

Proposed Multiple Opening Packet

Bridge Hydraulic Data Summary Sheet - USE PDF SPREADSHEET PROVIDED *This must be signed sealed and dated*

The following must be included:

- Fill in all applicable boxes
- Upper left hand corner date and initial and description of each revision made.
- Center top include county, project number, job piece number, highway, waterway name, and NBIS number of existing bridge
- Drainage areas list each: total, controlled, and effective (contributing) areas in square mile
- Description of existing, proposed and detour structures - include # of spans, span length, skew, and type of beam, overtopping elevation, low beam elevation, frequency, and station. L= total combined bridge length of all structures. Give centerline station of each structure and offset distance and direction if needed.
- Provide hydraulic data (discharge, computed high-water elevations, and velocities) for 2, 5, 10, 25, 50, 100 and ***EITHER*** the overtopping ***OR*** 500 year, whichever occurs first. CHW data from upstream outside contraction reach and velocity data from downstream face (BRD).
- The Q Total is the sum amount of Q going through all of the bridges and over the road. In the Main and Overflow columns, give the Q going through the corresponding structure.
- Give the velocity for each corresponding bridge.
- When filling in the Q, CHW, and the V columns in the summary table, you can cut and paste from the HEC-RAS table columns.
- For multi span bridges give scour depths (contraction, pier, and total scour depths) for the 100 and ***EITHER*** the overtopping ***OR*** 500 year, whichever comes first for each structure. SCOUR MUST BE DONE PRIOR TO HYDRAULIC CONFERENCE
- Include any special notes like any channel work that may be needed, weep holes in deck, etc. Anything that the contractor needs to know that is not standard.
- Sign, seal and date.
- On the second page of the Summary Sheet, fill in the yellow shaded boxes with the information called out. A separate sheet will have to be filled out for each span structure.

Comparison Table USE EXCEL SPREADSHEET PROVIDED

The following must be included:

- Fill in the yellow shaded boxes with the information called out.
- Upper left hand corner include date, initials, and description of any revision made.
- Center top include county, project number, job piece number, highway, waterway name and NBIS number of existing bridge.
- Description of existing and proposed structures will need to include the number of spans, span length, skew, and type of beam, skew angle if any in the appropriate yellow boxes.
- Provide hydraulic data (discharge, computed high-water elevations, and velocities) for 2, 5, 10, 25, 50, 100, 500 and the overtopping year for the natural, existing, and proposed models and compute backwater. CHW data from upstream outside contraction reach and velocity data from downstream face (BRD).
- If located in FEMA zone AE, please provide addition FEMA check line. See instructions.
- Provide the roadway overtopping elevation, overtopping discharge, and overtopping frequency if less than 500 year.
- Use a Maximum of one alternative structure in the comparison table.

Drawings

The following must be included:

- Hydraulics Plan and Profile (see checklist and example for details to be included).
 - Include all of the bridges on a single sheet.
- Bridge Layout Sheet for each bridge (see checklist and example for details to be included).
- Add a separate shoofly drawing if needed.