Road Crossings

Please respond to each question. Questions left blank may result in the application being returned as incomplete. In addition, the answers to all of the questions in this Appendix must correspond accurately to the information on the plan and section view drawings for the project.

General Information

1. Will the project be:
   ____ New Construction
   ____ Repair or Replacement of an Existing Structure

2. Describe the purpose for the proposed road crossing activity:
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ______

3. Is the crossing a:
   ____ Bridge (preferred)      ____ Bottomless or Arched Culvert       ____ Pipe Culvert
   ____ Box Culvert             ____ Multiple Barrel Culvert
   ____ Other (describe)________________________

   If other than a bridge is proposed, could bridging be constructed to avoid impacts to the waterbody?  ____ Yes  ____ No   If no, please provide specific justification:
   ____________________________________________________________________________
   ____________________________________________________________________________

4. If culvert pipes are proposed, provide the pipe lengths and diameters:
   ____________________________________________________________________________
   ____________________________________________________________________________
   If a bridge, bottomless culvert or box culvert is proposed, provide the dimensions:
   ____________________________________________________________________________
   What will be the slope of the culvert?
   ____________________________________________________________________________

5. What materials will the structure(s) be made of?
   ____________________________________________________________________________
Waterbody Information

6. Name of the waterbody at the project location: ___________________________________
   Waterbody is a tributary to: ___________________________________

7. What is the width of the waterbody at the project site? ______________________

8. How many linear feet of stream will be affected by the crossing?
   Pipe ________ ln ft.   Inlet Structure ________ ln ft.   Outlet Structure ________ ln ft.

9. What is the total area of impact in the waterbody? (including inlet and outlet protection
   structures, sideslope embankments, etc.):

   Tidal Waters
   Below the mean high water line _____ sq. ft.
   Below the mean low water line _____ sq. ft.

   Non-tidal Waters
   Below the Ordinary high water line _____ sq. ft.

   In tidal wetlands _____ sq. ft. (attach appropriate appendix)

10. For non-tidal waters, what is the approximate median stream flow rate at the site:

    Before construction: _____________ cfs
    After construction: _____________ cfs

    What is the bankfull discharge (~1 yr storm) of the stream at the site? _________ cfs

11. What is the watershed area above the project site? _____________ (acres or square miles)

12. If the road crossing is not over undeeded public subaqueous lands or a DelDOT right of way, who is
    the owner of the underwater lands? ________________________________-
    ________________________________-

13. Please include evidence of written permission from the underwater landowner indicated above (if
    other than the applicant) with this Appendix.

Design Features

14. Describe design features that will be incorporated to allow for fish passage:

   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
15. Describe design features that will maximize the preservation of natural channel features and minimize adverse impacts to stream morphology and stability:

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

16. If culvert pipes are proposed:

Will the pipe bottom be buried below the natural streambed?  ___Yes  ___ No
If yes, how far will the pipe invert be placed below the streambed elevation? _____ inches
If no, explain why:
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

For multiple barrel culvert designs, will a low flow barrel be incorporated?
___Yes  ___ No
If no, explain why:
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
17. What storm event is the structure designed to pass? (i.e. 10 yr storm, 25 yr storm)

____________________

18. Will the structure include an apron or other inlet/outlet protection?  ___Yes  ___ No
   If yes, describe the dimensions and materials that will be utilized:

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

19. Is any fill associated with the proposed activity?  ___Yes  ___ No  If yes, attach the appropriate appendix.

20. Will any sideslope embankments be constructed in the waterbody?  ___Yes  ___ No
   If yes, what is the average slope of the embankments?  __________

21. Will any utilities be associated with the road crossing?  ___Yes  ___ No
   If yes, attach the appropriate appendix.