NCFMP and NCDOT MOA Project Review

PROJECT INFORMATION

Project TIP:	R-2527	**Stream Name:**	Clark's Creek
Sch Let Date:	11/29/2019	**Route Number:**	NC 24/27
CLOMR Case Number:	N/A	**Road Name on Panel:**	NC 24/27
Municipality:	N/A	**Effective FIS Date:**	01/02/2008 (6/16/2009)
County:	Montgomery	**Panel Number:**	6586
CID Number:	370336	**Panel Effective Date:**	9/3/2008
Project Engineer:	Craig Lee, PE	**Bounding Stations:**	600/590
Project Reviewer:	Matthew Dudley, PE		

MODEL STATUS

Type of Study (detailed, limited, redelineated):	Limited	
Effective Model on File?	YES	
Effective Model Format (HEC-RAS, HEC2, Other):	HEC-RAS	3.1.2
Proposed Model Format (HEC-RAS, HEC2, Other):	HEC-RAS	4.1.0

PROJECT SPECIFIC NOTES (pre-model review)

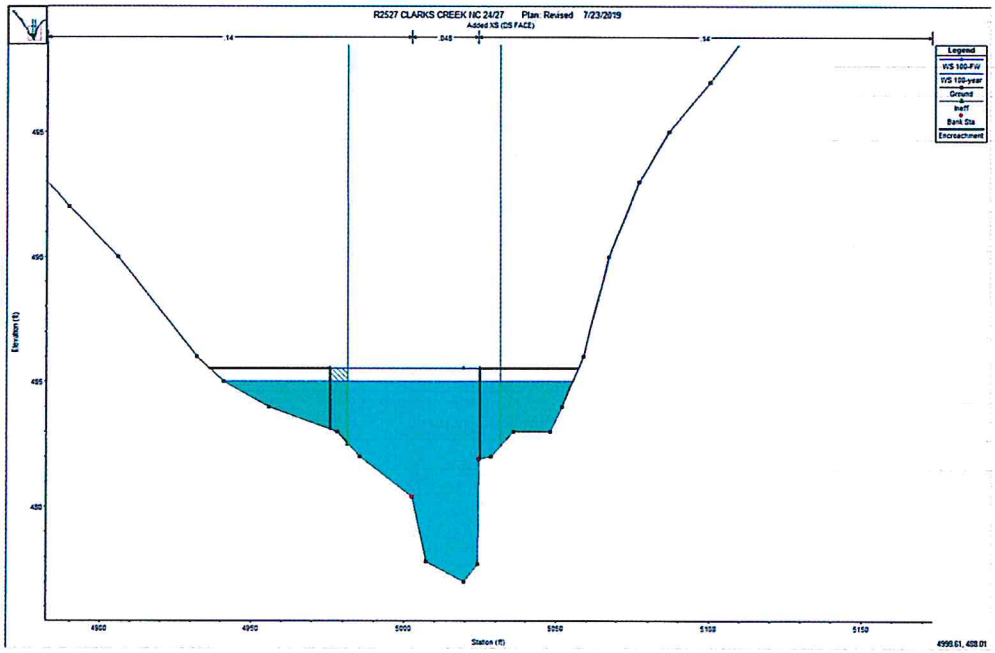
This project has a maximum decrease of 0.30-ft and will be submitted as a MOA type 2a.

REVIEW COMMENTS:

1. Current modeling guidance indicates to use 0.98 max submergence, please verify the maximum submergence value in the Corrected Effective and Revised plans within the noted project area and revise as appropriate.
    - The max submergence value under Deck/Roadway has been updated to 0.98 in the Corrected Effective and Revised model. These models were re-run accordingly.
    - Verified, no further action is needed.

