

Scott County, Virginia EDA Community Services Building Vestibule Addition
Construction Narrative
August 20, 2020

General Review:

Barge Design Solutions, Inc (Barge) has been requested by Scott County to provide a Schematic Design package to replace their current manually operated entry doors at the Community Services Building located in Gate City, Virginia with a new entry vestibule with automatic, sliding doors to limit the physical contact of entry into the facility and create an air lock at the building entrance.

The current COVID-19 pandemic situation has caused public building officials to reconsider possible “no touch” operations for the public entering and using public facilities. As part of this COVID-19 issue, Scott County is considering modifications to their existing facility to make some possible no-touch changes focusing mainly on the public entrances. Barge visited the site with John Kilgore and Bill Dingus of Scott County to review the existing conditions of the Community Services Building and discuss in more detail possible options for providing the no-touch capability of entering the facility. It was noted that the current building entry is on the west side of the site creating an evening warming event in the summer months. Currently there is not an entry vestibule in this location which allows the west sun to alter the cooling capabilities of the interior portion of the facility even though there is a canopy at the doorway.

Based on the on-site meeting and different doorway options, it was determined to provide a small enclosed vestibule under the existing entry canopy with a pair of automatic sliding type doors allowing the no-touch entry into the facility. The doors will be a double leaf type creating a 6-foot wide opening into the facility. The depth of the vestibule will be enough to meet ADA requirements and will utilize a new self-contained, through-wall HVAC unit to control the vestibule space. The current canopy ceiling will continue as the ceiling of the new vestibule space and the existing concrete floor will remain as the finished floor surface. Lighting will be upgraded to LED fixtures and the existing canopy will be repainted due to the additional work being performed below. Sprinklers from inside the building will be extended into the canopy providing full sprinkler protection at this location.

Construction Specifics and Information:

Public Continuing Use: Construction at the site will have to coincide with the public continuing to use the facility during normal business hours. If construction is to occur during these business hours, the contractor will be required to protect the entry and work around the public continuing to utilize the entry doors in a manner to ensure public safety and safe construction practices.

Construction Hours: The contractor is recommended to utilize after hours, holidays and weekends for construction activities to avoid the normal business hours of public continuing use. After hours work will be supported by the Owner providing an access key card allowing entry into the main corridor of the facility gaining access to interior required construction activity locations for power and sprinkler extensions.

Site Use: The contractor may utilize the site for construction lay-down space and activity but is limited to a small portion of the site due to the continuing public use. Power is available at the site for construction activities and the contractor is to clean up at the completion of each day. Safety of the public is a priority at the site and facility.

Material Descriptions:

The following material descriptions are of the revisions indicated for the site. Refer to the associated drawing showing demolition and new construction for the vestibule space and attached cut-sheets of the entry doorway and new HVAC unit for more information.

ARCHITECTURAL:

Site Items: No site items are provided in this review and is anticipated to remain as-is.

New Sliding Automatic Entry Doors: The existing double acting 3' x 7' aluminum entry doors currently have a card reader with a mag lock to secure the doorway. These items will be removed to prepare for a new double acting sliding exit door. The new door is based on ASSA ABLOY SL500-2 sliding door system recommended by Holston Glass. It was noted that Eric Jones of Holston Glass in Kingsport, has visited the site and recommended the use of these doors to replace the swinging doors currently being used. These doors will have a built-in sensor to open upon approach from both sides and will be connected to the existing building card reader system to operate after hours. This connection to the building card reader system will be performed by the Owner's IT staff. Glazing on the doors will be clear and doors will be 6'-7" in height and will utilize the break-out function allowing the doors to fold outward in the event of an emergency and power is lost. The doors will have a clear anodized finish to match the existing window units and will connect to a new aluminum storefront system to fill the remaining opening section of the wall. There will be two section of these doors as the plan indicates to provide a new entry vestibule under the existing overhead canopy. The doors will be wired in unison where they will both be synchronized to open at the same time allowing clear entry/exit without delay into and out of the facility. Power to operate the doors will utilize the existing power feed that provides power to the transformer of the existing card readers which is on the building emergency generator system.

It should be noted that the height of the doors is based on the existing clear opening height of the existing storefront system (7'-4" clear) below the brick veneer. The new sliding doors will require a 9-inch high section above the door for the door movement system and the sensor material reducing the door height by 9-inches making it 6'-7" high. The current building code (2018 IBC section 1010.1.1) require a full height of 6'-8" at building entries but an exception has been granted by David Gilmer the Gate City Building Official to allow the 1-inch reduced height at this location so modifications in the existing brick veneer would not have to occur.

New Aluminum Storefront System: The existing swinging doors are connected to an aluminum storefront system that is to each side of the swinging doors. This section of storefront will be removed with the swinging doors and replaced with a like-kind, insulated aluminum storefront based on the Kawneer, Trifab 451-T, thermally broken system. This storefront system will utilize two layers of ¼-inch thick clear glazing with a ½-inch air space between the glazing units. The finish of the storefront will be clear anodized to match the existing and will fit into the remaining section

of the opening where the sliding doors are not filling. As noted on the plan, there will be two sections of aluminum storefront connected to each new sliding aluminum door unit with a new single small section on the side. The small section will be approximately 5' x 7'-4" in size matching the side lights of the sliding doors extending the full height of the space. A horizontal mullion will be provided in the storefront system as indicated on the plan. The storefront systems will be flashed and sealed as required where they rest on the existing concrete slab and at the other window perimeters.

New Stud Walls: New walls are to be provided to enclose the new vestibule where shown on the plan. The walls will be composed of 3-5/8", 20-gauge metal studs at 16" o.c. with 5/8" drywall on the interior side and 5/8" Densglass sheathing on the exterior side. The cavity of the wall will be filled with R-11 batt insulation the full height. The exterior of the wall will be covered with 1-1/2" EIFS system matching the texture and brick color of the existing EIFS on site. Framing and flashing will be provided as required to support the new storefront systems.

