

FACILITY ASSESSMENT AND SPATIAL PLANNING

LINCOLN COUNTY PUBLIC LIBRARIES

ISSUE DATE: OCTOBER 6, 2022



**mcmillan
pazdan
smith**
ARCHITECTURE
MPS project # 022163

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

BACKGROUND + PROGRAM GOALS

Today's public libraries are challenged to keep up with rapidly evolving technologies, the transition of information from print to electronic databases, and changes in staff and patron usage patterns. No longer book and material repositories, libraries are places where compartmentalized information and services are blended together, and library staff are eager to help patrons learn, create, and gather. Libraries are recognized social centers, maker labs, and information hubs for their respective communities.

In the spring of 2022, Lincoln County commissioned McMillan Pazdan Smith Architecture (MPS) to develop a facility assessment and spatial needs analysis for the Charles R. Jonas Library and the Florence S. Shanklin Library. In June of 2022, MPS and Watlington Engineering visited each library location in order to observe the existing conditions of the library to prepare a comprehensive facility assessment. Concurrently, MPS hosted a series of focus group meetings with the library staff, library patrons, and community and library stakeholders. Finally, MPS had numerous conversations with the Lincoln County Planning Department to review patron demographics for each library location.

After completing the facility assessment, hosting focus group and community meetings, and reviewing demographical information, MPS developed building programs and collection summaries for each library location. These programs revealed that the spatial needs of the library vastly exceeded the expansion capacity of each library location. It is recommended that the Jonas and Shanklin Libraries be renovated and/or expanded to accommodate the current and growing needs of their immediate communities, and a future branch library near the East Lincoln community be constructed to accommodate the programming spatial short comings of the two existing locations.

After an in-depth analysis of the existing libraries square-footage and demographical information, it was determined that by 2040 Lincoln County Libraries should provide an additional 43,200 square-feet at a minimum in order to adequately serve the growing Lincoln County community.

The following goals were established for each location in order meet the 2040 square-footage requirements:

Jonas Library

- Jonas Library should function as a headquarters library, and should be relocated or reconstructed as a multi-story +/-46,800 SF library at the existing site to accommodate the new building program and meet community and staffing needs; this provides an additional 31,800 SF towards the library spatial deficit. Should this location be relocated or reconstructed first, this improvement resolves the 2020 square-footage deficit.

Future East Lincoln Library

- A new +/- 20,000 SF branch library should be constructed to help resolve the square-footage shortage and accommodate the growing population of Lincoln County. A new branch library of this size resolves the 2040 square-footage deficit.

Shanklin Library

- Shanklin Library should be reconfigured to maximize it's existing building footprint, and a new +/- 1,500 SF addition could be provided should funding be available to meet community and staff needs.

West Lincoln Library

- West Lincoln Library is well-positioned for the future growth of its service area. No additions are anticipated to be required for this location to accommodate the 2040 population projections.

McMillan Pazdan Smith returned in September, 2022 to review proposed design concepts for the Shanklin library and a building program and collection summary for the future East Lincoln Library. A final report was issued on October 6, 2022.



FACILITY ASSESSMENTS

CHARLES R. JONAS LIBRARY

FACILITY ASSESSMENT

OVERVIEW

McMillan Pazdan Smith toured the Charles R. Jonas Library on Thursday, June 9 accompanied by Lincoln County's Facilities Maintenance Supervisor. The following observations were made regarding the current condition of the facility.

SITE - GENERAL AND LANDSCAPE

SIDEWALKS	1	The sidewalk along W. Main Street is susceptible to damage from tree roots. Tree roots push the concrete up, creating tripping hazards for pedestrians. This has been addressed by County facilities, but remains an ongoing problem.
PARKING LOT PAVING	2	The surface of the parking lot is in good condition with only minor blemishes.
PARKING LOT STRIPING	3	The parking lot striping is in good condition; the parking spaces are clearly visible. ADA spaces are clearly identified.
LIBRARY SIGNAGE	4	A small sign for library parking is provided at the intersection of N High St and W Sycamore Street.
MONUMENTAL SIGNAGE	5	A monumental sign is located at W Main Street and N High Street. The sign is in good condition.
LANDSCAPING	6A	The large trees along the south facade of the building frequently clog the gutters and downspouts. The large magnolia tree at the southeast corner of the building creates a lot of leaf debris and requires constant attention; while the tree is large, it is well pruned.
	6B	The landscaping along the southern, eastern and western facades of the building were previously pruned and/or removed to aid in maintenance efforts. While easier to maintain, the building appears bare.
	6C	The landscaping at the courtyard is in good condition.
SITE FURNITURE	7A	While no site furniture is provided, there is frequent loitering at the W. Main St entrance.
	7B	Courtyard is frequented by the homeless, and is not well lit at night. This creates an unsafe environment after dark.
	7C	Trash bins are visible at the library's parking lot entrance.
	7D	Book drop; able to function as a drive up book drop if parking lot is entered from N High Street.
BIKE RACKS	8	Bike racks are in average condition.
EXTERIOR STORAGE	9	At the time of the site visit, the Library had a storage POD rental at the corner of the parking lot.
LIGHTING	10	Western entrance and southern facade have been reported to feel too dark during evening hours and after close, creating safety concerns.



