Preliminary Designer (B01) Completion Checklist – Bridge

Date: July 2026

County:_____ Design No.:_____ Project Location:_____

Asset ID/FHWA No:_____ Designer:_____ Date:_____

Event Dates

D2= Design Field Exam

D3= Plans for Preliminary Bridge

B1= Bridges and Structures Layout

Plan and Model Items

___ Preliminary Design Checklist – Bridge (Connect) Items satisfactorily complete

___ Copy of Completed B01 Preliminary Designer Checklist– Bridge (Connect) Stored in project directory Support Docs folder

___ B01 Deliverable Document – Plan and Model Items satisfactorily complete

___ OBM file for preliminary 3D bridge model stored in the Bridge root folder

___ ORD preliminary design plan sheet .dgn file stored in the (Paren)_Work Code folder

___ ORD files for creating the bridge proposed grading terrain and 3D revetment layout models stored in the Bridge root folder (e.g. TRN, COR, GEO files created by the preliminary bridge designer and utilized to create the deliverables)

___ .XML file for each proposed bridge grading terrain stored in the Design Events B01 folder

___ ORD file indicating preliminary linework for flowage or drainage easements stored in the Bridge root folder

___ ORD Structures Overview file for each project code (PIN) stored in the Bridge root folder.

___ TS&L pdf file including Iowa P.E. certification for Hydraulic Design (when applicable) stored in the Design Events B01 folder

___ OBM bridge model input documentation stored in the Support Docs folder

___ OBM file for complete or partial existing 3D bridge model stored in the Bridge root folder (if created for the site)

___ The Bridge root folder and the (Paren)_Work Code folders have been cleared of non-deliverable items

Hydrology and Hydraulic (H&H) Items

___ Final, Iowa P.E. Certified H&H Report clearly labeled and stored in a Support Docs subfolder. (See BDM C3.2.2.2 for content).

___ Final Hydraulic Model clearly labeled and stored in a Support Calcs subfolder

___ Complete RIDB Dataset resides in the project directory RIDB folder

___ BSB Preliminary Design staff engineer shall place a text file named by “StreamID_Rivermile” within the following directory: W:\Highway\Bridge\PrelimSection\RiverineInfrastructureDB\sites_pending_PW. The text file shall include project location, engineer name, date, and list the pathway or link to the completed dataset (stored in the PW project directory RIDB folder)

___ A “Bridge Watch” dataset for a scour critical, temporary run around (on-site detour) is stored in the B01 folder within an Attachments subfolder.

Permitting/Coordination Items, as applicable

___ Flood Plain Permit application submitted (date_____)

- Copies of submitted application materials stored in a Support Docs subfolder
- Once issued permit and approved plans shall be placed under the Permits_Regulatory folder

___ Sovereign Lands permit application submitted (date_____). In many cases, the application may be included as a joint application submitted with the Flood Plain permit.

- Copies of submitted application materials stored in a Support Docs subfolder
- Once issued permit and approved plans shall be placed under Permits_Regulatory folder

___ Unsigned Record of Coordination (ROC) Form Completed by hydraulic designer and support information stored in a Support Docs subfolder

- ROC Form required to be signed by Prelim Unit leader then scanned and routed for District and local entity signature by Iowa DOT BSB Prelim staff Engineer or the preliminary design consultant.
- Once fully signed and returned to Prelim Bridge, a scanned version shall be placed in the Permits_Regulatory folder, and a copy of the form shall be provided to the Iowa DNR by the Iowa DOT BSB Prelim staff Engineer.

___ Letters of Conditional Approval stored in the Permit_Regulatory folder as applicable. Support documentation stored in Support Docs subfolder(s)

- U.S. Coast Guard (horizontal and vertical clearances, etc.), date_____
- Drainage District (required channel FL's in Project Datum, XS's, channel slope, etc.), date_____
- FEMA – CLOMR submittal/approval dates_____, LOMR (within 1 year after construction is complete)
- USACE.(408) approval coordination initiated for sites within an FRRP levee critical zone (application may be post B01), date _____
- Other_____

