RFQ # 121-201826DC

Department/Agency	**Rowan-Cabarrus Community College**
Project Title	**South Campus Workforce Innovation Center**
Design Services	**Pre-Construction Services**
Scope	**This request for qualifications is for Construction Manager at Risk (CMR) Pre-construction services for the $55,272,000 Workforce Innovation Center at Rowan-Cabarrus Community College's (RCCC) South Campus in Kannapolis, NC. The project is envisioned to include the design and construction of one (1) new building.** **It is envisioned that the building will house classrooms, labs, and support spaces as well as large, flexible multi-purpose seminar rooms with supporting spaces. The building is envisioned to be a roughly 70,000 square foot, three-story building located on an undeveloped parcel across Trinity Church Rd from South Campus in Kannapolis, NC. It is conceived to be a high-efficiency, steel frame, with brick veneer to integrate into the design aesthetic of South Campus. The project includes extensions of all utilities (power, data, water, sewer), parking, and stormwater for the site and serves as the foundation for future development on the east side of Trinity Church Road. The project also includes a roughly 9,000 square foot Central Energy Plant incorporated into the 1st floor to provide space for chillers and other infrastructure to support the ultimate build-out of the area north of Trinity Church Road while acting as a teaching tool for students learning about the next generation of mechanical systems** **Specific goals for the project are addressed in the Workforce Innovation Center Owners Project Requirements dated December 3, 2025. The scope of work for this selection will include conceptual design, schematic design, design development, and construction documents, but will not include construction administration or close-out as the funding for the construction of the project has yet to be secured. The project will include site development, building construction, and fit-out yielding a fully functional facility. This project is anticipated to be delivered under a CM at Risk delivery model. The project will be designed and administered under State Construction Office requirements.**
Contact	**Ronda Holland**
Telephone	**704-216-3455**
Email	**collegeenvironment@rccc.edu**
Total Project Budget	**$55,272,000 Total Project Budget (inclusive of all soft costs)**
Source of Funds	**Cabarrus County Bond**
Approved OC-25 #	**NCCCS # 2876**
Publish Date	**February 18, 2026**
Closing Date	**March 18, 2026 at 2:00 PM**
Submittal Packages should be transmitted to:	**Electronic submissions only (Read Receipt Requested) to:** **Email: collegeenvironment@rccc.edu** Please identify the **RFQ # 121-021826DC and the Project Title** in the subject line of the email.
NC Licensing Statement	In order to offer architectural, engineering, or landscape architectural services in response to this solicitation, the proposing firm must be properly licensed to practice Architecture, Engineering, or Landscape Architecture in the State of North Carolina. More information on the North Carolina state boards may be found at the following websites: **NC Board of Architecture:** (http://www.ncbarch.org) **NC Board of Examiners for Engineers & Surveyors:** (http://www.ncbels.org) **NC Board of Landscape Architects:** (http://www.ncbola.org) **HUB firms are encouraged to submit proposals for this project.**

RFQ # 121-201826DC

Rowan-Cabarrus Community College intends to select a Construction Manager at Risk firm for pre-construction services for the project. In selecting the CMR, the College's Selection Committee will take into consideration qualifying factors such as:

SELECTING CRITERIA

In selecting the CMR, the College's Selection Committee will take into consideration qualifying factors addressed below with their relative weighting:

1. **Expertise and previous experience in the design and construction of innovative, high-efficiency educational/institutional facilities (both Higher Education and K-12). 30%**
2. **Demonstrated understanding of the requirements under which Rowan-Cabarrus Community College must execute its capital projects, including the RCCC Facilities Design Manual, the State Construction Manual and associated forms, NCCCS Capital Improvement Guide, and the State Construction Office (SCO) project administration, including the Interscope System, contractor pre-qualification, contracting, plan review, dispute resolution, and HUB tracking and reporting. 20%**
3. **Experience in the construction of energy efficient and sustainable buildings, with a particular emphasis on project incorporating Passive House (PHIUS) and WELL Building principles. 20%**
4. **Qualifications and experience of proposed staff and consultant team. 10%**
5. **Quality of the CMR's Safety Plan. 10%**
6. **Quality of the proposal, including the inclusion of all the Submittal Requirements addressed below. 10%**
7. **After Selection Committee Members' votes have been tallied and averaged, one-half (1/2) additional point will be awarded to Historically Underutilized Business (HUB) certified proposers. Teams with at least one HUB certified sub-consultant (necessary to support the effort of this contract), will be awarded one half (1/2) additional point. A maximum of one (1) additional point may be granted under this criterion.**

Firms must be registered and active with the North Carolina Electronic Vendor Portal prior to submitting a proposal. https://evp.nc.gov/ Failure to register may result in disqualification.

SUBMITTAL REQUIREMENTS

Proposing firms must submit one (1) electronic copy of the complete submittal package in Adobe.pdf format to the email address provided: collegeenvironment@rccc.edu . Electronic submissions only (Read Receipt Requested).

