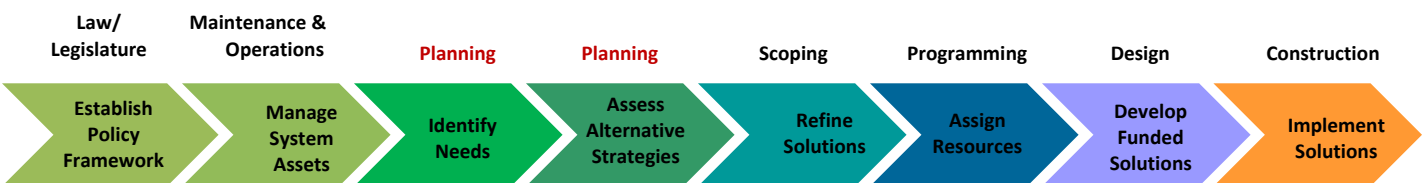


		can be planning, scoping or design teams		typically design teams		final design and contract documents (ps&e) development		transition to construction		
		Planning <i>corridor sketch strategies</i>	Scoping	Pre 30%	geometric design review (design approval)	constructability review	pre-contract review	Contract documents ready	Contract ad and award	Design Phase Closure
contents	consult or discuss with									
<p>This tool offers “at-a-glance” information about deliverables during design and project development.</p> <p>Check appropriate resources and subject matter experts for details regarding specific deliverables for your project.</p>										
1	Timeline actions and purpose									
2	Project Management									
3	Cost Estimates									
4	Environmental Review, Permitting & Documentation									
5	Cost Risk Estimating Management									
6	Value Engineering									
7	Pavement									
8	Utilities and Railroad									
9	Access – limited/managed									
10	Right-Of-Way									
11	Community Engagement									
12	Design Documentation									
13	Roadway Geometrics and Plans									
14	Channelization and Pavement Marking Plans									
15	Hydraulics-Water Quality									
16	Survey & Mapping									
17	Structures, Bridges, et al									
18	Illumination, signals and ITS									
19	Geotechnical Recommendations									
20	Work Zone Traffic Control									
21	Traffic Analysis									
22	Safety Analysis									
23	Signing									
24	Temporary Erosion and Sediment Control (TESC)									
25	Specifications									
26	Maintenance									

LEGEND

Blue shading = a new row, added since the last deliverables expectations matrix
Orange shading = if applicable these groups/activities may be involved at these times in your project
Orange pattern = sometimes these activities are happening during this time frame



Deliverables Expectation Matrix

Communicates typical expectations for project deliverables and helps establish mutual understanding of these expectations.

Provides a “schematic” of the Project Development Process at WSDOT - The matrix is foundational to seasoned project managers, project teams, staff and our consultant partners. The matrix offers additional value as a guide for staff learning how to complete a WSDOT project.

This tool is used to help plan and execute work for project development. The matrix offers Quality Control, Quality Assurance and Quality Verification benefits. The matrix helps team readiness for project reviews and organizes the project development process as follows:

- Planning (corridor sketch strategies)
 - Scoping
 - Pre 30%
 - Geometric design review / design approval (~ 30% design level)
 - Constructability review (~60 design level)
 - Pre-contract review (~90% design level)
 - Contract documents ready (~100% design level)
 - Contract ad and award
 - Design Phase Close Out

[Deliverables Expectation Matrix](#)

[Master Deliverable List \(MDL\)](#)

[Project Management Guide](#)

Target Audience for the Deliverables Expectations Matrix includes...

project teams	new designers	subject matter experts	traffic
consultants	design	design-builders	specialty firms

