00.00

350+79.98 352+00.00 353+00.00 354+00.00 355+00.00 356+00.00 357+00.00 358+00.00 359+00.00 360+00.00 361+00.00 362+00.00 362+79.98

CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

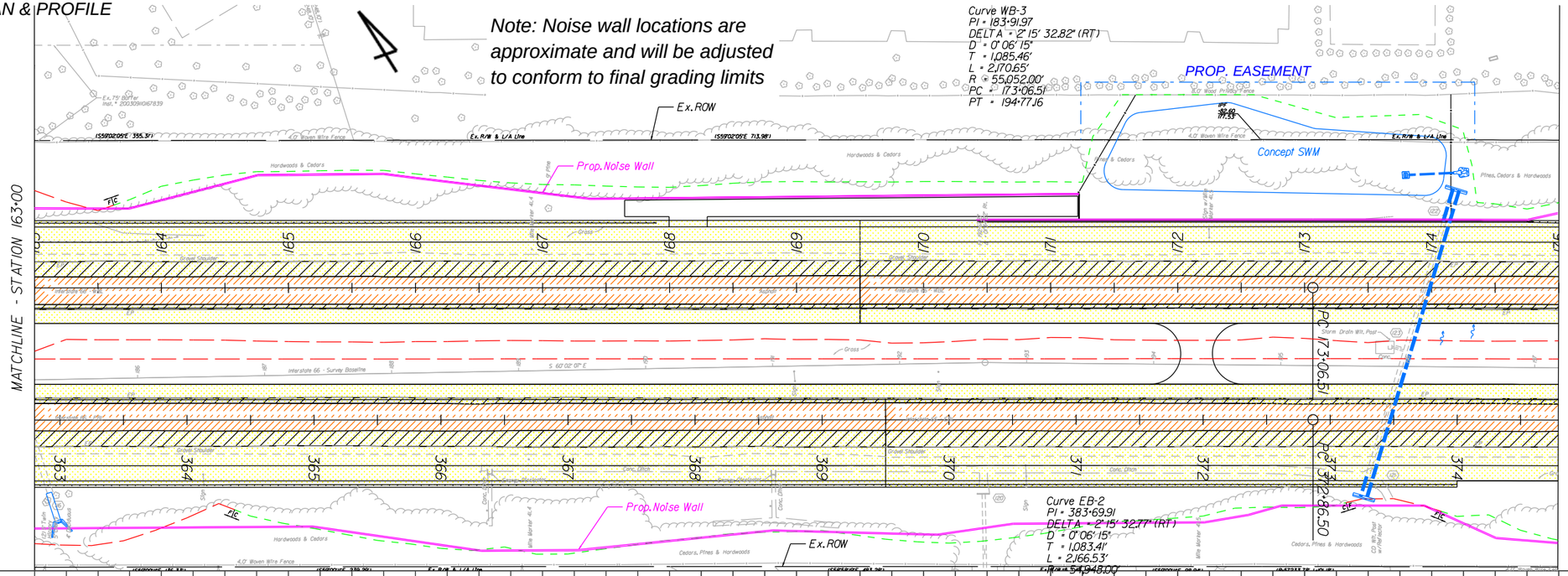
LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C — Denotes Construction Limits In Cuts
- F — Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

SCALE
0 50' 100'

CONCEPT PLAN & PROFILE

Note: Noise wall locations are approximate and will be adjusted to conform to final grading limits



CONCEPT PLANS

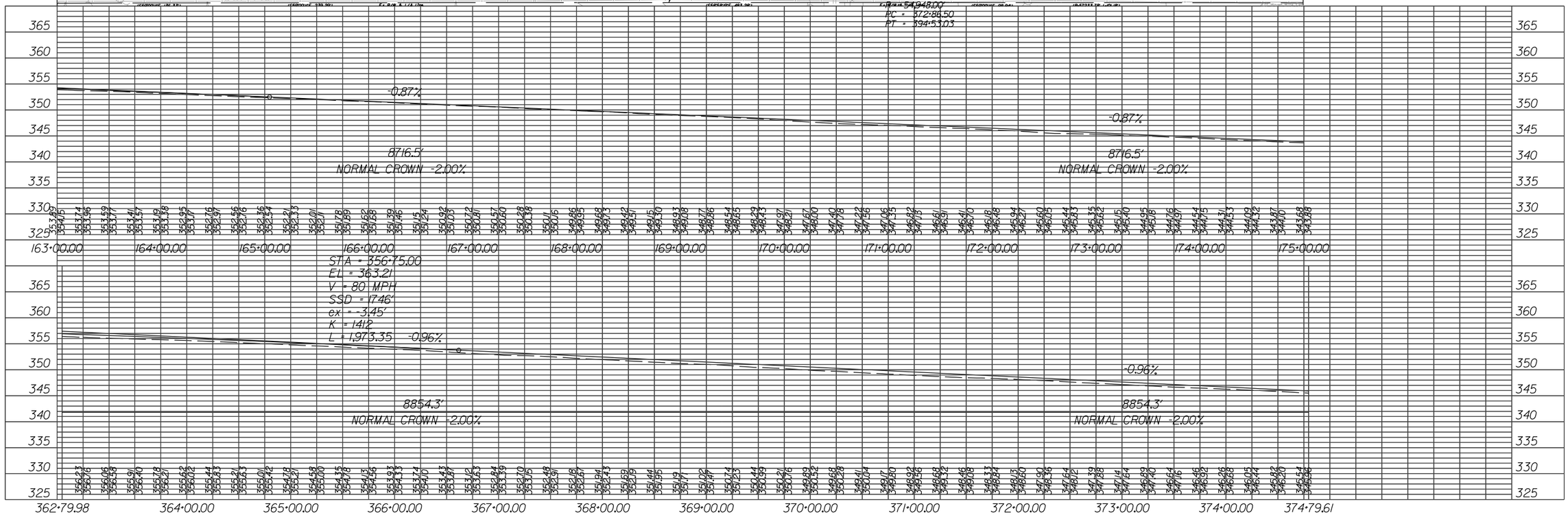
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- Denotes Construction Limits In Cuts
- Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

STA = 153+72.70
EL = 362.30
V = 80 MPH
SSD = 1884'
ex = -3.89'
K = 1645
L = 2,263.79



SCALE
0 50' 100'

CONCEPT PLAN & PR

Note: Noise wall locations are approximate and will be adjusted to conform to final grading limits

Curve WB-3
PI = 183+91.97
DELTA = 2° 15' 32.82" (RT)
D = 0° 06' 15"
T = 1,085.46'
L = 2,170.65'
R = 55,052.00'
PC = 173+06.51
PT = 194+77.16

MATCHLINE - STATION 175+00

MATCHLINE - STATION 187+00

Prop. Noise Wall

Ex. ROW

Concept SWM

Curve EB-2
PI = 383+69.91
DELTA = 2° 15' 32.77" (RT)
D = 0° 06' 15"
T = 1,083.41'
L = 2,166.53'
R = 54,948.00'
PC = 372+86.50
PT = 394+53.03

Prop. Noise Wall

Ex. ROW

0.87%
8716.5'
NORMAL CROWN -2.00%

0.96%
8854.3'
NORMAL CROWN -2.00%

CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey Information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey Information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

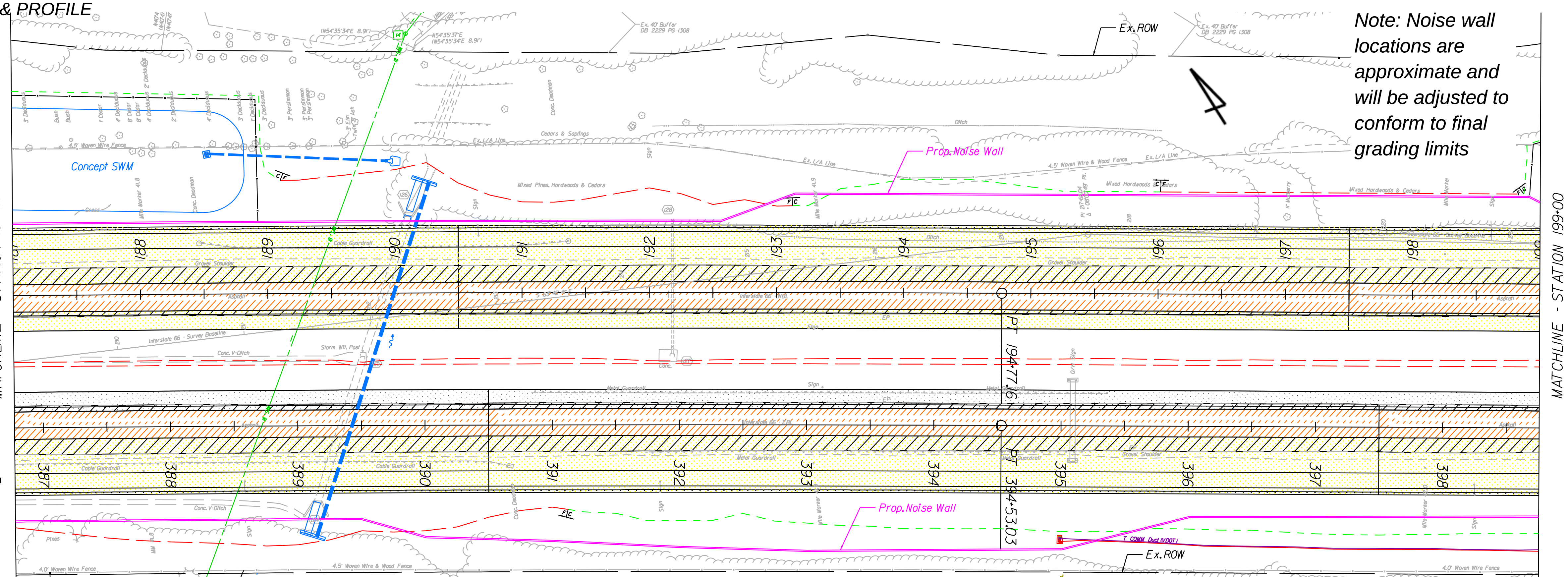
- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C — Denotes Construction Limits in Cuts
- F — Denotes Construction Limits in Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

SCALE
0 50' 100'

CONCEPT PLAN & PROFILE

Curve WB-3
PI = 183+91.97
DELTA = 2° 15' 32.82" (RT)
D = 0° 06' 15"
T = 1,085.46'
L = 2,170.65'
R = 55,052.00'
PC = 173+06.51
PT = 194+77.16

Curve EB-2
PI = 383+69.91
DELTA = 2° 15' 32.77" (RT)
D = 0° 06' 15"
T = 1,083.41'
L = 2,166.53'
R = 54,948.00'
PC = 372+86.50
PT = 394+53.03



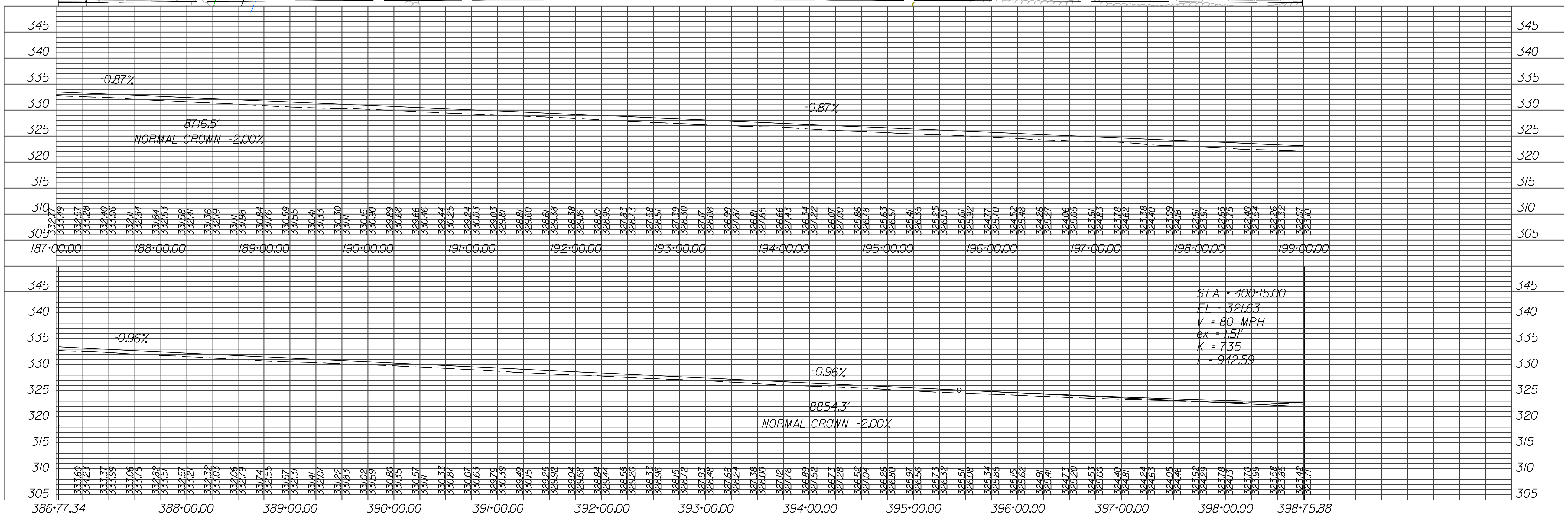
CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Survey Information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey Information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