Each package shall include in the following order:

1. **A Letter of Interest – no more than two pages. Letter of interest should include licensure, license holder, NC e-Procurement number, and SCO Vendor Number.**
2. **The SCO Qualifications Questionnaire for Construction Manager at Risk and all associated documentation.**
3. **An example of a Project Safety Plan for a similar project.**
4. **A proposed Gantt Chart Schedule for the Project from Conceptual Design through Completion.**
5. **A minimum of three (3) (but no more than 6) single page (front and back) examples of similar projects, including photos and/or renderings, a description of pertinent elements, estimated and constructed cost (for completed projects), and design and construction durations (in months). Identify any significant deviations between planned and actual budgets and schedules and other project challenges.**
6. **Three (3) letters of recommendation from prior Higher Education clients for similar projects.**
7. **Resumes of key staff (Project Executive, Project Managers, Project Engineers, Project Superintendents, Estimators, Sustainability Manager) proposed to support the construction effort, including an indication of other projects on which that individual will be concurrently assigned, and those anticipated project completion dates.**
8. **A copy of the CMR's subcontractor plan for soliciting and engaging Historically Underutilized Businesses (HUB) for any entity proposed to support the effort of this contract.**
9. **Signed copy of all addendums issued to this advertisement.**

Electronic submissions only (Read Receipt Requested).

Rowan-Cabarrus Community College

Workforce Innovation Center

Owner's Project Requirements

December 3, 2025

Rowan-Cabarrus Community College

Workforce Innovation Center

Owner's Project Requirements

February 18, 2025 (Rev.)

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Supporting Documents

Facility Design Manual, Version 1.2, February 2024
https://www.rccc.edu/environservices/wp-content/uploads/sites/46/2024/05/Facility_Design_Manual_2024-compressed.pdf

Rowan-Cabarrus Community College South Campus Facility Master Plan, 2022

Rowan-Cabarrus Community College
College Environment Division
Department of Planning and Capital Projects
2025

Rowan-Cabarrus Community College

Workforce Innovation Center

Owner's Project Requirements

February 18, 2025 (Rev.)

1. Introduction

This Draft RCCC Owner's Project Requirements document captures in writing the initial concept for the Workforce Innovation Center for Rowan-Cabarrus Community College's South Campus in Kannapolis, NC. This project is estimated to cost $55,272,000, however only funding for the design and preconstruction efforts has currently been allocated. These Owner's Project Requirements shall inform prospective Architects, Construction Managers at Risk (CMR), Commissioning Agents (Cx), Sustainability Consultants, etc. of the goals and requirements the Owner has created for the project. They should use this document to evaluate their interest in the project, select their proposed teams, and guide the writing of their proposals in response to the Request for Qualifications (RFQ) to show their alignment with the Owner's stated goals.

2. Vision

The Project is envisioned as:

A new building housing classrooms, labs, and related spaces as well as large, flexible multi-purpose seminar rooms with supporting spaces. The building is envisioned to be a roughly 70,000 square foot, three-story building located on an undeveloped parcel across Trinity Church Rd from South Campus in Kannapolis, NC. It is conceived to be a high-efficiency, steel frame structure, with brick veneer to integrate into the design aesthetic of South Campus. The project includes extensions of all roadways, utilities, parking, and stormwater for the site and serves as the foundation for future development on the east side of Trinity Church Road. The project also includes a Central Energy Plant designed on the 1st floor to provide space for chillers and other infrastructure to support the ultimate build-out of the area north of Trinity Church Road while acting as a teaching tool for students learning about the next generation of mechanical systems.

Specific goals for the project and individual buildings are addressed in this document.

3. Project Budget

3.1. The total project budget includes all project associated costs using the State Construction Office Budget Breakdown:

3.1.1.Design	$ 5,822,000	Design with Consultants, Construction Admin, Close Out
3.1.2.Construction	$46,000,000	Construction Fee and Costs
3.1.3.Contingency	$ 1,350,000	New Construction Contingency
3.1.4.Other Costs	$ 2,100,000	FF&E, 3rd Party Inspections and 3rd Party Consultants
3.1.5.Total Budget	$55,272,000	

4. Designer/CMR/CX/Sustainability Scopes of Work

The project will include site development, building construction, and fit-out yielding fully functional facilities. The Architect shall seek all required approvals including zoning, annexation, handle bidding, and administer the construction under a CM at Risk delivery model. The project will be designed and administered as a formal project under State Construction Office requirements. The funding allocated

to this project necessitates splitting the scopes of work of the Designer, Construction Manager at Risk, and Commissioning Agent into phases.

4.1. Phase I (Design and Preconstruction):

4.1.1. The Designer's initial effort will include updating the South Campus Master Plan developed by Ewing Cole Planners in 2022, and further developing coordinated stormwater, roadways/drives, parking, pedestrian connectivity, and campus security plans for the entire sector of campus.

4.1.2. Conceptual design, schematic design, design development, and construction documents for the building and all associated sitework, up to the approval to bid by the State Construction Office.

4.1.3. The Construction Manager's pre-construction effort includes cost estimating, constructability reviews, sustainability reviews, materials and finishes selections, value-engineering, and construction bid package development.

4.1.4. The Commissioning Agent's first effort includes systems design review, sustainability review, and energy modeling.

4.1.5. Sustainability Consultant(s) (PHIUS and Well Building) efforts will include developing requirements for each phase of design as outlined in the Owner's goals.

4.2. Phase II (Construction):

4.2.1. The Designer's subsequent scope of work after the full funding for construction is approved then includes bidding assistance, construction administration, project close-out, assistance with warranty period management (1 year), and performance verification.

4.2.2. The Construction Manager's follow-on scope of work includes bidding, contracting, construction management, project close-out, warranty period management (1 year), and assistance with performance verification.

4.2.3. The Commissioning Agent's work in this phase includes shop drawing review, field inspections, system start-up verification, project close-out review, supervision of systems training by the CM and Vendors, and performance verification (1 year).

4.2.4. Sustainability Consultant(s) (PHIUS and Well Building) includes monitoring adherence to requirements as established during the design phases.

