STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

July 5, 2018

MEMO TO: Al Blanton, PE, PLS
Division Project Team Lead

FROM: S.P. Ivey, P.E.
Division 9 Engineer

PROJECT: 44395.1.1 (U-5824) Forsyth County
Widen NC 66 (Old Hollow Rd) in Walkertown from Harley Dr. to US 158

SUBJECT: Final Design Field Inspection

The Final Design Field Inspection for Project U-5824 was held at 10:00am on Thursday, June 28, 2018 in the Division 9 Conference Room in Winston-Salem, N.C. The following people were in attendance:

Wright Archer	NCDOT-Division Construction Engineer
Brett Abernathy	NCDOT-Project Development Engineer
Al Blanton	NCDOT-Project Development
Connie James	NCDOT-Project Development
Mark Crook	NCDOT-Staff Maintenance Engineer
David Trantham	NCDOT-DUE
JP Couch	NCDOT-Division Traffic Engineer
Brandon Johnson	Summit
Jason Patskoski	Summit
Stuart Bourne	Summit
Tracy Parrott	Summit
Rekha Patel	Summit

The following is a synopsis of FDFI comments:

Sheet 1

- C & G Method III
- ROW let date February 22, 2020
- Let date February 15 ,2022
- ROW/ Utility project number

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION 9
375 SILAS CREEK PARKWAY
WINSTON-SALEM, NC 27127

Telephone: (336) 747-7800
Fax: (336) 703-6693
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
375 SILAS CREEK PARKWAY
WINSTON-SALEM, NC 27127

- Construction project number

Sheet 1A thru 1B
- Update to 2018 Specifications

Sheet 2A-1
- Update pavement schedule to the 2018 pavement consolidation revision
- Partial Typical revise 14' to 16'
- Division will contact municipality to determine if grass or concrete are preferred

Sheet 2A-2
- Correct sheet number
- Correct station Y9 13+75.00 to 14+85

Street 2B-1
- Determine G/R location north side
- Determine G/R location handrail in lieu of fence

Sheet 3B-1
- No comment

Sheet 3B-2
Division request Lump Sum Grading

Sheet 3D-1 thru 3D-9
- See Hydro Comments

Sheet 3P-1
- No comment

Sheet 4
- Revise End sidewalk and drainage at beginning of project
- Remove wheelchair ramp symbols where not required (all plan sheets)
- Modify ROW marker symbol to Concrete by others (all plan sheets)
- Add PUE's (all sheets)
- Verify if PUE is within 25' of tower
- Pipe 0423 needs to be buried 20%
- Tie ditch to channel at 0423
- Relocate 0411 remove from radius relocate cross line pipe crossing Y-1
- Review drainage to determine if cross line pipes can be reduced (all Sheets)

Sheet 5

- Parcel 10 add TCE
- Add supper rated to all y lines (all Sheets)

Sheet 6

- Parcel 26 extend C/A to Parcel 27 property line
- Correct profile , see sheet 13 to 17

Sheet 7

- Parcel 31 pull in TCE
- Parcel 33 Pull in TCE
- 0713 relocate box
- Parcel 32 remove TCE in PUE
- Add signal symbol @ Y-7
- Review adding retaining wall on Parcel 32 and 34
- 0727 convert to DI
- Correct turn lane length

Sheet 8

- Review drainage across parcel 39 either add drainage structure in curb line or shift 0801 toward Y-8A
- Parcel 49 tie easements to existing ROW
- Add signal symbol

Sheet 9

- Parcel 53 add TCE
- Parcel 56 has a basement drain that drains toward roadway… **needs to be discussed during ROW negations**
- Review drainage to determine if cross line pipes can be reduced (all plan sheets)
- Add turn lane length

Sheet 10

- Parcel 66, 68 Add TCE to allow slope construction and pipe installation
- Parcel 68 show driveway improvements
- Revise drainage 1009 to 1002 remove extend 1001 to 1008
- Parcel 35 extend C/A to property line
- Parcel 74 review driveway location and C/G extension