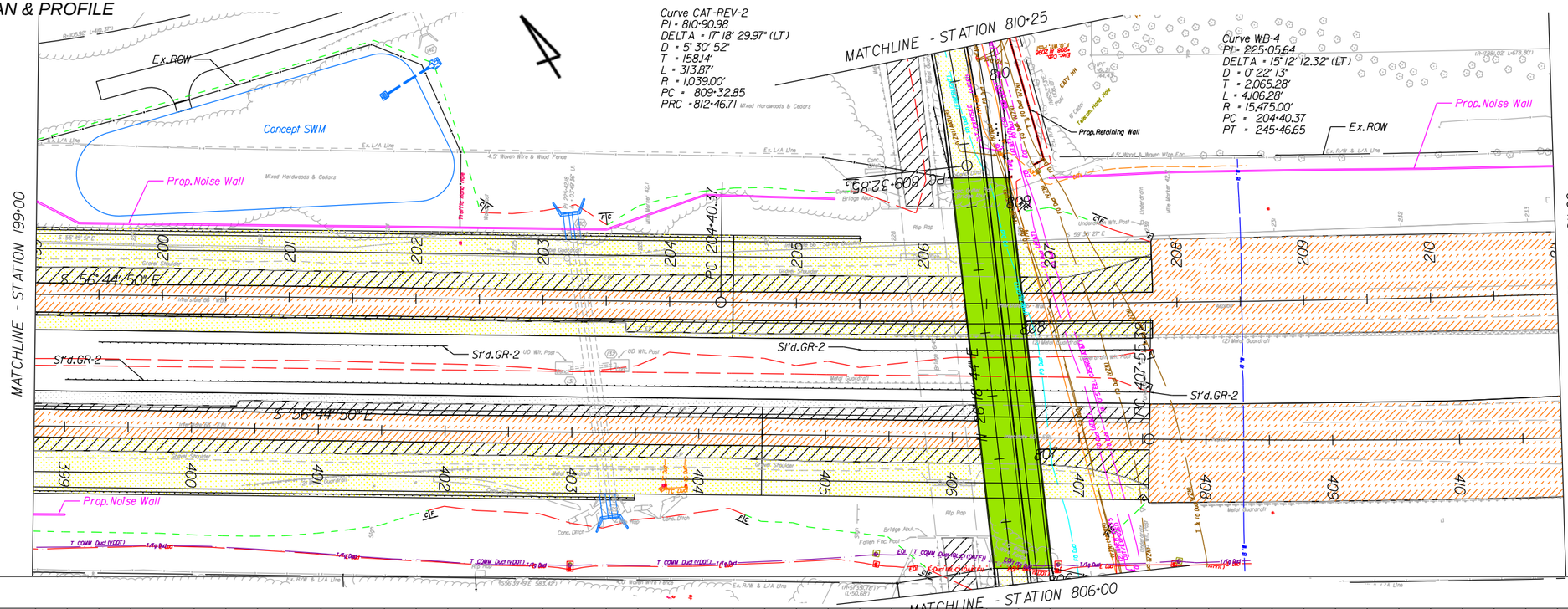
- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence



SCALE 0 50' 100'

CONCEPT PLAN & PROFILE

Note: Noise wall locations are approximate and will be adjusted to conform to final grading limits



CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

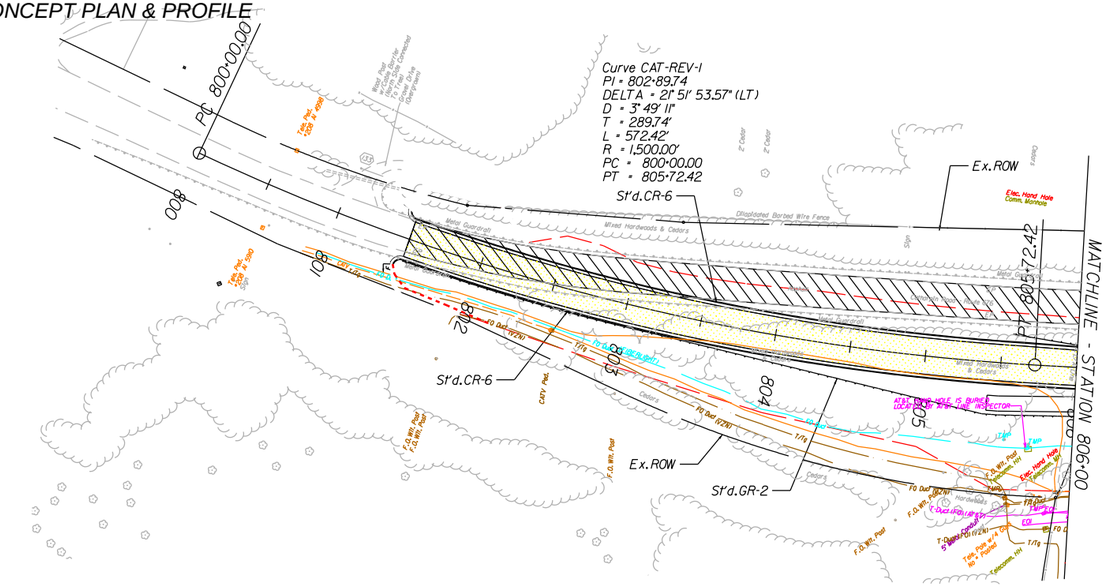
Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

- Denotes Proposed Bridge
- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence

SCALE 0 50' 100'

CONCEPT PLAN & PROFILE

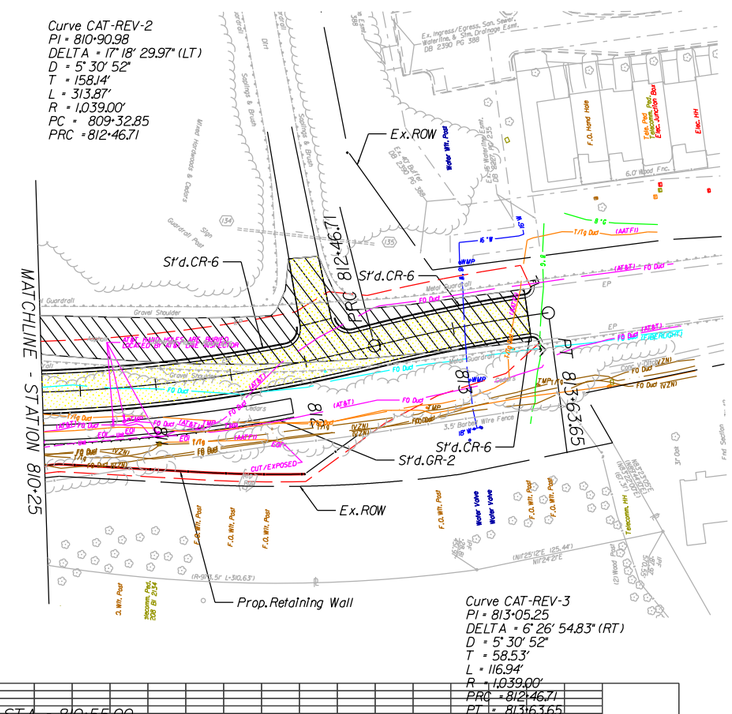


CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LEGEND

- Denotes Proposed Pavement
- Denotes Resurfacing of Pavement
- Denotes Demolition of Pavement
- C — Denotes Construction Limits In Cuts
- F — Denotes Construction Limits In Fills
- Denotes Proposed Noise Wall
- Denotes Proposed Drainage Features
- Denotes Existing Drainage Features
- Denotes Proposed Fence



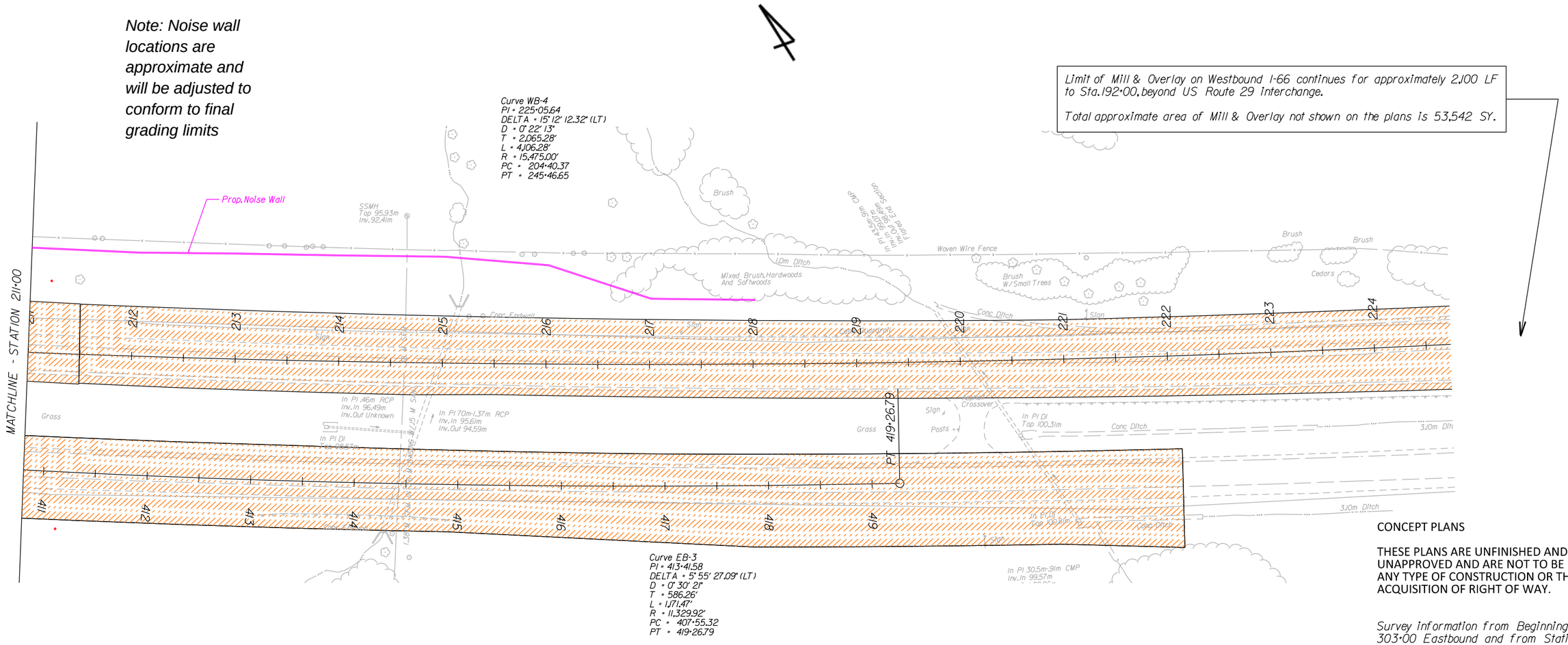
SCALE
0 50' 100'

CONCEPT PLAN & PROFILE

Note: Noise wall locations are approximate and will be adjusted to conform to final grading limits

Limit of Mill & Overlay on Westbound I-66 continues for approximately 2,100 LF to Sta.192+00, beyond US Route 29 interchange.

Total approximate area of Mill & Overlay not shown on the plans is 53,542 SY.



CONCEPT PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

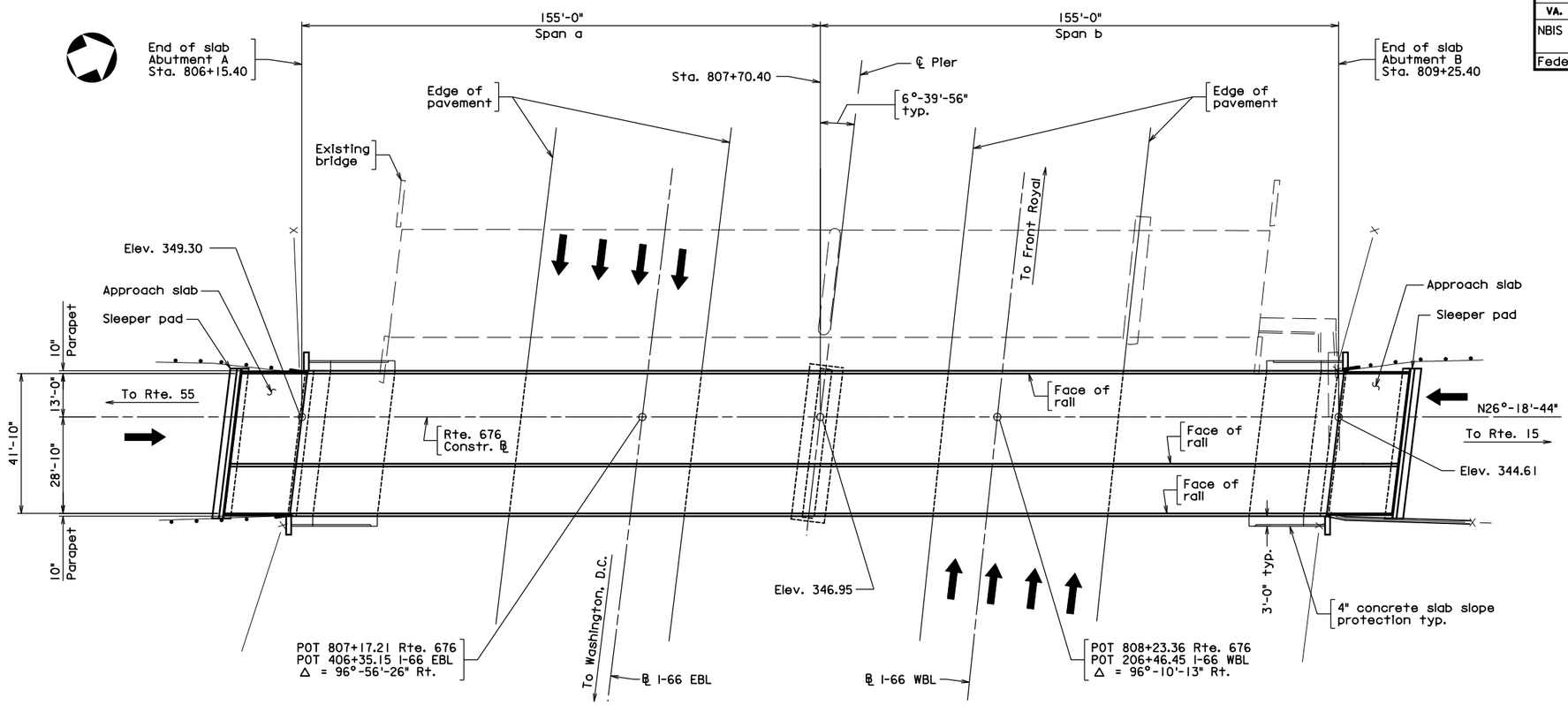
Survey information from Beginning to Sta 303+00 Eastbound and from Station 411+00 to end of project is based on 1995 survey and has been converted from Metric to Imperial. Survey information from Sta 303+00 Eastbound to Station 411+00 is aerial survey with Class 3 Level spacial accuracy.