5. General Project Requirements

5.1. General Requirements

5.1.1. Project Goals

5.1.1.1. Integrating the East-of-Trinity-Church-Road sector into the South Campus Master Plan is essential for a unified, functional campus. This integration must include coordinated strategies for parking, stormwater management, and utility extensions.

5.1.1.2. Pedestrian connections across, over, or under Trinity Church Road must provide safe, accessible, and convenient passage, with clear wayfinding and aesthetic, functional design.

5.1.1.3. Design and construct a building with a striking, visually prominent façade and signage oriented toward I-85, ensuring visibility from the highway while complementing the architectural character of existing campus buildings.

5.1.1.4. The building will be an integral part of the new east-side campus expansion and will fit into the design esthetics of the existing campus buildings.

5.1.1.5. The drives and select parking areas will designed to a standard that will accommodate frequent trips of heavy vehicles.

5.1.1.6. The building should be highly energy efficient:

5.1.1.6.1. The building systems should exclude any on-site burning of hydrocarbons.

5.1.1.6.2. The facility should achieve total (including site) energy utilization of less than 30 EUI, which, with onsite generated PV electricity, should yield a near Net Zero facility. Factoring in centralized geothermal chilling for roughly 150,000 sf of future buildings the goal would be increased to 25 EUI.

5.1.1.6.3. The project HVAC system will be a ground source heat pump system, which will serve as the foundation of a larger central heating and cooling loop serving this sector of campus.

5.1.1.6.4. Rooftop and parking lot canopy solar should be installed with a capacity to offset any energy utilized by the building and site infrastructure. It is estimated that this would be roughly 500–700 kW (roof + canopy likely required).

5.1.1.7. The building should factor in wellness of its occupants:

5.1.1.7.1. Indoor air quality is a priority.

5.1.1.7.2. Sound transmission should be well managed and appropriate for each spaces use and adjacencies. This is particularly critical in Seminar Spaces and associated Lobbies.

5.1.1.7.3. Stairs should be the primary method of moving from floor to floor and, as such should be open and inviting; while elevators should accommodate those will mobility issues.

5.1.1.7.4. Food service – Provide a limited food service option at a coffee-shop scale, offering light refreshments and beverages. A full-size or full-service cafeteria exists elsewhere on campus.

5.1.2. Owner's Directives

5.1.2.1. All aspects of the project design shall comply with the College's February 2024 Facilities Design Manual.

5.1.2.2. Ensure CO2 levels in classroom, lab, office, and meeting spaces do not exceed 750ppm through the prescriptive application goal of no less than 15 CFM per person in each discrete space.

5.1.2.3. The project will be conceptualized and designed in a highly integrated approach, with the Owner, Tenant, Architect, Construction Manager, Sustainability Consultant (PHIUS) and Commissioning Agent as equal partners in the effort.

5.1.2.4. As a formal project and over $2,000,000 the project will be administered under State Construction Office (SCO) requirements, and the Standard SCO Design Contract will be utilized for Design, Construction Administration, and Closeout Phases, with scope requirements of the Owner, beyond those of SCO, carried as Additional Services.

5.1.2.5. Full 3rd party enhanced commissioning will be required, including the building envelope commissioning with air pressure test, appropriate mock-ups for testing, water testing of windows and storefronts.

5.1.2.6. The construction of the project will be accomplished by the Construction Manager at Risk delivery method.

5.1.2.7. The design, construction, commissioning, and performance verification of the buildings will follow two specific sustainable design programs, key components of which will be determined during the planning phase of design. They are:

5.1.2.8. WELL Building v2 from which the project will be required to address areas of concern, which are:

5.1.2.8.1. Air
5.1.2.8.2. Water
5.1.2.8.3. Light
5.1.2.8.4. Movement
5.1.2.8.5. Thermal Comfort
5.1.2.8.6. Sound
5.1.2.8.7. Materials

5.1.2.9. The 2021 PHIUS Passive Building Standard will guide the design of all buildings, without the intent of seeking formal certification. Design shall incorporate the following principles:

5.1.2.9.1 Passive Conservation Requirements

5.1.2.9.2 Airtightness Requirements

5.1.2.9.3 Active Conservation Requirements

5.1.2.9.4 Renewable Energy Requirements

5.1.2.9.5 Moisture Design Criteria

5.1.2.10. FEMA P-361, Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms, Third Edition (2015) shall guide the design of certain multi-use spaces within the building, capable of providing shelter space for the number of occupants of the building and shall be labeled in the documents as such and shall have appropriate signage. The intent is only that the structure and envelope are to be designed to this standard, without seeking certification that all criteria are met.

5.1.3. Approvals

5.1.3.1. The project is located within the City Limits of Kannapolis, NC, and will require development approval from the City. Certain design elements may necessitate a re-zoning process.

5.1.3.2. Cabarrus County is the Authority Having Jurisdiction (AHJ) and will issue Building Permits and perform building inspections.

5.1.3.3. Other Permits as required by AHJ.

5.1.3.4. SCO will perform plan review in addition to that performed by the local AHJ.

5.1.4. Drawing Requirements: RCCC will require AutoCAD/vector-based editable copies of drawing files as well as PDF copies of all stages of project development from schematic design through project closeout.

5.1.5. Basis of Design

5.1.5.1. Door hardware to use Allegion family of products (Schlage, Von Duprin, LCN, etc.) as the basis of design and as the Owner's Preferred Alternate in Bid Documents. Keying system to be Schlage Everest "R" Small Format. Coordinate with Scott Adamczak with Allegion at (704.608.0475) to develop the door hardware schedule.

