**Sample Merger Packet:**

**CP 4A, Avoidance and Minimization Measures**

**Roadway Improvements**

INSTRUCTION SHEET – DELETE THIS PAGE BEFORE FINALIZING THE PACKET

This CP4A Merger Packet Example and Guidance is to be used for all projects in Merger.

This instruction sheet is intended to assist the writer and should not be included with the CP4A Merger Packet submittal. For additional information please see the [Merger Guidance](https://connect.ncdot.gov/resources/Environmental/EPU/Merger/Documents/Merger-MOU.pdf#page=51).

Hidden Text/Guidance

This document uses the “Hidden Text” feature of Microsoft Word to assist the writer in in the creation of a CP4A Merger Packet. Hidden text can be enabled and disabled by going to File > Options > Display and then check/uncheck Hidden text. It is highly recommended you enable the guidance text if this your first time working in this document.

* The purple hidden text explains the type of information needed.
* The red Example Text sections provide example language. This language is not intended to be copied and pasted exactly as stated and should be modified to change the specifics as it pertains to your project.
* The blue text are hyperlinks to guidance.

Format

Use text formatting (i.e. font, size, bold, italics, etc.) specifically as presented in this template. Follow the header and footer format as shown.

**AVOIDANCE AND MINIMIZATION MEASURES**

Insert STIP Description

Example Text: Proposed Improvements to Wilson Road (SR 1540) from US 276 to SR 1504 (Old US 64/Old Hendersonville Highway)

Insert County (ies)

Example Text: Transylvania County

Insert STIP Number

Example Text: STIP Project No. R-5763

North Carolina Department of Transportation

Insert Number Example Text: Division 14

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Example Text **MERGER CONCURRENCE POINT NUMBER 4A**

Insert Meeting Date/Time

Example Text  **March 10, 2020**

Agenda (if desired)

Insert Table of Contents (if desired)

Figures (included with packet)

Vicinity Map

Environmental Features Map

Alternatives Overview Map

Project Area Photos (optional)

# Introduction

**This section should use provide information such as the Lead federal agency and the primary points of contact for the project.**

Example Text: Lead federal agency: US Army Corps of Engineers

Primary points of contact for the subject project are:

|  |  |
| --- | --- |
| **Agency** | **Name** |
| Federal Highway Administration (FHWA) | Sharon King |
| U.S. Army Corps of Engineers (USACE) | Henry Osborne |
| North Carolina Department of Water Resources (NCDWR) | Jenna Faust |
| North Carolina Department of Transportation | Jo Merger |
| HNTB | Jane Merger |

The purpose of this meeting is to reach concurrence on the Avoidance and Minimization Measures (AMM) that have been developed over the course of the project and note the potential impacts of the project on the surrounding environment.

## Project Description

**This section should use the STIP description to introduce the project, provide the start and end points, the length of the project, and the project identification. It should also introduce Figure 1, the project location map.**

Example Text: The North Carolina Department of Transportation (NCDOT) proposes to improve SR 1540 (Wilson Road) from US 276 to SR 1504 (Old US 64/Old Hendersonville Highway), approximately 3.7 miles, as shown on Figure 1. This state-funded project is included in the State Transportation Improvement Program (STIP) as project number R-5763. The project proposes to upgrade Wilson Road moving it out of the 500-year floodplain associated with the French Broad River and improve the safety of Wilson Road.

Because of the potential impacts to human and natural resources, STIP Project R-5763 will follow the Section 404/NEPA Merger Process. An Individual Permit is expected, although final discretion lies with the US Army Corps of Engineers (USACE).

## Project History and Merger Plan

**This section should briefly state the project’s history to-date and include the previous concurrence point decisions. This section should provide a basic schedule and cost information. The project schedule should be discussed in context with the proposed Merger Plan for the project.  In this section, hyperlink the phrase “Merger Plan” and link it to the location in which current merger plan for the project resides (i.e., SharePoint).**

Example Text: The project is in the 2018-2027 NCDOT STIP that was approved by the NCDOT Board of Transportation on October 1, 2018, and most recently revised April 1, 2020. Right-of-way (ROW) and Construction funding are scheduled for 2022. The current STIP cost estimate is presented in Table 1. The proposed project schedule is included in Table 2 and is based on the Merger Plan. The schedule and cost estimates are draft and subject to change.