	Scoping	project management plan development	geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	<i>corridor sketch / planning study</i>	<i>~10%</i>	<i>~30%</i>	<i>~60%</i>	<i>~90%</i>	<i>100%</i>	<i>bid letting</i>	<i>Transition to construction</i>
1 Timeline actions and purpose	project profile informs scoping and design start; begin Basis of Design with initial baseline project need	Identify team members <ul style="list-style-type: none"> consultants, wsdot staff, or combination core team members extended team members roles and responsibilities project endorsement design criteria draft assumptions deliverable requirements project delivery method	design criteria final design decisions design approval Design Manual Ch. 300 Basis of Design complete	major design elements completed underground & overhead conflicts identified resolve conflicts: utilities, drainage, etc. review constructability 3D modeling complete	deliverables substantially complete document to reviewers	Region PS&E review (typically 10 weeks).	WSDOT publicly solicits bids from contractors to construct the project.	organized cessation of activities; transition work or staff Archive required records
2 Project Management	corridor level vision	PMP & work plan (DBE goals) Project Kickoff (initiate & align worksheet) Baseline schedule Budget known Risk Management Plan Communication plan Change management plan Quality Plan (QA, QC, QV) Endorsement Executing work	Current project management plan (and work plan) – Capital Program Development & Management Office (CPDM) Manual, Design Manual 305; monitor & control (Quarterly Project Report) Quality: Control – actions at the production levels to produce the desired quality and professional services. Assurance – actions to ensure prudent quality control procedures are in place. Verification – actions to ensure a Quality Management Plan (QMP) was implemented and followed.			Official closure and handoff Lessons learned recognized accomplishments organized end of design activities transition of work or staff documentation per retention requirements		
3 Cost Estimates	Basis of Estimate Preliminary cost estimate developed for Project Definition	updated estimate & basis Budget assumptions communicated Determine if project needs: Value Engineering and/or Risk Assessment updated estimate & basis	Begin item by item Project Estimate (update basis of estimate) R/W Project Funding Estimate completed	Estimate item quantities and unit costs. (update basis of estimate) updated estimate & basis Pay groups and pay items determined	Check that all items are included and correct. (update basis of estimate) Cost estimate completed with below the line items. Summary of quantities completed, item prices determined, lump sum cost detail completed	engineer’s estimate at ad Verify that all items are included and correct. (final basis of estimate) Construction estimate finalized		
4 Environmental Review, Permitting, & Documentation	Identify and confirm level of required environmental documentation. Environmental Review Summary completed.	Verify permits and documentation needed Environmental budget and schedule submittal Agreement on Area of Potential Affect for Section 106 and Action Area for ESA coordination with agencies Environmental surveys of project footprint Complete necessary Env docs and permits to complete Geotech work	Coordination with agencies NEPA/SEPA compliance documentation	Coordination with agencies NEPA/SEPA Compliance documentation Environmental Permit Applications	Coordination with agencies NEPA/SEPA compliance documentation	Coordination with agencies NEPA/SEPA Compliance documentation Environmental Permit Applications		

	Scoping	project management plan development	geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	<i>corridor sketch / planning study</i>	<i>~10%</i>	<i>~30%</i>	<i>~60%</i>	<i>~90%</i>	<i>100%</i>	<i>bid letting</i>	<i>Transition to construction</i>
⁵ Cost Risk Estimating Management	Early determination of project needs for project risk assessment: Cost Risk Assessment, CRA or Cost Estimate Validation Process, CEVP.	Project Risk Assessment process steps are built into the project management plan, work schedule and scope of work. Review the Project Risk Management Guide; milestones for Scope, Schedule and Estimate are used to inform the timing of activities for project risk assessment. This includes updates. Establish milestones for cost risk assessment prep meetings and activities, workshop(s) and post workshop activities in the project schedule. Schedule Risk monitoring and control activities.	Status of project risks. Update analysis if needed.	Status of project risks. Update analysis if needed.	Status of project risks. Update analysis if needed.	Prepare summary of project risk status.		Transfer summary of project risk status to construction office.
⁶ Value Engineering	Early determination of benefit of Value Engineering for the project.	Review the Value Engineering chapter of the Design Manual. Value Engineering is an effective process for ensuring Practical Design. Value Engineering activities are built into the project schedule.	Value Engineering workshop.	Implementation of Value Engineering recommendations.	Follow-up and follow-through of value engineering recommendations.	Prepare summary of value engineering recommendations as implemented into the final design.		
⁷ Pavement	Scoping Level Pavement Design Report completed, including: o WSPMS/Historical Data/Maintenance Input o Projected Traffic Type/Usage o Existing Conditions/Primary Deterioration o Highway Activity Tracking System, HATS o P1 One-Touch Policy	Scoping Level Pavement Design reviewed Region materials Pavement Design Report requested Preliminary Pavement Type Selection Completed Field and Core Investigation completed Draft Pavement Design Report completed	Draft Pavement Type Selection completed Draft Pavement Design Report approved by Region, (sent to Pavement Office for concurrence)	Pavement Type Selection submitted to Pavement Office for Final Approval Draft Pavement Design Report completed Final Pavement Design Document stamped by Region and forwarded to Pavement Office for signed concurrence	Final Pavement Design Report with Region stamp and Pavement Office signed concurrence to Region for Plan Review		Pavement Repair quantities and locations reviewed with Construction PEO for verification of field accuracy	

