

WEST VIRGINIA DIVISION OF HIGHWAYS MATERIALS DIVISION
2024 Materials Construction Conference



**MANAGING CONSULTANTS:
PROJECT DEVELOPMENT,
SCHEDULES, MEETINGS,
BUDGETS AND INVOICES, and
POST DESIGN SERVICE**

OGLEBAY RESORT

March 4th thru March 7th, 2024

*Dirar Ahmad, PE, Assistant Director, Engineering Division
Consultant Review Section (QA/QC)*



AGENDA

WELCOME AND INTRODUCTION

PRESENTATION

Managing Consultants: Project Development, Schedules, Meetings, Budgets and Invoices, and Post Design Service

Dirar Ahmad, PE, Engineering Division

CLOSING REMARKS AND REMINDERS

QUESTION AND ANSWERS

Career perspective and advice from a past co worker, mentor, and friend . . .

**“The first 10 years of your career, you
think that you know everything.**

**The second ten years of your career,
you realize how much you don't know.**

**And the last ten years of your career, you
should be teaching everything you
know.”**

**John Walker, PE
Senior Deputy State Highway Engineer
Of Operations**



Managing Consultants: Project Development, Schedules, Meetings, Budgets and Invoices, and Post Design Service

OVERVIEW

PROJECT DEVELOPMENT

SCHEDULES

MEETINGS

BUDGETS AND INVOICES

POST DESIGN SERVICE (PDS)

OVERVIEW

Someone complains about traffic congestion

A bridge inspection report shows some deficiencies

A new business expansion with a promise to create jobs

A flooding event that damages roads, bridges, infrastructure

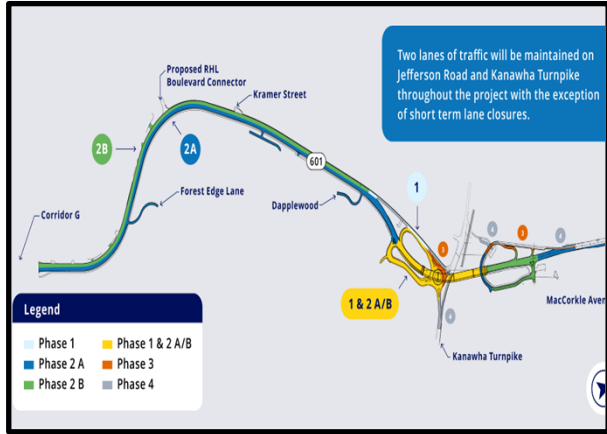
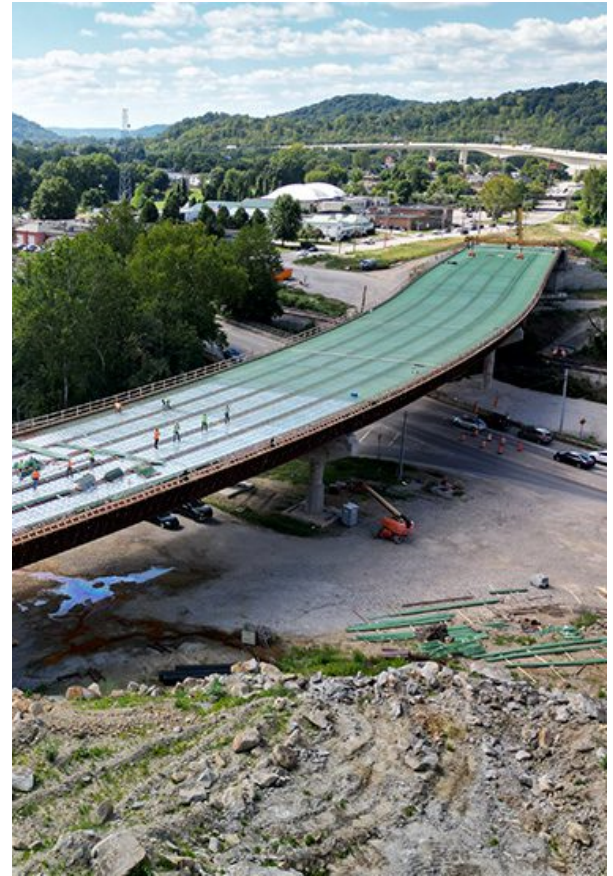
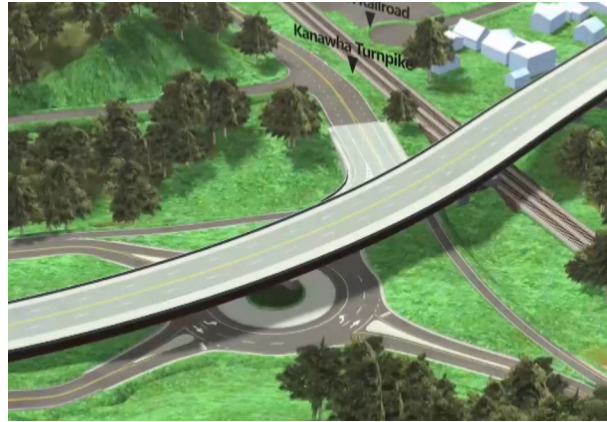
A congested I/S that needs some major upgrade

A major expansion project on the many Corridors around the state

Congress passes a legislation that contains major funding for certain project categories

All of the above are a catalyst to program a project by planning, district, engineering, traffic engineering, or other entities





PROJECT DEVELOPMENT

Jefferson Road, Kanawha County

PROJECT DEVELOPMENT

Programming a Project

Selecting a Consultant

Design Study and NEPA

Public Meetings

Plan Development

P S & E

Authorize

Advertise, Letting, and Award

Pre-Construction Meeting

Electronic File and Tracing Submission from Consultant



PROJECT DEVELOPMENT

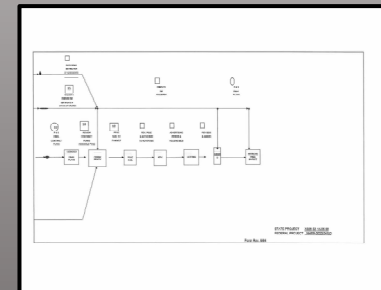
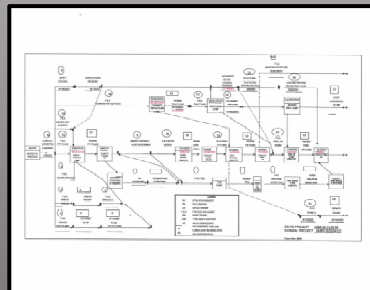
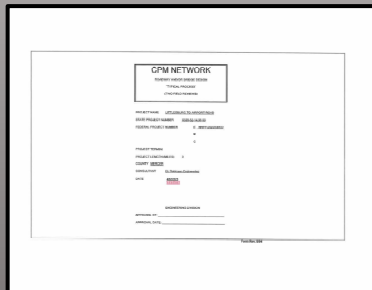
Programming a Project

After project origination, it is programmed by the district, engineering, development office, traffic or others.

Consultant is selected based on statewide if less than \$750,000 or short listing, interviews, selection, negotiations, NTP.

Project Manager (PM) attend scope of work meeting with selected consultant then set up a project schedule using Critical Path Method (CPM).

The CPM will have all major tasks and milestones for the project phases.



PROJECT DEVELOPMENT

Selecting a Consultant



PROJECT DEVELOPMENT

Public Meetings



PROJECT DEVELOPMENT

Plan Development

Preliminary Field Review

Slope Reviews

Final Field Review

Final Plans

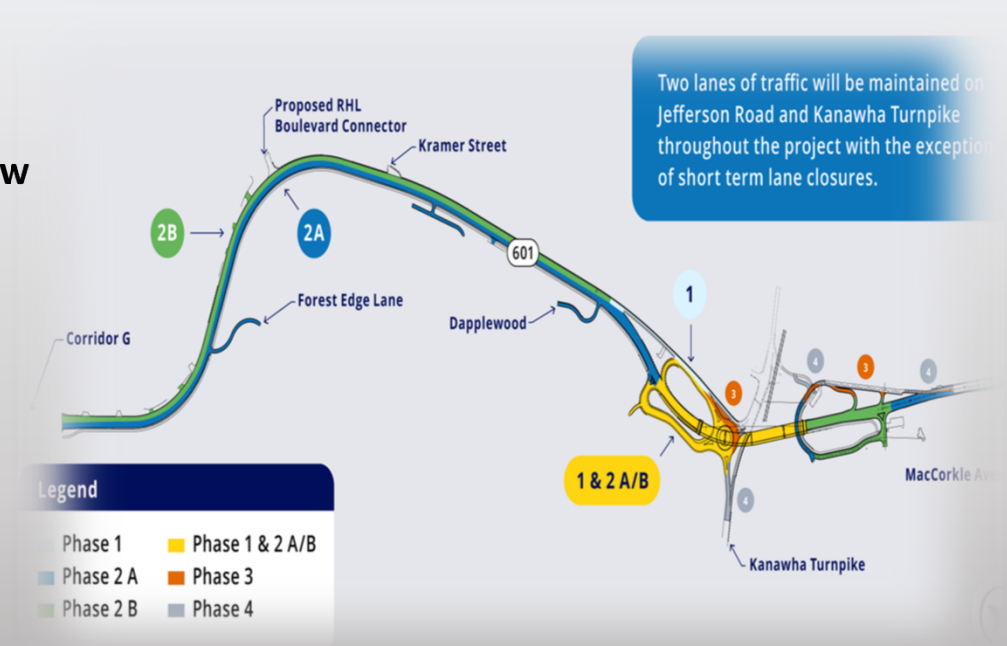
Bridge

Span Arrangement

Type, Size, and Location (TS&L)

Bridge Rating

Final Bridge Plans



PROJECT DEVELOPMENT

Plan Development

Items anticipated to be reviewed during preliminary design refinement on large complex projects will include, but may not be limited to the following:

- Mapping Edits
- CADD Standards/Programs and Coordination
- Field Reviews
- Line and Grade
- Typical Section
- Interchanges/Intersection Schematics
- Cross Sections
- Mass Haul Diagram
- Structure Span Arrangements and TS & L Submissions (Conceptual and Final)
- Geotechnical Investigations (Conceptual and Final)
- Structural Foundation Studies and Foundation Reports (Preliminary and Final)
- Final Structure Plans
- Hydrologic and Hydraulic Design Reports (Preliminary and Final)
- Signing and Pavement Markings Plans (Preliminary and Final)
- Maintenance of Traffic Plans (Preliminary and Final)
- Construction Cost Estimates
- Right of Way Plans (Preliminary and Final)
- Utility Coordination and Relocations (if applicable)
- Other Tasks as Required by the Division

PROJECT DEVELOPMENT

Plan Development

Some complicated projects involve more effort than others.