**Table 1.** 2018-2027 STIP R-5763 Cost Estimate

|  |  |
| --- | --- |
| **Phase** | **Cost Estimate** |
| Right of Way | $4,238,000 |
| Utilities | $400,000 |
| Construction | $40,566,000 |
| **Total**\* | **$45,204,000** |
| \*Includes $1,000,000 in prior years costs.  Note: cost estimates are subject to change. | |

**Table 2.** STIP R-5763 Project Schedule\*

|  |  |  |
| --- | --- | --- |
| **Milestone** | **Format** | **Anticipated Date** |
| CP 4B | Virtual Meeting | February 2021 |
| CP 4C | Virtual Meeting | April 2021 |
| Begin ROW Acquisition |  | June 2022 |
| Begin Construction |  | June 2022 |

\*Tentative, subject to change.

## Past Merger Meetings Summary

**This section should briefly discuss past merger meeting dates and public involvement efforts (if applicable). Note any major changes that may have occurred between meetings.**

Example Text:

**CP 1:** Merger Meeting was held on January 24, 2019. The Purpose and Need and study area were defined. Concurrence was reached.

**CP 2:** Merger meeting was held on March 20, 2019. Detailed Study Alternatives were carried forward: No-Build and Build Alternative 1. Concurrence was reached.

**CP 2A**: Merger meeting was held on June 22, 2019. Major Hydraulic structures and Alignment Review were discussed. Concurrence was reached.

**CP 3:** Merger Meeting was held on March 18, 2020. It was determined that the LEDPA is the Build Alternative. Concurrence was reached.

## Purpose and Need

The Purpose of the project is upgrade Wilson Road to move it away from the 500-year floodplain associated with the French Broad River. The Need is to improve safety on Wilson Road and prevent flooding and associated infrastructure damage.

# Avoidance and Minimization

**Provide a table that shows the summary of impacts for the Preferred Alternative using slope stake limits plus 25 feet, for designs based on surveyed data. You may have information developed over the life of the project to provide a comparison of impacts using slope stake limits plus 40 feet (for areas without surveyed data), in addition to the required slope stake limits plus 25 feet. If that is the case, note the reasons for the different buffered slope stake limits and then the difference in the last column of the impacts table.**

**The table includes common resources. Remove resources that are not applicable to your project and add resources that are applicable to your project but are not included in the table. Generally, the simplest process is to use table created for CP3. If there have been any reductions since LEDPA (CP3) they can be shown with additional Columns in the table for comparison.**

Example Text: Avoidance and minimization measures (AMMs) have been undertaken throughout development of the R-5753 project. All avoidance and minimization measures for all resources are documented using the Avoidance and Minimization Measures Tracker on the R-5753 project’s Connect SharePoint site.

## Summary of Impacts

Example Text: Potential impacts to resources for Build Alternative 1 are provided in Table 3, below.

**Table 3**. Summary of Preferred Alternative Impacts

| **Resource** | **Preferred Alternative (Build Alternative 1)** |
| --- | --- |
| Length of Project (miles) | 3.7 |
| Bridge(s) (number and length(s)) | 1 over Williamson Creek, approximately 300 feet  1 over French Broad River, greater than 1,000 feet |
| Stream(s) (linear feet)+ | 2,990\* |
| Wetland(s) (acres)+ | 0.30\*\* |
| Surface Water(s) (acres) | 0.16 |
| Floodway (acres) | 10.9 |
| 100-year floodplain (acres)+ | 37.4 |
| 500-year floodplain (acres)+ | 17.9 |
| Threatened & Endangered Species | Northern Long-Eared Bat (E)  Neuse River Waterdog (T) |
| Historic Architecture Properties | Albert and Mary Jenkins House (E)– No Adverse Effect  Glen Cannon Country Club – No Effect  Pisgah Forest US Post Office (L)– No Effect |
| Noise Receptors (number and number impacted) | 82 / 2 |
| Environmental Justice / Title VI populations | 1 mobile home park |
| Daycare(s) | Nana’s and Mommy’s Too |
| Parcel(s) (number and acres) | 112 / 67.4 |

+Impacts calculated based on slope stake limits plus an additional 40 feet.