Sheet 11

- Extend Island
- Concrete island to existing station 104+/-
- Show future improvements to US-158

Sheet 12 thru 19

- No comments

General Comments:
Summit Design will discuss curb line water spread NCDOT Hydro
Remove wheelchair ramp symbols where not required (all plan sheets)
Modify ROW marker symbol to Concrete by others (all plan sheets)
Review drainage to determine if cross line pipes can be reduced (all plan sheets)
Add supper rated to all y lines (all plan sheets)

For additional information, please contact Wright Archer, PE, Division Construction Engineer, at (336) 747-7800.

SPI/WRA:kp
Attachment

cc: Attendees

Revised 11/9/17

COMBINED FIELD INSPECTION

Construction WBS#: 44395.1.1

County: Forsyth

T.I.P. #: U-5824

Team Lead: Summit Design and Engineering

Management Group: Division Managed

Instructions

An answer must be provided for **all** questions. If the question is not relevant to the project, then check N/A. Where needed, reply to the requests for additional information with complete statements so that there is not the possibility of a misunderstanding or confusion.

General

Does this project contain any new or unique construction techniques, processes, and/or products that are unfamiliar to the Department, Division, or the assigned Resident Engineer? If "Yes", a draft project special provision, details along with a Technical Bulletin (if available) of this unique construction technique, process, and/or product should be supplied to you for review and comment during this field inspection.	☐Yes ☑ No
Does this project have any constructability issues that should be addressed? If "Yes", briefly describe the issue(s) in the space below: Click here to provide additional information.	☐Yes ☑ No
Based on your answers above, do you recommend: • An internal constructability review? • An external constructability review with representation from contractors affiliated with the Association of General Contractors (AGC)? • A Technical Bulletin to be prepared? • Training to be provided for the Resident Engineer and staff? Click here to provide additional information.	☐Yes ☑ No ☐Yes ☑ No ☐Yes ☑ No ☐Yes ☑ No
Are there any buildings on this project that would be candidates for deconstruction by the local Habitat for Humanity? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☑ No
Recommend completion date for project based on a tentative letting date of **Click here to enter the let date**.	Click here to select a completion date.
Recommend the contract method felt most suitable for this project: conventional, A & B, or incentive/disincentive.	Click here to choose method.
Should a floating date of availability be used for this project? If "Yes", provide any recommendations in the space below: Click here to provide additional information.	☐Yes ☑ No
Are there any issues with the beginning and end of project and construction? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☑ No

Are there any locations on this project that you believe may have potential for hydroplaning? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☑ No
Are there any issues with the street returns for width and radii? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☑ No
Are any roads along this project used for OVERSIZE VEHICLES? If "Yes", does the OVERSIZE VEHICLE ROUTE affect the proposed design? If "Yes", provide specifics in the space below: Click here to provide additional information.	☐Yes ☑ No ☐N/A ☐Yes ☑ No ☐N/A
Should cul-de-sacs or turnaround areas be constructed on existing roads which are terminated? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☐ No ☑N/A
Are any new walls, steps and/or house walks required? If "Yes", provide the location, type of construction required and quantities in the space below: Click here to provide additional information.	☑Yes ☐ No ☐N/A shown on plans
Will the construction surveying on this project be handled by the Department or the Contractor?	Click here to choose one.
Is the project survey line identified on the ground so it can be found and located by the prospective contractors? If "No", provide the location(s) where issues exist in the space below: Click here to provide additional information.	☐Yes ☐ No ?
Are there any existing hazardous waste sites or possible existing contaminated properties located within or immediately adjacent to the project right of way? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☐ No ?
Are any monitoring wells within project limits? If "Yes", provide locations in the space below so that abandoning work may be coordinated by the Geoenvironmental Section before construction. Click here to provide additional information.	☐Yes ☐ No ?
Do you have any suggestions for consideration that would reduce the future maintenance costs of this project? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☑ No
Should emergency crossovers be constructed as a part of this project? If "Yes", recommend the type of construction and locations in the space below: Click here to provide additional information.	☐Yes ☑ No ☐N/A

