Giles County 911 Dispatch Center
Preliminary Analysis

Prepared For:

Giles County E911

131 S. Cedar Lane
Pulaski, Tennessee
Director: Gwen Gracy

Prepared By:

209 10th Avenue South, Suite 154
Nashville, Tennessee

March 8, 2024

I. Executive Summary

The Giles County 911 Center is in need of expansion to handle the growing needs of the county emergency services. OHM Advisors (OHM) was hired by Giles County E911 Emergency Communications District to evaluate three different options for expansion:

Option 1: Adding an addition to the existing 911 Center.
Option 2: Adding an addition to the existing County Emergency Management Building (OEM).
Option 3: Construction of a new building on the existing County Emergency Management Building (OEM) property to house 911 facilities.

OHM Advisors partnered with Community Solutions by Design (CSBD), a local architecture firm, and Ross Bryan Associates (RBA), a local structural firm, to help evaluate the three different options. From the three options, the team evaluated the two existing buildings. The existing 911 center was found to be dated and worn out. The interior walls are exhibiting wear and tear, with signs of water damage on the ceiling tiles, staining on the carpet floors and peeling vinyl wall base. The main HVAC units are past their useful life, and the emergency generator is not reliable. The team also examined the existing OEM building. While in better shape, the existing OEM building is a prefabricated metal building which is not conducive to use as a 911 center per Tennessee Building Code.

The team reviewed code requirements. The Tennessee Building Code defines "Essential Facilities" as structures that house "mission critical" functions such as police, fire, ambulance, and 911 dispatch. The 2012 International Building Code (with amendments) is the current Tennessee code. These facilities are required to be substantially built and must comply with specific structural requirements to resist high winds, seismic activity, flooding and other disasters. Essential Facilities such as a 911 center must remain operational during and after major disaster type events. Buildings that are essential in their continuous use are Risk Category IV buildings per Tennessee Building Code and must meet specific structural requirements.
Both the existing 911 center and the existing OEM building do not comply with these structural requirements. While the addition to each building could be built to code, the existing buildings would require improvements to conform with current codes for Category IV structures. It would be cost prohibitive to try to retrofit both buildings to meet building code requirements. Because of the strict code requirements of a Risk Category IV structure, the only viable option is option #3: constructing a new building on the existing OEM property to house the 911 facility.

II. Existing 911 Center Conditions

Architectural

The Emergency 911 Dispatch Center is located within a residential neighborhood at 131 S Cedar Lane and currently occupies approximately 1,500 square feet of space in the center of Pulaski. CSBD performed the architectural site visit of the existing facility. In conjuncture with CSBD, the OHM architecture team analyzed the existing 911 Dispatch Center. The existing 911 Dispatch Center is a single-story building with a gable roof. The building includes an operations floor and a private office for the Director. The space also includes technology and electronic equipment rooms containing uninterruptable power supply (UPS) and other electrical panels; a kitchenette; a small storage room and a small restroom.

Overall, the space is very compact, with every possible space occupied by some essential function of the organization. This is most evident in the technology equipment rooms where the equipment mounted in racks and cabinets coupled with equipment and electrical panels that mount on the walls results in spaces that are very difficult for tech support personnel to work in.

The existing 911 dispatch center is dated and worn. Interior walls exhibit signs of wear and tear, with scuffs and scratches marring their surfaces. The ceiling tiles in various areas show evidence of water damage, likely stemming from a past roof leak, and with missing tiles. Some have noticeable deflection caused by supply diffusers and excess humidity. The deflection, staining and possible contaminants not only compromise the aesthetics but also pose potential hazards to the workspace. The carpeted floors are heavily stained and exhibit a substantial amount of wear and tear and the vinyl wall base is peeling away from the walls. In addition, the furniture, fixtures, and equipment (FFE) are seemingly outdated and in poor condition, which tends to diminish the overall appeal of the space and creates difficult working conditions for employees.