LEGEND

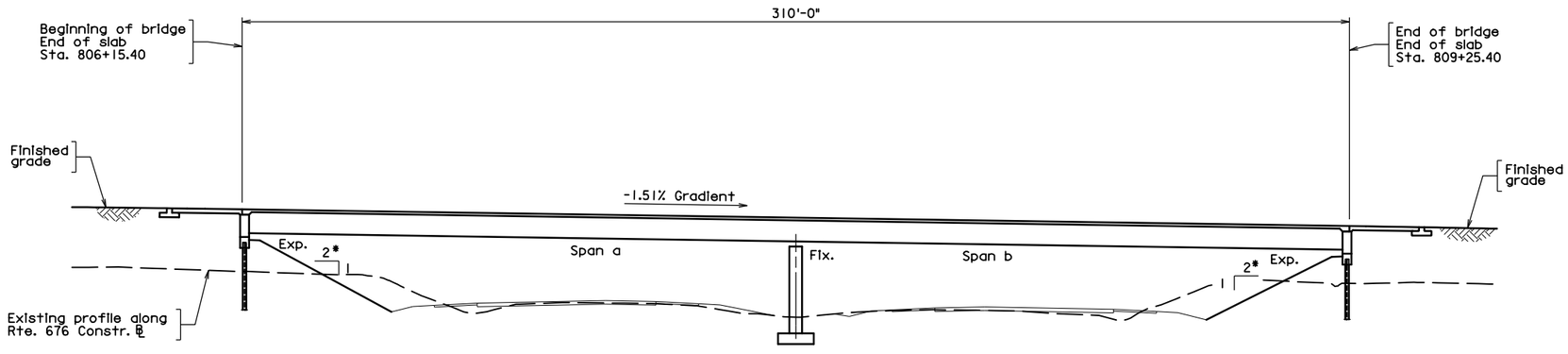
- *Denotes Proposed Pavement*
- *Denotes Resurfacing of Pavement*
- *Denotes Demolition of Pavement*
- *Denotes Construction Limits In Cuts*
- *Denotes Construction Limits In Fills*
- *Denotes Proposed Noise Wall*
- *Denotes Proposed Drainage Features*
- *Denotes Existing Drainage Features*
- *Denotes Proposed Fence*

SCALE
0 50' 100'

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	——	NH-5A01(194)	676	0066-076-003, B675	
NBIS Number: 000000000014318			UPC No. 93577		
Federal Oversight Code: FO			FHWA Construction and Scour Code: X271-SN		



PLAN



ABUTMENT A PIER ABUTMENT B

*Normal to abutment

DEVELOPED SECTION ALONG RTE. 676 CONSTR. ℄

DESIGN EXCEPTION(S):

None.

GENERAL NOTES:

Width: 17'-6" shared use path, 27'-0" roadway. Overall width 44'-6" face-to-face of rails.

Span layout: 155'-0" - 155'-0" continuous steel plate girder spans.

Capacity: HL-93 loading.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2007.

Design: AASHTO LRFD Bridge Design Specifications, 5th Edition, 2010; 2010 Interim Specifications and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2008.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

CONCEPTUAL PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE ON

RTE. 676 (CATHARPIN ROAD)
OVER INTERSTATE 66
PRINCE WILLIAM CO. - 0.8 MI. E. OF RTE. 15
PROJ. 0066-076-003, B675

292-04

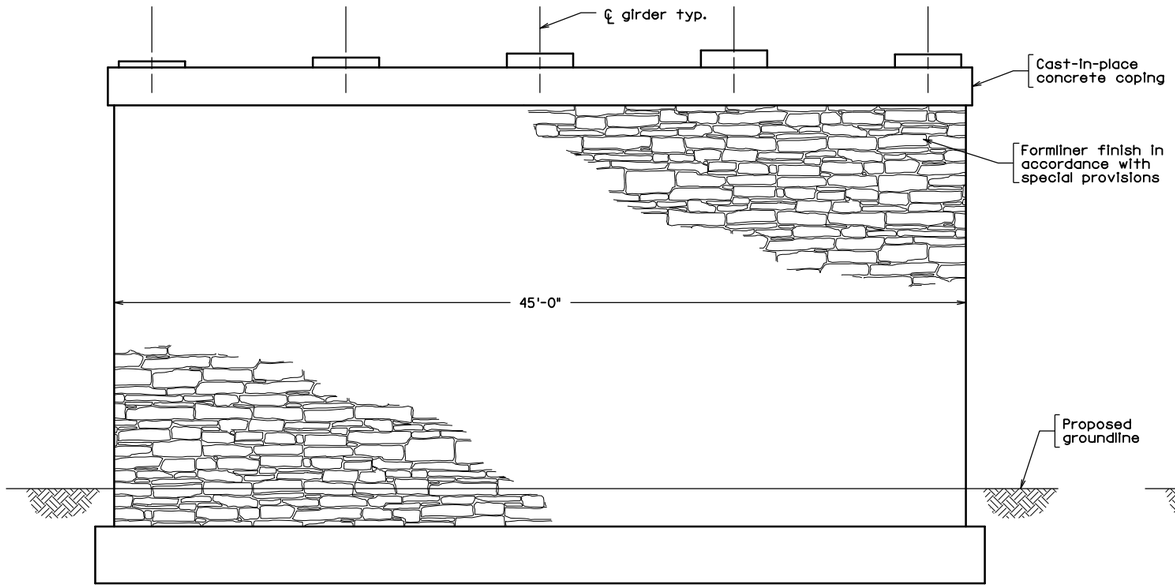
ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers McLean, Virginia

CORMAN CONSTRUCTION

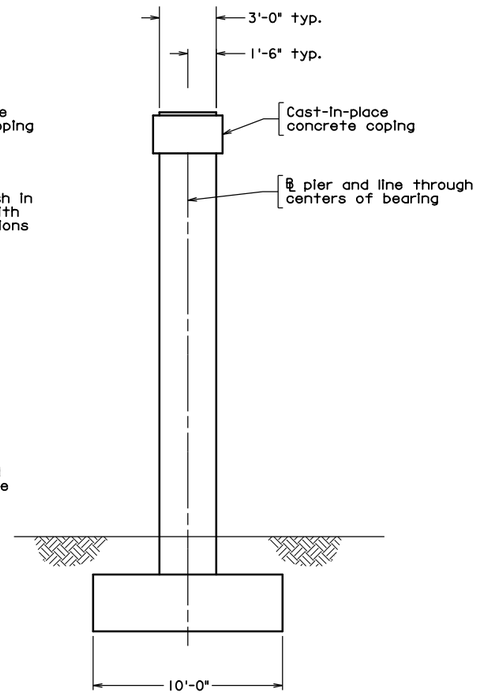
Scale: 1" = 40'-0"

Date: May 30, 2013

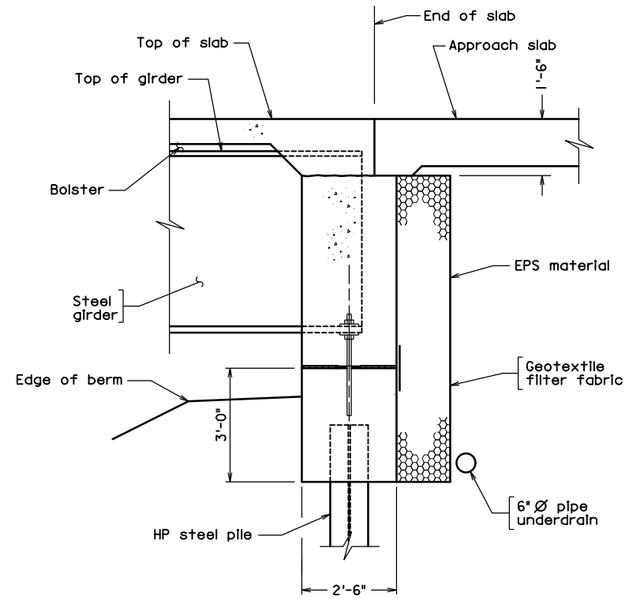
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—	NH-5A01(194)	676	0066-076-003, B675	



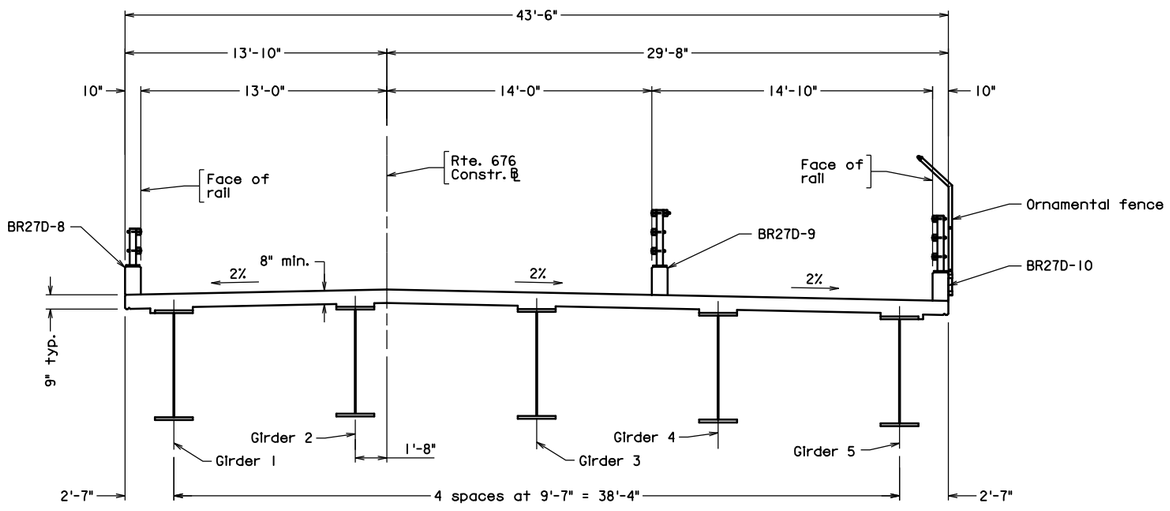
TYPICAL PIER ELEVATION VIEW
Scale: 1/8" = 1'-0"



TYPICAL PIER END VIEW
Scale: 1/8" = 1'-0"



TYPICAL SECTION THROUGH INTEGRAL ABUTMENT
Scale: 1/4" = 1'-0"



TRANSVERSE SECTION
Scale: 1/8" = 1'-0"