Barriers

The Roadway Standard Drawing, Std. 846.03 (Sheet 1 of 2), shows guardrail spanning an object that requires a post to be omitted. Does this project require this standard? If "Yes", list each location and the required standard in the space below: Click here to provide additional information.	☐Yes ☑ No
Will any additional, temporary guardrail or permanent guardrail be	☐Yes ☐ No ☑N/A

required? If "Yes", list locations and estimate quantity in the space below: Click here to provide additional information.	
Will removed existing guardrail be stockpiled? Click here to provide additional information.	☐Yes ☑No ☐N/A
Will any guardrail barricades be required on existing roads which are to be terminated or should earth berms be constructed? If "Yes", list the locations in the space below: Click here to provide additional information. If guardrail, are terminal sections to be used? If additional information required, please provide it in the space below: Click here to provide additional information.	☐Yes ☑No ☐N/A ☐Yes ☑No ☐N/A
Do you have any suggestion(s) for reducing the future vegetative maintenance around existing and / or proposed guardrail on this project? If "Yes", provide more detail on the suggestion(s) in the space below: Click here to provide additional information.	☐Yes ☑No
Will the Division be able to furnish the temporary concrete barrier to the contractor for his use during construction of the project? If "Yes", designate the location from which the contractor must take delivery of the barrier and the location to which the contractor must return the barrier at the conclusion of the project in the space below: Click here to provide additional information.	☐Yes ☑No ☐N/A
If the Contractor is to furnish the temporary concrete barrier, should barrier revert to the Contractor at the conclusion of the project? NOTE: If the Division wants to take possession of the barrier, it must reimburse the project for the salvage value of the barrier, this reimbursement must come from 100% State funds.	☑Yes ☐No ☐N/A

Berms, Gutters and Curbing

Are there any recommended changes for curb type and cover for raised islands? If "Yes", provide more detail on the suggestion(s) in the space below: Click here to provide additional information.	☐Yes ☐No IN REVIEW
Are additional shoulder berms, expressway gutters, or gutters and curbing on the outside edge of fill shoulder required? If "Yes", provide the location(s) on the plans or in the space below: Click here to provide additional information.	☐Yes ☑No
Truncated domes are required on all existing wheel chair ramps. Are there any existing wheel chair ramps which need to be retrofitted with truncated domes? If "Yes", provide how many in the space below: Click here to provide additional information.	☐Yes ☐No ☐N/A ?
Are pedestrian mitigation measures incorporated into the Design Plans? If "Yes", Are mitigation measures Americans with Disabilities Act (ADA) compliant? Provide an explanation below: Click here to provide additional information.	☑Yes ☐No

Drainage

Are there any pipe installations requiring **trenchless** construction? If "Yes", provide an estimated length and location of pipe requiring this type installation in soil in the space below: Click here to provide additional information. Note: A separate length of pipe is needed at each location, for installation, in materials other than soil.	☐Yes ☑No
Are there any recommended changes for berm ditches? If "Yes", provide more detail on the suggestion(s) in the space below: Click here to provide additional information.	☐Yes ☑No ☐N/A
Are there any recommended changes for type of paved ditches and ditch liner? If "Yes", provide more detail on the suggestion(s) in the space below: Click here to provide additional information.	☐Yes ☑No ☐N/A
Are any additional drainage easements required? If "Yes", show location, limits and specify whether it is temporary or permanent in the space below: Click here to provide additional information.	☑Yes ☐ No Shown in plan sheets
Are there any catch basins, drop inlets, manholes, meter boxes and valve boxes to be adjusted? (Article 858-1) If "Yes", Provide the location and number in the space below: Click here to provide additional information.	☑Yes ☐ No