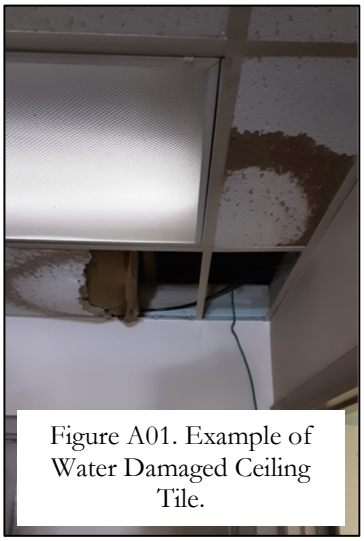

Figure A01. Example of Water Damaged Ceiling Tile.

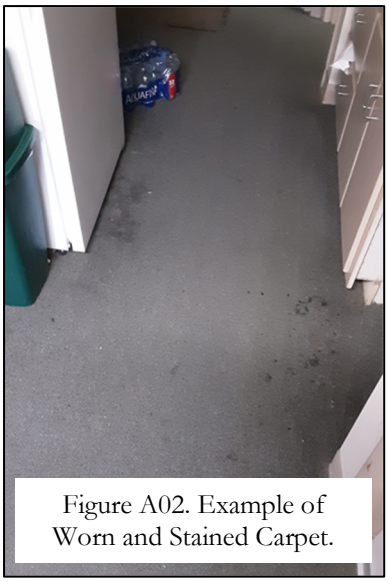

Figure A02. Example of Worn and Stained Carpet.

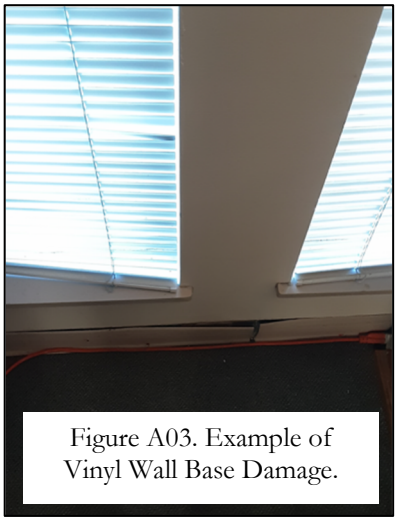

Figure A03. Example of Vinyl Wall Base Damage.

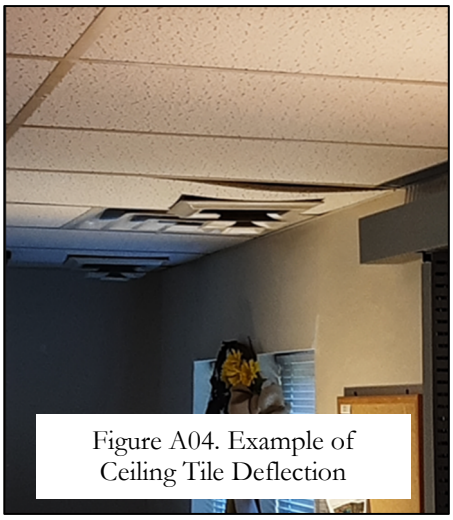

Figure A04. Example of Ceiling Tile Deflection

It is presumable that the original design for this building was not intended as an emergency communication center since it doesn't meet the basic structural or building code requirements for such a facility. The building's envelope was built mainly using brick on three sides and one side with vinyl siding and the structure is wood. This building would not be able to be economically rehabbed for expansion on site given the more strict building codes that would apply. The distance a new structure would need to be sited from the existing building, adjustments to utilities, and potential interruption of current 911 services do not allow for it to be suitable for reuse or expansion.

Figure A05. Building Exterior Showing Brick Exterior, Siding, and Metal Roof.

