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May 21, 2024

Ms. Vibha Goel, RA
Assistant Director
State Construction Office
301 North Wilmington Street, Suite 450
Raleigh, North Carolina 27601

Ref: Cape Fear Community College
Health and Human Services Building Interior Renovations - Phase Two
319 North Third Street
Wilmington, North Carolina 28401
SCO ID# 23-27149-01A

Dear Ms. Goel:

Thank you for your staff's review of the combined schematic design and design development submittal of our project.

We are pleased to provide our Construction Document Submittal for your department's review and comment. The submittal includes a response letter to SCO SD/DD comments, approval from Cape Fear Community College, a project manual including project specifications, a cost estimate, and a project schedule.

We offer the following responses for your consideration.

Mechanical, Plumbing, and Sprinkler – Andrew Mullican, RA (1)

1. G2: Provide drawings sealed by registered engineer not the contractor.

Response: Our building data listed contractor/vendor under the designer contact schedule. We have revised this to be DSA Engineers, who have authored the attached performance specification Section 101000 and will be the engineer of record for this trade. DSA Engineers will review vendor sprinkler submittals prepared by a NICET Level 3 designer for modifications to the existing sprinkler distribution. The modifications relate to branch system distribution rather than main infrastructure. See clouded revision at designer schedule on sheet G2.

Electrical & Fire Alarm – Isaac Loydpierson, RA (3)

1. E-001: It is the designer's responsibility to read and comply with all relevant criteria in the 2020 SCO Electrical Guidelines and Policies and 2020 SCO Fire Alarm Guidelines and

Policies. The guidelines and policies are only for the purpose of preparing the designer's plans and specifications for the specific project in their contract. These guidelines are available on the SCO website. (<http://ncadmin.nc.gov/businesses/construction>)

Response: Will comply

2. E001: Prevention thru Design (PtD) is an initiative launched in 2006 by the National Institutes for Safety & Health and encompasses all disciplines to anticipate and eliminate through design potential hazards to workers. The State Construction Office expects Designers for state projects to implement PtD in their design to ensure as much as possible the safety of all State of North Carolina employees who work with products of their designs. The Designer shall follow the Hierarchy of Hazard Control Measures from ANSI Z10 American National Standard for Occupational Health Safety and Management Systems which in decreasing order of safety control effectiveness are: Elimination, Substitution, Engineering Controls, Warnings, Administrative Controls, and Personal Protective Equipment (PPE). (2020 SCO Electrical Guidelines and Policies Section 26 01 00)

Response: Ww will reference the associated guidelines and incorporate accordingly

3. E001: Confirm the proposed electrical and fire alarm design has been reviewed and accepted by Cape Fear Community College Facilities Management and include their review comments in the Owners review and approval letter to the State Construction Office (per 2019 State Construction Manual 403).

Response: Confirmed – no owner comments to date.

Architectural – T Tingler (14)

1. G1: Up-date the SCO #: 23-27149-01A

Response: We have updated all of our SCO ID numbers to have the suffix "A" added to the end of the ID number. These references are pervasive in the submittal and are therefore not clouded as a revision.

2. G2: By selecting Renovation and the 2018 NCBC the entire Building will be reviewed. If Level III Alteration of the 2018 NCEBC is selected, only the areas/systems being Altered is reviewed. There is no Change of Occupancy (Use) Classification.

Response: The building data has been revised to reference the 2018 NCEBC alterations Level III rather than the 2018 NCBC. There is no change of occupancy (use) classification above the first floor. See revision cloud on sheet G2 at code identification.

3. G2: See comment on Sheet G3. Other than the Assembly Spaces on Floors 1 and 2, I don't see any other Occupancy in the Building. And, other than Stairs, Elevators and Shafts, I don't see any vertical separation, only horizontal separation via floor construction, and this may only be necessary between the second and third floors. Please clarify Separated Mixed-Occupancy.

Response: The building has been reclassified as both a mixed-use building of business and assembly occupancies and a business occupancy building with an accessory use of assembly spaces not exceeding 10% of the net area of the second floor. The only rated assemblies provided are 2-hour stair, elevator, and chase shafts and 2-hour floor structure with primary frame since they support the non-load bearing shafts. The south exterior wall is 1-hour rated due to the potential of a future building on the Greenfield site to the south. The mixed occupancy portion of the building is on Level one since the assembly area is greater

than 10% of the Level one net area. The 2-hour floor structure satisfies the separation requirements of 1 hour. Room 233 on the second floor is an accessory occupancy to the main occupancy of business and thus does not require separation since it comprises less than 10% of the Level 2 net area. Room 233 is currently leased and is programmed to be an assembly room with a second door added if that is the case. We defer design and placement of the door until that scope is determined. See clouded revisions on sheets G2 and G3.