Constructability/Permitting/Commitments

Has the method of construction for proposed bridges and / or culverts been addressed? (See CFI Checklist attached to field inspection letter.) If "Yes", provide more detail in the space below: Click here to provide additional information.	☐Yes ☐ No ☑N/A
Has the method of removal for bridge superstructure and substructure been discussed? (See CFI Checklist attached to field inspection letter.) If "Yes", provide more detail in the space below: Click here to provide additional information.	☐Yes ☐ No ☑N/A
Are any additional right of way, permanent easements and/or temporary construction easements required other than those shown on the plans for the issues discussed above? If "Yes", show location, limits and specify whether it is temporary or permanent in the space below: Click here to provide additional information.	☐Yes ☑ No
Does the proposed design take into consideration the constructability issues associated with constructing the roadway, drainage, structures, utilities, and maintaining traffic so that the right of way limits and permit application can be developed accordingly? If "No", provide more detail in space below: Click here to provide additional information.	☑Yes ☐ No
Have all environmental commitments been reviewed and can they be implemented? If "No", provide more detail below in the space below: Click here to provide additional information.	☐Yes ☐ No ☐N/A
Are any plan changes or modifications required that may jeopardize the status of the permit? If "Yes", list the locations in the space below: Click here to provide additional information.	☐Yes ☑ No ☐N/A
Are historic properties and / or archeological sites clearly identified on the plans? If "No", provide the location(s) where issues exist in the space	☐Yes ☐ No ☐N/A

below: Click here to provide additional information. Do the commitments clearly explain how the impacts to these sites will be avoided or minimized? If "No", provide suggestions on how the comments could be clarified below: Click here to provide additional information.	☑Yes ☐ No
Are there any temporary pedestrian impacts listed on the list of environmental commitments (green sheets)? Click here to provide additional information.	☐Yes ☐ No ?

Driveways

Are any changes needed for the location or width of driveways? If "Yes", provide more information in the space below: Click here to provide additional information.	☐Yes ☐ No ☐N/A ?
Will any driveway pavement be required for existing unpaved drives (due to steep grades caused by project construction)? If "Yes", provide location, type of construction required and quantities in the space below: Click here to provide additional information.	☐Yes ☐ No ☐N/A ?
Recommend radius or drop type curb for driveway turnouts. Select N/A if there are none on the project.	Click here to choose one.
Do you have any recommendations for channelization of commercial drives? If "Yes", provide more information in the space below: Click here to provide additional information.	☐Yes ☐ No ☐N/A ?
Will high strength or quick cure concrete be required for driveway during construction of replacement operations? Click here to provide additional information.	☑Yes ☐ No

Earthwork

Are there any ways which project generated debris (i.e. removed concrete/asphalt pavement: clearing and grubbing-mulch; native planting) can be safely and economically incorporated into the construction of the project? If "Yes", provide more information in the space below: Click here to provide additional information.	☐Yes ☑ No
Are there any approved alternative sources of fill material located in close proximity to the project (coal flyash generator, concrete pavement removal, recycle glass, steel slag, etc.)? If "Yes", provide more information in the space below: Click here to provide additional information.	☐Yes ☐ No ?
Can earthwork be utilized (as shown on the Earthwork Summary) during construction phasing of this project? For widening projects, this includes the ability of the contractor to haul earth material across traffic. If "No", provide more information in the space below: Click here to provide additional information.	☑Yes ☐ No ☐N/A
Is any pavement removal, breaking of existing pavements or obliteration required beyond what is shown in the plans? If "Yes", provide the locations in the space below:	☐Yes ☑ No

Click here to provide additional information.	
If this project fits within the guidelines, would you rather it go to contract under "Lump sum grading" or an individual item basis? Click here to provide additional information.	☑Yes ☐ No LS Grading
Is this project a good candidate for earthwork quantity determination using photogrammetric methods? Click here to provide additional information.	☐Yes ☑ No

Fencing

If access is to be controlled on the project, recommend the height and type of fence (woven wire or chain link) and if any gates are required in the space below: Click here to provide additional information.	☐Yes ☑ No ☐N/A
Is temporary fence required on the project? If "Yes", provide the height, type and recommended locations below: Click here to provide additional information.	☐Yes ☑ No
Is any security fence required (reset or replacement) on this project? If "Yes, furnish sketch showing size, post spacing, gates, etc. or provide this information in the space below: Click here to provide additional information.	☐Yes ☑ No

Geotechnical (Must answer if sub-surface information is not available.)