Mechanical, Electrical, and Plumbing (MEP)

The Existing 911 Center is served by two separate outdoor packaged air handlers. Air Handler AHU-1 did not contain a nameplate, and so it's exact date and operating conditions could not be determined. This unit provides direct expansion cooling to the main workstation area only. This unit does not have a heating element. Air Handler AHU-2 was manufactured in 2007 and provides 64 MBH output of natural gas heating and 2.5 tons of direct expansion cooling throughout the entire building. Currently, each packaged air handler is served by an indoor thermostat. At the time of the site visit, it was noted that AHU-1 was providing cold air to the building while AHU-2 was providing hot air. These units are battling each other due to the thermostat settings. The cold air from AHU-1 was causing AHU-2 to run, and the warm air from AHU-2 was causing AHU-1 to run.

Figure M01. Existing Air Handler AHU-1

Figure M02. Existing Air Handler AHU-2

According to the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE), the median life expectancy for packaged air conditioners is 15 years. AHU-2 was manufactured in 2007 and is past the median life expectancy. Though AHU-1 does not contain a nameplate, it is reasonable to assume this unit is also past the median life expectancy. These air handlers will need to be replaced.

Both packaged air handlers route supply and return duct into the building. AHU-1 routes supply and return ducts up along the exterior wall and then turns into the building once at attic level. The ductwork is routed to the workstation areas only, and ceiling mounted supply and return grilles are utilized to circulate air. AHU-2 routes supply and return ducts low into the building; and no ductwork is routed up the exterior wall. Once inside the building, the supply duct is routed up in a chase to the attic level. The supply ductwork is then routed throughout the building with ceiling mounted supply grilles to distribute the air. The return duct connects to a wall mounted return grille located in the back storage room. This creates air circulation issues as it is the only pathway for return air back to the unit. Flow is restricted when the supply closet door is shut.

An IT room is located toward the front of the building and is served by a wall mounted cooling only mini-split system. The mini-split was manufactured by Daikin in 2018 and provides 1.5 tons of cooling to the space. A separate radio communications room is located near the back of the building and is served by a separate wall mounted mini-split heat pump system. This unit was manufactured by Gree in 2021 and provides 1.5 tons of cooling to the space. The condensing units for these mini-splits are located outside and mounted on concrete pads along the west exterior wall. ASHRAE gives a median life expectancy of 15 years for mini-splits. Given their age and good condition, it is likely these units will last many more years.

Figure M03. IT Room Indoor Wall Mounted Unit

Figure M04. IT Room Outdoor Condensing Unit.

Figure M05. Radio Communications Indoor Wall Mounted Unit

Figure M06. Radio Communications Outdoor Condensing Unit

One restroom exists in this building to serve all employees with a floor mounted flush tank toilet and a wall mounted lavatory. The lavatory is served by a 2.4-gallon electric water heater with a 1.44 kW heating element. The restroom does not appear to contain an exhaust fan. An exhaust fan should be added and interlocked to the light switch to remove dirty air from the restroom as it is occupied.

Figure M07. Existing Restroom.

The building is served by a Cummins generator manufactured in 2008. The generator contains its own natural gas service and meter and can produce 35kW at peak load. The automatic transfer switch is located in the IT room toward the front of the building. Per discussions with 911 staff, the generator has been frequently repaired over the years and is not reliable. Next to the automatic transfer switch is the main electrical panel. The panel is a 200-amp panel, and the building contains single phase power only. This panel feeds power to the entire building. The existing electrical service is near its max capacity; a new power feed and additional panel will be required to handle any increase in load.

Figure E01. Existing Generator.

Figure E02. Existing Incoming Service, Automatic Transfer Switch, Main Distribution Panel, and IT Rack

The Main Distribution Panel feeds power to the Radio Communications room located in the northwest corner of the building. This room contains radio equipment and communications wiring to the exterior radio tower.

Figure E03. Existing Radio Communications Antenna.