	Scoping	project management plan development		geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	<i>corridor sketch / planning study</i>	~10%		~30%	~60%	~90%	100%	<i>bid letting</i>	<i>Transition to construction</i>
8	Utilities and Railroad	Potential utility relocations identified Responsibility for costs established	Utilities within the project limits notified. Washington Utilities Transportation Commission (WUTC) permit application for railroad crossings submitted Utility As-Built requested. Railroad (RR) issues identified. Relocation cost responsibility defined. Franchise and permit documentation collected. Utility relocation strategy for project established.	Utility Conflict Report & Plan with as-built info. Preliminary Utility conflicts identified. Utility Object Relocation Record-UORR sent to Utilities. Project Overview Meet w/Utility Owners Utility Quality Level C & D completed. Determine need for Subsurface Utility Engineering, SUE Utility Quality Level A&B. Relocation plans/schedule request from Utilities. Franchise/Permit process initiated; cost recovery accounts initiated. Utility property rights verified. Railroad standard Construction Maintenance Agreement (CMA) obtained	Utility conflicts confirmed and relocation letters sent to Utilities. Utility relocation meeting held. Utility Relocation Plans and schedules obtained. Utility and railroad agreements completed Utility Franchise/Permit obtained. Finalize utility agreements (costs responsibility estimate complete)	Utility Relocation Plan information and specifications incorporated in PS&E. Letters of Understanding issued to Utilities requiring relocation. Utility, service, and railroad agreements completed. Utility relocation and schedule monitored and coordination completed. Construction and Maintenance Agreement completed.		Utility relocation work completed or timeline established	
9	Access – limited/managed DM 520, 530, 540, 550, 1103 DM 210 (hearings)	Define existing access status; managed access and/or limited access A choice to change current or planned access is to be consistent with the contextual information, desired performance targets, and modal priorities. DM 1103. Evaluate Access Master plan - determine most appropriate access control. Document in BOD Section 3. Identify general project impacts to access.	<i>Limited access</i> Identify affected abutters for access report and hearings. Determine if an access hearing is required. Evaluate access connections and identify improvements. Limited Access Change Access hearing required or notice of opportunity for a hearing. Access hearing Access Report and Access Report Plan prehearing packet	Access Hearing Plan and hearing process Findings and Order Plan Appeal Period Resume	New Limited Right of Way Limited Access Plan				
		<i>Managed Access</i> Review grandfathered approaches and existing permitted approaches. Evaluate access connections and identify improvements. Is it appropriate to combine or close connections and reduce traffic conflicts?	Managed Access Control Permits in the RAMPS database, reviewed and updated. <i>RAMPS = Roadway Access Management Permit System</i>	Note: Managed Access connections are not noted on the Right-Of-Way plans. There is no Right-Of-Way plan change unless WSDOT requires Right-Of-Way.					