5.1.5.2. The Electronic Access Control system shall be Avigilon, with installation by an authorized integrator. All associated hardware will be approved by Avigilon for integration into their system.

5.1.5.3. The Video Surveillance system will be IP Configure, and all cameras and associated hardware will be approved by IP Configure for integration into that system.

5.1.5.4. Fire Alarm and Mass Notification system will be an expansion of the South Campus Notifier voice-annunciated fire alarm system, with installation by an authorized Notifier integrator.

5.1.5.5. Interior and exterior Wayfinding and Directional Signage will use the College Standard APCO Signs as the basis of design and as the Owner's Preferred Alternate in Bid Documents.

5.1.5.6. Site furnishings (benches, trash cans, bollards, etc.) will use the College Standard of North Carolina-based LeisureCraft Holding, LLC. "High Point Series" as the basis of design and as the Owner's Preferred Alternate in Bid Documents.

5.1.5.7. Emergency Phone/Camera Poles will use Talk-A-Phone Exterior Emergency Phone/Camera Poles as the basis of design and as the Owner's Preferred Alternate in Bid Documents.

5.2. Project Specific Elements – Space Program

5.2.1. Building Core:

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Core						
3rd Floor						
1	Lobby	50	5	250	250	
1	Atrium Space	1	2000	2000	2,000	
1	Men's Public Restroom	4	20	80	80	
1	Woman's Public Restroom	4	20	80	80	
1	Unisex Public Restroom	1	80	80	80	
1	Electrical Room	1	120	120	120	
1	Mechanical Room	1	250	250	250	
2	Elevator	1	80	80	160	
2	Egress Stairs	1	400	400	800	
1	IDF	1	100	100	100	
2	Custodial Closet	1	100	100	200	
2nd Floor						
1	Lobby	50	5	250	250	

1	Men's Public Restroom	4	20	80	80	
1	Woman's Public Restroom	4	20	80	80	
1	Unisex Public Restroom	1	80	80	80	
2	Electrical Room	1	120	120	240	
2	Mechanical Room	1	350	350	700	
2	Elevator	1	80	80	160	
2	Egress Stairs	1	400	400	800	
1	IDF	1	150	150	150	
1	Custodial Equip/Storage	1	400	400	400	
2	Custodial Closet	1	100	100	200	
1st Floor						
1	Lobby	20	5	100	100	
1	Men's Public Restroom	4	20	80	80	
1	Woman's Public Restroom	4	20	80	80	
1	Unisex Public Restroom	1	80	80	80	
2	Office	1	120	120	240	

1	Cubicles	4	70	280	280	
1	Part-Time Cubicles	4	50	200	200	
1	Workroom	6	50	300	300	
2	Storage	1	100	100	200	
1	Electrical Room	1	300	300	300	
1	Battery Room	1	300	300	300	
1	Chiller Room	1	3000	3000	3,000	
1	Mechanical Yard	1	1000	1000	1,000	
1	Mechanical Room	1	350	350	350	
1	MDF	1	50	50	50	
2	Elevator	1	80	80	160	
1	Elevator Machinery Room	1	160	160	160	
2	Egress Stairs	1	400	400	800	
1	Custodial Equip/Storage	1	400	400	400	
1	Custodial Closet	1	100	100	100	
				Subtotal	**15,440**	
				Circulation and Walls	**1,550**	10%
				Gross Area Total	**17,000**	

5.2.2. Faculty Support:

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
General Faculty Support Spaces						
2	Waiting (4 Seats)	4	30	120	240	
2	Dean/Director Office	1	150	150	300	
2	Dean/Director Admin	1	90	90	180	
8	Program Chair/Manager Offices	1	120	120	960	
2	Instructors Cubicle Areas	12	60	720	1,440	
Shared						
2	Collaboration	6	20	120	240	
1	Med. Conf. Room	16	20	320	320	
2	Sm. Conf. Room	4	25	100	200	
1	Work/Break Room	10	30	300	300	
				Subtotal	**4,180**	
				Circulation and Walls	**760**	18%
				Gross Area Total	**5,000**	

5.2.3. Student Support

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Student Support						
2	Informal Collaboration Space	8	20	160	320	
1	Study Room	20	20	400	400	
1	Computer Area	20	20	400	400	
1	Vending Area	10	11	110	110	
1	Student Lounge	20	10	200	200	
				Subtotal Program Space	**1,430**	
				Circulation and Walls	**260**	18%
				Gross Area Total	**1,700**	

5.2.4. Café

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Café						
1	Office	1	80	80	80	
1	Café	40	15	600	600	
1	Food Prep	4	100	400	400	
1	Servery	6	40	240	240	

1	Scullery	2	100	200	200	
1	Dry Storage	1	100	100	100	
1	Custodial Closet	1	100	100	100	
				Subtotal	**1,720**	
				Circulation and Walls	**180**	10%
				Gross Area Total	**1,900**	

5.2.5. Multi-Purpose Spaces:

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Conference Spaces						
1	Lobby	300	5	1500	1,500	
1	Ticket Booth	1	30	30	30	
1	Reception Area	4	15	60	60	
1	Receptionist Desk	1	70	70	70	
1	Office	1	120	120	120	
1	Men's Restroom	4	20	80	80	
1	Women's Restroom	4	20	80	80	
1	Unisex Restrooms	1	80	80	80	
2	Large Multi-Purpose Room	160	20	3200	6,400	divisible into 2 spaces with movable partitions
2	Classrooms/Break-Out Rooms	24	25	600	1,200	