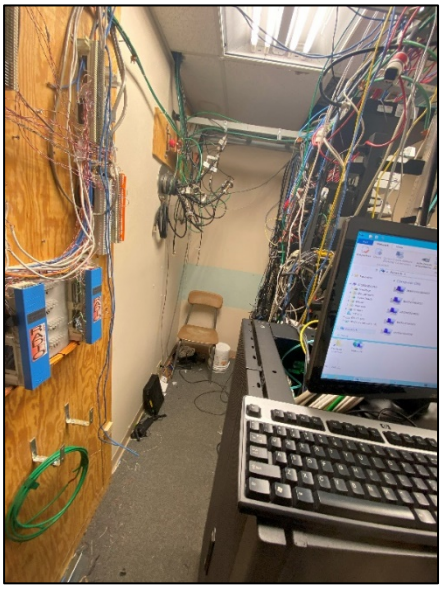

Figure E04. Existing Communications Room.

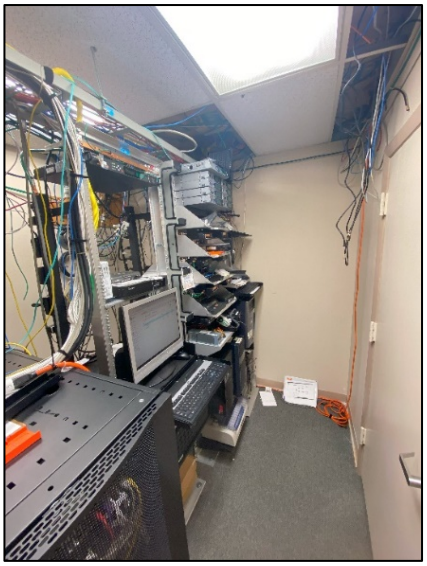

Figure E05. Existing Communications Room.

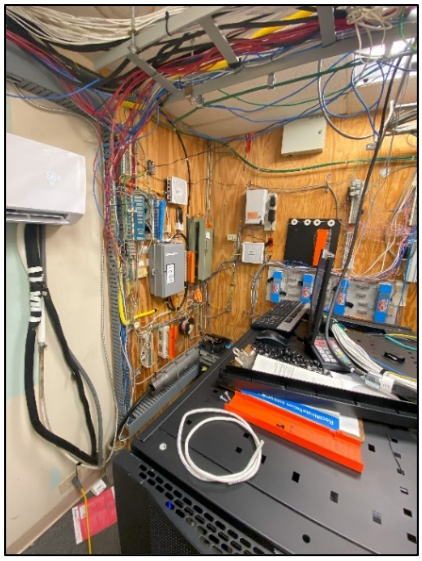

Figure E06. Existing Communications Room.

Civil/Site Existing Conditions

The existing Giles County 911 Center at 131 S. Cedar Lane is located on 3-acre parcel which also contains the Giles County Archives building, the Giles County Health Department building, and the Giles County Ambulance Service building. The 1,500 square foot 911 Center is served by utility service lines on the west, north, and east sides of the building. The underground telecommunication lines, water meter, water service line, and propane gas tank on the west side of the building would need to be relocated prior to any future addition or new construction on the west side of the existing 911 Center. An existing sanitary sewer service line runs from the north side of the existing 911 Center to the west. The existing gas service line continues from the east side of the building around to the north side of the building. An existing asphalt parking lot on the south side of the building provides 9 parking spaces for the building's employees. Two pole-mounted lights provide site lighting for the parking lot area. Most of the property slopes gently from east to west at roughly 2%-3% slopes. An existing swale approximately 60' west of the 911 Center drains to a culvert pipe which directs stormwater under the asphalt driveway to the south. Based on the USDA soil survey, this site contains Armour silt loam and Mimosa silt loam. Bedrock is not expected to be found within the top 4.5' of these soil types.

III. Existing OEM Building Conditions

Architectural and Mechanical, Electrical, and Plumbing (MEP)

The existing County Emergency Management Building (OEM) is located at 3750 Columbia Hwy in Pulaski, TN. This building was purchased by the county in 2013 and renovated in 2020. Option #2 focuses on adding an addition to the back of the building. This area is currently used as a garage and contains vehicles and various storage items. This portion of the building does not contain any finished walls or finished ceilings. The floor is exposed concrete slab. The building exterior is prefabricated metal with exposed interior insulation. The garage bays are currently heated and cooled by packaged outdoor air handlers with direct expansion (DX) cooling and natural gas heating. This space currently uses shop light fixtures for lighting. There is no emergency generator on this site for any power outages. This space is not setup for occupiable use and would require extensive work to make it usable.