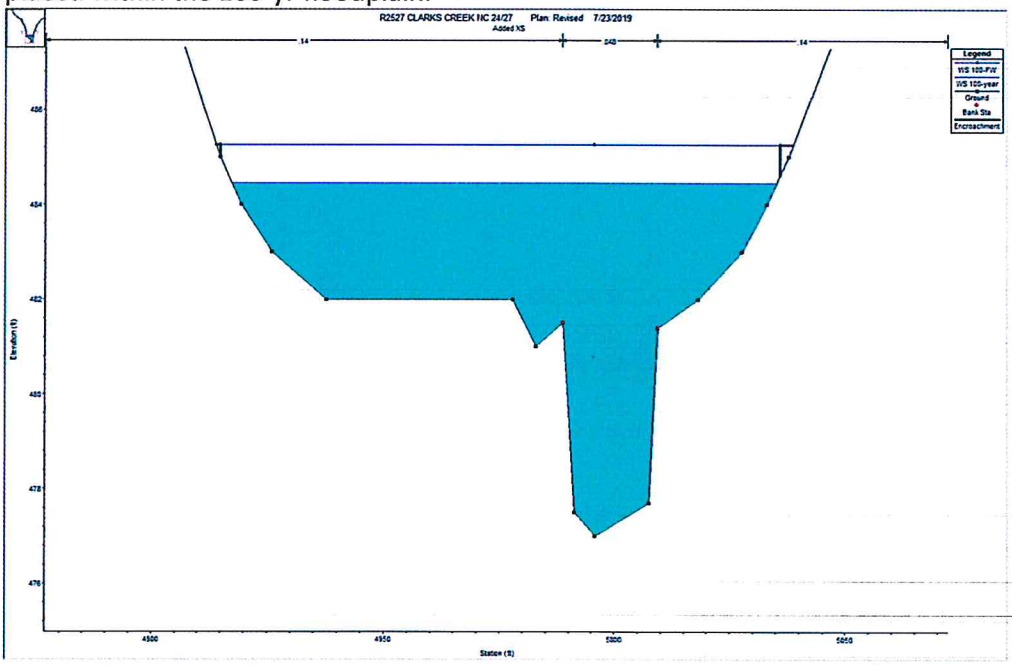
2. For the Revised plan, please verify the encroachment station placement at RS 59463. The left encroachment station is within an ineffective area. Encroachments must be placed in areas of

effective flow.



- The left encroachment station has been moved to the left ineffective station at RS 59463. Surcharges were reviewed as well and they still fall within the allowable ranges.
- Verified, no further action is needed.

3. Please verify encroachment placement at RS 59372 for the Revised plan. The left and right encroachment stations are placed outside of the 100-year floodplain. Encroachments must be placed within the 100-yr floodplain.



- The encroachment stations were moved to be within the 100-yr floodplain at RS 59372. Surcharges were reviewed as well and they still fall within the allowable values.
- Verified, no further action is needed.

4. Please verify the roadway width for the structure at RS 59569 in the Revised plan. The HEC-RAS MOA model shows the roadway width to be 124.8 ft; however, the BSR reports a recommended roadway width of 120 ft.

- The road width has been corrected to 120 ft to be consistent with the CSR.
- Verified, no further action is needed.

5. NCFMP practice is to assume culverts flow unobstructed. The channel ground points should contain the culvert barrel and allow flow without any blockages. For the structure at RS 59569 in the Corrected Effective plan, please consider revising the ground points as needed to contain the culvert.
    - The channel ground points were updated in the Corrected Effective model to show no obstruction in the culvert barrel.
    - Verified, no further action is needed.

MINOR COMMENTS

1. Please confirm that the Corrected Effective and Revised plan embankment side slopes are 2:1. The Duplicate Effective model shows the embankment side slopes to be 1:1. Please document and justify the change in side slopes in the narrative.
    - The SS embankment has been updated to 1 in both the Corrected Effective and Revised model.
    - Verified, no further action is needed.

NOTES FOR NCFMP

None

FINAL DETERMINATION:

This project is recommended for approval as a type 2a project.

8/11/2020

Matthew B. Dudley, PE, CFM — Date

ESP – Project Manager