These areas may include, but are not limited to:

- Highway Design
- Hydraulics and Hydrology
- Drainage Design
- Traffic Specialist
- Geotechnical and Foundation Design
- Structural Design
- Signing and Pavement Markings
- Specification and Special Provision Specialists
- Noise Barrier Design
- Cost Estimating and Construction Scheduling
- Right of Way
- Hazardous Waste Remediation Design

PROJECT DEVELOPMENT

Plan Development

Plan Distribution Schedule

DD-202 PLAN DISTRIBUTION SCHEDULE															CONTRACT PLAN DEVELOPMENT PROJECTS (Note 1)		
DIVISION/AGENCY	ELECTRONIC SUBMITTAL	LABEL	DESIGN REP.				CONTRACT PLAN DEVELOPMENT PROJECTS (Note 1)										
			FIELD REV.	OFFICE REV.	RW-1	PREL FIELD REV.	RW-1 & RW-2 Comb.	SPAN APPR.	SLOPE REV.	COMB. TSSL	RW-2	FINAL FIELD REV.	RW-3	RW-3 (Note 2)	FINAL OFFICE REV.	FINAL DBT BRIDGE PLANS	Half-Size P&E Plans
FHWA (concurrency & nonexempt projects)	FHWA Area Engineers	FHWA-Area	C,X	C,X	R	C,X	R	C	C,X	C	R	C,X			C,X,S,W	C,S,W	C,X,S,W
	Area Engineers	FHWA-RW	N	N		N									N	C,S,W	C,S,W
R/W Section	Jeffrey.Robinette@dot.gov	FHWA-Br.															C,S,W
Division Bridge Engineer	Bert.Buchanan@dot.gov																
Engineering Division	Raymond.J.Scler@nev.gov	DD	C,X	C,X		C,X		C	N	N		N		N		N	
Engineering Division	David.P.Boehring@nev.gov																
Engineering Division	Robert.L.Douglas@nev.gov																
Roadway	Feras.Talaymat@nev.gov	DDR/DDI/Road	C,X	C,X	R	C,X	R	C	C,X	D	R	C,X	R	R	C,X,S,W	C,S,W	C,X,S,W
P&E	Michael.Carter@nev.gov	DDR (P&E)															C,X,S,W
Bridge Review	Ahmed.N.Moog@nev.gov	DDI															C,X,S,W
Bridge (if applicable)	Tim.A.Hermansdorfer@nev.gov	DDI(Br.)	C	C		C		C	C		C						C,S,W
Right-of-Way (Note 4)	Katrina.J.Parsons@nev.gov	DDR(RW)			3R	N	8R				8R	N	M2R_A_2X (half size)	M2R	N		
Geotechnical (Note 5)	Regional Geotech. Map	DDI(Bee.)	C,X	C,X		2C,X		2C	C,X	C		C,X			2C,X	C	
Permitting	Regional Permitting Map	DDR(Perm.)	C	C		C		C	C		C				C	C	
Environmental	Ben.L.Hank@nev.gov	DDE	C	C		C,X		C	C		C,X				C,X	C	C
Consultant Services	Kevin.A.Hall@nev.gov	DDC	C,N	C,N													
Initial Design	Mark.J.White@nev.gov	DDD	C,N	C,N													C
Traffic Engineering Division																	
Design	Cindy.L.Cramer@nev.gov	DT-Design	C	C		C					C				C		C
Operations		DT-Operations	C	C		C					C						C
Technical Support Division																	
Publications Section	Martin.E.Dougherty@nev.gov	DS													G,N	C,N	C
Right-of-Way Division																	
Division Director	Ched.J.Toney@nev.gov	DR	N	N	N	N	N				N	N	N	N			
Estimator		DR-Est.	C	C		C						C,X					
Utilities	Sarah.L.Rumson@nev.gov	DR(ULI)	C	C		C					C						
Contract Administration Division	Jason.M.Boyd@nev.gov	FC				C,X					C	C	C,X		C,X,S,W	C,S,W	C,X,S,W
Materials Control, S&E, Testing Div.	Roni.L.Blanchard@nev.gov	FM													C,S	C,S	
Programming Division	Ryland.W.Musick@nev.gov	PP	C	C		C											C,E
Planning Division	Elanor.C.Pearce@nev.gov	PR	C	C		C											
State Highway Engineer	Alan.D.Reed@nev.gov	CH	C	C		C									C		
Dep. State High. Eng. Construction	Stephen.T.Rumborg@nev.gov	HF	C,N	C,N		N									N		N
Dep. State High. Eng. Development	Jason.C.Foster@nev.gov	HD	C,N	C,N		N									N		N
Dep. State High. Eng. for Operations	Gregory.L.Ballwe@nev.gov	HO	N	N		N									N		N
Maintenance Division	Jacob.M.Rumsigames@nev.gov	OM				N									N		
District																	
District Engineer/Manager		DI-E/M	C,X	C,X		C		C	C		C				C,S,W	C,S,W	
Dist. Right-of-Way Agent		DI-R/W	C	C		C					C				C		
Dist. Bridge Eng. (if appl.)	Division of Highways Districts	DI-Bridge	C	C		N		C	C		N				N		C,S,W
Dist. Const. Engineer		DI-Const.				C,X		C	C		C,X				C,X,S	C,S	
Dist. Util. Supervisor		DI-ULI				C					C				C		
DEP-Office of Water Resources	DEP Water Resources Map	DEP-OWR	C	C		C,X									C		
DNR Wildlife Resources	DNR Wildlife Resources Map	DNR-WR	2C	2C		2C,2X							2C,2X				
U. S. Army Corps of Engineers	sarah.m.worward@usaco.army.mil	US-COE	C	C		C		C	C		C						
Railroad Company (if appl.)	Sarah.L.Rumson@nev.gov	DR-RR	4C,4X			4C,4X			4C		4C,4X				4C,4X	4C	
Utility Companies Encountered	Utility Contact List	ULI - Co. Name	C,X												C,X		
Other Appropriate Agencies			C	C		C									C		
Commissioner's Office of Econ. Dev.	David.E.Cramer@nev.gov	CD	C	C		C									C		C

NOTE 1: C = Const. plans or Design Report; R = RW plans; N = Notification by PM; X = Cross sections; M = Mylars of RW plans; S = Project-specific special provisions; W = Working-draw chart.
 S = All electronic plans in CADD format with electronic alignment files on acceptable media; A = Copy of asbestos inspection request memo to DD-1A1
 NOTE 2: Right of Way Plans (BR) shall include 1R with changes highlighted in red. NOTE 3: All Cert. "H" & "R" projects contact CH(CR) for environmental agency distribution list. NOTE 4: Submit PDF in addition to paper copies.
 NOTE 5: For 2C submit one hardcopy and one PDF.



PROJECT DEVELOPMENT

Plan Development

Preliminary Field Reviews (PFR)

Receive PFR plans and supporting documentation such as:

Preliminary H & H report
R/W 1's and 2's
Span arrangements
Submission checklists

IF NEPA WAS NOT DONE DURING THE DESIGN PHASE, the PM and consultant need to work with the consultant doing the NEPA through our Technical Support Division.

Check and verify **DESIGN CRITERIA** for all roadways, bridges, drainage design frequency, etc.

WEST VIRGINIA DIVISION OF HIGHWAYS PRELIMINARY FIELD REVIEW SUBMISSION CERTIFICATION	
State Project No. _____	Consultant _____
Federal Project No. _____	Project Manager _____
Project Name _____	Submission Date _____
County _____	
General Plan Requirements	Environmental Requirements
_____ Construction Project Numbers Shown	_____ Type of GIs Permits Documented (Individual or National)
_____ Line Weights Legible	_____ Certification of Familiarity with Environmental Documents
_____ Contours Shown and Legible	_____ List of Required Environmental Mitigations (DD-308)
_____ Adequate Spot Elevations Shown	_____ Listing and Explanation of Deviations to Design Report and Env. Documents
Field Review Preparation	_____ Notice of Inspection or Notice of Violation Justification
_____ Notice Callouts Flagged at Sufficient Intervals for Field Review	
_____ R/W 1 Plans, or R/W 1 & R/W 2 Combined Plans Submitted (DD-307)	Miscellaneous Sheets
_____ Value Engineering Review Required (DD-416)	_____ This Sheet with Proposed Sheet Index (DD-715)
Plan and Profile Sheets	_____ Mass Diagram
_____ Alignment, Curve Data, and Superelevation Shown for Mainline and all Sideways	_____ Interchange Geometric Layout
_____ Stationing Shown for Mainline and all Sideways	_____ Traffic Signal Map (DD-602)
_____ Post, Grades and Vertical Curve Data, Including K-Values, Shown for Mainline and all Sideways	_____ Conceptual Hierarchy of Traffic Systems, Including Interchange (DD-601)
_____ Proposed Construction Limits Shown	_____ Traffic Routing Contingency Plan for Bridge/Structure Projects
_____ Property Lines Shown	_____ Property Maps, Ownership and Utility Lines from Interchange (DD-301)
_____ Disposition of all Coseways, Retention, and Streams or Ponds	Boring Layout and Documents
_____ Channel Change Requirements Incorporating Hazard Channel Design Features Shown	_____ Boring Layout Shown on a Set of Topographic Plans
_____ Major Drainage Requirements, Including Pipe Profiles, Shown (DD-700)	_____ Boring Bid Documents (Submitted after Preliminary Field Review) (DD-415)
_____ Major Erosion and Sediment Control Features on Plans and Cross Sections	_____ Boring Tabulation Showing all Pertinent Information (Submitted after Preliminary Field Review)
_____ Proposed and Existing R/W Limits Shown	Preliminary Field Review Report
_____ Existing Public & Private Utilities, Including Gas, Water, Sewer, and Leach Fields for All Parallels, Shown (DD-300)	_____ Design Criteria Listing for Mainline and all Sideways
Typical Sections	_____ Access Point Cost Analysis (DD-307)
_____ Mainline Typical	_____ Draft of required Design Excavations
_____ Sideway Typical	Miscellaneous Reports
_____ Temporary Odour Typical	_____ Mass Drainage Calculations
Cross Sections	_____ Geometric Calculations
_____ Mainline Sections at 200 foot Spacing and at Critical Locations	_____ Total Project Construction Cost Estimate
_____ Sideway Sections at 200 foot Spacing and at Critical Locations	_____ Consultant's Quality Control Markups
_____ Earthwork Based on Assumed Slopes	
_____ Existing Topography, Including R/W, Utilities, Bldg's, etc., Shown	

Note: 1. All Lines to be Initialed by Office Manager or responsible management level above the Project Manager
2. Use "NA" for any item not applicable to the project. Do not leave any items blank.

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Preliminary
Field Review

PROJECT DEVELOPMENT

Plan Development

Design Study and NEPA

**WEST VIRGINIA DIVISION OF HIGHWAYS
DESIGN REPORT FIELD REVIEW SUBMISSION CERTIFICATION**

State Project No. _____ Consultant _____
 Federal Project No. _____ Project Manager _____
 Project Name _____ Submission Date _____
 County _____

General Plan Requirements
 _____ Project Numbers Shown
 _____ Line Weights Legible (DD-701)
 _____ Contours Screened and Legible
 _____ Adequate Spot Elevations Shown

Plan and Profile Sheets
 _____ Alignment, Curve Data, and Super-elevation Rate Shown for Mainline and all Sideroads
 _____ Stationing Shown for Mainline and all Sideroads
 _____ Prel. Grades and Vertical Curve Data, Including K-Value, Shown for Mainline and all Sideroads
 _____ Proposed Construction Limits Shown
 _____ Property Lines from Tax Maps Shown
 _____ Disposition of all Crossroads, Railroads, and Streams or Rivers
 _____ Channel Change Requirements Incorporating Natural Channel Design Features Shown
 _____ Major Drainage Requirements, Shown (DD-706)
 _____ Proposed and Existing RW Limits Shown (DD-301)
 _____ Existing & Private Major Utilities, Including Gas Fields, Sewer, and Water Facilities Shown

Vertical Sections
 _____ Mainline Typical
 _____ Sideroad Typical

Cross Sections
 _____ Mainline Sections at 500 foot Spacing and at Critical Locations
 _____ Sideroad Sections at 500 foot Spacing and at Critical Locations
 _____ Existing Topography, Including R/W, Streams, Roads, Utilities, etc. Shown

Miscellaneous Sheets
 _____ Title Sheet with Proposed Sheet Index (DD-701)
 _____ Mass Diagram
 _____ Traffic Sketch Map (DD-802)
 _____ Conceptual Maintenance of Traffic Scheme, Including Detours
 _____ Ownership Index (May be submitted as a separate report on large projects involving a significant number of parcels)

Field Review Report
 _____ Design Criteria Listing for Mainline and all Sideroads
 _____ Listing of Proposed Design Exceptions
 _____ Listing of Advantages and Disadvantages of Each Alignment Under Study
 _____ Table of Physical Characteristics (curvature, grades, construction costs, right-of-way costs, displacements, length, etc.) of Each Alignment
 _____ Access Point Analysis Including type, location, etc.
 _____ Geotechnical Overview (DD-307)

Miscellaneous Reports
 _____ Major Drainage Calculations
 _____ Total Project Construction Cost Estimate of Each Alignment Under Study
 _____ Consultant's Quality Control Markups

Notes: 1- All Lines to be initiated by Office Manager or responsible management level above the Project Manager
 2- Use "NA" for any item not applicable to the project. Do not leave any items blank.