1	Table & Chair Storage	1	800	800	800	
1	Green Room	1	120	120	120	
1	Green Room Restroom	1	60	60	60	
1	Loading/Unloading	1	500	500	500	
1	A/V Space	1	120	120	120	
				Subtotal Program Space	**11,220**	
				Circulation and Walls	**2,250**	20%
				Gross Area Total	**13,500**	

5.2.6. Shared Teaching Spaces

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
Shared Classrooms						
10	General Classrooms	24	25	600	6,000	
6	Classroom Storage	1	200	200	1,200	
1	Teaching Auditorium	200	20	4000	4,000	Stepped seating, stage
1	Large Classroom	50	20	1000	1,000	1 located on 1st floor **storm hardened**
2	Classroom Storage	1	200	200	400	
2	General Computer Classroom	24	30	720	1,440	
1	Classroom Storage	1	100	100	100	
				Subtotal Program Space	**14,140**	
				Circulation and Walls	**2,550**	18%
				Gross Area Total	**16,700**	

Count	Description	Section Capacity	NSF/ Occupant	Item Area (SF)	Total Area (SF)	Notes
21st Century Teaching						
1	Office	2	100	200	200	
1	Childhood Education Lab	24	30	720	720	
1	Audio/Visual Media Tech Lab	20	40	800	800	
1	Photography Lab	1	400	400	400	
1	Storage, Material	1	300	300	300	
1	Broadcast Technology Lab	20	30	600	600	
1	Studio	1	600	600	600	
1	Recording Booth	1	300	300	300	
1	Storage, Large Equipment	1	400	400	400	
1	Equipment Maintenance	1	500	500	500	
1	Production Control	1	180	180	180	
1	Storage, Material	1	100	100	100	
				Subtotal Program Space	**5,100**	
				Circulation and Walls	**920**	18%
				Gross Area Total	**6,100**	

5.2.7. Summary:

Description	Gross Square Footage	Notes
Workforce Innovation Center		
Building Core	17,000	
Faculty Support Spaces	5,000	
Student Support	1,700	
Café	1,900	
Multi-Purpose Spaces	13,500	
Shared Teaching	16,700	
Public Safety	0	
Focused Healthcare	5,900	
Physical Education	4,400	
21st Century Teaching Spaces	6,100	
Total Facility Square Footage	72,200	

5.3. General Building Requirements

5.3.1. Building Aesthetic

5.3.1.1. The building will all be constructed in the design aesthetic, significantly coordinating with the existing buildings on campus utilizing rectangular block form, flat roofs, and three colors of brick.

5.3.2. Structure

5.3.2.1. Vertical Structure

5.3.2.1.1. Structural steel.

5.3.2.2. Slabs

5.3.2.2.1. Slab on Grade: Cast in place concrete over moisture/vapor/thermal barrier membrane.

5.3.2.2.2. Elevated: Concrete fill on metal pan, hollow core concrete plank (w/ topping), or precast double "T" (w/ topping).

5.3.2.3. Basement Walls

5.3.2.3.1. Cast in place, insulated reinforced concrete walls with appropriate waterproof membrane, drainage media, and collection system.

5.3.2.4. Roofs

5.3.2.4.1. Preferred low-slope metal roof decks. Concrete fill on metal pan, hollow core concrete plank (w/ topping), or precast double "T" (w/ topping) should be considered for storm shelter areas.

5.3.2.4.2. Highly sloped roof areas, which may only be utilized in building entry elements to assist in wayfinding, may be metal deck.

5.3.3. Envelope

5.3.3.1. Walls:

5.3.3.1.1. Masonry, preferably in a natural (unpainted) finish with architectural enhancement to blend with the South Campus aesthetic.

5.3.3.2. Highly insulated, sealed, and drained at the perimeter to control the movement of heat, vapor, air, and free water.

5.3.3.3. Fenestration:

5.3.3.3.1. Curtainwall/Windows – Thermally broken aluminum system with insulated, low E glass.

5.3.3.3.2. Storefront – Thermally broken, insulated, Low E glass

5.3.3.3.3. Storefront Doors – Wide Stile, Insulated, Low E Glass, configured for electric hardware, piano hinges, power transfer, and stainless-steel hardware.

5.3.3.3.4. Intrusion-resistant glass at or similar to standard Env1627 Class 3. in areas where forceful entry is considered a risk.

5.3.3.3.5. Steel Doors – Insulated, galvanized, morticed hardware, configured for electric hardware, anti-tamper hardware

5.3.3.4. Roofs

5.3.3.4.1. Highly insulated and sealed to control the movement of heat, vapor, air, and free water.

5.3.3.4.2. TPO membrane with a 20-year material warranty.

5.3.3.4.3. Highly sloped roof areas should have metal roofs.

5.3.3.5. Factor passive bird deterrent into the design of all potential nuisance areas.

5.3.4. Interior

5.3.4.1. Walls

5.3.4.1.1. CMU Walls for lab spaces. Sealed and Painted

5.3.4.1.2. GWB walls in general classrooms, seminar rooms, offices, and corridors. Painted

5.3.4.1.3. Glazed Ceramic Tile on restroom walls from floor to ceiling. These walls should be patterned with cost effective solution including no less than two colors of tiles.

