PRELIMINARY DESIGN CHECKLIST – PLAN SHEET FOR TEMPORARY DETOUR PIPES AT A STREAM CROSSING (CONNECT)

Date: July 2025

County:_____ **Check By:**_____ **Date:**_____

Project Location:_____ **Designer:**_____

GENERAL

___ For requirements specific to temporary detour pipes, reference [BDM 4.4.12]

___ Abbreviations - Use as needed. Reference [BDM 13.1.4]

___ Survey Control Point – Use coordinates/description per plan set

___ Hydraulic Data table - include Drainage Area, Q_5 cfs, HW, stream slope, outlet velocity, low roadway Edge of Traveled Way (sta., Elev).

___ Location table

___ Title Block

- Reinforced Concrete Pipe(s)-Temporary Detour
- Diameter x Length
- For more than one pipe the station is the culvert group centerline crossing of the roadway centerline.
- Skew angle – whole degree, same as shown in plan view

___ Project (phase) number (include any leading zeros) and file number (Asset ID number is not required for temporary pipes)

___ Scale bar

___ North arrow

___ NOTES: use as needed

___ Use Class C bedding, connected joints (DR-121), wrap joints for sites within Loess hills areas

___ Include reinforced concrete pipe aprons at inlet and outlet ends to reduce potential for uplift

___ (This note is to be placed in the upper left corner of the *bridge replacement* first TS&L Situation Plan sheet) "The temporary run around shall be monitored for the duration that it is under traffic. When the construction of the run around is installed, the contractor shall notify the Preliminary Design Unit Leader at 515-233-7949 so a Flood Management Plan can be developed in advance of the temporary run around being put into service. Upon notification, the DOT will add the site to the Bridge Watch Management Plan for monitoring."

___ Add a TSL note: Density used for Class ?? quantity calculations is?? T/cy (e.g. 1.5 for Class E, 1.6 for Class B and C)

___ General Utility Symbols and Utilities Note Cell. Place a label on the plan view to identify areas that may be of potential conflict.

PLAN VIEW

___ Label "Plan View"

___ Culvert(s) oriented horizontally on the sheet

___ Ground elevations, contours, and topography. Label contour elevations

___ Existing utilities shown. Referenced line styles from survey file are at an appropriate scale for readability.

___ Existing structures: include general description

___ Proposed length: include dimensions as needed from culvert typical, e.g., lengths left and right, total length

___ Proposed station on temporary detour centerline

___ Skew angle of culvert to temporary detour roadway. A whole degree skew is preferred.

___ Proposed detour roadway lane and shoulder widths

___ Show proposed detour roadway embankment and ditch grading. Verify with Road Design.

___ Label centerline culvert/detour/road construction

___ Label stationing on at least two "tic" marks in the plan view for both the mainline and temporary detour alignments.

___ Drainage: show direction of flow

___ Check that all text and dimensioning is legible and not placed on top of other text or features

___ Do not show revetment at pipe inlet/outlet unless justified. If revetment is proposed include a note with justification on the sheet.

___ Show existing ROW lines, if they are available in the project directory for referencing.

LONGITUDINAL SECTION

___ Detour Roadway section drawn along pipe centerline. True length is shown

___ Existing ground line and proposed grade line shown and labeled

___ Show existing and proposed structure(s)

___ Proposed flow-lines at inlet and outlet

___ Label detour roadway fore-slope used (e.g., 3:1)

___ Profile grade elevation at intersection of culvert and detour road centerline

___ Q_5 'Design' HW

___ Show maximum fill height and location.

CADD Checklist

Refer to: CONNECT Applications

___ Verify Iowa Regional Coordinate System is correct for the project site.

___ CONNECT ProjectWise folder structure is being used.

___ Correct seed files are being used.

___ MicroStation File naming conventions are being followed.

___ Correct MicroStation Model naming conventions are being followed.

___ The correct levels, element templates, or features are being used. (to ensure the correct font style is applied).

___ The Iowa DOT Environmental Resource Survey Area (ERSA) design file showing potential project impact limits has been reviewed to ensure that all defined work limits in the bridge project are included.