___ FHWA Coordination (BSB Preliminary staff Engineer is responsible for email Form completion and routing to FHWA)

___ Railroad Coordination

- The Preliminary lead designer is responsible for coordination with the Iowa DOT Rail Transportation Bureau to ensure that post concept RR comments and issues have been addressed
- For BN, UP, CN, and CP RR's –
  - Items listed in BDM C3.4.4 are included on the TS&L
  - Sheet 1067 has been completed with site information and is included with the B01 sheets
- The Iowa DOT BSB Preliminary Design Unit Supervisor is responsible for distributing the B01 completion notification to the Iowa DOT Rail Bureau

Additional Items/Tasks

___ Project Development Report resides in the Docs folder (See BDM C3.2 example)

___ TS&L reviewed by BSB Unit Leader (in-house designs) or assigned BSB Prelim staff review engineer (consultant designs) and comments addressed

___ *Check MasterWorks for correct project information and verify that the correct "work type" code is assigned

___ Check MasterWorks to ensure that event code items B05 through B11 are included in the schedule, as applicable

___ B1 cost estimate entered into iPD web and PPMS (include contingency)

___ **Electronic File Folder information stored for each asset (See BDM 1.11.4)

___ A copy of this completed Preliminary Design B1 completion checklist is stored in a Support Docs folder

___ BSB staff engineer sends email to manager of contract for consultant projects stating the B01 work is satisfactorily complete

___ ***BSB staff engineer sends B01 Completion Notification email to Prelim Unit Leader for distribution

___ ****Post B01 Revision- Typically only needed if the bridge Type, Size, or Location is changed or if a major error(s) is found. Minor corrections and other TS&L sheet revisions should be addressed in the final plans.

Completion Item Details and Responsibility

Refer to BDM section 1.12 and BDM 3.8 for cost estimating.

All tasks above are the responsibility of the lead preliminary design engineer except as denoted.

*The lead preliminary designer needs to crosscheck the Masterworks information and make sure the following is correct on the B01 plan set:

- Project Number (aka. - Phase Number in PPMS)
- County Design Number
- File Number

- Asset ID / FHWA No.

** BSB staff engineer to assemble pertinent information related to preliminary design and place them in the Asset ID subfolder under the Project Number. If structure has no Asset ID folder, the designer shall submit a request to the Automation Engineer.

pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Highway\Bridge\Assets\Bridges and Culverts

Pertinant B01 information typically will include the following :

- Project concept
- Structure type, size, and location (TS&L)
- Preliminary project cost
- Design calculations (H&H Report, Plan Layout Determination Report)
- Preliminary design correspondence
- Environmental documentation (W letters, Issued permits, Conditional letters of approval, etc.)
- FHWA clearances (responsibility of Iowa DOT staff engineer)

*** The BSB staff engineer is responsible for filling out the B01 completion notification form email template information and forwarding to the Preliminary Design Unit Leader. The Preliminary Design Unit Leader is responsible for distributing the TS&L B01 completion notification form to Iowa DOT Bureaus and the District.

****If a TS&L plan change is necessary post B01, contact the Prelim Unit Leader to discuss the proper submittal process. Create a "Superseded" subfolder under B01, and move the outdated TS&L pdf to this location. Add a date to the superseded file to identify the date that the file became out of date. The revised B01 TS&L shall be placed in the B01 folder and have the same name as the original, so that notification links will still work.

Administrative B01 close out will be completed by the BSB Unit leader (Master Works, iPD Web, PSS, file binder spreadsheet, design event documentation, etc.)

ELECTRONIC FORMS, DATABASE, AND RESOURCES

1. **Program and Project Management System (PPMS) - Masterworks**
   Location: https://iowadot.masterworkslive.com/Modules/USRMGMT/Login.aspx
   Training/manuals: https://iowadot.gov/ppms/Training/Training-videos

2. **Bridge, Culvert, Plan and Model Deliverables and TSL Checklists**
   Location: https://iowadot.gov/bridge/Design-Policies/Bridges-and-Structures-Project-Deliverables
   Location: https://iowadot.gov/bridge/Design-Policies/Bridge-and-Culvert-Plan-Checklist

3. **iPDWeb Application -- Cost Estimating Tool for Parametric, D00, B00, D02, B01, Annual Updates**
   Location: https://iadot.exevision.com/ipd/Index.aspx

4. **ProjectWise File Directory**
   Location: pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects
   Asset ID folders: pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Highway\Bridge\Asset Folder\Bridges-Culverts
   Documentation: https://iowadot.gov/bridge/Automation-Tools/CONNECT-Applications