	Scoping	project management plan development	geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	corridor sketch / planning study	~10%	~30%	~60%	~90%	100%	bid letting	Transition to construction
10	<p>Right-Of-Way</p> <p>Right of Way Manual, Chapter 6</p> <p>Design Manual 510</p>	<p>Property required for a public facility, includes square footage, access rights, easements, and any property impacts.</p> <p>Consider significant right of way elements in accordance with the <i>Right of Way Manual</i>.</p>	<p>Real Estate Services assists in minimizing right of way costs, defining route locations and acquisition areas, and determining potential problems and possible solutions.</p> <p>Appraisals and Acquisition information</p>	<p>Plan development: "red line R/W plan"</p> <p>R/W cost estimates made by Real Estate Services.</p> <p>Request title reports for identified right of way parcels.</p> <p>Real Estate Services performs field inspections as appropriate.</p>	<p>Confirm status of right of way acquisition.</p> <ul style="list-style-type: none"> Examine Title reports. Add easements to right of way and limited access plan. Obtain utility, railroad, haul road, detour routes, or other essential agreements. <i>Utilities Manual</i> and the <i>Agreements Manual</i>. Plan right of way acquisition, disposal, and maintenance. Plan easements and obtain permits (to accommodate activities outside of the right of way). 	<p>Right-of-way acquisitions complete.</p>		
11	<p>Community Engagement</p>	<p>multimodal, multiagency, multidisciplinary engagement concept team launch</p> <p>create stakeholders list</p> <p>get input from region communications</p>	<p>community engagement plan complete</p> <p>confirm need & context</p> <p>Design controls</p> <p>Alternatives Analysis</p> <p>preferred alternative</p> <p>Elements/Dimensions</p> <p>Identified</p> <p>Dimensioned</p>	<p>Investigate design concepts that</p> <p>Incorporate community feedback</p>	<p>Investigate design concepts that</p> <p>Incorporate community feedback</p>	<p>Community engagement ideas fully implemented into contract plans</p>		
12	<p>Design Documentation</p>	<p>Context Management Assessment Report (CMAR) complete</p> <p>BOD initiated</p>	<p>Section 1 and 2 of the BOD complete. Baseline and contextual needs including performance metrics and targets. Context determined.</p> <p>Section 3 and 4 in draft form circulated for concurrence.</p>	<p>All sections of BOD complete and BOD approved</p>	<p>If a separate Design Approval is necessary, it should be completed in this phase.</p> <p>Design Analysis completed.</p>	<p>Project Development Approval complete or combined Design Approval/Project Development Approval complete.</p>	<p>Design Documentation Package complete</p>	<p>Design documentation transferred to construction project office.</p>
13	<p>Roadway Geometrics and Plans</p>	<p>Project limits identified</p> <p>Affected alignments identified</p> <p>New versus existing alignment</p> <p>Target speed</p> <p>Preliminary design criteria established</p>	<p>Design criteria and parameters approved</p> <p>Preliminary footprint designed</p>	<p>Typical roadway section(s) completed; station to station roadway geometrics, surfacing type & depth, slope information, guardrail, vertical cut locations, and construction notes</p> <p>Mainline and major horizontal, & vertical alignments, and superelevations designed</p>	<p>All horizontal & vertical alignments & superelevations completed</p> <p>Design Analysis approved</p> <p>DDP updated as required</p>	<p>All geometric plans completed (alignment, profiles, roadway sections, interchange contours, site preparation, road approach plans, etc.)</p> <p>Design compared to endorsed design criteria/parameters</p>	<p>Final Plans for PS&E contract</p>	