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**WEST VIRGINIA DIVISION OF HIGHWAYS
DESIGN REPORT OFFICE REVIEW SUBMISSION CERTIFICATION**

State Project No. _____ Consultant _____
 Federal Project No. _____ Project Manager _____
 Project Name _____ Submission Date _____
 County _____

General Plan Requirements
 _____ Project Numbers Shown
 _____ Line Weights Legible (DD-701)
 _____ Contours Screened and Legible
 _____ Adequate Spot Elevations Shown

Plan and Profile Sheets
 _____ Alignment, Curve Data, and Super-elevation Rate Shown for Mainline and all Sideroads
 _____ Stationing Shown for Mainline and all Sideroads
 _____ Prel. Grades and Vertical Curve Data, Including K-Value, Shown for Mainline and all Sideroads
 _____ Proposed Construction Limits Shown
 _____ Property Lines from Tax Maps Shown
 _____ Disposition of all Crossroads, Railroads, and Streams or Rivers
 _____ Channel Change Requirements Incorporating Natural Channel Design Features Shown
 _____ Major Drainage Requirements, Shown (DD-706)
 _____ Proposed and Existing RW Limits Shown (DD-301)
 _____ Existing & Private Major Utilities, Including Gas Fields, Sewer, and Water Facilities Shown

Typical Sections
 _____ Mainline Typical
 _____ Sideroad Typical

Cross Sections
 _____ Mainline Sections at 500 foot Spacing and at Critical Locations
 _____ Sideroad Sections at 500 foot Spacing and at Critical Locations
 _____ Existing Topography, Including R/W, Streams, Roads, Utilities, etc. Shown

Miscellaneous Sheets
 _____ Title Sheet with Proposed Sheet Index (DD-701)
 _____ Mass Diagram
 _____ Traffic Sketch Map (DD-802)
 _____ Conceptual Maintenance of Traffic Scheme, Including Detours (If Required)
 _____ Ownership Index (May be submitted as a separate report on large projects involving a significant number of parcels)

Office Review Report
 _____ Design Criteria Listing for Mainline and all Sideroads
 _____ Listing of Proposed Design Exceptions
 _____ Listing of Advantages and Disadvantages of Each Alignment Under Study
 _____ Table of Physical Characteristics (curvature, grades, construction costs, right-of-way costs, displacements, length, etc.) of Each Alignment
 _____ Access Point Analysis Including type, location, etc.
 _____ Access Point Analysis (DD-307)
 _____ Geotechnical Overview
 _____ Listing of Design Report Field Review Comments and Action Taken on Each Comment

Miscellaneous Reports
 _____ Major Drainage Calculations
 _____ Total Project Construction Cost Estimate of Each Alignment Under Study
 _____ Consultant's Quality Control Markups

Notes: 1- All Lines to be initiated by Office Manager or responsible management level above the Project Manager
 2- Use "NA" for any item not applicable to the project. Do not leave any items blank.
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Checked Page 1 of 1



Design Report Field Review

Design Report Office Review

PROJECT DEVELOPMENT

Plan Development

Preliminary Field Reviews (PFR)

Review the PFR plans for completion and accuracy in accordance with WVDOH Design Directive and AASHTO.

Verify state and federal project numbers and project name

Consultant to get mapping or mapping is provided by DOH

Consultant to send out utility verification plans to all utilities encountered and picked up by survey / mapping

Get traffic sketch maps and request ADT, turning movements, as applicable

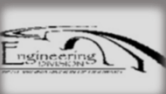
Verify all existing right of way and easements

Check and verify DESIGN CRITERIA for all roadways, bridges, drainage design frequency, etc.

Initiate, request, and the consultant prepare "DESIGN EXCEPTION" as applicable for review, processing and approval
(this could involve FHWA review and approval if applicable)

- o **Highway Design:** Verify all horizontal and vertical alignments
- o **Hydraulic And Hydrology:** Verify H&H submission to meet our drainage manual criteria

All major drainage structures and drainage areas



PROJECT DEVELOPMENT

Plan Development

Preliminary Field Reviews (PFR) continued . . .

Review with the Geotech team all proposed boring layouts, stake borings, get borings drilled by contract, solicitation or state forces.

Prepare draft geotechnical report and slope design recommendations.

Verify access is maintained to impacted properties.

Review MOT scheme and applicable / practical phases of construction.

Consultant shall submit, along with the PFR / SA plans, other applicable documents, their marked-up QC plans showing independent review of their plans, geometry, all facets of the submission prior to them submitting the plans for DOH Project Manager (PM) to process.

Review project cost estimate at each milestone plan submission. Update the project cost in the HUB accordingly as needed. (Cherri Moffat)

Consultant to submit all the comments given to them during the PFR in a word format showing all who attended the review, each comment typed clearly, and disposition of each comment (See DD-202).

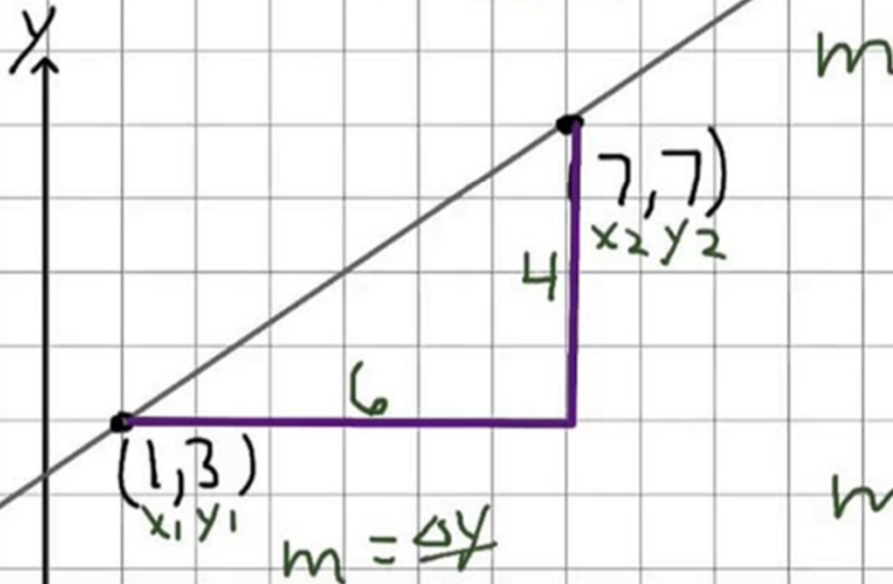
PROJECT DEVELOPMENT

Plan Development

Slope Reviews

Slope

$$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$



Slope Review

WEST VIRGINIA DIVISION OF HIGHWAYS SLOPE REVIEW SUBMISSION CERTIFICATION	
State Project No. _____	Consultant _____
Federal Project No. _____	Project Manager _____
Project Name _____	Submission Date _____
County _____	
General Plan Requirements	Cross Sections
____ Construction Project Numbers Shown	____ Cross Sections with Recommended Cut Slopes, Fill Slopes and Associated
____ Line Weights Legible	____ Fill Benches, and Select Embankment Placement
____ Contours Screened and Legible	____ Earthwork Based on Assumed Slopes and Recommended Shrink and Swell Factors
____ Adequate Spot Elevations Shown	____ Borings Plotted on all Applicable Sections
Plan and Profile Sheets	Miscellaneous Sheets
____ Alignment, Curve Data, and Superelevation Shown for Mainline and all Sideroads Stationing Shown for Mainline and all Sideroads	____ Title Sheet for Boring Logs Showing Geologic Symbols (DD-402)
____ Prel. Grades and Vertical Curve Data, Including K-Values, Shown for Mainline and all Sideroads	____ Mass Diagram
____ Proposed Construction Limits Shown	Geotechnical Report
____ Property Lines Shown	____ Discussion of Recommended Slopes
____ Disposition of all Crossroads, Railroads, and Streams or Rivers	____ Discussion of Recommended Culverts and Retaining Walls
____ Channel Change Requirements Incorporating Natural Channel Design Features Shown	____ Discussion of Project Site and Geologic Conditions, Including Subsurface Conditions (DD-402)
____ Major Drainage Requirements, Including Pipe Profiles, Shown (DD-706)	____ Discussion and Justification for Recommended Shrink and Swell Factors (DD-406)
____ Proposed and Existing RW Limits Shown	____ Laboratory Testing & Soil/Rock Analysis
____ Existing Public & Private Utilities, Including Gas, Water, Septic, and Leach Fields for Residences, Shown (DD-303)	____ Engineer's Written Field Boring Logs
____ Boring Layout Plotted on All Plan Sheets	____ Total Project Construction Cost Estimate
____ Borings Plotted on Profile Sheets	Miscellaneous Report
____ Preliminary Layout of all Structures, Including Bridges, Culverts, and Walls	____ Consultant's Quality Control Markups
Typical Sections	
____ Mainline Typical	
____ Sideroad Typical	
____ Temporary Detour Typical	
	Notes: 1- All Lines to be initiated by Office Manager or responsible management level above the Project Manager 2- Use "NA" for any item not applicable to the project. Do not leave any items blank.
Checklist Page 1 of 1	DD-202 Pg 9-25 rev 2019-Nov-12.dwg



PROJECT DEVELOPMENT

Plan Development

Final Office Review

Consultant submit Final Office Review plans (FOR) and supporting documents such as:

Final Geotechnical Report

Revised RW 3, submission checklists and their QC marked up plans

Review the Final Office Review for completion and accuracy in accordance with WVDOH Design Directive and AASHTO requirements

Check all comments from Final Field Review (FFR) and verify the responses to these comments have been addressed and incorporated into the FOR submission

Check all project details and Project Specific special provisions

Check Final Geotechnical report

Check all pay items are correct

Check randomly some quantities for accuracy (summary sheet vs. quantity tables)

Check Project cost estimate and request changes in the HUB as needed.

