D2 Event Task List
Bridge Replacement

Major Design Tasks Completed	Resources				
	Design Manual References		Automation References		Video References
Review available materials					
− Concept from Preliminary Design					
− Survey and Photo information	1D-3	Preliminary Survey Procedure	20B-51	Folder and Files, Photo and Survey	
			20A-2	Survey Request	
− As-built plans					
− Project schedule					
Determine design criteria					
− Select and document design criteria	1C-1	Selecting Design Criteria			
	1C-8	Documenting Design Decisions			
− Establish roadway typicals			21B-155	Typical Component Tool	
− Review design traffic from Pavement Design					
− Review preliminary pavement design from Pavement Design					
Prepare project directory					
− Create folders and sub-folders			20B-41	Project Directory Folder Structure	
			20B-44	Project Directory Design Folder Structure	
			20B-81	Project Directory Letting Folder Structure	
− Create CAD files			20A-1	Start New MicroStation Project	
			20A-3	Plan Development CADD Standards	
			20B-1	Design Seed File Listing	
			21C-54	CopySeed Program	
			21A-40	Create New Models	
			21A-50	Reference Attach	
			21A-51	Reference Detach	
			21A-46	Ref File Level Lock	
− Configure Geopak			21B-65	Geopak Project Manager	
Establish horizontal and vertical alignments					
− Decide on either a survey alignment or an office relocation alignment					
− Create horizontal alignment	2A-1	Horizontal Curve Design			
	2A-3	Superelevation Tables			
	2C-1	Spiral Curve Design			
	2D-1	Reverse Curve Design			

Major Design Tasks Completed	Resources				
	Design Manual References		Automation References		Video References
− Draw horizontal alignment to CAD file			21A-201	COGO Alignments, Plan View	
− Create vertical alignment	2B-1	Vertical Curve Design			
− Draw vertical alignment to CAD file			21A-202	COGO Profiles, Alignments	
− Design superelevation	2A-2	Superelevation	21B-68	Superelevation – Automated	
	2A-3	Superelevation Tables			
− Review project for pedestrian and bicyclist needs and adjust design to be ADA compliant	12C-1	Check for ADA Compliance			
− Initiate TS&L development with Preliminary Bridge					
Develop 3D roadway model			21B-200	Corridor Modeler	
− Copy seed Template Library to project directory					
− Initiate Geopak Corridor Modeler tool					
− Select COGO database (gpk file)					
− Set Preferences					
− Confirm chord settings					
− Set Template Library path to project directory					
− Import DTM					
− Import Geometry					
− Import Plan Graphics (if initially known)					
− Initiate Template Library tool			21B-224	Corridor Modeler Templates and Components	
− Create project template folder					
− Select ready to use templates or assemble custom templates					
− Initiate Roadway Designer tool					
− Open Corridor Management dialog and create corridors					
− Open Template Drop dialog and add templates to a corridor					
− Process initial template drop and review model					
− Customize model with additional Template Drops, Point Controls, Secondary Alignments, Parametric Constraints, etc.					
− Build surfaces from Create Surfaces dialog					
Develop cross sections					
− Initiate Geopak Corridor Modeler tool					
− Initiate Draw Cross Sections tool			21B-250	Draw Cross Sections from Surfaces	
− Annotate preliminary cross sections			21B-280	Corridor Modeler Labeler	

Major Design Tasks Completed	Resources				
	Design Manual References		Automation References		Video References
Develop staging details					
− Request a copy of the transportation management plan (if available)	9A-5	Traffic Control Plans			
− For on-site detour develop:	9C-6	On-Site Detours and Temporary Connections			
− Repeat steps followed for mainline design					
− Plan temporary waterway crossing structure					
− For off-site detour develop:					
− Map of possible detour routes			21A-39	Ref-Map	
− For stage construction develop:					
− Possible staging typicals					
− Preliminary staging plan					
− Identify any access/entrance issues					
− Prepare staging and traffic control tabulations	9A-5	Traffic Control Plans			
Build field exam plan set	1F-1	Plan Sheets – General Information			
− Title Sheet - [A.1]	1F-2a	Title Sheet	21A-39	Ref-Map	
− Legend Sheet - [A.2]	1F-2b	Location Map Sheets			
− Typical Detail Sheets - [B]	1F-3a	Typical Cross Sections			
− Quantity Sheets (if necessary) - [C]	1F-4	C Sheets			
− Plan & Profiles Sheets - [D,E,F]	1F-5b	Plan and Profile Sheets	21B-4	P & P Geopak Sheeting Instruction	
− Survey Info - [G]	1F-8	G Sheets			
− Staging & Traffic Control Sheets - [J]	1F-10	J Sheets			
− Situation Plan Sheets - [V]	1F-22	V Sheets			
− Cross Section Sheets - [W,X,Y,Z]	1F-23	W, X, and Y Sheets			
	1F-24	Z Sheets			
Field exam					
	1D-9	Field Examination Checklist (New and Reconstructed Highways)			
	1D-10	Field Examination Checklist (3R and 4R Projects)			
Deliverables					
− Pre Field Exam Plans					
− Field Exam Letter					
− Post Field Exam Plans/Review					
− Updated cost estimate	1B-6	Project Cost Estimates			
− Completed event in PSS					

Return to Flow Chart

Forward to D3