5.3.4.2. Ceilings – Shall be appropriate for the use of the space and shall consider:

5.3.4.2.1. Sound Control

5.3.4.2.2. Maintainability

5.3.4.2.3. Cost Efficiency

5.3.4.2.4. Aesthetics

5.3.4.2.5. Security – Restroom ceilings will have suspended gypsum ceilings to prevent access to the above-ceiling plenum. Any access panels through these ceiling will be keyed to prevent unauthorized entry.

5.3.4.3. Stairs

5.3.4.3.1. One stair in the vicinity of the seminar spaces will provide open, inviting, convenient access to the other floors of the building. This stair shall have an "upgraded" appearance.

5.3.4.3.2. A single stair will extend up to the roof level to provide access to the roof. Access to the stair leading to the roof level will be via a normally secured door at the highest publicly accessible stair landing.

5.3.4.3.3. Egress and utility stairs will be fully enclosed and utilitarian in nature.

5.3.4.4. Floors

5.3.4.4.1. Terrazzo –shall be the standard for presentation and high-traffic public spaces such as lobbies and upgraded stairs. These systems shall be designed by an expert in these systems.

5.3.4.4.2. Carpet Tiles – shall be installed in all Office Space, Conference Rooms, Seminar Rooms, and Computer Classrooms.

5.3.4.4.3. Porcelain Tile - shall be considered for all Restrooms with an appropriate underlayment to avoid cracking.

5.3.4.4.4. Resilient Flooring – A sustainable resilient flooring material such as limestone dust-based tiles shall be considered for Classrooms, lower traffic corridors, Clean Labs, Break Rooms, consider. VCT is not acceptable.

5.3.4.4.5. Sealed Concrete – shall be used in dirty or wet Labs, and back-of-house spaces such as Custodial Closets, Storage Rooms, Mechanical Rooms, Electrical Rooms, Data Facilities, Egress Stairs, etc.

5.3.4.5. Interior Fenestration

5.3.4.5.1. Doors:

5.3.4.5.1.1. Solid Wood throughout most public areas.

5.3.4.5.1.2. Hollow Metal doors for utility and support spaces (back of house) on the first floor.

5.3.4.5.1.3. All doors shall be extra heavy-duty performance.

5.3.4.5.1.4. Doors to labs and associated storage rooms shall be a minimum of 40" wide.

5.3.4.5.2. Door Frames: Shall be hollow metal

5.3.4.5.2.1. Minimum extra heavy-duty (Level 2) frames.

5.3.4.5.2.2. To include sidelights on all Classroom, Lab, Conference, and Office Spaces. Sidelights shall be no more than 12" inch width and should have panes no larger than 200 square inches. Panes located such that they could be broken out to open the door should be intrusion-resistant at or similar to standard EN356 P2A.

5.3.4.5.2.3. Where appropriate, doorways should have transom lights to move natural daylight from the perimeter into interior spaces.

5.3.4.5.3. Interior Windows: Interior Windows are to have hollow metal frames. Where appropriate to mitigate sound, double-paned glass shall be utilized.

5.3.4.5.4. Window Shading Systems: Windows between classrooms, conference rooms, etc., and labs will be provided with window blinds.

5.3.4.6. Fit Out

5.3.4.6.1. Restrooms

5.3.4.6.2. Toilet Partitions:

5.3.4.6.3. Minimum 1" thick solid phenolic or HDPE panels, moisture-resistant, with stainless steel hardware.

5.3.4.6.4. Floor-mounted, overhead-braced system with concealed fasteners.

5.3.4.6.5. Color and finish to match campus standards; provide privacy strips at all gaps.

5.3.4.6.6. Vanities:

5.3.4.6.7. Solid surface countertops with integral backsplashes and wrap-around finished edges.

5.3.4.6.8. Provide concealed blocking for all wall-mounted accessories.

5.3.4.6.9. Include 6" diameter trash openings with bullnose edge detail.

5.3.4.6.10. All classrooms and conference rooms to receive chair rail.

5.3.4.6.11. All countertops are to be a solid surface material.

5.3.4.6.12. The large multi-purpose seminar room shall be equipped with movable partitions to allow flexible configurations for various events and functions. The room shall have no windows to ensure acoustic control and minimize distractions.

5.3.4.6.13. Window Shading Systems

5.3.4.6.13.1. Classrooms and Conference Rooms will be provided with roll-down, duel translucent and black-out shades.

5.3.4.6.13.2. Other spaces will be provided with roll-down translucent shades.

5.3.5. Systems

5.3.5.1. General:

5.3.5.1.1. Install individual metering into all utilities servicing each building. Meters should tie into the Campus BAS.

5.3.5.2. Lighting

5.3.5.2.1. Select lighting color temperatures appropriate to the application:

5.3.5.2.2. **Interior spaces:** 3500K for balanced, neutral illumination suitable for classrooms, offices, and common areas.

5.3.5.2.3. **Exterior areas:** 2700K to minimize impact on wildlife and reduce glare while maintaining safety and visibility.

5.3.5.3. Electric:

5.3.5.3.1. A percentage of electrical receptacles in public spaces shall include USB charging.

5.3.5.3.2. Rooftop Solar: The building shall incorporate a rooftop photovoltaic (PV) system designed to offset building energy consumption.

5.3.5.3.3. Target Capacity: Approximately 500–700 kW, based on available roof area and structural capacity.

5.3.5.3.4. Integration: PV system shall connect behind the building's main meter and support net metering capability.

5.3.5.3.5. Design Requirements:
5.3.5.3.6. Panels oriented for optimal solar exposure and efficiency.
5.3.5.3.7. Roof structure and membrane must be designed to accommodate PV loads and maintain warranty compliance.
5.3.5.3.8. Provide pathways for maintenance and fire code access.