Check all utility relocation plans have been received and incorporated into the plans

Request ROW certificate and USR

WEST VIRGINIA DIVISION OF HIGHWAYS FINAL OFFICE REVIEW SUBMISSION CERTIFICATION	
State Project No. _____	Project Manager _____
Federal Project No. _____	Submission Date _____
Project Name _____	
County _____	
General Plan Requirements	Miscellaneous Sheets
Construction Project Numbers Shown _____	Title Sheet with Proposed Sheet Index (DD-701)
Line Heights, Legible _____	Summary of Quantities Showing List of Items Separated by Categories with Alternates at the End of Each Category (BAMS Format) (DD-702)
Contours Screened and Legible _____	General Note Sheets (DD-704)
Adequate Spot Elevations Shown _____	Quantity Tables with all Quantities Completed (DD-705)
All Pieces of Work Included in a Bid Item _____	Mass Diagram _____
Plan and Profile Sheets	Reference Point Sheet _____
Alignment, Curve Data, and Superelevation Shown for Mainline and at Sideroads _____	Geometric Layout Sheet with Coordinates
Stationing Shown for Mainline and at Sideroads _____	Geometric Layout Sheet, or Profile Sheet
Grades and Vertical Curve Data, Including K-Values, Shown for Mainline and at Sideroads _____	Superelevation Tables and Diagrams Completed for all Curves (DD-603)
Construction Limits Shown _____	Interchange Geometrics Shown _____
Property Lines Shown _____	Intersection Layout Including Joint Layout Complete Maintenance of Traffic Scheme including Sequence of Construction (DD-661)
Disposition of all Crossroads, Railroads, and Streams or Rivers _____	Traffic Planning Contingency Plan for Bridge/Structure Projects _____
Channel change requirements incorporating Natural Channel Design Features Shown _____	Pavement Marking Layout (DD-662)
All Drainage Requirements Including Pipes, Pipe Profiles, Ditches, and Underdrains Shown (DD-706)	Sign Layout (DD-663)
Major Erosion and Sediment Control Features on Plans and Cross Sections _____	Signal Layout _____
Drainage and Guardrail Limits Data Noted on Plan and Profile Sheets _____	Lighting Layout (DD-664)
Proposed and Existing RW Limits Shown _____	All Required Safety, Wet and Culvert Details Shown _____
Utility Depositors Shown for all affected Utilities (If Available) _____	Any Required Special Detail Sheets Including ADA Features _____
Existing Public & Private Utilities, Including Gas, Water, Sewer, and Leach Fields for Residences, Shown (DD-303)	Property Maps, Ownership, and Utility Index from Revised ROW-3 Plans _____
Pavement/Surface Limits for All Roads _____	Completed Set of Soil Plans and Profiles including Title Sheet (DD-602)
Curb Ramps and Other ADA Features _____	Cross Sections
Typical Sections	Complete Set of Mainline Cross Sections Showing Taperlines, Earthwork, Borings, RW Limits, Guardrail & Barriers _____
Mainline Typical _____	Complete Set of Sideroad Cross Sections Showing Taperlines, Earthwork, Borings, RW Limits, Guardrail & Barriers _____
Pavement Edge/Shoulder Details _____	All Drainage Features Shown _____
Pavement Design with Legend Including all Related Details _____	Quantity Tables Completed _____
Temporary Detour Typical _____	
Checklist Page 1 of 2	FOR Checklist rev 2020 Feb-21

Compiler Copies of All Project Specific Special Provisions (Word Format) (DD-105, DD-620) _____	Pipes, etc. Shown for Proposed Construction Scheme _____
Complete Invoiced/Disinvoiced Provisions Letters Approving Proposed Resolutions From Utility Companies _____	Copy of Section 106 "Historical Clearance Document" _____
Environmental Requirements	Copy of "Plans, Threatened, and Endangered Species Clearance Letter" Included _____
List of Required Environmental Mitigation (DD-206) _____	Copy of Letter Submitting Plans to Resource Agencies for Review _____
Certification and Listing of Adherence to Environmental Documents _____	Copy of All Comments Received from Resource Agencies _____
Lifting and Explanation of Deviations to Design Report and Env. Documents _____	Copy of FEMA Clearance Letter (If Applicable) _____
Copy of Transmittal Letter From DOT Submitting NPDES Registration to DEP _____	Two Copies of Completed 404 Permit Application Package Included _____
Completed NPDES Registration Form with all Attachments sent to DEP _____	
Miscellaneous Reports	Supplemental Contract Information
Complete Drainage Calculations _____	Estimated Contract Time Chart (DD-602) _____
Computations Including Horizontal/Vertical Geometry and Quantity Calculations _____	Total Project Construction Cost Estimate _____
Final Geotechnical Report (DD-402) _____	
Consultant's Quality Control Markups _____	
Checklist Page 2 of 2	FOR Checklist rev 2020 Feb-21

Notes:
1- All Lines to be Initiated by Office Manager or responsible management level above the Project Manager
2- Use "NA" for any item not applicable to the project. Do not leave any items blank.

Final Office Review



PROJECT DEVELOPMENT

Plan Development

Final Plans

Consultant submits Final Plans and supporting documents and submission checklists, per CPM date.

Quick review of the Final plans for completion and make sure any comments from FOR have been addressed, incorporated.

Verify Final documents are submitted.

Send all documents to the PS & E Unit for starting the PS & E process.

Any comments will be sent to the consultant.

Any plan Submission not meeting our DD-checklist requirements, the plans are rejected by notifying the consultant.

WEST VIRGINIA DIVISION OF HIGHWAYS FINAL OFFICE REVIEW SUBMISSION CERTIFICATION Consultant	
State Project No. _____	Project Manager _____
Federal Project No. _____	Submission Date _____
Project Name _____	County _____
County _____	
General Plan Requirements	Miscellaneous Sheets
_____ Construction Project Numbers Shown (DD-701)	_____ Title Sheet with Proposed Sheet Index
_____ Line Weights Legible	_____ Summary of Quantities Showing List of Items Separated by Categories with Alternates at the End of Each Category (BARS Form) (DD-705)
_____ Adequate Spot Elevations Shown	_____ General Note Sheets (DD-704)
_____ All Plans and Work Included in a Bid Item	_____ Quantify Tables with all Quantities Completed (DD-705)
Plan and Profile Sheets	_____ Mass Diagram
_____ Alignment, Curve Data, and Super-elevation Shown for Mainline and all Sideways	_____ Reflection Point Sheet
_____ Stationing Shown for Mainline and all Sideways	_____ Geometric Layout Sheet with Coordinates
_____ Grades and Vertical Curve Data, Including Kc-Value, Shown for Mainline and all Sideways	_____ Benchmarks Shown on Ref. Pt. Sheet
_____ Construction Limits Shown	_____ Geometric Layout Sheet or Profile Sheet
_____ Property Lines Shown	_____ Super-elevation Tables and Diagrams Completed for all Curves (DD-603)
_____ Disposition of all Crossroads, Railroads, and Streams or Rivers	_____ Interchange Geometrics Shown
_____ Channel Change requirements incorporating Natural Channel Design Features Shown	_____ Interchange Layout including abut Layout including Sequence of Construction (DD-681)
_____ All Drainage Requirements including Pipes, Pipe Profiles, Ditches, and Underdrains Shown (DD-706)	_____ Traffic Loading Configuration Plan for Bridge/Structure Projects
_____ Major Erosion and Sediment Control Features on Plans and Profile Sheets	_____ Pavement Marking Layout (DD-682)
_____ Drains and Guardrail/Data Noted on Plans and Profile Sheets	_____ Sign Layout (DD-683)
_____ Proposed and Existing RW Limits Shown	_____ Signal Layout
_____ Utility Dispositions Shown for all affected Utilities (if Available)	_____ Lighting Layout (DD-684)
_____ Existing Public & Private Utilities, including Gas, Water, Sewer, and Leach Fields for Residences, Shown (DD-503)	_____ All Required Ret. Wall and Culvert Details Shown
_____ Pavement/Surfaces Limits for All Roads	_____ All Required Special Detail Sheets including ADA Features
_____ Site Plans for All Structures	_____ Property Maps, Ownership and Utility Index from Revised RW's Plans
_____ Curb Ramps and Other ADA Features	_____ Completed Set of Soil Plans and Profiles including Title Sheet (DD-402)
Typical Sections	Cross Sections
_____ Mainline Typical	_____ Complete Set of Mainline Cross Sections Showing Templates, Earthwork, Borings, RW Limits, Guardrail & Barriers
_____ Shoulder Typical	_____ Complete Set of Shoulder Cross Sections Showing Templates, Earthwork, Borings, RW Limits, Guardrail & Barriers
_____ Pavement Edge/Shoulder Details including all Related Details	_____ All Drainage Features Shown
_____ Temporary Debris Typical	_____ Quantify Tables Completed
_____ Certification and Listing of Adherence to Environmental Documents	
_____ Listing and Explanation of Deviations to Design Report and Env. Documents	
_____ Copy of Transmittal Letter From DOT Submitting NPDES Registration to DEP	
_____ Completed NPDES Registration Form with all Attachments sent to DEP	
Miscellaneous Reports	
_____ Complete Drainage Calculations	
_____ Computations including Horizontal/Vertical Geometry and Quantity Calculations	
_____ Final Geotechnical Report (DD-402)	
_____ Consultant's Quality Control Markings	
_____ Estimated Contract Time Chart (DD-600)	
_____ Total Project Construction Cost Estimate	
Supplemental Contract Information	
_____ Notes: 1. All Lines to be Initialed by Office Manager or responsible management level above the Project Manager	
2. Use "NA" for any item not applicable to the project. Do not leave any items blank.	

Final Office Review



PROJECT DEVELOPMENT

Plan Development

QC Examples . . .

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
601002-001	CLASS B CONCRETE	CY	18.89	\$865.00	\$16,339.85
604028-016	18 INCH CORRUGATED ALLUMINUM ALLOY PIPE END SECTION	EA	4	\$6,200.00	\$24,800.00
606029-001	FREE DRAINING BASE TRENCH	LF	12798	\$6,200.00	\$79,347,600.00
606030-001	OUTLET PIPE, 6 INCH	LF	9	\$6,200.00	\$55,800.00
604050-010	12 INCH HIGH DENSITY POLYETHYLENE PIPE	LF	56	\$270.00	\$15,120.00
604050-020	24 INCH HIGH DENSITY POLYETHYLENE PIPE	LF	200	\$170.00	\$34,000.00
604050-024	36 INCH HIGH DENSITY POLYETHYLENE PIPE	LF	342	\$350.00	\$119,700.00
604050-032	48 INCH HIGH DENSITY POLYETHYLENE PIPE	LF	164	\$913.00	\$149,732.00
604050-026	60 INCH HIGH DENSITY POLYETHYLENE PIPE	LF	164	\$1,200.00	\$196,800.00

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
606030-001	OUTLET PIPE, 6 INCH	LF	9	\$6,200.00	\$55,800.00

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
606029-001	FREE DRAINING BASE TRENCH	LF	12798	\$6,200.00	\$79,347,600.00

Example of Project Manager detailed QC revisions from the Final Field Review cost estimate.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
601002-001	CLASS B CONCRETE	CY	18.89	\$865.00	\$16,339.85
604028-016	18 INCH CORRUGATED ALLUMINUM ALLOY PIPE END SECTION	EA	4	\$6,200.00	\$24,800.00
606029-001	FREE DRAINING BASE TRENCH	LF	12798	\$6,200.00	\$79,347,600.00
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604050-026	60 INCH HIGH DENSITY POLYETHYLENE PIPE	LF	164	\$1,200.00	\$196,800.00

PROJECT DEVELOPMENT

Plan Development

QC Examples . . .