Project Development >	Scoping	project management plan development	geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	<i>corridor sketch / planning study</i>	<i>~10%</i>	<i>~30%</i>	<i>~60%</i>	<i>~90%</i>	<i>100%</i>	<i>bid letting</i>	<i>Transition to construction</i>
14 Channelization and Pavement Marking Plans		Intersection Control Analysis (ICA) approved (if not already complete in scoping)	Roundabout Geometric Design Peer Review complete. Intersection Plans for Approval submitted for review. Signal permits completed. Striping material selected.	Design Analysis submitted and approved Intersection plans for approval complete	All plans completed Approved Channelization Plan verified for consistency with pavement marking plans and specifications			
15 Hydraulics & Water Quality see Temporary Erosion and Sediment Control (TESC)	Drainage needs identified in accordance with Maintenance and Regional Hydraulics	Design criteria identified Storm water Management requirements identified Water quality requirements identified Retrofit Cost-Effectiveness and Feasibility (RCEF) Analysis Confirm specific criteria for: - Fish Passage - Chronic Env Deficiency - Major Drainage - Bridge Scour/replacement	Storm water Management strategies, including locations for treatment identified (hydraulic and water quality issues identified) Sensitive Area Documentation completed (Water Resource Inventory). Stormwater Management Strategy endorsed by region or HQ hydraulics engineer	60% check-in using Hydraulic Report Checklist TS&L of drainage facilities determined draft Hydraulic Report, - Documentation of needs - Existing basins and flows for anticipated Threshold Discharge Areas - Identification of Minimum -- Requirements from Highway Runoff Manual (HRM). Storm Water Report submitted to region for review and approval Hydraulic Report Submitted Preliminary Stormwater Mgmt options to identify R/W needs completed Preliminary Hydraulics Design, i.e. stream design	Hydraulic Report Final approved verified for consistency with plans and specifications Storm water details completed If applicable, transfer stormwater retrofit funds over to the I-4 Subprogram, Stormwater Retrofit Category Final Hydraulic Design, i.e. stream design			
16 Survey & Mapping	LIDAR or existing aerial photos or other preliminary information.	Project survey requirements finalized, including areas that may be outside roadway corridor improvements. Project survey control completed Cadastral survey performed. Topographic Survey complete.	Design level mapping completed Record of Survey completed and filed Right of Way plan completed and approved Relocation plan completed	Mapping of new roadway features completed Field review of proposed features completed	DNR Permits to Destroy Monuments obtained	Preliminary construction staking data completed		

Project Development >	Scoping	project management plan development		geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	<i>corridor sketch / planning study</i>	~10%		~30%	~60%	~90%	100%	<i>bid letting</i>	<i>Transition to construction</i>
<p>17 Structures (Bridges, Retaining Walls, Noise Walls, high mast lighting, sign structures) Also, refer to “Structural Submittal Expectations Matrix”.</p>	<p>Determine needed structure and/or geotech work.</p> <p>Square footage cost estimates of structures</p>	<p>Structural Input for Environmental Documentation and Permits</p> <p>Begin Coordination: project scope, preservation activities, construction staging, layout and span lengths, design constraints, seismic operational classification</p> <p><u>Submittal:</u> TS&L (when required)</p>	<p>Structural Participation in Agency Coordination</p> <p>Finalize Scope of Work Agreements</p>	<p>Refer to Deliverables in the Structural Matrix “Bridge Preliminary Plan”</p> <p><u>Required Information from Others:</u></p> <ul style="list-style-type: none"> • Structure Site Data • Preliminary Hydraulic Design (PHD) • Geotechnical Information for Bridge Preliminary Plan <p><u>Submittal:</u> Draft Bridge Preliminary Plan</p> <p><u>End of Phase Document:</u> Approved Bridge Preliminary Plan</p>	<p>Refer to Deliverables in the Structural Matrix “Constructability Review Set”</p> <p><u>Required Information from Others (4 weeks prior to submittal):</u></p> <ul style="list-style-type: none"> • Geotechnical Information for Bridge Substructure Design • Draft Bridge Scour Recommendations <p><u>Submittal:</u> Constructability Review Set</p> <p><u>End of Phase Document:</u> Finalized Comment Resolution Form</p>	<p>Refer to Deliverables in the Structural Matrix “PS&E Review Set”</p> <p><u>Required Information from Others (6 weeks prior to submittal):</u></p> <ul style="list-style-type: none"> • Final Geotechnical Recommendations • Final Hydraulics Design (FHD) <p><u>Submittal = End of Phase Document:</u> PS&E Review Set</p>	<p>Refer to Deliverables in the Structural Matrix “Signed PS&E Set”</p> <p><u>Submittal:</u> Signed PS&E Set (2 weeks prior to End of Phase)</p>		<p><u>Submittal = End of Phase:</u> Bridge Load Rating</p>
<p>18 Illumination, Signals and ITS</p>	<p>Establish required light levels (roadway and pedestrian classification).</p> <p>Determine ITS needs and preliminary equipment locations.</p>	<p>Coordinate with signal operations for any proposed new or modified traffic signal systems. Signal operations will develop signal-phasing plan(s) as part of signal system analysis. Start speed study for existing intersections.</p> <p>Begin collection of as-built data for existing locations.</p>	<p>As-built information collected and verified on-site with maintenance.</p> <p>Illumination Light Level Analysis complete.</p> <p>Signal phasing plan complete. Preliminary signal plan approved.</p> <p>Pole locations provided to design for coordination of grading and drainage</p> <p>Confirm lateral bearing pressure design for poles</p> <p>Wind load charts for signal standards</p> <p>Contact structural designer for poles mounted on structures.</p> <p>Determine preliminary utility connections (power or communications) and initiate coordination with serving utilities.</p>	<p>Box/vault, cabinet, and conduit layout complete.</p> <p>Wiring / network (fiber) diagram complete.</p> <p>Signal display and detection laid out and identified.</p> <p>Provide data to Bridge and Structures Office for any special design equipment or foundations.</p>	<p>All notes and schedules complete, including review and approval of supporting calculations.</p> <p>Supporting detail plans complete.</p> <p>Provide service agreement requests (power or communications) to utilities office for processing.</p>	<p>Final plans complete. Service agreements complete.</p>			