Figure A06. OEM Interior.

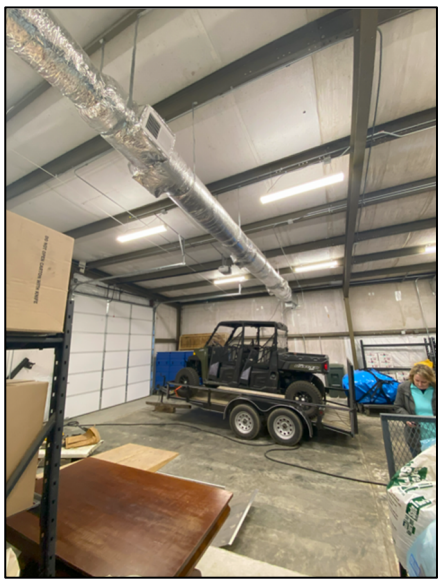

Figure A07. OEM Interior.

Figure A08. OEM Exterior.

Civil/Site Existing Conditions

The front of this 1.5-acre site contains an asphalt parking lot for the Emergency Management building. The rear, eastern portion of the parcel consists of an undeveloped grass field that is approximately 0.6 acres. The grass field provides adequate space for construction of a new 3,000 square foot building. The slope of the grass field ranges from 1% - 30%, but it typically slopes at about 5% from north to south. The front of the property drains to an existing ditch along Columbia Highway and the remainder of the property drains south to an adjacent farm field. The existing building is served by a water service line which enters the site from the west side of the property. A gas service line runs along the south property line and provides service to the existing building. The existing building is served by a septic field on the west side of the property between the building and Columbia Highway. Overhead electric and telecommunication lines enter the building from a utility pole at the northwest corner of the property. Parking lot lighting is provided by building mounted floodlights. A concrete dumpster pad is located in the southeast corner of the parking lot. This property is believed to be located near an abandoned strip mine that was filled in decades ago, as evidenced by the presence of Strip Mine Road east of the site. According to the USDA soil survey, the site contains Armour silt loam, Maury silt loam, and soils from mine pits and dumps. Bedrock is not expected to be found within the top 5' of these soil types. A geotechnical study is needed to confirm the soil conditions on site.

IV. Code Analysis

The Giles County 911 Center would fall under the Tennessee Building Code which currently adopts the 2012 International Building Code (IBC) with amendments. Chapter 16 of the IBC details structural requirements for different types of facilities. Each facility is assigned a "risk category", and each "risk category" has different structural requirements that must be met. Below is Table 1604.5 from Chapter 16 of the IBC that details the types of facilities that would fall under each risk category.

TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES

RISK CATEGORY	NATURE OF OCCUPANCY
I	Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to: • Agricultural facilities. • Certain temporary facilities. • Minor storage facilities.
II	Buildings and other structures except those listed in Risk Categories I, III and IV
III	Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to: • Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300. • Buildings and other structures containing elementary school, secondary school or day care facilities with an occupant load greater than 250. • Buildings and other structures containing adult education facilities, such as colleges and universities, with an occupant load greater than 500. • Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities. • Group I-3 occupancies. • Any other occupancy with an occupant load greater than 5,000[a]. • Power-generating stations, water treatment facilities for potable water, waste water treatment facilities and other public utility facilities not included in Risk Category IV. • Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the *International Fire Code*; and Are sufficient to pose a threat to the public if released [b].
IV	Buildings and other structures designated as essential facilities, including but not limited to: • Group I-2 occupancies having surgery or emergency treatment facilities. • Fire, rescue, ambulance and police stations and emergency vehicle garages. • Designated earthquake, hurricane or other emergency shelters. • Designated emergency preparedness, communications and operations centers and other facilities required for emergency response. • Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures. • Buildings and other structures containing quantities of highly toxic materials that: Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the *International Fire Code*; and Are sufficient to pose a threat to the public if released [b]. • Aviation control towers, air traffic control centers and emergency aircraft hangars. • Buildings and other structures having critical national defense functions. • Water storage facilities and pump structures required to maintain water pressure for fire suppression.