HDR West Virginia Department of Transportation | Division of Highways
2023 Annual Submission - Quality Assurance/Quality Control (QA/QC) Procedures Overview

Quality Management System

HDR has a fully documented Quality Management System (QMS), including a collection of QMS procedures and a comprehensive QMS Manual. HDR's QMS is comprised of:

- QMS Manual and Quality Policy
- Quality Procedures
- Standards, Guidelines, Analyses, and Tools
- Quality Records

Our QMS and Quality Policy are consistently reviewed and maintained to conform to business and industry drivers for continuous improvement. Revisions and updates to our Quality Policy and/or QMS are executed during the periodic meetings of our corporate Quality Steering Committee. Once executed, revisions and updates are communicated to all employees and are in effect on the issued date.

Quality Policy and Goal

Our Policy. Consistently provide professional services that satisfy statutory and regulatory requirements and that meet or exceed your expectations.

Our Goal. Set the industry benchmark for excellence in the services we provide.

Your projects call for a high level of accountability, and you will find that our attention to detail and adherence to standards lead to successful outcomes. To achieve quality in our work, we have developed a Quality Management System (QMS) based on the principles and guidelines set forth by the ISO 9001:2015 series of international standards for quality management.

Our QMS has been designed to maximize congruency with the principles and guidelines established by the ISO 9001:2015 series of quality standards. However, HDR has not undertaken the formal process of certification by an independent external organization with the exception of select international office locations and U.S.-based projects where specifically required by clients.

While the ISO 9001 Standard is based on solid business practices (such as client focus and controlling the quality of products and services), certification alone does not mean "better quality." Our approach is to build on these fundamental business management strategies and to maintain consistency with ISO 9001 requirements.

Due to the costs associated with obtaining and maintaining certification, our approach to ISO 9001 certification is strategic and purposeful. We maintain our ability to certify on a project-by-project basis when contractually required, and the structure and implementation of our corporate QMS allows us to easily certify when needed.

Quality Processes

HDR has a number of processes in place to control or monitor the quality of our products and services:

QC Review. Manages risk by verifying that project deliverables and supporting documentation are complete, understandable, conform to applicable and reasonable standards relative to their intended purpose, and meet client and HDR requirements.

hdrinc.com 500 Virginia Street East, Suite 1250, Charleston, WV 25301-2135
(803) 343-6100

1

HDR West Virginia Department of Transportation | Division of Highways
2023 Annual Submission - Quality Assurance/Quality Control (QA/QC) Procedures Overview

Quality Checking. Provides a consistent process for verifying the accuracy and completeness of information/data, and for verifying and documenting corrections and/or changes that have been made for calculations, drawings, reports, specifications, and spreadsheets.

Project Review. Facilitates communication between the Project Manager and HDR technical and operational management on the status of a project and identifies areas where actions may be required to improve project performance.

Project Approach and Resource Review (PARR). The PARR results in a summary of key findings and recommendations to the project team. It provides the project team with an independent review for appropriate:

- Solutions applied
- Technical approach implemented
- Staff with required technical skills engaged
- Project technical risks identified, and appropriate mitigation measures incorporated

Quality Management System

Our goal is to set the industry benchmark for excellence in our services. We accomplish this through work well done, staying true to purpose, and exercising discipline.

Project reviews occur throughout project execution to facilitate communication between the project manager and HDR management. Managing the quality of deliverables is essential to minimizing cost and schedule overruns on projects.

QUALITY CHECK (1)
Detailed checking occurs between the reviewer and checker to verify the accuracy of information relative to the intended purpose.

QUALITY REVIEW (2)
Following quality checking to the reviewer, who checks deliverables to the QC Reviewer to verify deliverables and supporting documents against the schedule of release and confirms to applicable standards.

QUALITY CHECKING

1A ORIGINATOR: Originator submits deliverable to the QC Reviewer

2 QC REVIEWER: Initial QC Review

3 ORIGINATOR: Comment Resolution

4 QC REVIEWER: Approval of Deliverable

5 PROJECT MANAGER

hdrinc.com 500 Virginia Street East, Suite 1250, Charleston, WV 25301-2135
(803) 343-6100

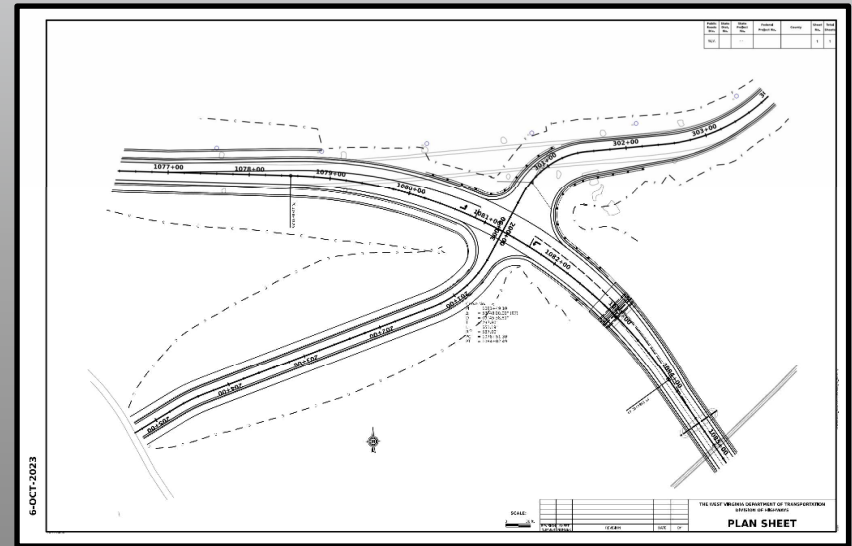
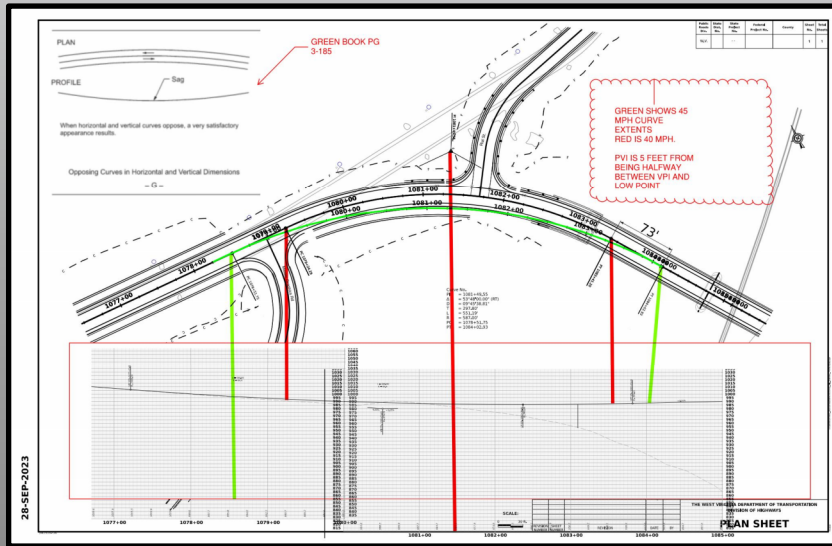
2

Consultant QC after Final Field Review

PROJECT DEVELOPMENT

Plan Development

QC Examples . . .

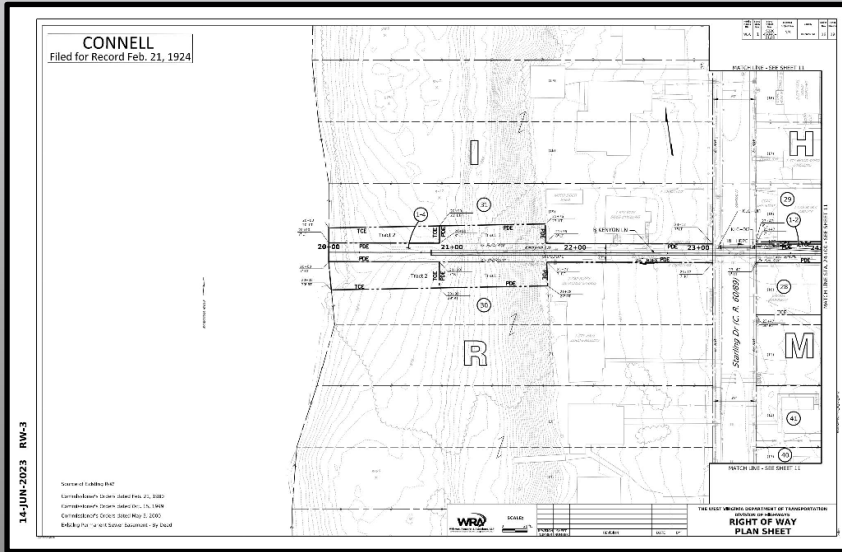


Consultant response of horizontal and vertical geometrics per AASHTO requirements.

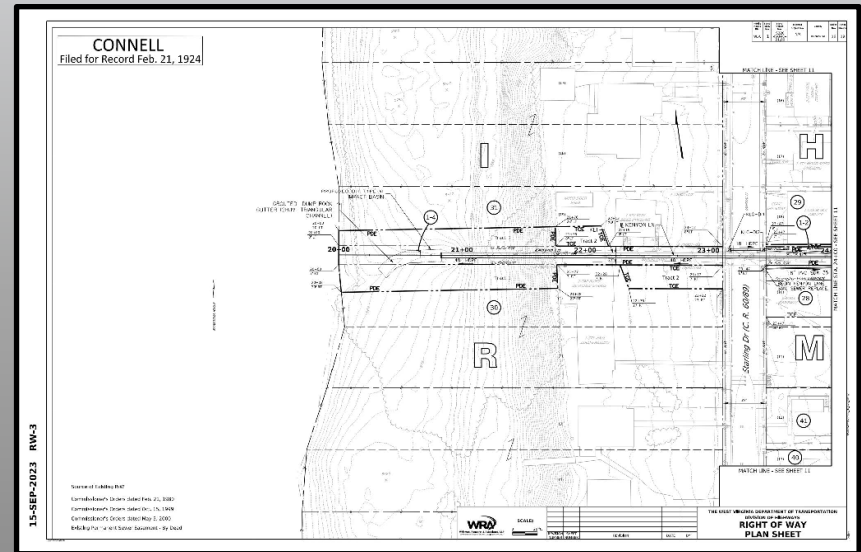
PROJECT DEVELOPMENT

Plan Development

QC Examples . . .