Project Development >	Scoping	project management plan development		geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	<i>corridor sketch / planning study</i>	~10%		~30%	~60%	~90%	100%	<i>bid letting</i>	<i>Transition to construction</i>
¹⁹ Geotechnical Recommendations	Scoping level cost estimate for project/workforce planning, based on project size, location, known elements & historical costs.	Support for TS&L <u>Submittal:</u> TS&L (when required)	<u>Required Information from Others:</u> <ul style="list-style-type: none"> • PMP • Work Request • Scope of Work Agreement • Draft Schedule <u>Submittal:</u> Cost estimate provided, based on project size, location, known elements & historical costs. <u>End of Phase Document:</u> <ul style="list-style-type: none"> • PMP endorsement • Scope of Work agreements initiated • Draft Schedule 	<u>Required Information from Others:</u> <ul style="list-style-type: none"> • Project Site Data; <ul style="list-style-type: none"> ○ Mainline and major horizontal & vertical alignments ○ Typical roadway section(s) ○ TS&L of all Structures ○ Wall Site Data ○ Hydraulic/Storm water features • Field Exploration Clearances, ROE and cultural resources. • Preliminary Hydraulic Design (PHD) <u>Submittal:</u> <ul style="list-style-type: none"> • Geotechnical Information for Bridge Preliminary Plan • Drilling Exhibit for ESA <u>End of Phase Document:</u> <ul style="list-style-type: none"> • Final SOW Agreement • Final Cost estimate & Schedule 	<u>Required Information from Others:</u> <ul style="list-style-type: none"> • Approved Bridge Preliminary Plan • Roadway sections • Draft Bridge Scour Recommendations • Survey Borehole locations <u>Submittal:</u> <ul style="list-style-type: none"> • Field Exploration Plan & utility locates • Soils Data to Hydraulics • Geotechnical Information for Bridge Sub-Structure Design 	<u>Required Information from Others:</u> <ul style="list-style-type: none"> • Final Hydraulic Design (FHD) <u>End of Phase Document:</u> <ul style="list-style-type: none"> • Final Geotechnical Recommendations (Report/Memorandum) 	<u>Required Information from Others:</u> <ul style="list-style-type: none"> • PS&E Review Set <u>Submittal:</u> <ul style="list-style-type: none"> • PS&E review comments <u>End of Phase Document:</u> <ul style="list-style-type: none"> • Summary of Geotechnical Conditions 	<u>End of Phase Document:</u> <ul style="list-style-type: none"> • Decommissioning of wells 	Project close out & transition to Construction support
²⁰ Work Zone Traffic Control	Basic traffic control strategies & alternatives identified. Projects of significance must have Traffic Management Plan (TMP) scoped.			Preliminary Traffic Management Plan/Traffic Control Plan	TMP showing construction sequence and staging completed	Final TMP completed. Final detour plans completed	TMP, including traffic control plans completed and associated Specials approved		
²¹ Traffic Analysis Operations Analysis Interchange Justification Report (IJR) / Access Revision Report (ARR)	<ul style="list-style-type: none"> • Scoping level operational analysis complete for alternatives consideration 	<ul style="list-style-type: none"> • Operations analysis scope determined • Traffic data collected • Perform Operations Analysis • Intersection Control Analysis (ICA) approved (if not already complete in scoping) 	Operations analysis complete. IJR/ARR complete	Assumptions and conclusions in Operations Analysis verified for consistency with design.					
²² Safety Analysis Crash Analysis Report (CAR)	Reference Safety Analysis Guide for what will be needed for safety analysis for the funding program. CAR is complete if funded from the Collision Reduction program.	Gather data necessary for Safety Analysis. Perform Safety Analysis	Safety Analysis complete.	Assumptions and conclusions in Safety Analysis verified for consistency with design.					