Are any underdrains anticipated? If "Yes", estimate total length below: Click here to provide additional information.	☐Yes ☑ No
Is additional undercut excavation needed beyond what is shown in the geotech recommendations. If so, provide an estimate of that quantity. (Article 225-4) Click here to enter quantity.	☐Yes ☐ No ?

Grading

Should grading be done in order to allow for vegetation removal and erosion on the future paving contract? If "Yes", provide the height above final subgrade below: Click here to provide additional information.	☐Yes ☑ No
Has any grading occurred since field surveys and contour mapping were made? If "Yes", have these areas been identified and taken into account? Provide additional information in the space below: Click here to provide additional information.	☐Yes ☐ No ?
Is a grading detail needed for the interchanges on this project? Click here to provide additional information.	☐Yes ☑ No

Lighting

Will the project require lighting and/or future lighting? If "Yes", provide	☐Yes ☑ No

locations in the space below: Click here to provide additional information.	

Noise Walls

Should NCDOT approved, alternative noise wall materials be considered for use in lieu of the standard pile and panel wall materials? Click here to provide additional information.	☐Yes ☐ No ☑N/A

Load Restrictions

Are there load limit restrictions on roads and/or bridges in the project vicinity which will limit the contractor in the hauling equipment and materials?	☐Yes ☑ No
If "Yes", will this be covered by Section 105-15 of the Standard Specifications? Click here to provide additional information.	☐Yes ☑ No

Material Usage and Measurement

Specify how borrow material will be measured. In place measurement, or truck measurement. (Article 230-5)	Click here to choose one.
On Federal Aid projects, are materials furnished by the contractor or salvaged from the project to become the property of the department? If yes, the salvage value must be reimbursed from State funds for the material as part of the Federal Aid Agreement if the salvage value exceeds $5,000.00 except where the salvaged item will be reused in future projects eligible under Title 23 USC until its useful life is expended.	☐Yes ☐ No ☐N/A LS

Pavement

Will incidental stone base be required? (Article 545-1) If "Yes", estimate quantity in the space below: Click here to provide additional information.	☑Yes ☐ No 50 TONS
Will asphalt plant mix pavement repair be required for repairing existing pavement? (Exclude pipe installations) If "Yes", estimate quantity in the space below: Click here to provide additional information.	☑Yes ☐ No 100 TONS
Do you have any recommendations for mobile string line or fixed string line for the asphalt plant mix paver? (Article 610-8) If "Yes", provide further details in the space below: Click here to provide additional information.	☐Yes ☑ No
Is milling of asphalt pavement feasible on this project? (A) If "No", explain in the space below. (B) If "Yes", provide recommended depths, widths, and locations in the space below. Click here to provide additional information.	☑Yes ☐ No

Highway Design Guidelines specify that trench sections be used on pavement designs that are 10" or less in depth. Is there any justification for deviating from these guidelines? If "Yes", provide more information in the space below: Click here to provide additional information.	☐Yes ☑ No
Has the method of rumble strip construction for concrete shoulders been clearly show in the plans? Click here to provide additional information. Do you agree with the method as shown? Click here to provide additional information. Is there another approved method more suitable for this project? If "Yes", provide more information in the space below: Click here to provide additional information.	☐Yes ☐ No ☑N/A ☐Yes ☐ No ☐Yes ☐ No
Are there any resurfacing areas where incidental milling will be required to make a suitable tie back to the existing pavement? If "Yes", estimate quantity in the space below: Click here to provide additional information.	☑Yes ☐ No 1 - 2 INCHES
Do you want Final Surface Testing performed on this project? Click here to provide additional information.	☐Yes ☑ No