Kenyon Lane
Before



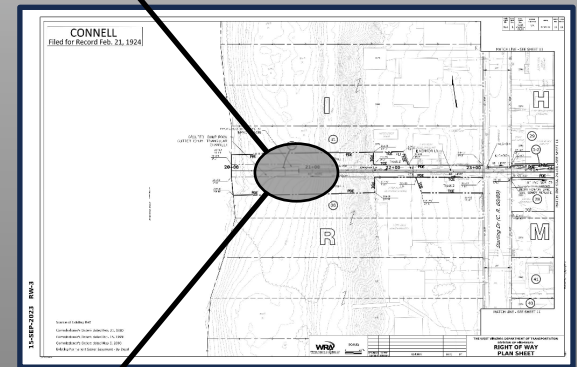
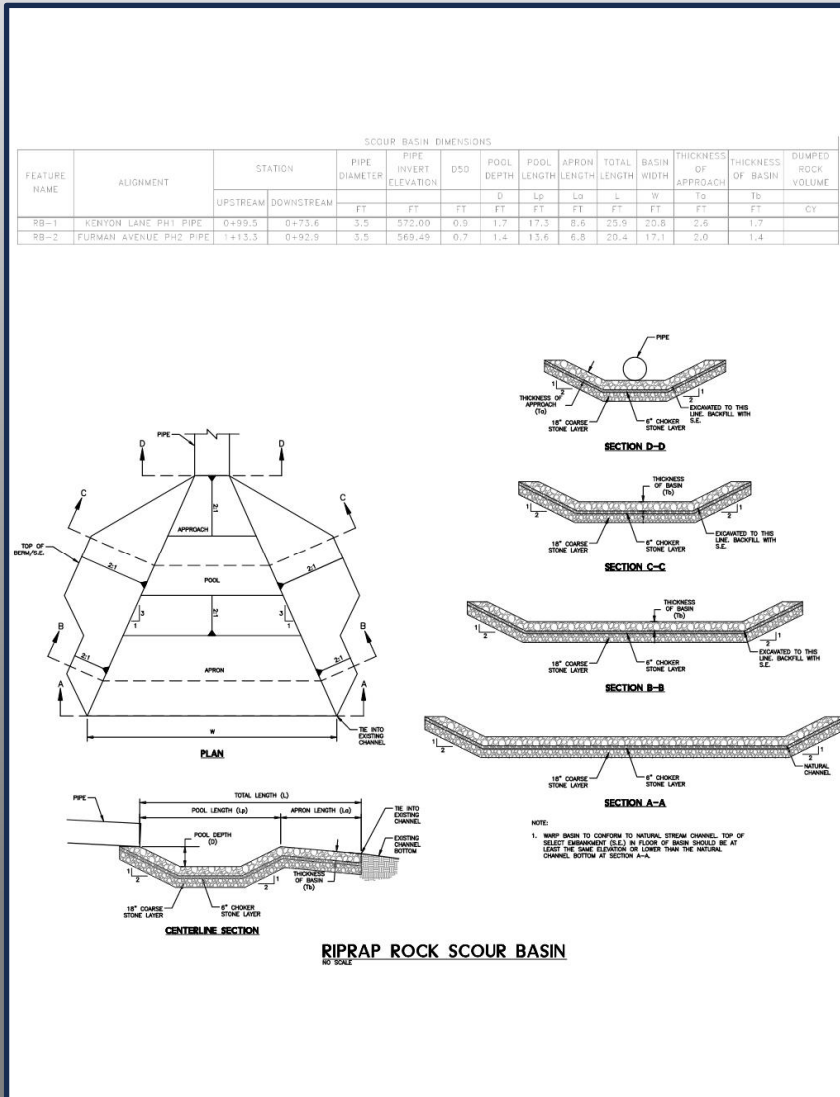
Kenyon Lane
After

Rand Drainage Project

PROJECT DEVELOPMENT

Plan Development

QC Examples . . .

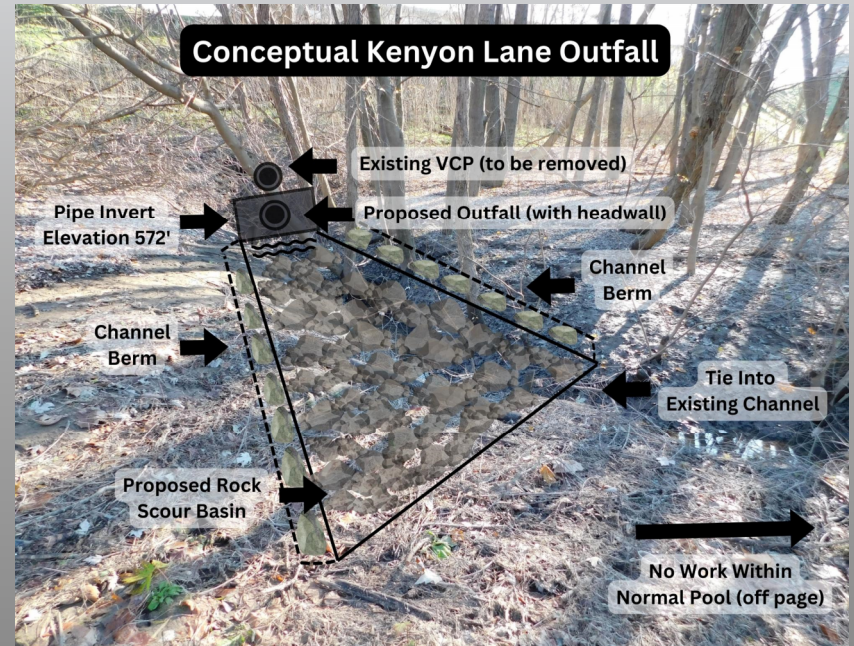
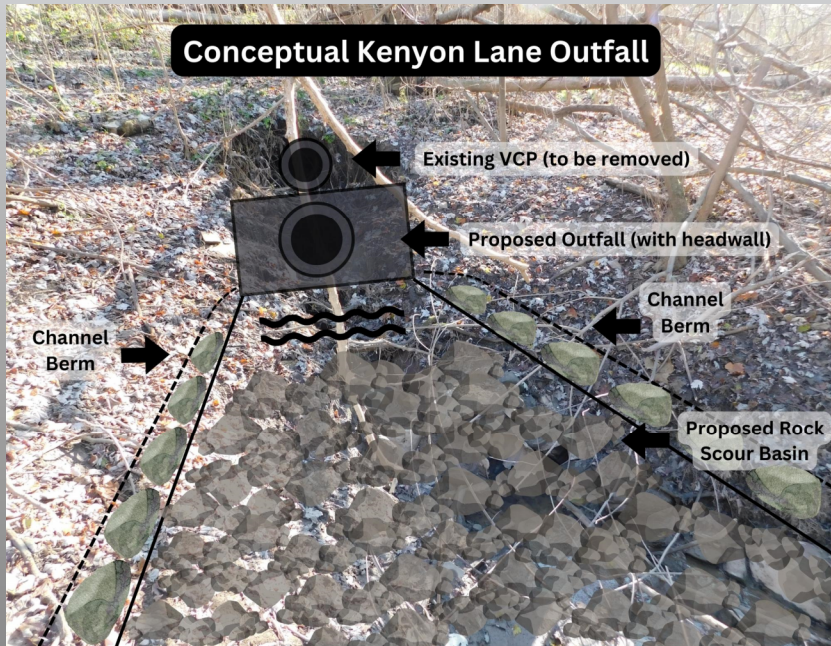


After
Kenyon Lane

PROJECT DEVELOPMENT

Plan Development

QC Examples . . .



Kenyon Lane Outfall

PROJECT DEVELOPMENT

Plan Development

COMMENTS AND RESPONSES

Here is a great example of the proper way to address written comments. Our Engineering Division requires this format from our consultants and our In-house Design staff.

Responding in an alternate color under the original comment is preferred.

Refer to **DD-202**.

QC Examples . . .

[Bakerdon Rd Br, S319-27-0-03 00, STP-00270041D](#)

Katie Hastings, PE
In-House Roadway Design
14 Smith Street
Winnipeg, MB R2V 2S3S5

Reply to: [Peggy A. Armstrong@wv.gov](#)
Sent: 2020-08-18 10:48 AM
To: Hastings, Katie
Subject: RE: Bakerdon Rd Br, S319-27-0-03 00, STP-00270041D

Please see comments. Contact me if you have additional questions. thanks - Peggy

Note:

- The Project Control Number (PCN) for this project and shall be revised from 1015320 to 201000095 applicable documentation (I have revised the subject line on email)
The PCN should be 1015120 according to memo dated 8/10/18 (see attached memo dated 8/10/18). There are possibly another memos out there that changed this?.
- There are two highlighter markings on the Summary of Quantities sheet in the contract plans, please **COMPLETE**

01.pln typical please add the esal note
COMPLETE

01.pln typical please add the safety edge and the small detail for the safety edge
COMPLETE

01.pln typical please revise the 7 to 6 on the detail for the shoulder stone
COMPLETE

01.pln geo.notes please add the esal note
COMPLETE

01.pln geo.ly not that big of a deal, but can you please see if you can do something about the "double vision" on the PC, P₁ and FT levels
COMPLETE

01.pln br qts sheet 2 of 34, item 615003-001 is "for information only" on the table and the bridge summary has a quantity of 1.12. However, the Summary of Quantities sheet 3 of 55 and the estimate/proposal has a quantity of 1463 lb. please rectify.
This item number has been modified and all quantities have been changed to 1463 LB.

02.spc pns/check please add Special Provision F (from 11 and) to the list in sheet 4 of 7
The Environmental Special Provision does not belong on this list, this only pertains to the CE Clearance package.

03.spc spec prov please add Special Provision F (from 11 and) to this file
This is an Environmental Special Provision and should remain in the Environmental Document only, this only pertains to the CE Clearance package.

06.cce corps please rotate sheets 10-12, 34-38, and 27 of 27 for proper viewing orientation
COMPLETE

PROJECT DEVELOPMENT

Plan Development

PS&E SUBMISSION & REVIEW

The consultant submits final plans, estimate, Applicable Special Provisions for the Project Manger, thru PW. PM distributes the submission to the appropriate divisions, sections, for final QC review.

PS&E Section Review

Review consultant designed highway plans for accuracy and completeness at final office review and final plan submission stages

Provide plan comments to project managers, or consultant

Verify that project pay items and quantities are correct

Develop/prepare the engineers detailed cost estimate to be used in project bid comparison and analysis

Utilize the historical bid tab data to determine unit prices for project pay items



PROJECT DEVELOPMENT

Plan Development



PROJECT MODIFICATION DOCUMENTATION	
Date PMD Prepared: July 28, 2020	PMD Seq # : 14
State Project Number: X341-ZWA/Y-1.00 02	Consul. Name: L.A. Gates Company
Federal Project Number: STP-0019(427)D	Consul. Proj. No: 15.030
Project Name: Shady Spring-Beaver	Consul. Proj. Mgr: Jay Cantley
Project Location: Shady Spring, WV	Original Agmt. Date: September 27, 2016
County: Raleigh Dist. # 10	DOH Proj. Mgr: Dirar Ahmad
NTP Date: Not yet given	Consul. Principal Contact: Jay Cantley

Project Task:
Adding Beckley Water Waterline Relocation Plans to the Contract Plans

Projected Schedule:
Estimated Start Date: August 1, 2023 Estimated End Date: August 11, 2023

Description of Task Modification/Addition:
Gates has been directed to add the Beckley Water Waterline Relocation plans to the Highway Contract plans. The Plans include approximately 3.5 miles of 14" water line and all appurtenances. The Plans will also include a General Note Sheet, Water line quantities, Waterline Plan Sheets, Water line Profile sheets and all Water line details. The effort will include getting the relocation plans in a format that is acceptable to DOH standards and specifications. This includes having DOH bid items and descriptions for all water lines items. The original plans were prepared for Beckley Water use and were done to their standards and to the format for their bidding purposes.

Reasons/Remarks:
Gates originally designed the Waterline Relocation Plans for Beckley Water's use in relocating their own water lines. Later the DOH decided that the Waterline Plans would be incorporated into the Highway Plans and done by the Highway Contractor.