CONCEPTUAL PLANS

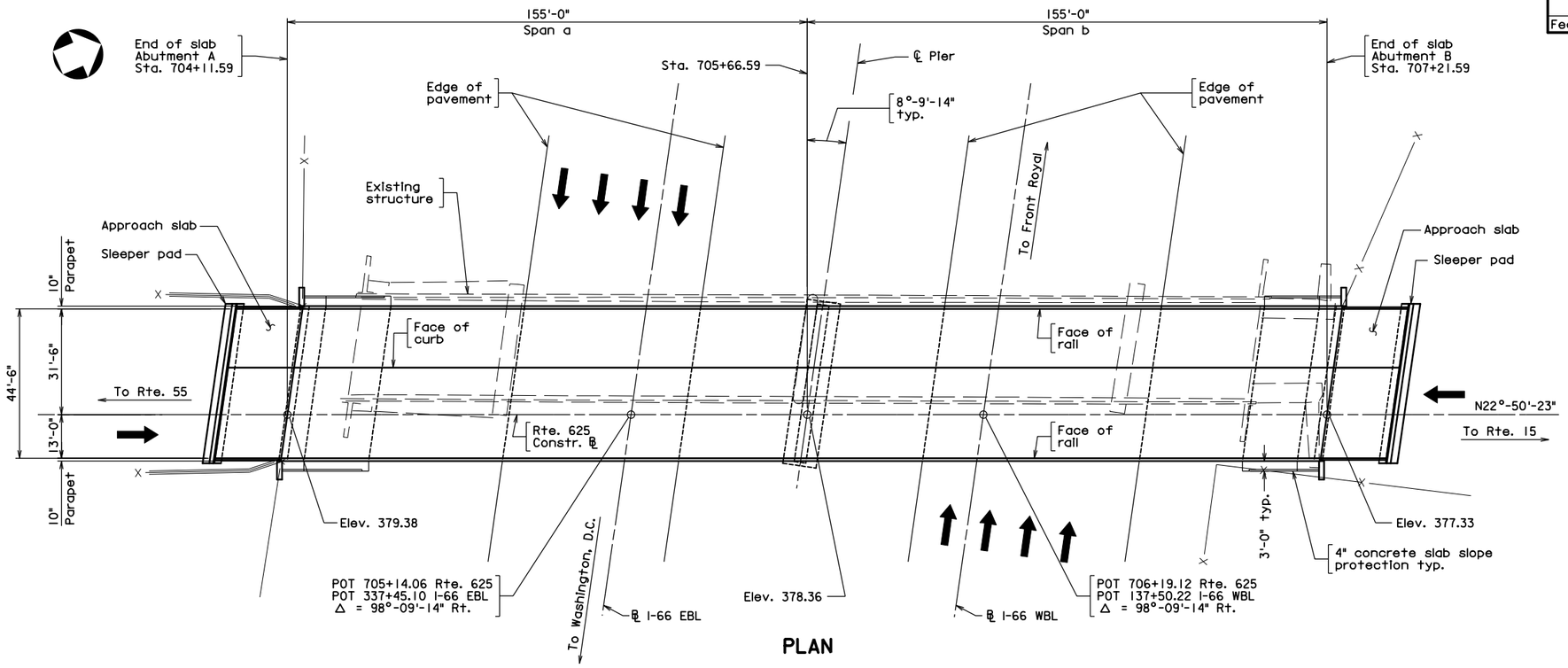
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers — McLean, Virginia

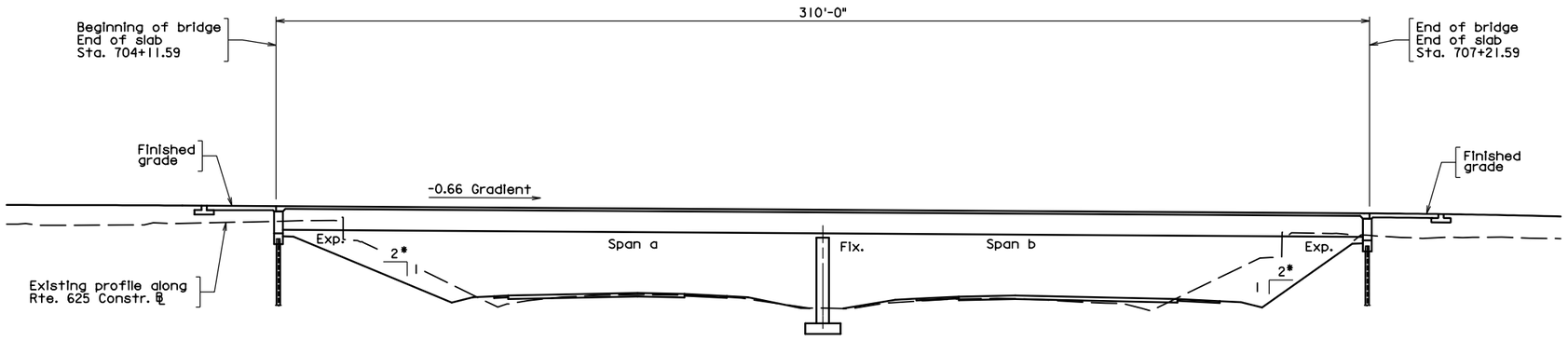
CORMAN CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
TYPICAL SECTIONS			
Designed: K.J. / Drawn: J.E. / Checked: D.W.	Date	Plan No.	Sheet No.
	May 2013	292-04	

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	——	NH-5A01(194)	625	0066-076-003, B674	
NBIS Number: 000000000014318			UPC No. 93577		
Federal Oversight Code: FO			FHWA Construction and Scour Code: X271-SN		



PLAN



ABUTMENT A | PIER | ABUTMENT B

* Normal to abutment

DEVELOPED SECTION ALONG RTE. 625 CONSTR. ℄

DESIGN EXCEPTION(S):

None.

GENERAL NOTES:

Width: 17'-6" shared use path, 27'-0" roadway. Overall width 44'-6" face-to-face of rails.

Span layout: 155'-0" - 155'-0" continuous steel plate girder spans.

Capacity: HL-93 loading.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2007.

Design: AASHTO LRFD Bridge Design Specifications, 5th Edition, 2010; 2010 Interim Specifications and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2008.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

CONCEPTUAL PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

VDOT

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE ON

RTE. 625 (OLD CAROLINA ROAD)
OVER INTERSTATE 66
PRINCE WILLIAM CO. - 0.1 MI. E. OF RTE. 15
PROJ. 0066-076-003, B674

292-03

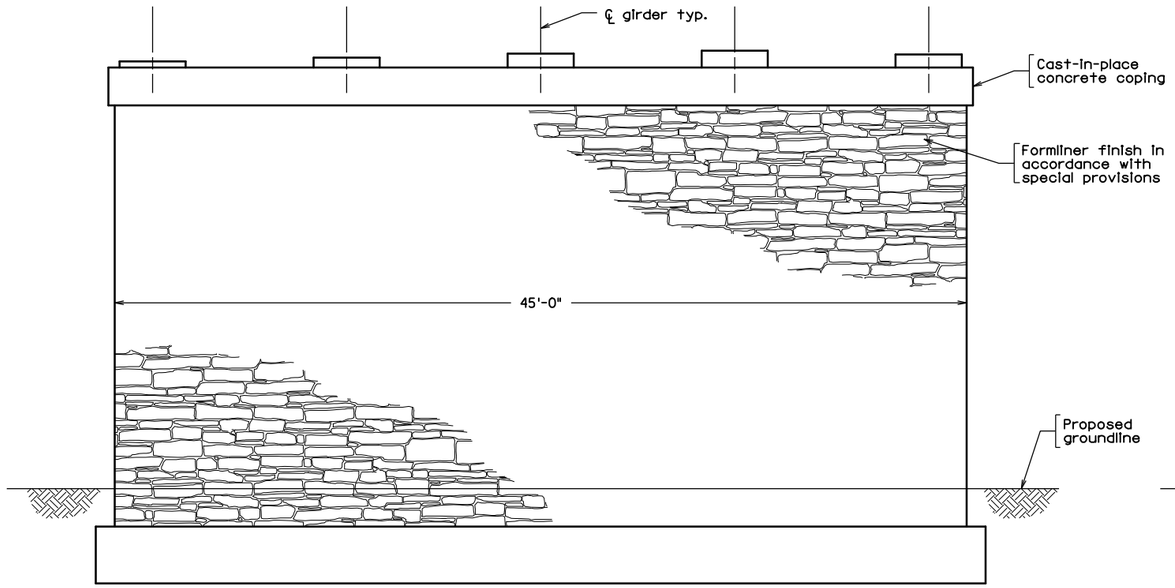
ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers McLean, Virginia

CORMAN CONSTRUCTION

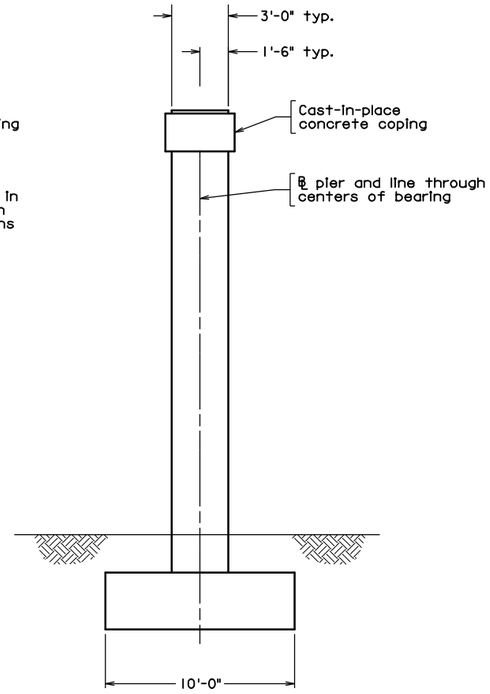
Scale: 1" = 40'-0"

Date: May 30, 2013

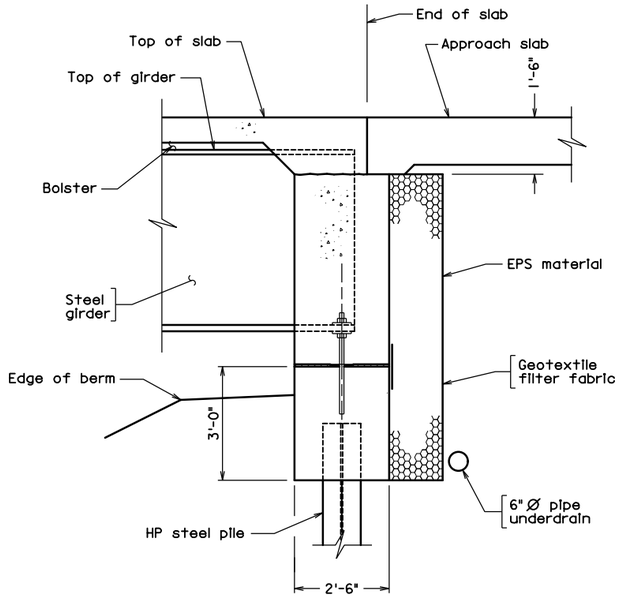
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—	NH-5A01(194)	625	0066-076-003, B674	



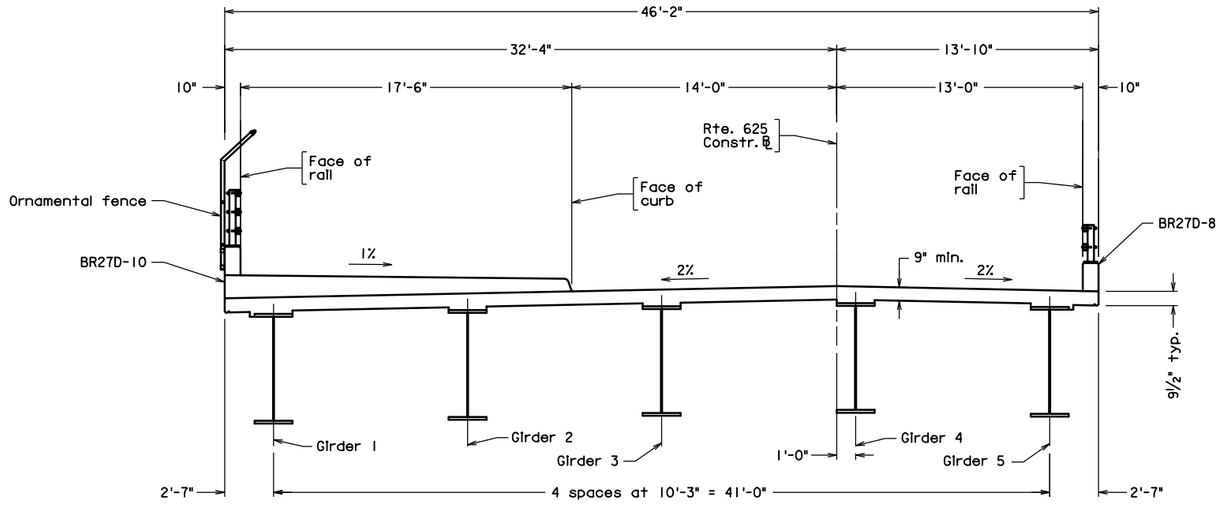
TYPICAL PIER ELEVATION VIEW
Scale: 1/8" = 1'-0"



TYPICAL PIER END VIEW
Scale: 1/8" = 1'-0"



TYPICAL SECTION THROUGH INTEGRAL ABUTMENT
Scale: 1/4" = 1'-0"



TRANSVERSE SECTION
Scale: 1/8" = 1'-0"