"Essential Facilities" as defined above are structures that house "mission critical" functions such as police, fire, ambulance, 911 dispatch, emergency vehicle garages, etc and fall under Risk Category IV. Risk Category IV facilities face the most stringent structural design requirements. These buildings are required to be substantially built and must comply with specific structural requirements to resist high winds, seismic activity, flooding and other disasters.

Per Ross Bryan Associates review, both the existing 911 center and the existing OEM Building do not comply with Risk Category IV code requirements, and it would be cost prohibitive to try to reconstruct either building to meet building code requirements (see Appendix A). 911 centers, fire stations, police stations and emergency vehicle garages must remain operational during and after major disaster type events. Buildings that are essential in their continuous use, particularly in response to disasters are Risk Category IV buildings per Tennessee Building Code and must meet specific structural requirements.

In addition, it functionally lacks the appropriate amenities, redundancy and support systems to appropriately function as required.

Based on the existing conditions survey of both buildings and the extensive requirements of the building code, OHM Advisors concluded the following:

- Option 1: Renovate the existing building and add on to provide for new space and equipment
    - This was deemed not feasible given the construction materials and condition of the existing building. It does not meet the Risk Category IV requirements of the building code and can't be reasonably improved without extensive money being expended.

- Option 2: Add onto the existing Emergency Management Building
    - This was deemed not feasible since the existing building does not meet the Risk Category IV requirements of the building code and can't be reasonably improved without extensive money being expended.
    - The addition would need to be more substantially built than the existing building but the addition would also require the existing building to be brought up to current codes.

- Option 3: New Construction at the existing OEM property
    - This is the only feasible option but is also dependent upon soil conditions, utility sizes and available buildable area.

Per the above analysis, the only feasible option is to build a new 911 facility.

V. Option 3 - New Construction Recommendations

Structural Requirements for a 911 Dispatch Center

When designing a project to meet Risk Category IV, the design team must meet requirements for wind resistance, heavy and driving rain, seismic activity, flooding and fire resistance. The structures are more robust than a typical building. Costs associated with a more robust structure and foundations, specialty architectural and Mechanical Electrical and Plumbing (MEP) components, and emergency MEP systems can add up quickly. Other considerations regarding the location of the building include topography, elevation (flood plain or low-lying area), wind exposure (open areas receive higher winds than sheltered areas) and soil conditions due to the requirements for foundation anchorage.

Physical Interior Environment Considerations

911 Dispatch areas are unique spaces that require additional design considerations to create a comfortable environment for the high stress situations 911 dispatchers are subjected to. The physical environments consist of design elements that allow the system — both human and machine components — to function effectively. The following lists some physical elements that must be considered:

- Atmospheric (heating, ventilation, and air conditioning).
- Visual (primary and supplementary lighting).
- Acoustic (background noise and interior acoustical properties allowing operators to communicate).
- Physical design of the workspace (access, dimensions, and fixtures).

Work areas should be designed to prevent fatigue, provide comfort and also create relaxation spaces that allow dispatchers to recharge. Some of the factors that must be taken into account are:

1. Occupant Comfort and Acoustics:

   Overall, the noise level in a control center should not be high enough to interfere with normal speech between operators. The objective in designing for noise is to balance the different sound sources so that local speech is not only unaffected but is sufficient to mask intrusive noise from adjacent spaces. Some items for reducing the impact of noise in these spaces are as follows:

   - Identify possible noise sources during the design phase (such as equipment noise, break areas, meeting spaces) and mitigate them to the greatest degree possible.
   - Consider strategies for reducing noise level, including textured or sound deadening wall and ceiling materials.
   - Place noisy functions that are not tied to Dispatch and EOC activity in a separate room or in an area enclosed by acoustic partitions.