This form to be EMAILED to:
Proj Mgr/Dist Design Eng/Construction Eng: *D. [Signature]* Date: 8/1/2023

Approved as to Form:
Director/Assistant Director/District Engineer: *Ronald Bodner* Date: 8/1/23

Rev. 7/18

Project Modification Document (PMD)



PROJECT DEVELOPMENT

Plan Development

Right of Way Review Process

Consultant / In-House submits RW-1 & 2 plans and supporting materials as part of the RW-1 & 2 submission

Review the Right of Way plans for content in accordance with **DD-301**. Some things to look for:

- o Check project numbers and name
- o Check all existing right of way and easements
- o Check property boundaries and ownership of each affected property
- o Check to make sure the right of way being acquired is adequate to construct, maintain and operate the roadway / bridge, I/S, corridor in a safe and efficient manner
- o Verify all existing improvements and features are shown
- o Verify access is maintained to all properties, especially impacted properties

PROJECT DEVELOPMENT

Plan Development

Right of Way Review Process continued . . .

If plans submitted do not meet our minimum requirements:

The submission is rejected, consultant contacted, a meeting may be warranted to go over the deficiencies.

A new submission will be required to address all deficiencies.

If the plans are accepted:

Submit RW-1 & 2 plans, questionnaires and deeds, and all other supporting documents to Right of Way Division with a request to prepare right of way and utilities estimates in order to get the right of way phase authorized.

Return comments to the consultant or design engineer to be addressed for the RW-3 submission.

PROJECT DEVELOPMENT

Plan Development

Right of Way Review Process continued . . .

Receive RW-3 plans (Acquisition Plans), cross sections, property descriptions, along with any updated:

questionnaires or other supporting documentation as part of the RW-3 submission.

Review the RW-3 plans to verify all previous comments have been addressed.

Submit RW-3 plans, cross sections, and all other updated supporting documentation to the Right of Way division for the use of acquiring property.

Review the property descriptions to verify areas of take are properly described. Make or request revisions as necessary.

Submit approved property descriptions to the Right of Way Division for the acquisition process.

Upon completion of the acquisition process, RW-4 plans are produced replicating the RW-3 plans and all revisions, including the all deeds or final orders recorded on the Ownership Index. The RW-4 plans are submitted to the Right of Way Division for further handling. They will become the record set.



PROJECT DEVELOPMENT

Plan Development

Structures REVIEW

Voting member on the Selection Panel for Consultant Interviews for bridge projects

Attend Scope of Work meetings

Bridge Project Manager on bridge replacements and rehabilitations plans developed by Consultants

Consultant with district bridge engineer prior to scoping all Rehab projects

Review and approve recommendations in the Rehabilitation Report
Attends Preliminary Field Review

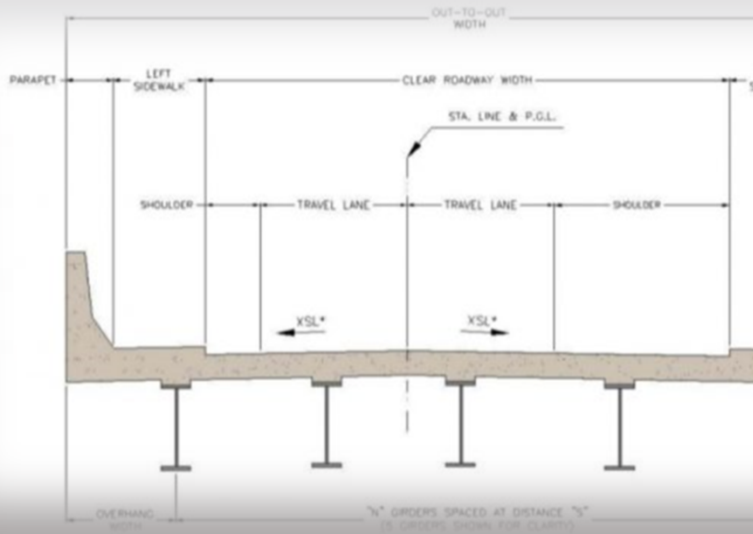
Review 60 percent plan submission

Review Final Plans

PROJECT DEVELOPMENT

Plan Development

Bridge Rating



WEST VIRGINIA DIVISION OF HIGHWAYS BRIDGE RATING SUBMISSION CERTIFICATION	
State Project No. _____	Consultant _____
Federal Project No. _____	Project Manager _____
Project Name _____	Submission Date _____
County _____	
General Requirements - Rating by District Bridge Eng.	General Requirements - Rating by Design Engineer
Title Sheet with Proposed Sheet Index (DD-701) _____	Title Sheet with Proposed Sheet Index (DD-701) _____
Complete Set of Superstructure Plans with All Dimensions, Thicknesses, and Material Specifications Shown _____	Complete Set of Superstructure Plans with All Dimensions, Thicknesses, and Material Specifications Shown _____
Complete Set of Substructure Plans with All Dimensions, Thicknesses, and Material Specifications Shown _____	Complete Set of Substructure Plans with All Dimensions, Thicknesses, and Material Specifications Shown _____
Horizontal Roadway Alignment Including Curve Data Shown _____	Horizontal Roadway Alignment Including Curve Data Shown _____
Vertical Roadway Grade Shown _____	Vertical Roadway Grade Shown _____
Bridge Layout Dimensions Shown _____	Bridge Layout Dimensions Shown _____
Foundation Elev. And Low Bearing Elevation Shown _____	Foundation Elev. And Low Bearing Elevation Shown _____
Plan View of Deck Showing All Dimensions, Including Span Lengths Widths, Skew Angles, etc. _____	Plan View of Deck Showing All Dimensions, Including Span Lengths Widths, Skew Angles, etc. _____
Typical Sections Showing Deck Width, Overhang, Parapet Location, Deck Thickness, Overlay Thickness (If applicable), Reinforcing, and Reinforcing Clearances _____	Typical Sections Showing Deck Width, Overhang, Parapet Location, Deck Thickness, Overlay Thickness (If applicable), Reinforcing, and Reinforcing Clearances _____
Complete Set of Bridge Superstructure Calculations _____	Complete Set of Bridge Rating Calculations with All Members Rated by "The Manual for Bridge Evaluation", Latest Edition, Published by AASHTO and the "LRFD Bridge Design Specifications" Latest Edition _____
Miscellaneous Report	Published by AASHTO _____
Consultant's Quality Control Markups _____	Completed WVDOT DS-25 "Bridge Safe Load Capacity Analysis and Justification Report" _____
	Completed WVDOT DS-34 "Scour Evaluation Summary" _____
Notes: 1- All Lines to be initialed by Office Manager or responsible management level above the Project Manager	
2- Use "NA" for any item not applicable to the project. Do not leave any items blank.	
Checklist Page 1 of 1	DD-202 Pg 9-26 rev 2019-Nov-12.xsm

Bridge Rating Submission Certification

PROJECT DEVELOPMENT

Authorize

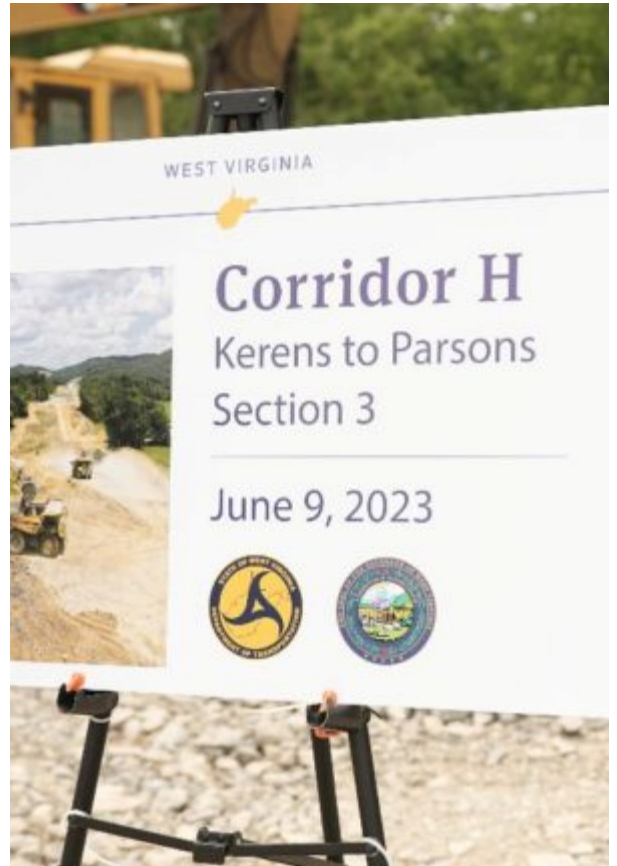
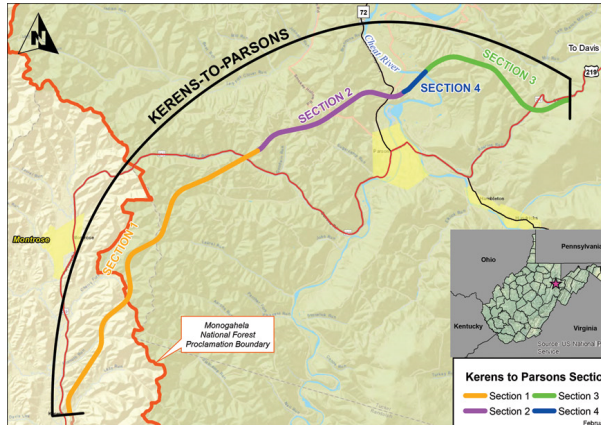


Advertise, Letting, and Award



Pre-Construction Meeting





SCHEDULES

Corridor H Kerens to Parsons, Randolph and Tucker Counties

SCHEDULES

Nature of Project

Purpose of the project (emergency

Source of funding of the project: bond (these have different type of requirements)

The NEPA Process: is a CE required

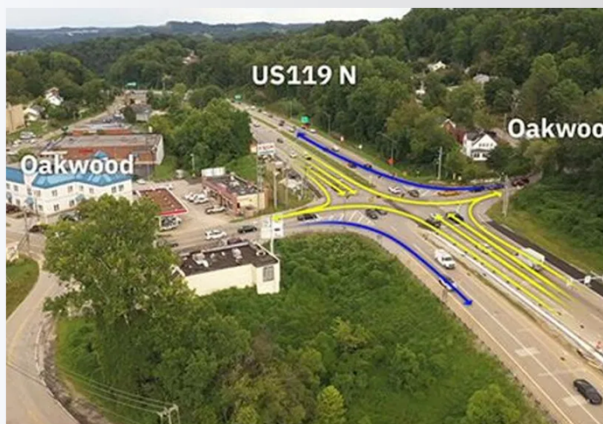
Right of Way and Utility impacts

Some political considerations: elect

All of these play a role in the schedule that is set for any project



Corridor-G/US119 Kanawha County R-CUT Improvements



MEETINGS

Corridor G "R - Cuts", Kanawha County

MEETINGS

Each project requires many meetings after it is properly handled properly, developed, Right of Way acquisition and coordination's are completed.

Examples of meetings:

- Consultant shortlist meeting
- NEPA consultant selection meeting
- Consultant interviews
- Scope of work meeting
- Public meetings
- Meeting with municipalities
- Meetings with stakeholders as applicable
- Utilities coordination meeting

All project development meetings to get the project to construction phase





BUDGETS AND INVOICES

University and Town Center Interchange, Monongahelia County

BUDGETS AND INVOICES

When a project is programmed, a budget is
Most of the time, this is lower than what is

Many reasons for that, however, the primary

SCOPE IS NOT DEFINED

The Right of Way and utilities phase is often forgotten and needs to be programmed and budgeted.

Railroad involvement is also a large expense and needs to be budgeted for the engineering and construction phases.