CONCEPTUAL PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

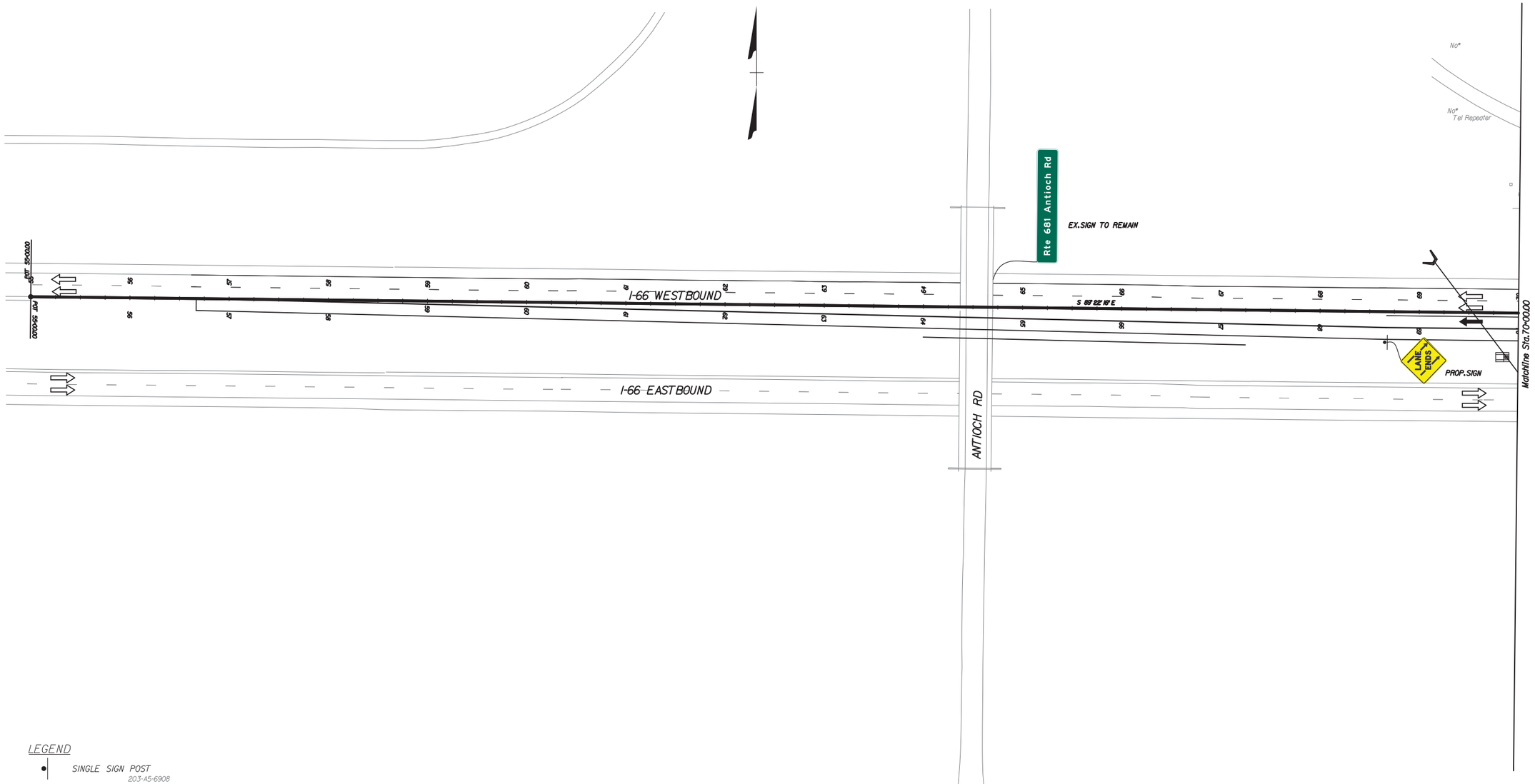
TYPICAL SECTIONS

Designed: K.L. / Drawn: J.E. / Checked: D.W.	Date	Plan No.	Sheet No.
	May 2013	292-03	

ATHAVALE, LYSTAD & ASSOCIATES INC.
Consulting Engineers — McLean, Virginia

CORMAN CONSTRUCTION

CONCEPT TRAFFIC CONTROL DEVICE PLAN

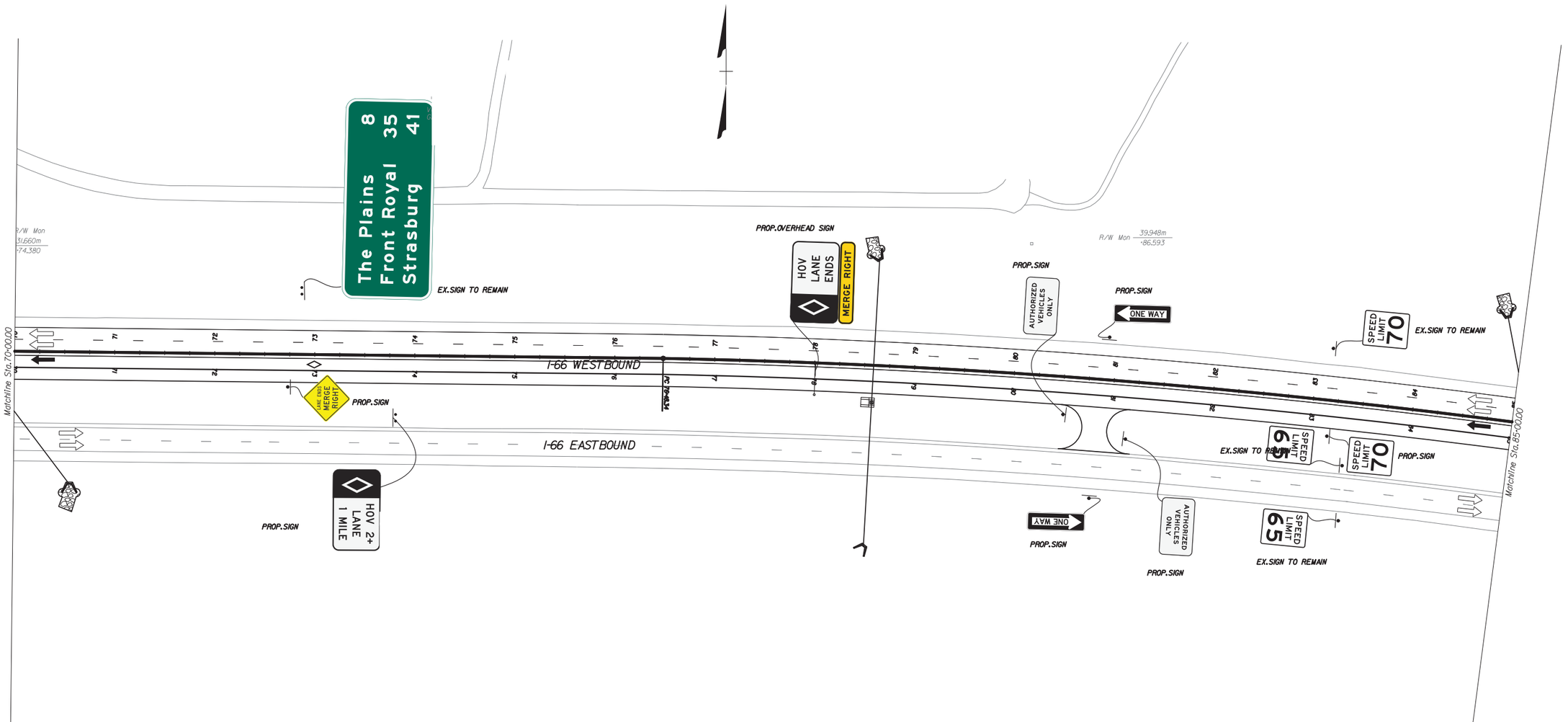


LEGEND

- SINGLE SIGN POST 203-A5-6908
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN

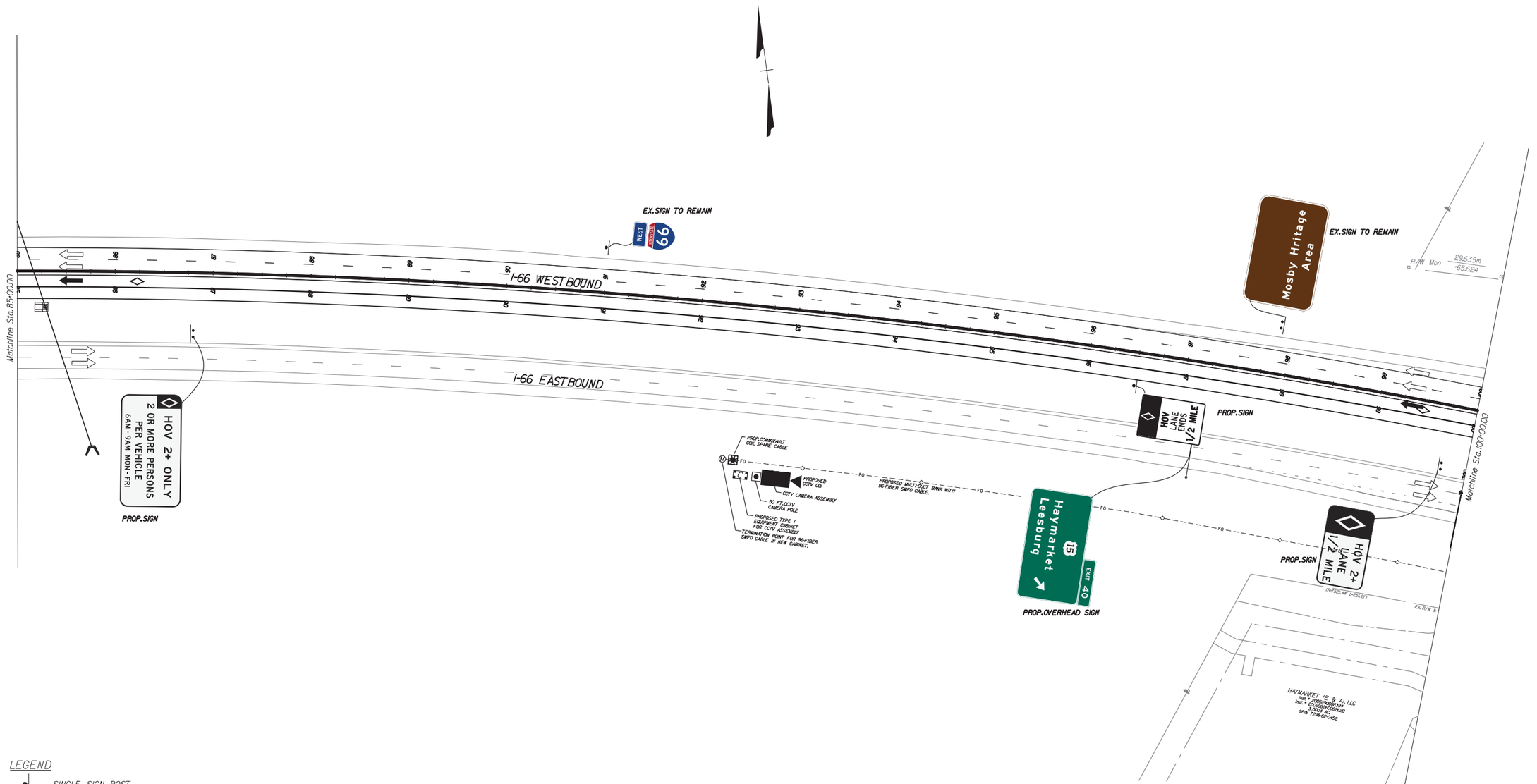


LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN



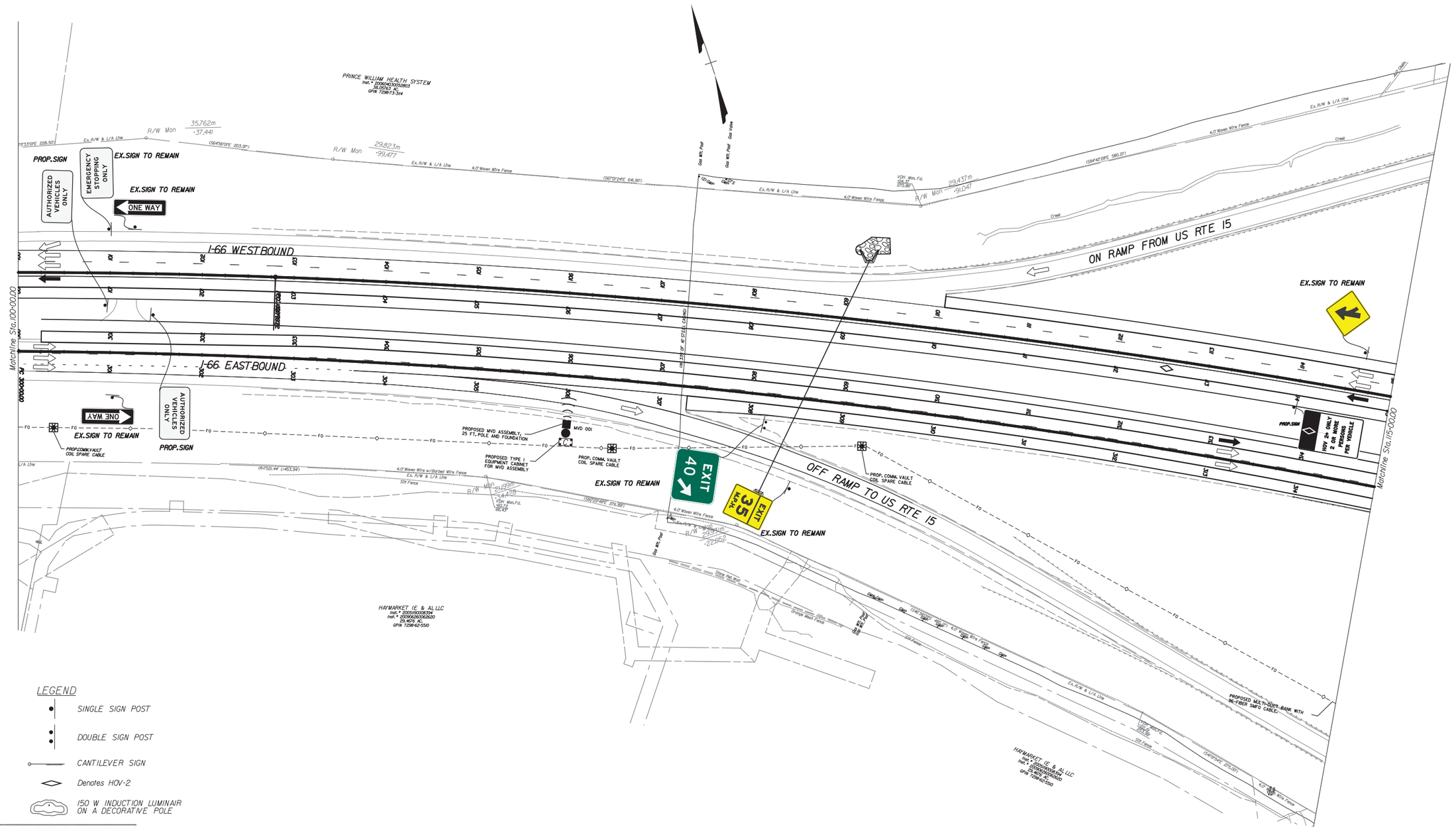
LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