\*Stream impacts reported to the nearest 10 feet

\*\* Wetland impacts reported to the nearest 0.1 acre

E= Eligible for National Register of Historic Places (NRHP)

L= Listed on NRHP

## Avoidance and Minimization Measures Documentation

**Summarize the avoidance and minimization measures that have been documented throughout project development using the AMM Guidance. The AMMs should be listed by the Concurrence Point at which they were agreed to. If there were no new AMMs made at a Concurrent Point, then leave the Concurrence Point header and state “No new Avoidance and Minimization Measures were agreed to at this point.”**

**In some cases, there may be AMMs that were agreed to and later in project development it was determined that these measures could not be met. If so, strikethrough the original measure and provide an explanation for why it is no longer avoidable or can be minimized.**

**Sometimes a figure best illustrates an AMM. If that is the case, embed or reference it in the appropriate location with explanatory text.**

Example text:

**Planning Phase and Merger Screening and Concurrence Point 1:**

* Minimized study area to avoid impacts to the French Broad River where it is adjacent to the roadway. The study area is sized to accommodate an improvement of Wilson Road on existing alignment where possible and realignment where necessary to bring the horizontal and vertical alignment up to current design standards.
* The 2016 Feasibility Study evaluated a new location concept and found it to have substantial additional impacts to the human and natural environment when compared to the proposed upgrade of the existing alignment.
* The Feasibility Study analyzed three concepts:
  + Concept 1 – Minor upgrades and improvements using 3R guidelines
    - Determined this does not meet purpose and need
* Concept 2 – Upgrade the road to Major Collector design standards
  + Meets purpose and need and had fewer impacts and was less costly than Concept 3
* Concept 3 – Upgrade the road to Principal Arterial design standards
  + Required the road to be realigned on new location, resulting in higher residential relocations and a higher cost.

Therefore, NCDOT recommended Concept 2 be carried forward, which includes adjustments to the horizontal and vertical alignment while retaining current alignment to the extent feasible.

**Concurrence Point 2:**

* Build Alternative 1 and Build Alternative 2 shifted the alignment of the majority of the road away from the French Broad River. Build Alternative 1 replaces the bridge over the French Broad River on new alignment, avoiding the need for an additional temporary bridge, which would have additional impacts.
* The French Broad River was avoided to minimize impacts to the Appalachian elktoe.
* Build Alternative 1 impacts the fewest residences and businesses.

**Concurrence Point 2A:**

* The bridge over Williamson Creek will be approximately 300 feet. The proposed structure will be of length to have a “no-rise” effect on the floodplain.

**Concurrence Point 3:**

* No new Avoidance and Minimization Measures were agreed to at this point.

**Concurrence Point 4A**

* A local ditch section was used on Wilson Rd to reduce impacts, instead of the standard, hinged arterial ditch for a roadway of this volume and classification. Using a 6:1 ditch frontslope results in a narrower clear zone which allows for use of a 2:1 backslope.

**Additional AMMs may be added during the meeting. These will be recorded as CP4A AMMs and recorded in the meeting summary and Concurrence Form.**

# Merger Plan Review/Next Steps

**This section should include a brief discussion of next steps. If packet concurrence is achieved, the Project Manager will make needed changes to the plan based on agency comment and update the plan on the project SharePoint site.  If a meeting is held, there should be a discussion about the draft Merger Plan and any changes that will be made based on agency input during the meeting.**

Example Text Based on the proposed Merger Plan for the project, NCDOT proposes the next Merger Meeting will be CP 4B (Hydraulic Design Review).  It is anticipated that the CP 4B meeting will be held in three months; Merger Team members will be notified of any changes that require a revision of this timetable.