2. Occupant Comfort and Lighting System Design:

   Lighting is an important consideration in the design of a control center. Viewing banks of LED monitors, for example, is not compatible with high levels of general illumination. On the other hand, many dispatchers' tasks cannot be performed in low levels of illumination. The lighting scheme and choice of fixtures must be viewed as an integrated whole, and not designed piecemeal. The end product to the County must be to provide a lighting system that:

   - Indirect lighting to provide overall illumination for the dispatch and control areas
   - Canister fixtures should be employed
   - Adjustable fixtures in work areas where more intense illumination is required

3. Occupant Comfort and HVAC System Design:

   A primary goal of the 911 Dispatch Center design shall be to provide occupant comfort through proper HVAC system design. To achieve this the designer must utilize a specialized HVAC system to serve the dispatch call center. The specialized HVAC system shall provide overall temperature and humidity control and shall be interconnected to the emergency generator.

   In addition to overall space comfort, individual occupant workstation comfort shall be addressed by use of individual airflow control. Demand control CO2 ventilation shall be utilized to remove carbon dioxide to keep it at a level that will maximize occupant alertness. MERV-13A air filters are recommended to minimize air particulates and allergens. A temperature control system should be considered in order to provide the facility manager with important system information and alarms. The end product to the County must be to provide an HVAC system that:

   - Maximizes individual workstation comfort and controllability
   - Exceeds typical indoor air quality requirements
   - Minimizes occupant stress
   - Maximizes functionality while meeting the project budget

4. Safety and Security

   One of the first considerations includes the placement of the dispatch center within a facility to help minimize the potential for disruption. It's important to prevent tampering, unauthorized entry, or the ability

for an individual to access emergency response systems or those who operate them. An emergency dispatch center is the last thing you want to go down in a community.

Current best practices include placing dispatch centers near the center of a building away from exterior windows and doors. This positioning can help prevent vandalism or restricted entry. Other incidents might include a vehicle driving through an exterior wall or window. While unlikely and unthinkable, mitigating such threats helps ensure that operators can continue to serve the public without disruption.

5. Redundancy and Backup Systems

   In a 911 dispatch center, redundancy is a necessity. If something fails (phone lines, computer monitors, recording devices, security cameras, power grid, etc.), the dispatch center must be able to immediately switch to a reliable backup system to maintain normal operations.

   A major part of a 911 dispatch center construction project is upgrading legacy systems and making sure that every system has a backup. Early on during the design phase the design team must work to ensure proper power placement, access panels, cable routing, backup power systems, and much more. Capacity for future technology upgrades such as 911 and enhanced wireless 911, will need to be factored in as well.

Civil/Site Considerations:

The grass field in the rear of the existing Giles County Emergency Management building provides a feasible location for a new 3,000 square foot 911 Center building. To prepare a building pad, a minimal amount of grading would be needed in the northwest corner of the grass field where the existing slopes are about 5%. The existing asphalt parking lot is large enough to accommodate parking spaces for 911 Center staff along the east side of the paved area. Water service to the new building will be provided by tapping the existing waterline in Columbia Highway and installing a new water service line and water meter. The 911 Center will need to be serviced by a new septic field. It appears that the grass field has appropriate soils and is large enough to accommodate a septic field, but a more detailed soils analysis and septic design is required. It is anticipated that gas service is available to serve the building from the existing gas line running along the south side of the property. A new utility pole will be required to provide overhead electric and telecommunications service to the proposed 911 Center. Between the new building and the south property line, there appears to be adequate space to mitigate stormwater runoff from the site if desired by the County.