CORMAN CONSTRUCTION

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN

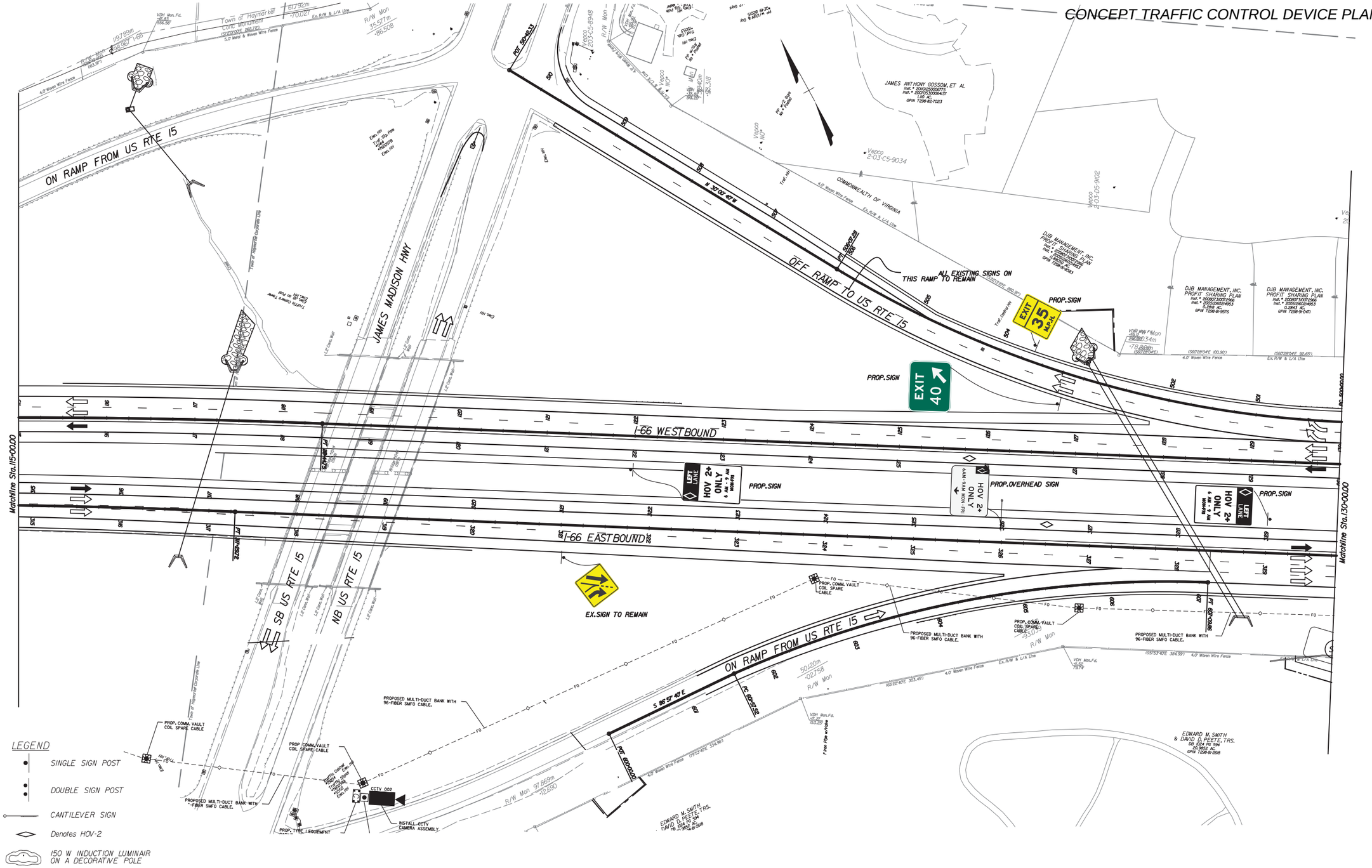


LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

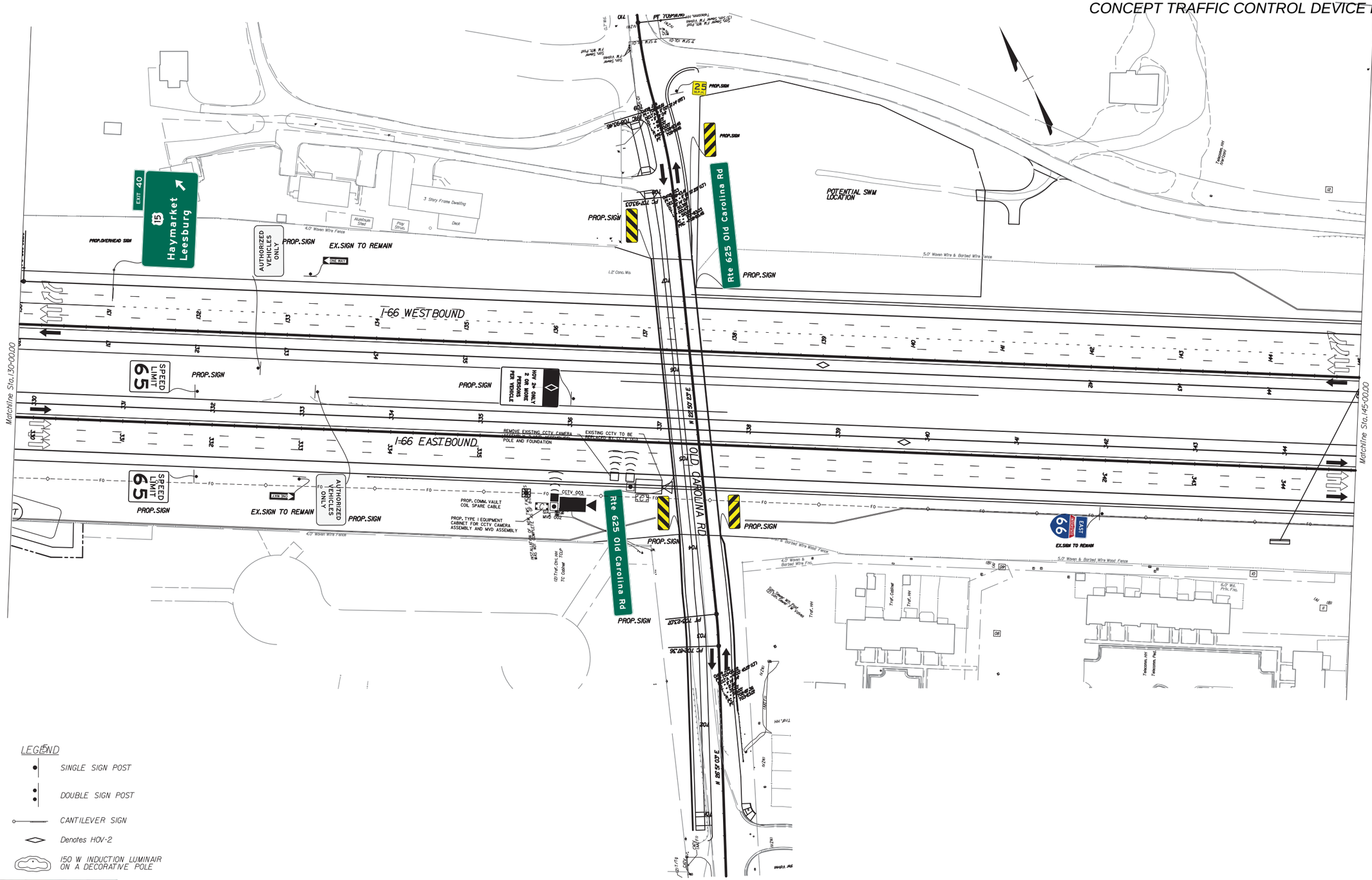
CORMAN CONSTRUCTION

CONCEPT TRAFFIC CONTROL DEVICE PLAN



SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN

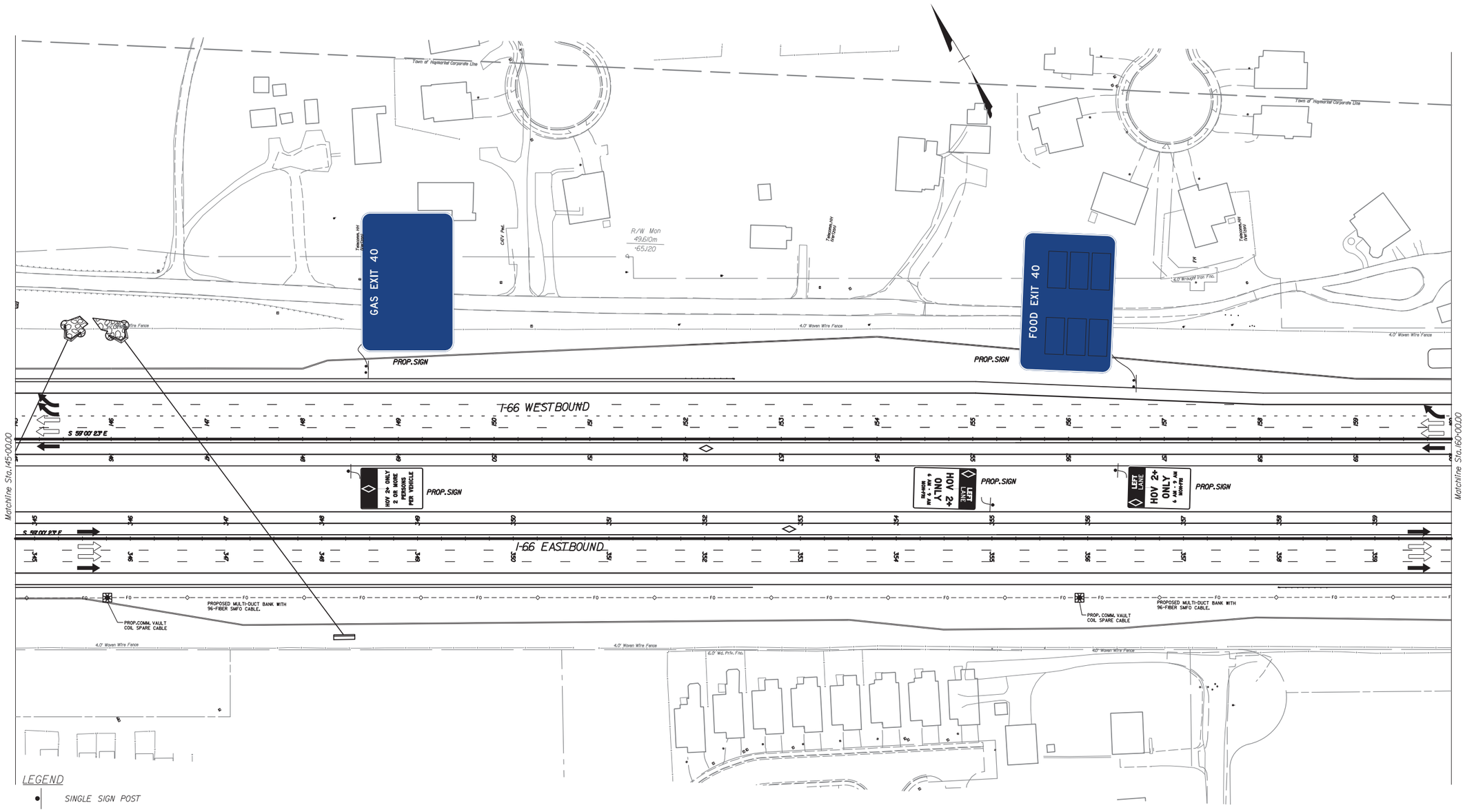


LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN

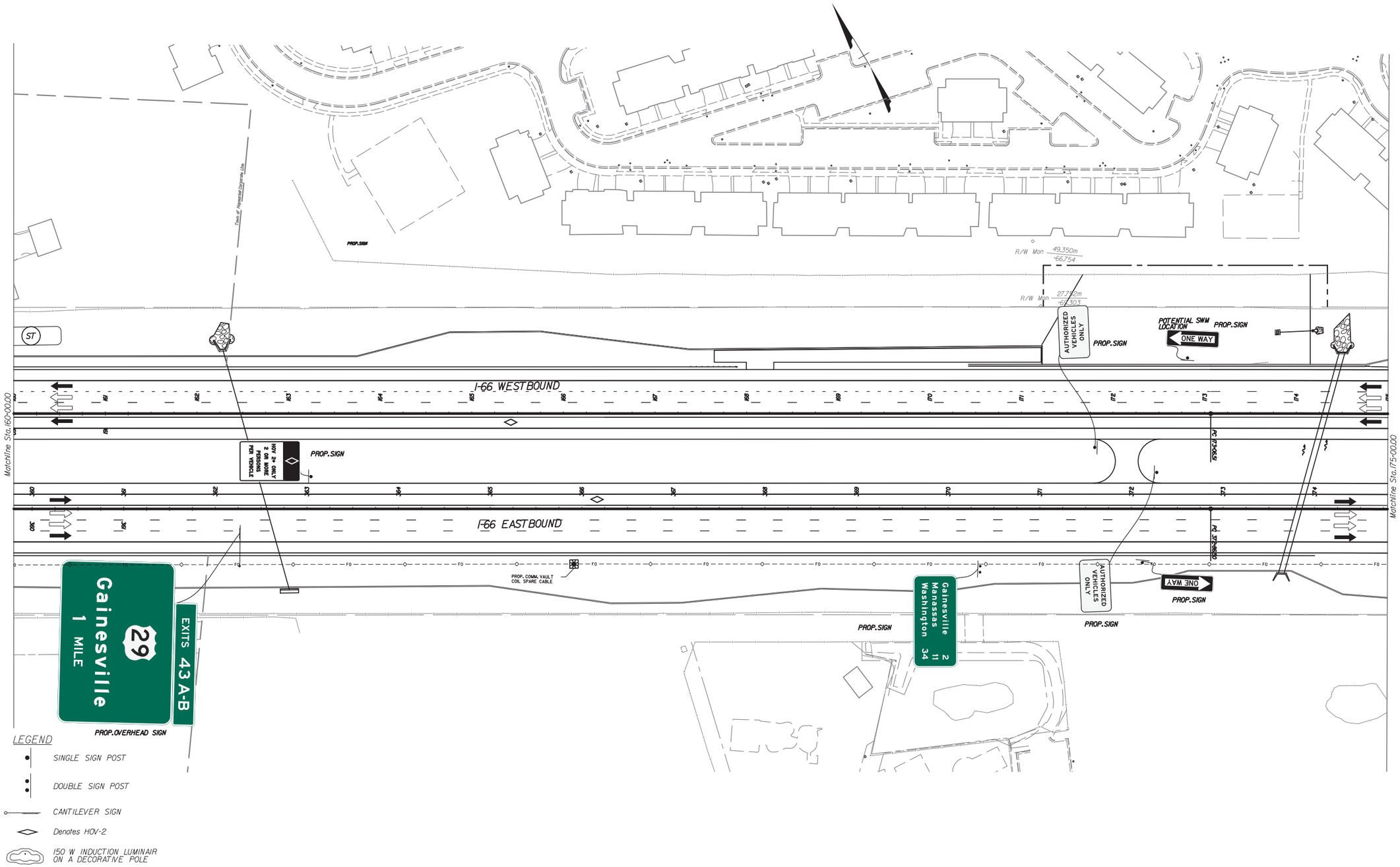


LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

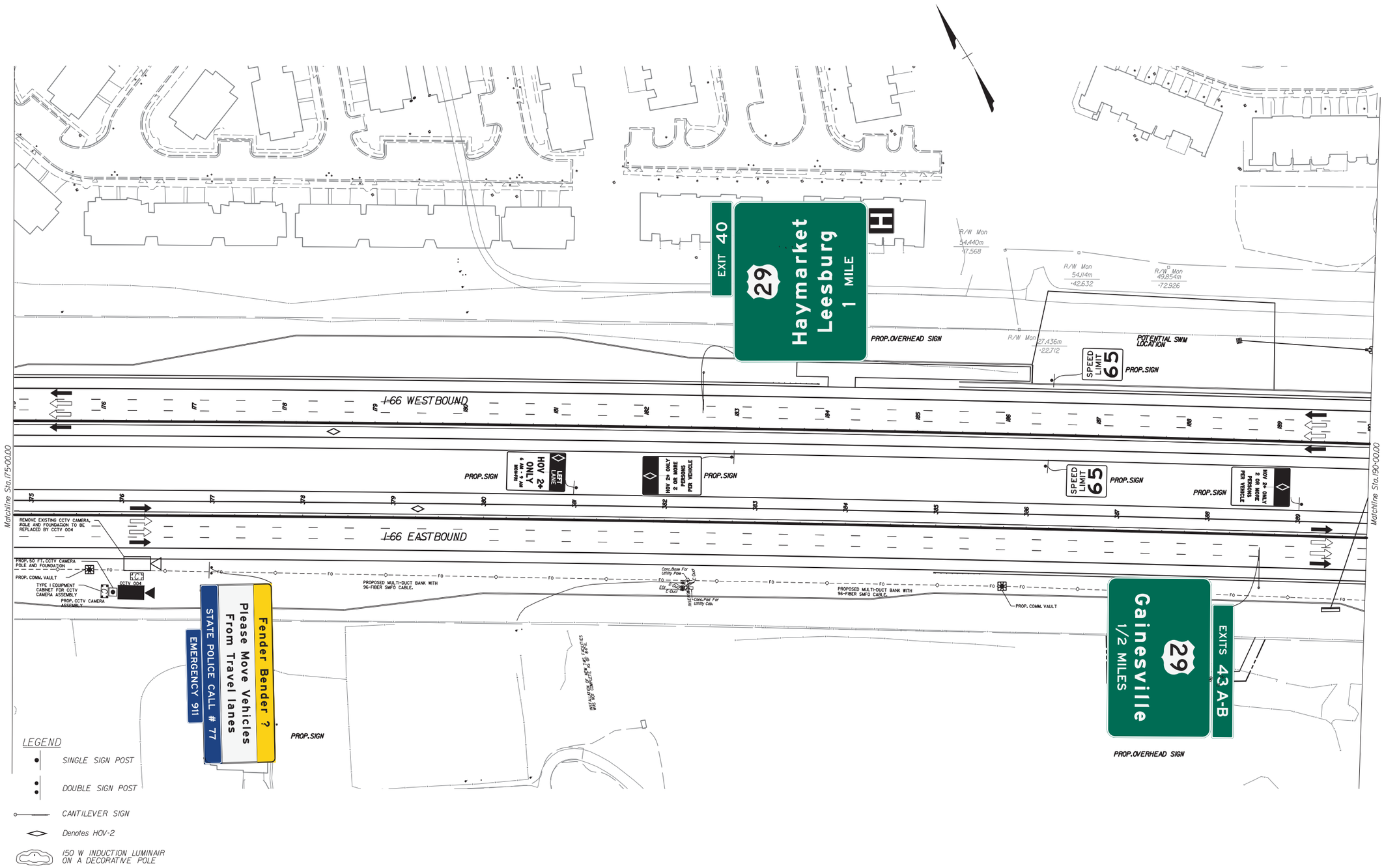
SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN



SCALE
0 50' 100'

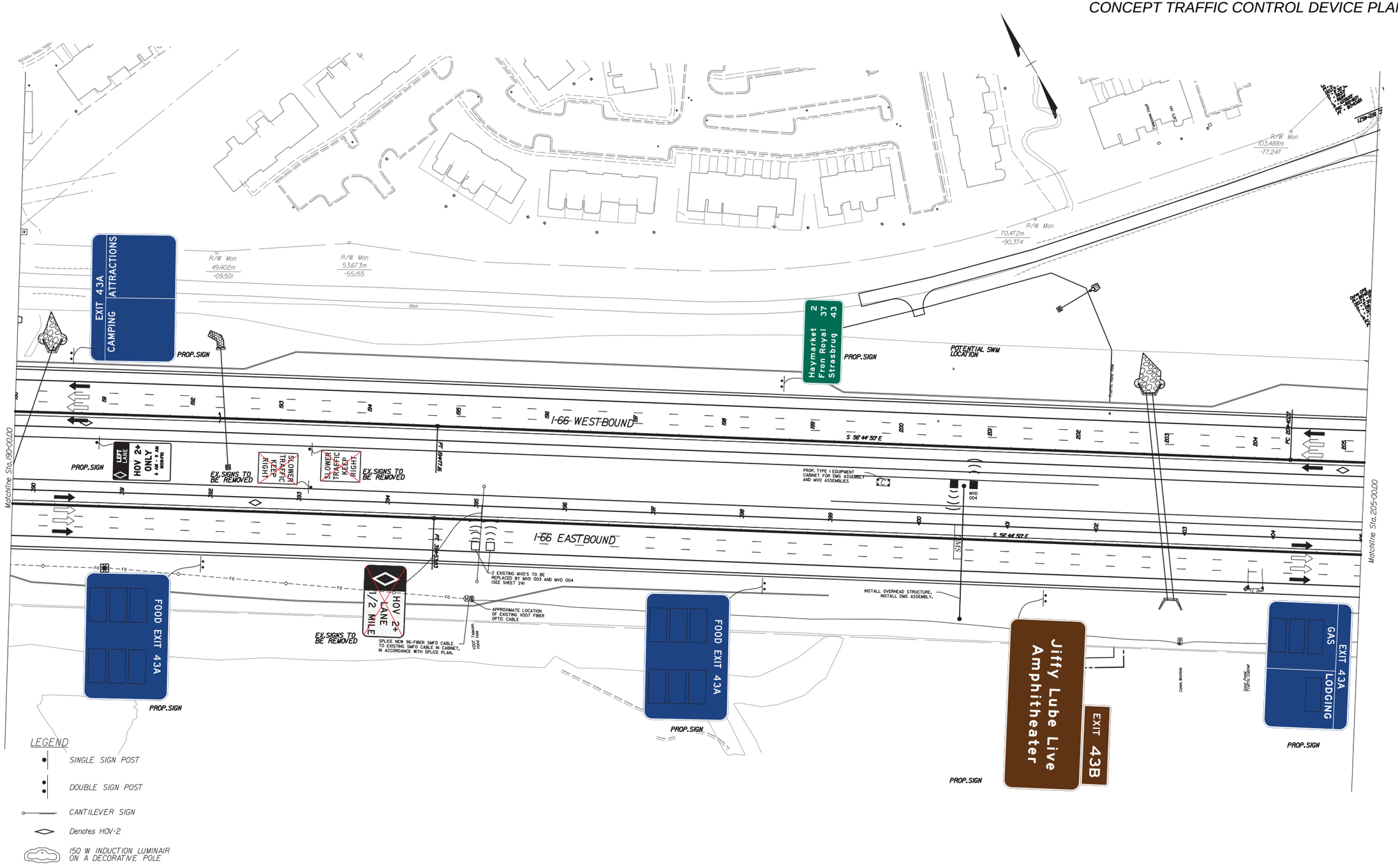
CONCEPT TRAFFIC CONTROL DEVICE PLAN



CORMAN CONSTRUCTION

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN



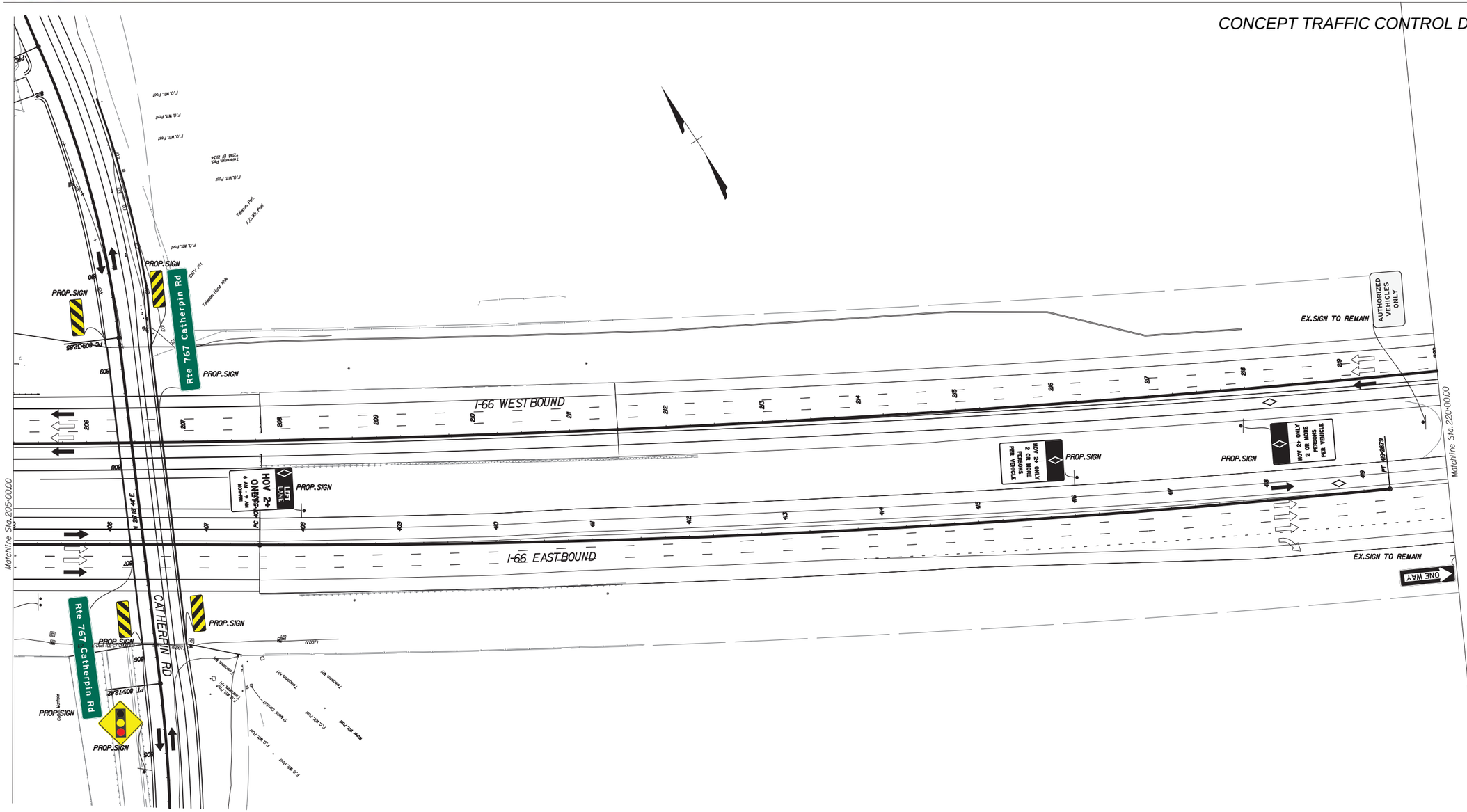
LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