BUDGETS AND INVOICES

Each district should create a shared email address

Example: D1EngineeringInvoices@wv.gov, D2EngineeringInvoices@wv.gov

Invoices should be managed by the district comptroller

Invoices should be logged into the tracking data system and the district should provide a guide as to where the invoice is in the system

Invoices should be logged, reviewed, processed and submitted for payment within 30 days to comply with the Federal Prompt Pay requirement.

Each invoice should be reviewed by the District Project Manager (PM). If the PM approves the % complete, he or she should mark the invoice “% approved by _____”



BUDGETS AND INVOICES

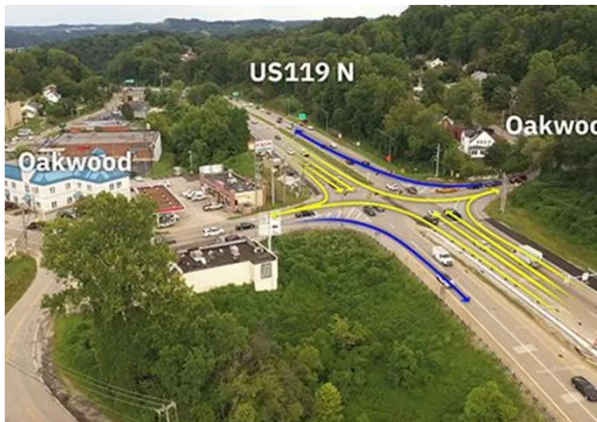
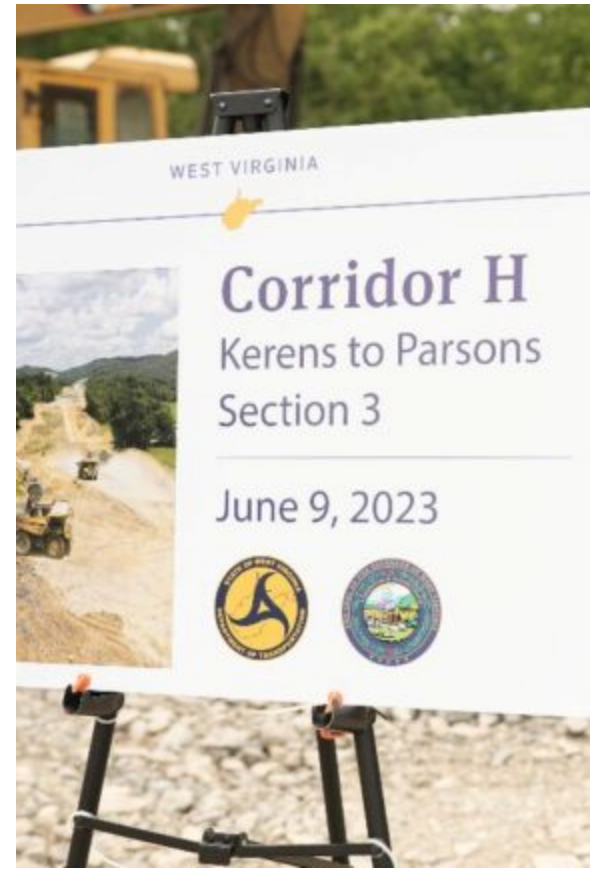
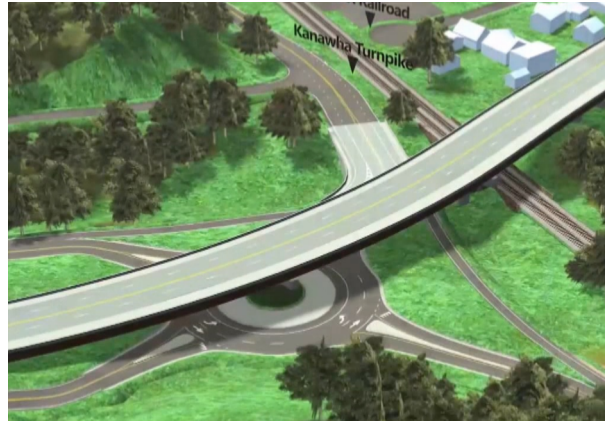
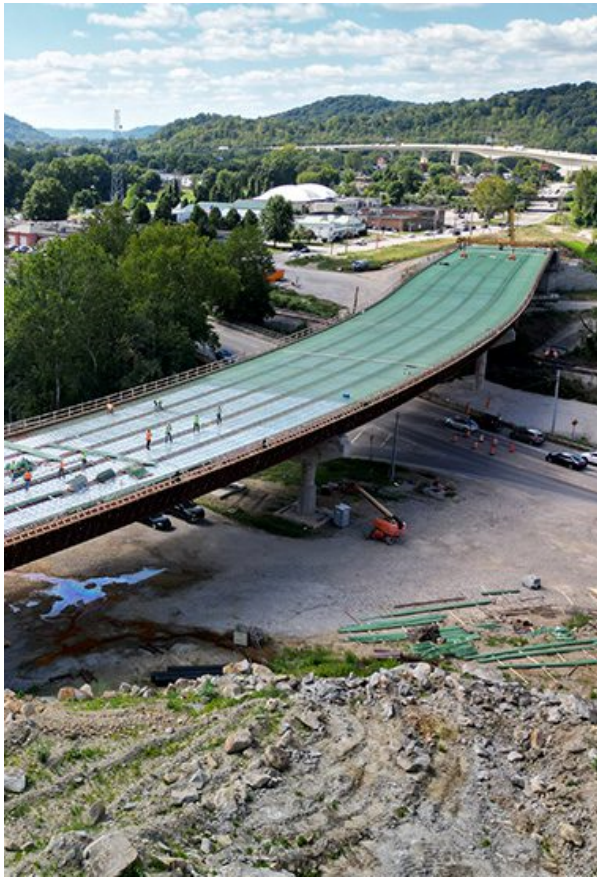
If the invoice is rejected, the PM should coordinate with the contractor to discuss and resolve the issues that are keeping the invoice from being approved. The comptroller's office should track all invoice rejections so the database can be updated.

After the PM approval, during the comptroller's review, if there are issues with an invoice, (work date issues, math errors, missing information) the comptroller's office should contact the consultant to resolve these issues.

To assist with the review and audit of each project, an Excel summary of the project costs should be obtained.

Be sure to log the various stages of the payment process into the database.





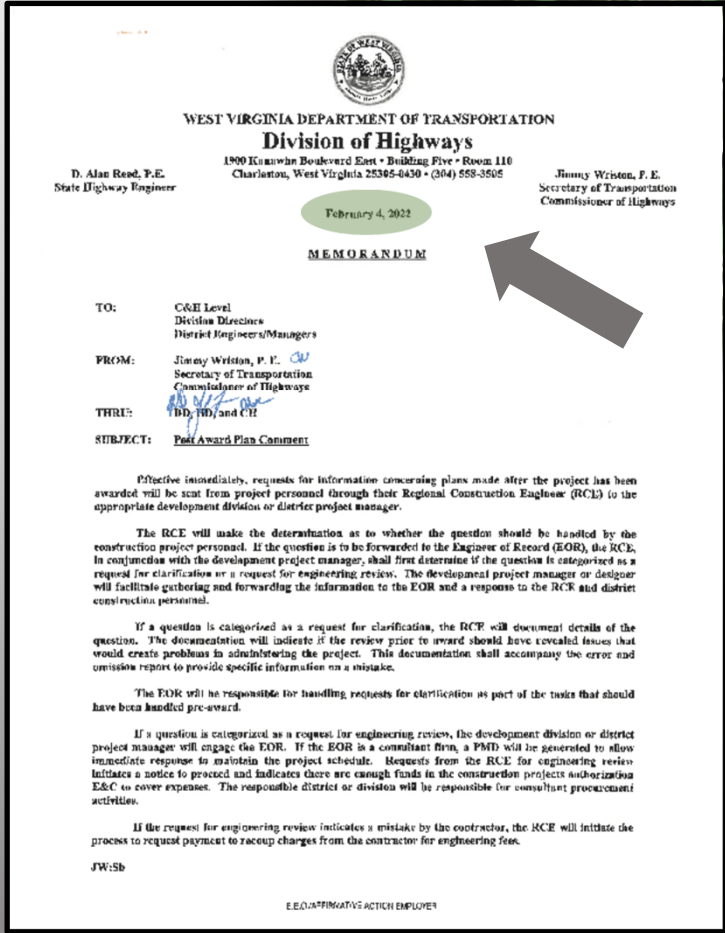
POST DESIGN SERVICE (PDS)

Jefferson Road, Kanawha County

POST DESIGN SERVICE

Post Award Plan Comment
Memo dated:

February 4, 2022



POST AWARD PLAN COMMENT



POST DESIGN SERVICE (PSD) AGREEMENT

POST DESIGN SERVICE

01/30/2024 When this was originally written in May 2023 the intent was to update Post Design Services aka Shop Drawings (SD). But the definitions I used were unclear to the districts in the same manner as Engineering Division. The last paragraph of the original document assumed that the districts had reviewers called Project Managers (PM's) like the following verbiage will replace the original last paragraph.

Going forward Consultants should send invoices to the appropriate district Construction Engineer will review and approve payment and forward the invoice to the District Comptroller for payment.

Original verbiage
Post Design Services (PDS), aka Shop Drawings (SD) Invoice Review and Approval
Post Design Services invoices are paid with district construction funds. Currently, the Engineering Division reviews and processes these invoices for the districts.

The 'quick close' for construction projects has created issues paying some of these invoices because the funds are closed before the final PDS invoice is paid. Before CN funds are closed the PDS final invoice needs to be processed and paid.

To help facilitate and support the 'quick close' of CN funds and to ensure any/all PDS invoices are completed, the review and processing of these invoices will now be handled by the district managing the funds.

Engineering Division will continue to process Post Design Services Agreements and forward the executed agreements to the responsible District.

Engineering Division will complete all projects currently active, but all new project agreements will be distributed to the appropriate district and related invoices will be forwarded for district management, review, and processing.

Going forward Consultants should send invoices to the appropriate district e-mail address listed below. The District Construction Engineer will forward the invoice to the Project Manager for review and approve for payment. The PM will return the invoice to the District Construction Engineer who will forward to the District Comptroller for payment.

Invoices and executed agreements contacts cc:
CEIservicesinvoice@wv.gov

D-1: dotd01construction@wv.gov
D-2: dotd02construction@wv.gov
D-3: dotd03construction@wv.gov
D-4: dotd04construction@wv.gov
D-5: dotd05construction@wv.gov
D-6: dotd06construction@wv.gov
D-7: dotd07construction@wv.gov
D-8: dotd08construction@wv.gov
D-9: dotd09construction@wv.gov
D-10: dotd10construction@wv.gov

Requests to re-open a project contacts cc:
russell.l.kees@wv.gov

D-1: james.r.clifton@wv.gov
D-2: phil.r.williamson@wv.gov
D-3: brian.k.westfall@wv.gov
D-4: samuel.l.perris@wv.gov
D-5: michael.s.stanislawczyk@wv.gov
D-6: ryan.d.dague@wv.gov
D-7: steven.j.ruppert@wv.gov
D-8: lori.a.anello@wv.gov
D-9: dwayne.d.hoover@wv.gov
D-10: c.mike.raulerson@wv.gov

S:\Administration section\SD debacle for District Review\Revised Shop Drawing to Districtes final procedure 1-30-2024.docx

THIS IS WHAT HAPPENS WHEN THE CONTRACTOR DOES NOT FOLLOW THE STANDARD DRAWINGS



CLOSING REMARKS



QUESTIONS



*Thank
you!*

“This is Palestine”