4. G3: A Change in Occupancy from Education Classroom to Assembly, and increase in Occupant Load above 49 will require a second egress from the space or reducing the SF.
Response: See response for Item #3 above.
5. G3: Provide the Egress Capacity for Doors E1 and E2
Response: Egress capacity has now been clarified at each floor level. See clouded revisions on sheet G6.
6. G3: This Building is now Educational - College/University. As such it's primary Occupancy is Business-B. As long as the Assembly Spaces on this Floor, along with other accessory spaces in the building, don't exceed 10% (5,566sf), these Lecture Rooms are Accessory and don't require separate Occupancy.
Response: The 2018 NCBC section 508.2.3 requires the accessory occupancy of assembly A-3 to be less than 10% of the floor area for each floor. Since we already have a 2-hour floor and structural frame and Level one is mainly assembly spaces we chose to keep this floor a separated mixed-occupancy.
7. G3: Is this Drive-Thru to remain? What is the fire rating on the exterior walls and underside of Floor 2? Is this space sprinklered?
Response: The Level one drive-thru will remain for the time being and is sprinklered with a dry pipe system. Exterior wall construction satisfies 1-hour construction and the floor above and structural frame are 2-hour protected. Phase 3 construction has this area penciled in as an exterior pedestrian gathering space with vehicular passage and curb cut removed. It will be used for limited vehicular use until then.
8. G4: It's either a "Communicating Stair" or an "Exit Access Stairway", not both. It's not an Atrium. If it's an Exit Access Stairway, it must serve as an Exit Access, and be part of the Means of Egress - see Section 1019. It's also part of the Exit Access Travel Distance. Is the 4th Floor structure a 1-hr horizontal separation assembly? If not, it can be a 2-Story Opening - see Section 712.1.9.
Response: The communicating stair between Level 3 and Level 4 has the reference to exit access stairway removed. This will be a 2-story opening per section 712.1.9 of the 2018 NCBC. The fourth floor is not a horizontal separation assembly.
See clouded revisions on sheet G3.
9. G5: Carefully review and clarify this Room's usage with the College. It's indicated as a Classroom Function (1/20) but the FF&E layout shows a Video Conference Room (Assembly 1/15). This would make the Occupant Load 65, requiring a second exit.
Response: Room 527 has been subdivided into two separate spaces such that each room when at a 15 NSF per person occupant load will serve no more than 49 people or totals less than 750 NSF per section 303.1.2 of the 2018 NCBC.
See revision cloud on sheet G5.

10. AD 101: Will this Building be occupied during the demolition and new construction? If so review Chapter 33 of the 2018 NCBC for maintaining the fire sprinkler system, Egress Systems, Fire Alarm and protection of occupants and the public.
 Response: The building will be occupied during construction of Phase 2. Levels 3 and 4 will be fully renovated except at stairs and elevators. Chapter 33 provisions of the 2018 NCBC will be followed to maintain continuity of fire sprinkler system, egress systems, fire alarm and protection of occupants and the public.
 See clouded revisions on sheets AD102, and AD105.
11. AD 105: These temporary doors are for Contractor Staff access and exit, and need to swing in the direction of egress. Review Chapter 33 of the 2018 NCBC.
 Response: The referenced temporary doors isolating construction activities from in-use areas have had the door swings reversed to swing in the direction of exit.
 See clouded revisions on sheet G5.
12. AD 105: What is this zig-zag line indicating?
 Response: The zig zag line demarks an area of renovation that is underway and will not be part of the Phase 2 construction. We depict the layout as it will be in place at the start time of the Phase 2 project.
13. A700: Show the H/C Transaction counter at 34"-36" AFF.
 Response: At least one compliant area per transaction counter will have the counter height set between 34" to 36" above the floor.
 See clouded revision sheets A501 and A700.
14. 48: Review of the Project's Financial Worksheet in InterSCOPE indicates there are insufficient funds currently assigned to address the estimated cost of Phase II Work. As the Project is developed, the Designer shall work with the CFCC Staff to increase available funding or reduce cost through Scope reduction, Alternates, etc... Final Estimates should be 90%-95% of the overall available construction funding.
- | | |
|----------------|------------------------------------|
| \$3,568,000.00 | Currently Assigned Project Funding |
| \$ 322,370 | Encumbered Design Funds |
| \$3,245,630 | Available Construction Funding |
| \$3,600,000 | Funding Shortfall |
- Response: The owner has increased the available funds for the projects. See Owner approval letter attached.

Mechanical, Plumbing, and Sprinkler – tjgaldi, RA (8)

1. M002: Systems serving multiple zones are to be variable volume with restrictions on reheat per C403.4.4 of the NCECC.
 Response: These are single zone AHUs. Ventilation schedule will be updated to reflect as such.

2. M002: Note that calculation of OA for systems serving multiple zones is more complicated than indicated by this table.
Response: Agree. These are single zone AHUs. Schedule/calculation will be updated to reflect as such.
3. M221: What shaft? None shown. Note that if the rapidly arriving A2L refrigerants are used; the refrigerant piping penetrating more than one floor will be required to be enclosed in a fire rated and ventilated shaft.
Response: There are (2) 2hr rated shafts adjacent to corridor that refrigerant lines are run in for the building. Refrigerant pipe routing and locations of the shafts will be clarified in CD drawings. Refrigerant type and impacts will be addressed/clarified in CDs.
4. M241: All unducted returns need to be above ceiling.
Response: Agree, existing building is not constructed for unducted / plenum return. More detail will be in CD's. This will be an Alternate to provide Ducted HEPA Fan Filter Units with ceiling supply and low returns in the dental clinic space.
5. P002: Review. Pressure at top floors that don't have PRV's will be too high if boost pressure is 115.
Response: Any required PRVs will be included with CD documents.
6. P002: Schedule duplex pump and include detail.
Response: Duplex pump will be scheduled and detailed for CD documents.
7. P141: It is unclear why the general concept of providing drainage, venting, and water to the scheduled DS fixtures is not outlined.
Response: Utilities for DS fixtures will be included with CD documents.
8. P211: Identify to where building condensate terminates.
Response: Existing risers for mechanical condensate are routed below grade to the site storm water system. Will be clarified for CD documents.

Please feel free to contact me directly with any questions or concerns regarding this submittal.

With Regard,
Bowman Murray Hemingway Architects



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