CORMAN CONSTRUCTION

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN

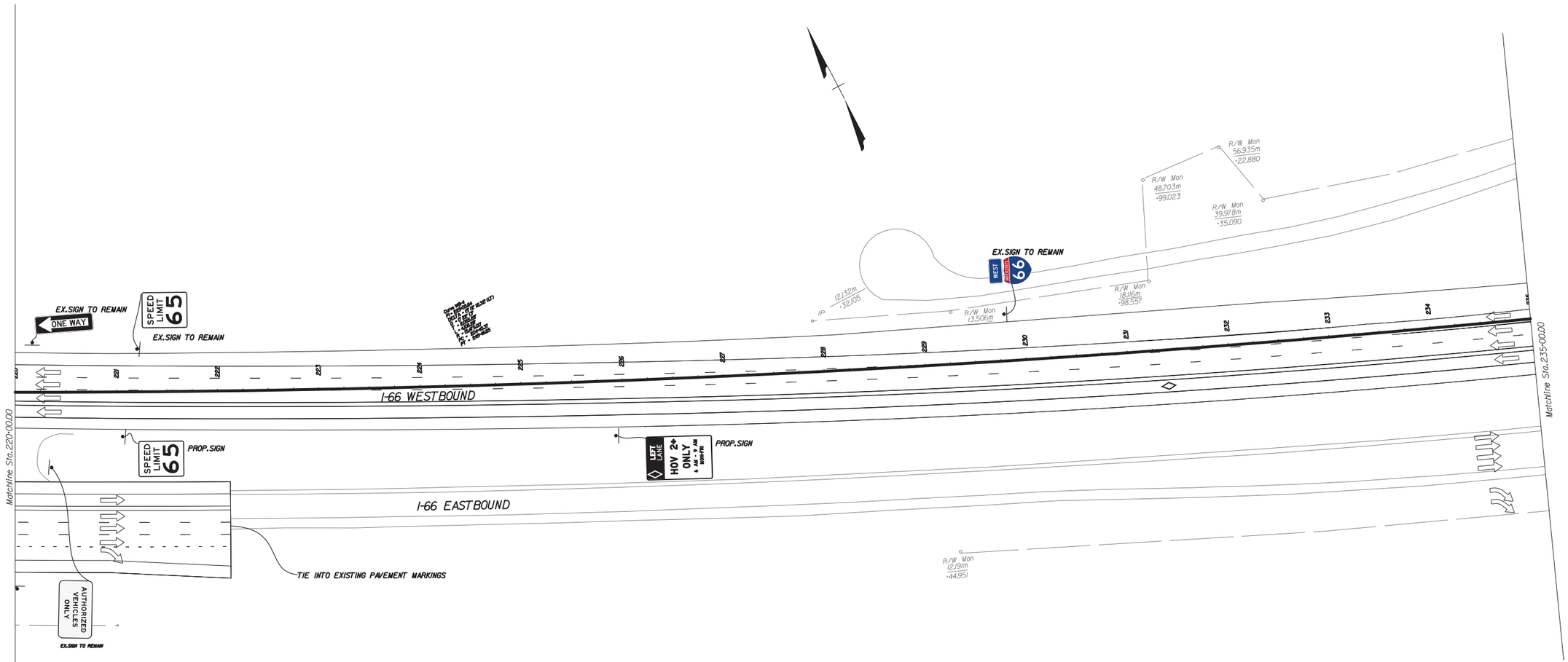


LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN

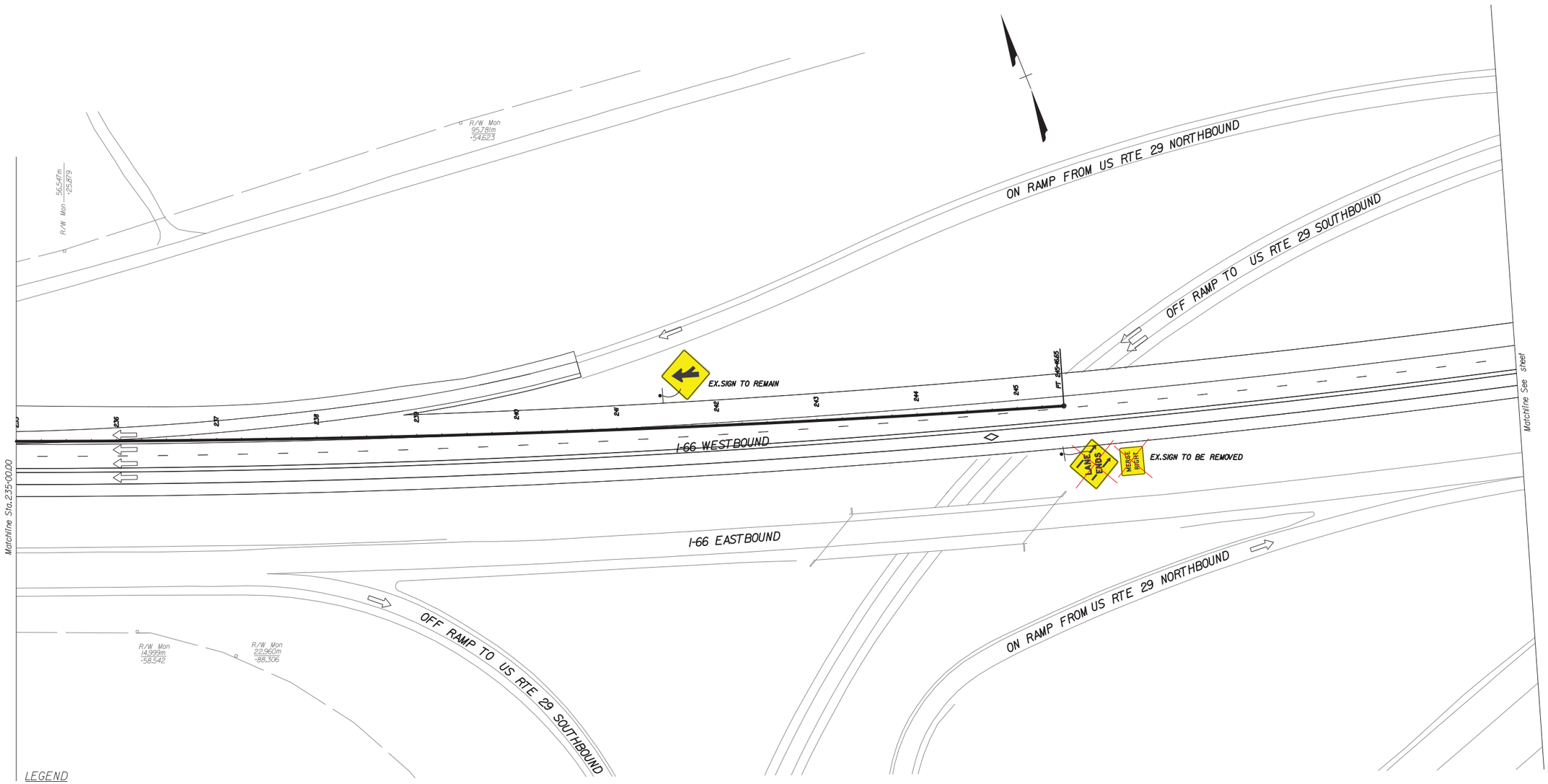


LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN

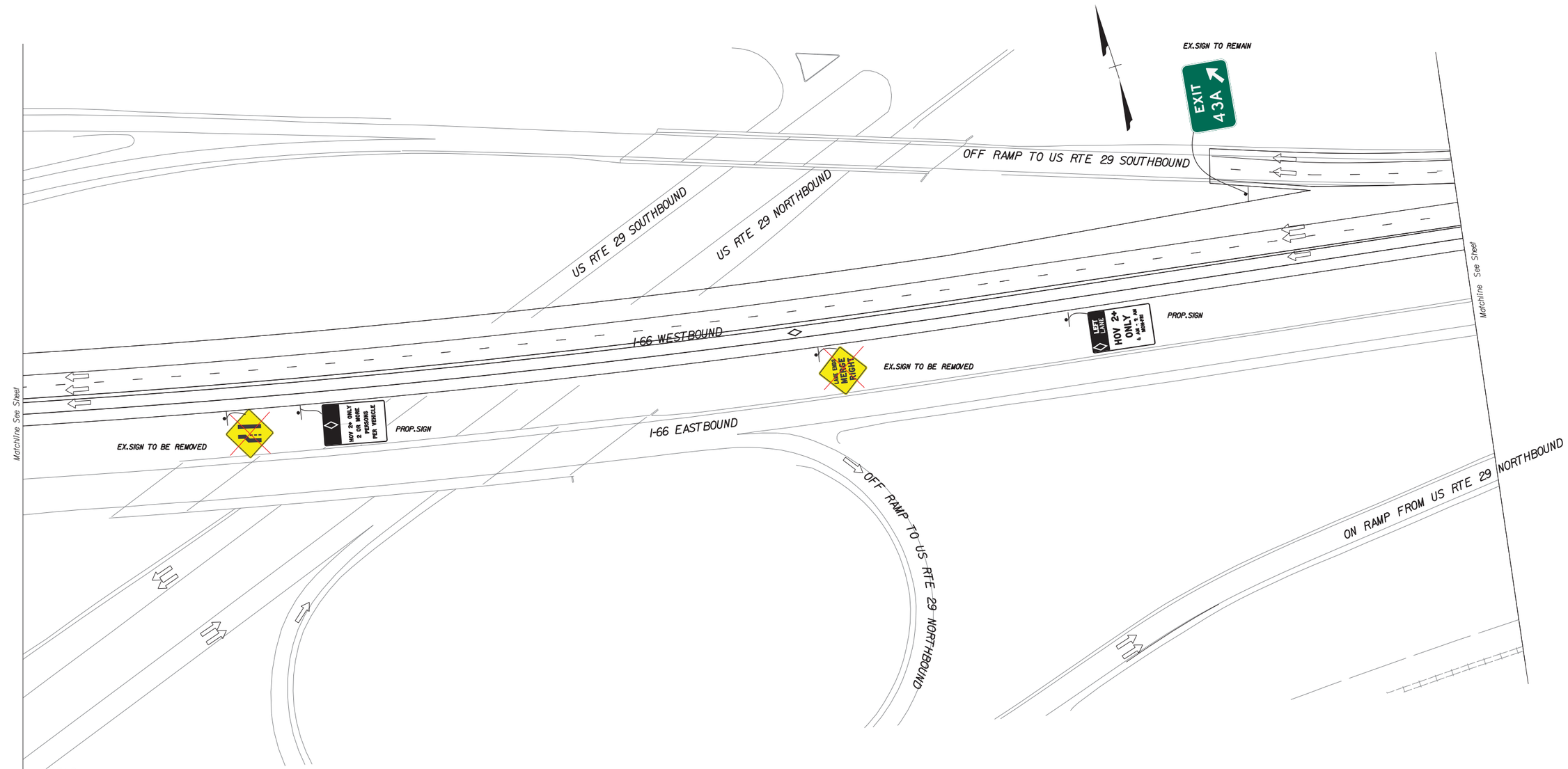


LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN



LEGEND

- SINGLE SIGN POST
- DOUBLE SIGN POST
- CANTILEVER SIGN
- Denotes HOV-2
- 150 W INDUCTION LUMINAIR ON A DECORATIVE POLE

CORMAN CONSTRUCTION

SCALE
0 50' 100'

CONCEPT TRAFFIC CONTROL DEVICE PLAN