



NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION

Catherine Truitt, *Superintendent of Public Instruction*

www.dpi.nc.gov

Plan Review

Review No: 14194

To: SKA Consulting Engineers
Greensboro, NC Via Email

Dr. Jeff James, Superintendent
Iredell-Statesville Schools
email: jeff_james@iss.k12.nc.us

From: Dennis R. Hilton, PE, Structural Engineer, School Planning
phone: 984-236-2922 email: dennis.hilton@dpi.nc.gov

Subject: Iredell-Statesville Schools
Statesville High - renovations
exterior renovations and barbering program
DSP No: 492-2273 Project # 8940

Date: February 15, 2023

The Construction Document Submittal for the Statesville High - exterior renovations and barbering program project was received on January 4, 2023. The following Structural Review Comments are submitted to the designer and the Iredell-Statesville Schools for consideration in accordance with G.S.115C-521. Comments by other disciplines, if any, will be forwarded under separate cover. A Certificate of Review will be issued after plan review has been completed.

Response to these review comments is required to complete the review process.

1. Project Manual Spec Section 012200 – UNIT PRICES:
 - a) There is no Unit Price listed for the brick masonry stabilizing plates and rods shown on building elevations on Sht. S4.1 and detailed by sections 3 & 4/S5.2. Notes on building elevations indicate that locations and quantities are to be identified in the field by Engineer. There is no Allowance provided in the Project Manual for this work. Please address how this work can be accounted for by Bidders.
 - b) There is no Unit Price listed for installation of retrofit masonry ties as illustrated by 4/S6.1. Notes associated with 4/S6.1 indicate that retrofit ties are to be placed at 24" o/c vertically and horizontally, and that additional tie installation will be determined in the field by the Engineer. There is no Allowance provided in the Project Manual for this work. Please address how this work can be accounted for by Bidders.

* Indicates a potential Building Code issue.

2. Project Manual Spec Section 040110, 1.3.A: Reference is made to Allowances in Section 012100. There was no such spec section in the Project Manual. Please address.
- Spec Section 042000 – UNIT MASONRY: Please verify that this section adequately covers concrete masonry unit material and strength properties as well as unit placement.
- Spec Section 042000, 1.2.B.1: This item is either improperly worded or is not applicable to this project. Please address as needed.
- Spec Sections 051200 & 055000: These sections indicate that structural steel shapes are to comply with ASTM A36. Please verify that design of structural steel framing is per $F_y = 36$ ksi and not $F_y = 50$ ksi.
- Division 5 Spec Sections: Included in the scope of work could be steel roof decking and cold-formed metal framing. Please provide spec sections for these items or provide material/technical notes on Sht. S1.1.
3. Sht. S2.2 GENERAL COMMENT: Work illustrated by 2/S2.2 and 2A/S2.2 is labeled as being per ALTERNATE 3. Spec Section 012300 does not list this work as an Alternate. Please address.
- 2/S2.2: It appears that the call-out for 7/S2.2 should be moved to the opposite side of the column C1. Please address as needed.
- 6/S2.2: The bent bars in the 16" deep (min.) footing are not tagged. Please address as needed.
- 7/S2.2: If the work illustrated by this section is to be per an Alternate, then it should be noted as such. Please address as needed.
4. Sht. S2.3 1/S2.3: Please coordinate low edge of roof conditions with those illustrated by Architectural Section 7/A7.00. It appears that an bent edge plate is needed with vertical leg toed down.
- 1 & 2/S2.3: Please verify the all-around field weld symbols. The type of weld is not indicated and 5/8 – 12" welds do not seem to be applicable for deck to beam or other attachments.
- 2/S2.3: The roof decking is "ghosted" to be barely visible. Please address as needed.
5. Sht S4.1 ELEVATIONS 1 thru 4: Sections 3 & 4/S5.2 provide additional information about masonry stabilizer plate assemblies. Please revise the note about these assemblies accordingly.
- ELEVATION 1: The "middle" vertical masonry expansion joint appears to penetrate the existing canopy and terminate at the top of a downspout. Please clarify its placement – thru brick veneer full height, behind downspout and canopy, or otherwise?
6. Sht. S5.1 1/S5.1: A note at the call-out for 4/S6.1 calls for masonry joint reinforcing at 16" o/c, typical. Notes associated with 4/S6.1 indicate that retrofit ties are to be placed at 24" o/c vertically and horizontally. Please address as needed.

7. Sht. S5.1 3/S5.1:
(cont'd)
- a) Please check the graphics of this section, especially at weld symbols.
 - b) A boxed note with small print tags an existing 2.5x2.5 strut to existing W8 lintel. There is no W8 lintel shown...is it to be demo'd?
 - c) A field weld symbol with boxed weld sizes points to the end of the 2.4x2.5 strut. Please clarify – is the strut to be welded to the new L6x4 or welded to something else?
8. Sht. S5.2 1 & 2/S5.2: Please clarify where the illustrated work is located.
- 2/S5.2: The angle-to-angle condition illustrated does not match the description of a bolted connection. Please clarify.
- 3 & 4/S5.2:
- a) Please verify that both interior and exterior round plates are to be painted red.
 - b) Should there be sealant placed around the edges of the round plates?
9. Sht. S6.1 1/S6.1: A note indicates that 5 feet (min) of brick are to be removed from each side of a crack. Please verify that this is the design intent - that amount of brick removal and rework seems excessive.
- 4/S6.1: At the RETRO-FIT TIE INTO STRUCTURAL STEEL BACK-UP, the masonry tie set is tagged as DUR-O-WALL SERIES “????”. Please address as needed.

Please address and respond to these review comments. Review responses, revised specifications and revised structural drawings should be emailed to this Reviewer. Thank you.

CC: Mr. Dale Ladd, Director of Maintenance
Mr. Scott Hager, Construction/Capital Projects Supervisor
Mr. Tim Ivey, Chief Technology and Facilities Officer
Adams & Associates Architecture