5.3.5.3.9. Parking Lot Solar: The project shall incorporate solar photovoltaic (PV) canopies over designated parking areas to supplement rooftop solar and maximize renewable energy generation.
5.3.5.3.10. **Coverage:** Minimum of five parking spaces, but not less than 10% of total parking spaces (up to 30 spaces).
5.3.5.3.11. **Integration:** PV system shall connect behind the building's main meter and support net metering capability.
5.3.5.3.12. **Design Requirements:**
5.3.5.3.13. Structural design must accommodate canopy loads and wind uplift per ASCE 7.
5.3.5.3.14. Ensure adequate clearance for vehicles and pedestrian safety.
5.3.5.3.15. Coordinate with site lighting and stormwater management.
5.3.5.3.16. **Target Contribution:** Sized to complement rooftop PV capacity and achieve overall energy offset goals.

5.3.5.4. Chill and Hot Water Plant
5.3.5.4.1. An individual geothermal system with heat pumps to serve the chill and hot water needs of the building.
5.3.5.4.2. Geothermal well fields will be located under paved parking areas. These fields will be designed such that they can be expanded if the system needs to be enlarged.
5.3.5.4.3. The Mechanical Room(s) will be designed to facilitate the maintenance and future replacement of equipment.
5.3.5.5. Ventilation
5.3.5.5.1. Provide a zoned hydronic 4-pipe HVAC System.
5.3.5.5.2. Mechanical Room(s) will be designed to facilitate the maintenance and future replacement of equipment.
5.3.5.5.3. Controls to be Tridium Niagara integrated into the existing South Campus Building Management System.
5.3.5.5.4. Classrooms, Conference Rooms, and Office Spaces should be serviced by a displacement method ventilation designed to ensure CO2 levels in classroom, lab, office, and meeting spaces do not exceed 750ppm through the prescriptive application goal of no less than 15 CFM per person in each discrete space.
5.3.5.5.5. Ensure the differing exhaust ventilation requirements for all lab spaces are addressed very carefully.

5.3.5.6. Plumbing

5.3.5.6.1. Restroom Fixtures: shall be selected for water efficiency and durability. All toilets must be low-flow with automatic flush valves; urinals should be waterless or low-flow where feasible. Fixtures must comply with ADA accessibility and be easy to maintain.

5.3.5.6.2. Restroom Faucets: shall be automatic, low-flow type to minimize water consumption and promote hygiene. Touch-free operation is required in public restrooms.

5.3.5.6.3. Breakrooms: shall be equipped with a plumbed kitchen sink and water supply to the refrigerator ice maker. Plumbing must support food preparation and cleaning, with durable fixtures and accessible shut-off valves.

5.3.5.6.4. Custodial Closets: shall include a mop sink and floor drain. Plumbing must support chemical dispensing systems and provide adequate water supply for cleaning equipment. All fixtures must be durable and easy to maintain.

5.3.5.6.5. Hose Bibs: Provide hose bibs at strategic locations on the exterior of each building, as well as in Labs and other interior spaces where appropriate.

5.3.5.6.6. Eye wash stations shall be installed in Lab spaces, where appropriate. Sloped flooring drains shall be installed to support eye wash stations.

5.3.5.7. Life Safety:

5.3.5.7.1. Fire Alarm: Provide a fully functional (all points and sensors) voice annunciated Fire Alarm System with Mass Notification. System to comply with State Construction Office Requirements. The system shall integrate into the existing campus-wide system.

5.3.5.7.2. Mass Notification: Provide a fully functioning Emergency Mass Notification System integrated into the existing campus-wide system. Mass notification shall be ADA-compliant (audible and visual), with strategically placed digital message boards. Include one central dispatch/control station to be located at the Owner's direction.

5.3.5.7.3. Fire Sprinkling: All buildings will be fire-sprinkled. Systems to comply with State Construction Office Requirements. Where appropriate CPVC piping will be utilized.

5.3.5.8. Data/Telecommunications:

5.3.5.8.1. Data Network:

5.3.5.8.1.1. Provide extension from the nearest existing main (not branch) fiber-optic data trunk into a Main

Distribution Facility (MDF) strategically located within the building. RCCC Network Infrastructure to make the connections in Building S201 and new building (S204) MDF.

5.3.5.8.1.2. Provide a separate Intermediate Data Facility to serve the Seminar Spaces.

5.3.5.8.2. Provide all data conduit, cable racks, cabling, terminations, server and equipment racks, and associated permanently installed equipment (UPS, Spot Cooling, etc.).

5.3.5.8.3. Feed fiber from Building S201 or a new destination? Refer to South Campus Master Plan for exact location details. RCCC Network Infrastructure to make the connections in Building S201 and new building (S204) MDF.

5.3.5.8.4. Provide fully functioning Electronic Access Control integrated into the existing campus-wide system.

5.3.5.8.5. Provide fully functioning Video Surveillance integrated into the existing campus-wide system.

5.4. Site Requirements (General)

5.4.1. Campus ID Sign: Construct a pylon campus ID sign placed along the I-85 frontage of the site. The sign will largely follow the example of the Campus ID sign on North Campus with backlit logo, and large digital message boards.

5.4.2. Landscaping: Include a diverse, native-focused, landscaping package around the site, including parking lot islands. The landscaping package should blend with existing campus landscaping.

5.4.3. Hardscaping: An attractively configured and furnished exterior informal collaboration area will be constructed adjacent to the Seminar Space Lobby and include sidewalks and egress areas around the building and connectivity to the west campus across Trinity Church Road.