Vestibule Finishes: The new vestibule will have the new walls on the interior painted to match the current colors at the site. A new rubber wall base will be provided to match the existing on site at the base of drywall areas. The existing concrete floor will remain as-is without any modifications but will need to be cleaned after all construction is completed. All exposed areas of the existing canopy will be repainted (including the ceiling) with a coat of Rhino Shield® paint to match the color of the existing painted surfaces. This special type of paint will provide a 25-year warranty for all painted surfaces and its ceramic add mixture provides an additional layer of UV and insulation values.

Vestibule Ceiling: It is intended that the existing vaulted plywood ceiling of the canopy will remain as the exposed ceiling of the new vestibule. However, there are two existing ceiling recessed light fixtures that will be removed and there is no evidence of insulation above the ceiling of the existing canopy. Therefore, a section of the existing ceiling will be removed to repair the light fixture holes and provide access to place a layer of R-19 batt insulation above the footprint of the new vestibule space. This access will also provide the means to extend the existing sprinkler system from inside the lobby space into the vestibule and also provide access to install new LED light fixtures in the ceiling area. As noted in the finish section, this ceiling will be painted in all locations.

General Demolition: As noted on the plan, limited demolition will occur at the site. The removal of the existing door and storefront system will be required along with the removal of a portion of the existing ceiling at the canopy. The removal of existing ceiling tiles will be required to gain access above the ceiling to allow the placement of new power lines for the new vestibule as noted in the electrical section. Care is to be noted for this removal of tiles so they can be replaced after completion of the work.

FIRE PROTECTION:

The existing wet sprinkler system at the facility will need to be extended into the new enclosed vestibule from the current lobby space. The existing sprinkler line is very close to the exterior wall and will not be an issue to extend into the new space. It is anticipated that the new heads will be placed in the ceiling of the new vestibule where required for proper coverage of the space. The

actual design of the sprinkler system into the new vestibule will be provided by the sprinkler designer to match the densities needed for that area.

MECHANICAL AND PLUMBING:

Through-Wall HVAC Unit: The new vestibule will be heated and cooled by a new through-wall type HVAC unit by GE Zoneline® deluxe series heat pump unit sized for the vestibule space. The unit will be placed where indicated on the plan so the condensate drain can drip to the exterior grade. A new power feed will be extended to the unit from the existing electrical distribution box in the main building corridor as noted in the electrical section.

PACKAGED TERMINAL AIR CONDITIONING UNIT SCHEDULE												
IDENTIFICATION	MANUFACTURER	MODEL NO.	ARRANGEMENT	COOLING CAPACITY (BTU/H)	HEATING CAPACITY (BTU/H)	AUXILIARY HEAT (KW)	AIRFLOW (CFM)	OUTSIDE AIR (CFM)	EER	VOLTAGE	MCA (AMPS)	REMARKS
PTAC-1	GE	ZONELINE A26H12DAD	HORIZONTAL	11,800	10,600	4.5	370	0	12.1	208V	30	1,2,3,4,5
REMARKS: 1. PROVIDE STANDARD EXTERIOR GRILLE. 2. PROVIDE LINE-CORD CONNECTED UNIT. 3. REFRIGERANT TYPE - R-410A 4. PROVIDE INTERNAL CONDENSATE REMOVAL (ICR) KIT. 5. PROVIDE WITH RAB71A WALL CASE - 13" COORDINATE WALL CASE DEPTH WITH WALL DEPTH PRIOR TO ORDERING.												

The above unit schedule provides information for the package unit anticipated for the new vestibule.

Plumbing Items: There are no anticipated plumbing modifications or additions to the project.

ELECTRICAL:

New HVAC power: The HVAC Unit will require a new 30amp/2pole circuit breaker in the existing 120/208 panelboard in Corridor E030. Route a new ¾-inch conduit containing 2#10 and 1#10 ground from the new 30 Amp circuit breaker to the new flush mounted 30Amp, 250V receptacle in the vestibule. The 30amp receptacle will be mounted adjacent to the new HVAC Unit and will have a configuration to match the requirements of the plug for the plug and cord connection furnished with the new HVAC Unit.

New Outlet: A new 20Amp, 120V duplex receptacle will be installed in the wall adjacent to the new HVAC receptacle for cleaning and other standard outlet power needs. Route a new ¾-inch conduit with 2#12 and 1#12 ground from a new 20amp/1pole circuit breaker in the panelboard in Corridor E030 to the new 20amp receptacle in the vestibule.

Door Power: The existing 120V circuit providing power to a power supply for the entry door and door security device and security lock will be reconnected to a new power supply for the new entry doors. The power supply for the new entry door will provide power for the new door operator, new door security device and new door security lock. New security devices will be reconnected to the existing security system as part of the new door installation.

Lighting: Four new 6-inch diameter LED downlights will be installed in the revised entry area. The two new lights outside the door will be rated for damp locations. The four new light fixtures will be limited to 40 watts each to allow the new light fixtures to be reconnected to the existing lighting circuit. Lighting controls will remain as currently connected. The existing lights that are to be replaced will be turned over to the Owner.

Fire Alarm: Adjustments to the existing fire alarm pull station will be made as required. A new smoke detector will be added to the new enclosed entry area and connected to the existing fire alarm system.

Conduit: Provide EMT conduit indoors for homeruns. Type MC cable may be used for branch circuit wiring where concealed in stud walls and for lighting whips. Use flexible liquid-tight metal conduit in damp or wet locations. All conduit will be hidden above the ceilings or in the wall cavities.

End of Narrative