Project Development >	Scoping	project management plan development	geometric design review	constructability review	pre-contract review	contract ready (final review)	Contract Ad and Award	Design phase Closure
	<i>corridor sketch / planning study</i>	<i>~10%</i>	<i>~30%</i>	<i>~60%</i>	<i>~90%</i>	<i>100%</i>	<i>bid letting</i>	<i>Transition to construction</i>
23 Signing		<ul style="list-style-type: none"> Contact Region Traffic Office to discuss scheduling, scope of project, and needed information for sign design Gather and deliver signing information to the Traffic Office 	<ul style="list-style-type: none"> Existing signs to reuse and relocate defined Existing sign inventory complete(include electrical items for sign lighting, flashing beacons, or variable/dynamic message signs) Potential conflicts between light standards, camera poles, and signal poles with signs identified Requests for sign structures submitted to HQ Bridge and Structures Preliminary Guide Sign Plan developed Preliminary Lump Sum Estimate calculated 	<ul style="list-style-type: none"> Visual standards for corridor coordinated with Landscape Architect Signing plans, notes, sign specifications completed Conflicts with illumination, camera poles, and/or signal features, drainage or utilities identified Coordination with luminaires on structures or walls identified and mounting/foundation details completed Updated Lump Sum Estimate Utility Agreement and Utility Relocation Requests submitted Sign layout complete, include overhead signs 	<ul style="list-style-type: none"> Updated Sign Design Plan Sheets (Sign Specification Sheets – Removal, Relocation, & Roadside Sign Structures; Sign Plans; Sign Details) Overhead Sign Structure Plan Sheets completed Update Lump Sum Estimate 			
24 Temporary Erosion and Sediment Control (TESC)			Preliminary TESC completed	TESC plan submitted to region for review and approval	Final TESC approved, including site visit Construction Water Quality Monitoring Plan submitted	Approved TESC letter transmitted to PS&E Erosion Control Plans and Notes completed	Staking of TESC measures and construction reviewed	
25 Specifications			Start writing specials for non-standard bid items.	Specifications preliminary run list completed	Specifications run list completed All special provisions submitted for review and approval. Specialty groups specifications and special provisions completed Pay groups and pay items determined	Approved Specifications included in PS&E		

Project Development >	Scoping <i>corridor sketch / planning study</i>	project management plan development <i>~10%</i>	geometric design review <i>~30%</i>	constructability review <i>~60%</i>	pre-contract review <i>~90%</i>	contract ready (final review) <i>100%</i>	Contract Ad and Award <i>bid letting</i>	Design phase Closure <i>Transition to construction</i>
²⁶ Maintenance	<p>Include nearest Maintenance Operations Area to ensure initial planning will not negatively affect maintenance operations after project completion. Meet to discuss current Pavement, Utilities, Right-Of-Way, Hydraulics, Roadway Geometrics and Plans, Structures, and Safety related issues. Identify how/if the planning will affect existing assets (subgrade failure, vegetation, drainage, guardrail, etc.) Establish whether the scoping will have budgetary impacts to the Maintenance Operations forces after project completion.</p>	<p>Ensure initial planning will not negatively affect maintenance operations after project completion. Meet to discuss current Pavement, Utilities, Right-Of-Way, Hydraulics, Structures, and Safety related issues and those that may affect M&O budget after project completion.</p>	<p>Verify guardrail type does not have negatively impact maintenance after construction (will the type installed create longer repairs, exposure to traffic, etc.?).</p>	<p>Review that previously discussed M&O items (Pavement, Utilities, Right-Of-Way, Hydraulics, Roadway Geometrics and Plans, Structures, and Safety items) have remained in the design.</p>				