5.4.4. Provide Emergency Phone/Camera/Speaker Poles: Strategically locate these in an ADA accessible curbed island in each parking lot adjacent to each facility. Infrastructure should include power and data from the nearest building, ideally within 300 feet of the MDF inside the facility so that standard copper data cable may be used.

5.4.5. Electric Vehicle Charging Stations: Each major parking area will have an identified EV Charging Area close to the building from which it will receive electrical power. This project will include one duel, Level 2 (220V) Electric Vehicle Charging Station at each major parking area. The project shall also include electrical capacity and installed conduit to support future additional charging stations at those areas.

5.4.6. Site furnishings: Benches, tables, chairs, trash cans, bollards, etc. shall be located strategically on the Site Plan. They shall be furnished and installed by the Contractor. All to be secured to a slab/foundation.

5.5. Roadways, Drives, Pedestrian Connectivity, and Parking Lots

5.5.1. Roadways

5.5.1.1. Roadway extensions shall be connected to the existing roads to provide a logical, safe, and efficient flow of traffic through and around the campus while minimizing pedestrian crossings.

5.5.1.2. Carefully consider the use of heavy-duty pavement to support the traffic through the campus.

5.5.1.3. Sidewalks will be constructed along every roadway connecting to the sidewalk/path network on the campus.

5.5.1.4. Roadway lighting shall be designed, owned, and installed by Duke Energy, but will be coordinated with the design of any parking lot and site lighting.

5.5.2. Driveways: Drives serving buses, deliveries, and waste removal will be constructed from heavy-duty pavement (asphalt or concrete) designed for the appropriate number of daily trips.

5.5.3. Pedestrian Connectivity

5.5.3.1. Pedestrian Connectivity across Trinity Church Road needs to be very carefully considered in this project.

5.5.3.2. The master plan will include a "Pedestrian Mall" of green and hardscapes to provide an attractive informal gathering spot for students, which will link the campus. The portion of this Mall within the lines of demarcation will be constructed as a part of this project.

5.5.3.3. Sidewalk lighting will be owned by the College and will be designed and installed as a part of this project. It shall be fully coordinated (photometrics, etc.) with any roadway lighting provided by Duke Energy.

5.5.4. Parking

5.5.4.1. Parking space count for the Large Flexible Seminar Space area of the building will follow the local development ordinance for that use. This parking will be located adjacent to the entrance of the seminar spaces.

5.5.4.2. Parking space count for classroom, lab, and office areas shall follow the local development ordinance for that use. Consideration should be given to consolidating many of these spaces into centralized lots serving the needs of the campus.

5.5.4.3. Parking shall be divided into Standard, Handicapped, and Electric Vehicle Parking.

5.5.4.4. Parking lot lighting will be owned by the College and will be designed and installed as a part of this project. It shall be fully coordinated (photometrics, etc.) with any roadway lighting provided by Duke Energy. Parking lot lighting shall be served from the adjacent building. Lights will be controlled through the Campus Building Automation System.

5.5.4.5. A minimum of five, but not less than 10% of the total parking space count (up to a maximum of 30) parking spaces will be covered with solar canopies.

5.5.4.6. Large canopy shade trees will be strategically located in islands to mitigate the heat island effect of the parking lot. Parking lot islands will be sized according to the mature size of the landscaping to be installed in them.

5.5.4.7. Permeable paving will be considered where appropriate.

5.6. Utility Extensions: Utility extensions shall be located to minimize the impact on future roadways and structures, while providing necessary access points and pull boxes for shutoffs, maintenance, and new installations.

5.6.1. Electrical Power: All electrical utilities shall be underground in conduits size to accommodate the ultimate build-out of this sector of campus. Solar will be tied in behind the meter of the building.

5.6.2. Potable Water: Sized to support future growth of the east of Trinity Church Road sector of campus.

5.6.3. Fire Main: Sized to support future growth of the east of Trinity Church Road sector of campus.

5.6.4. Irrigation Water

5.6.4.1. Sized to support future growth of the east of Trinity Church Road sector of campus.

5.6.4.2. The use of irrigation should minimize through the thoughtful selection of planting and turf, swales, etc.

5.6.4.3. Consider innovative irrigation concepts such as reclaimed water, stormwater re-use, etc.

5.6.5. Storm Water

5.6.5.1. Sized to support future growth of the east of Trinity Church Road sector of campus.

5.6.5.2. Necessary stormwater detention/retention ponds will be carefully designed to become campus amenities that protect and enhance the groundwater, natural wetlands, and streams on campus.

5.6.6. Sewer: Sized to support future growth of the east of Trinity Church Road sector of campus.

5.6.7. Gas: Prefer electric water heating offset by solar PV installations.

5.6.8. Data:

5.6.8.1. Fiber Optic and conduit shall be sized to support future growth of the North of Trinity Church Road sector of campus.

5.6.8.2. Each facility will be served by a branch line from the College network fiber optic data backbone into the MDF.

5.6.9. **Solar:** Each facility shall have rooftop and parking lot canopy solar installations as part of the project design. Ideally, these will be sized to completely offset the electrical power requirements of the buildings.

5.6.10. **Signage:**

5.6.10.1. Main Campus ID Sign

5.6.10.2. Digital Wayfinding Signage to Support the Seminar Spaces.

5.6.10.3. Building Name and ID ground mount signage.

5.6.10.4. Building Façade Name and Number Signage.

5.6.10.5. Other Signage