Figure C01. Potential 911 Center building site located behind existing OEM building

Facility Programming (As Requested by Giles County)

The following was initial information requested by representatives of the 911 dispatch center. We have assumed that this is the starting point for the design team to meet with the users to confirm requirements. Based on this meeting, the spaces will be adjusted/modified as required to meet the actual facility recommendations and requirements identified above. The proposed facility was initially requested to include the following spaces:

Functional:	Room area	Qty	Total Area
• Dispatch area workstations	100 sq.ft	5	500 sq.ft
• IT/Radio Room	200 sq.ft	1	200 sq.ft
• Private Office Space	400 sq.ft	2	800 sq.ft
• Employee Breakroom	200 sq.ft	1	200 sq.ft
• Decompression Room	100 sq.ft	1	100 sq.ft
• File/Storage Room	200 sqft	1	200 sq.ft
• Restrooms	50 sq.ft	3	150 sq.ft
• Janitor Closet	50 sq.ft	1	50 sq.ft
• Circulation/Mechanical	35%		770 sq.ft
Number of employees – 10			**Total: 2,970 sq.ft**

Owner's Preferences:

The following items were requested in previous meetings with the county but these are subject to discussion and revision based on the above recommendations:

- No carpet flooring
- No waiting area or lobby space
- Hardened exterior
- Decompression room
- Separate storage room
- Adjustable lighting at each workstation
- No glass doors
- No windows

VI. Opinion of Probable Construction Cost:

The below opinion of probable construction cost is based on a 3,000 square foot new 911 facility located at the OEM site. The Fixture, Furniture, and Equipment costs include equipment for four (4) dispatch stations. These numbers are considered a high-level approach and should only be used for broad planning purposes.

Item:	Notes:		Cost:
Building Construction Cost	$700/SQFT		$2,100,000
Site/Infrastructure	Lump Sum		$ 200,000
Fixtures, Furniture, and Equipment	$50/SQFT		$ 150,000
Design Fees	15%		$ 370,000
Contingency	15%		$ 425,000
		Total:	$3,245,000

VII. Summary

The overriding factor when considering all three options for an expanded or new 911 center is the requirement within the building code that the facility will need to be designed as a Risk Category IV Essential Facility and be able to withstand a variety of natural and human caused hazards. This requirement would extend to an existing building expansion to accommodate a new 911 center. The current 911 center and the OEM building would have to be extensively modified making the two expansion options not viable.

Building a new building to proper code requirements is the most feasible and cost effective option. A new 911 Center will need to include the proper number of dispatch stations, space for a secure radio/IT room, mechanical/electrical room, secure file storage and restrooms, a break room, a quiet room, janitorial and storage spaces. All spaces must be designed keeping the specific 911 Center needs. Spaces will need to consider dispatcher comfort in the HVAC system design, space acoustics, station lighting, safety and security ad well as backup system as has been described. Following these recommendations will result in a well performing space for the County 911 staff well into the future.

APPENDIX A

RBA STRUCTURAL ENGINEERING, LLC
A Subsidiary of Ross Bryan Associates, Inc.

February 16, 2024

Paula Hepp
OHM Advisors
209 10th Avenue S., Suite 154
Nashville, TN 37211

Dear Ms. Hepp:

911 Call Center, Pulaski, TN
RBA Job No. 24 1103

At your request, RBA reviewed photographs of the existing 911 Call Center and the Office of Emergency Management buildings based on the Owner's need to add 1,500 s.f. of usable space for the call center. The call center is located at 131 S. Cedar Lane, Pulaski, TN and the OEM building is located at 3750 Columbia Highway, Pulaski, TN.

The 911 Call Center photographs indicate the building was constructed using wood framing clad with brick and siding. Existing structural drawings are not available showing wood stud/joist framing sizes, grade, or spacing, fastening patterns, sheathing thickness/grade, anchor bolts, or foundations.

The OEM building photographs indicate the building was constructed using a pre-engineered metal building. Existing structural drawings are not available showing the steel frame sizes, wind girt/purlin sizes, framing layout, anchor bolts, or foundations.

The addition size relative to the existing building sizes will trigger a structural upgrade per the International Existing Building Code requirements which will require compliance with the adopted International Building Code. Since structural drawings are not available and investigation of critical components are buried or covered up, we recommend constructing a new stand-alone structure sized for the needs of the call center.

Please feel free to give me a call if you have any questions.

Best Regards,

Brent A. Thornton, P.E.
Vice President