Right of Way

Which method of clearing is to be used? If "Other", please specify in the space below: Click here to provide additional information.	Click here to choose one. III
Are there trees which are to be preserved on field inspection prints. (Article 200-3) If "Yes", show on field inspection prints or provide locations in the space below: Click here to provide additional information.	☐Yes ☑ No
Are there areas in the Right-of-Way that are not to be cleared? If "Yes", show on field inspection prints or provide locations below: Click here to provide additional information.	☐Yes ☑ No
What type of Right of Way marker installation is recommended for this project? NOTE: State forces place iron pin and caps as right of way markers. Placement of concrete/granite right of way markers shall be placed by contract. Click here to provide additional information.	Click here to choose one.

Traffic Operations

Is the Division aware of any traffic generating events that would require special design considerations and traffic control planning? If "Yes", provide the events below: Click here to provide additional information.	☐Yes ☑ No
Are there any locations where a non-gating impact attenuator should be specified (temporary detours, temporary traffic pattern, etc.) that the completed project would only require a gating device? If "Yes", provide the locations in the space below: Click here to provide additional information.	☐Yes ☐ No ☑N/A

Have traffic maintenance and constructability issues been reviewed to ensure they will have no bearings on the permit status? If there are any potential conflicts with the permit status, list them in the space below: Click here to provide additional information.	☑Yes ☐ No
Are any street signs and markers to be removed and stockpiled by the Contractor? If "Yes", provide the locations in the space below: Click here to provide additional information.	☐Yes ☑ No
Are there any signing and/or pavement marking to be performed by force account? If "Yes", notify the Division Traffic Engineer who will furnish a cost estimate to the Roadway Design Unit. Click here to provide additional information.	☐Yes ☑ No
Is the existing pavement adequate on proposed detours? If "No," provide any areas of concerns in the space below: Click here to provide additional information.	☐Yes ☐ No N/A
Are any contract signs needed on the project? If "Yes", provide the locations in the space below: Click here to provide additional information.	☐Yes ☐ No
Is a $250 penalty ordinance and/or speed reduction ordinance recommended? Click here to provide additional information.	☐Yes ☑ No
Are any route/name changes necessary on the project? If "Yes", provide the locations in the space below: Click here to provide additional information.	☐Yes ☑ No
Is a towing ordinance recommended? If "Yes", provide areas of concern in the space below: Click here to provide additional information.	☐Yes ☑ No
Is Right-of-Way adequate for sign/signal installation? If "No", provide the area(s) of concern below in the space: Click here to provide additional information.	☑Yes ☐ No
Has any development occurred recently to influence the project traffic volumes? If "Yes", advise what the impact is so that geometrics and pavement design can reflect the change in the space below: Click here to provide additional information.	☐Yes ☐ No 7.
What will be the probable posted speed limit for this project? Click here to provide additional information.	Click here to enter speed. 45
In addition to portable changeable message signs (per each), is there a need for *short term* portable changeable message signs (for road closures, girder delivery, etc.)? If "Yes", estimate the number of days in the space below: Click here to provide additional information.	☐Yes ☑ No ☐N/A

Typical Sections

Will full width usable paved shoulders be required at the interchange ramps? Click here to provide additional information.	☐Yes ☐ No ☑N/A

Temporary Shoring

Is Temporary Shoring for the maintenance of traffic required on this project? (Shoring required to maintain traffic is defined as shoring	☐Yes ☑ No

necessary to provide lateral support to the side of an excavation or embankment parallel to an open travelway when a theoretical 2:1 or steeper slope from the bottom of the excavation or embankment intersects the existing ground line closer than 5 feet (1.5m) from the edge of pavement of the open travelway.) List probable locations of this temporary shoring: Click here to provide additional information.	

Miscellaneous Comments

Click here to provide additional information.