 Site Plan
306 W Main Street, Lincoln, NC



2 3 Parking lot and striping are in good condition



6A Large magnolia produces a lot of leaf litter, and often clogs gutters and downspouts

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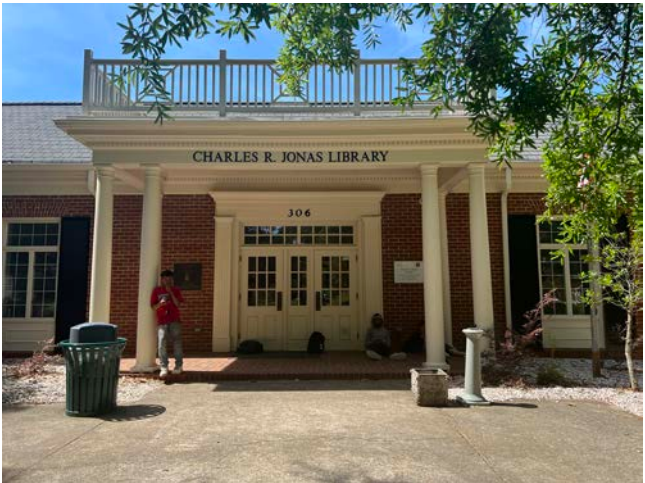
6B Building base looks bare due to overly pruned or removed landscaping



6B Building base looks bare due to overly pruned or removed landscaping



6C Courtyard landscaping



7A Loitering at W. Main St entrance



7D Book drop and loading dock



9 PODS storage

SITE - ACCESSIBILITY

ACCESSIBLE ROUTE

- 1A

There is an accessible route from the ADA parking spaces to the primary entrance on the east side of the building. The slope of the accessible route was unable to be determined at the time of the assessment. A survey should be conducted to confirm that the slope of route does not trigger ramp requirements, as the existing conditions do not comply with ADA ramp requirements. No signage has been provided at the southern entrance to indicate that an accessible route has been provided elsewhere.
- 1B

The entrance at the accessible route has (2) 3'-0" x 7'-0" doors, with an astragal in the middle. The astragal must be removed for larger deliveries to enter the building, and must also be removed to accommodate larger wheel chairs. The clear opening complies with the 32" minimum requirement, but the interior door hardware protrudes further than 4", making the entrance non-compliant.

ACCESSIBLE PARKING

- 2A

An adequate number of ADA Parking spaces are provided near the accessible entrance. The dimensions of the ADA parking spaces need to be field verified to confirm compliance for 1 accessible stall and 1 van accessible stall.
- 2B

Signage has been mounted on the building to indicate the ADA parking spaces.



1A Accessible route



1B Building entrance along accessible route



1B Non-ADA compliant push hardware on entrance



2A 2B ADA parking spaces with wall mounted signage, located near accessible route

BUILDING - EXTERIOR ENVELOPE

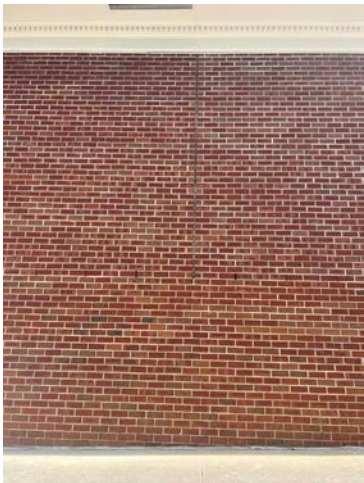
EXTERIOR WALLS		
CLADDING / FINISH	1	Brick is in overall good condition; the building could use a cleaning overall. Efflorescence is not present. Evidence of uneven foundation settling or mortar cracking is not present. Weep holes appear to be unclogged and to be functioning properly.
SEALANTS	2	Heavy caulking joints are present at the sidewalk. Facilities confirmed that moisture infiltration used to be a problem, but the caulking has resolved the issue.
EXPANSION / CONTROL JOINTS	3	Existing control joints do not extend to the building foundation. The control joints that are present need replaced.
SOFFITS	4A	Soffits are in overall good condition.
	4B	Facilities has reported that the soffit over the west entry is frequently infested with wasps.
FLASHINGS	5	Flashings are in overall good condition.
WALL OPENINGS		
EXTERIOR WINDOWS	6	Exterior windows are a mixture of single pane and double pane glazing. Facilities has been replacing windows as required with more efficient double pane windows as the older single pane windows deteriorate and leak.
PRIMARY ENTRY DOORS	7	Entrance doors at the western and southern facades are in average condition.
SECONDARY DOORS	8	Mechanical room doors are in average condition. All exterior doors could use a good cleaning.
DOOR HARDWARE	9	The door push hardware and closer at the western primary entrance should be replaced. The existing hardware does not comply with ADA. The push hardware protrudes into the required ADA clear space. The door closer should be replaced to allow the door to be held open for the required amount of time to allow for a person to enter.
ROOFING		
ROOFING MATERIAL	10A	Asphalt shingles were installed incorrectly. Overall, the shingles were installed too far apart; the shingles do not overlap per typical manufacturer recommendations. At the interior side of the parapet wall, no termination flashing was used between the PVC roofing membrane and the asphalt shingles. At the exterior side, the starter shingles were installed incorrectly and do not have enough adhesive. Shingles are peeling away at the edge condition, and frequently need replaced.
	10B	PVC roofing was replaced in 2014 and is in average condition. Some soft spots are noticeable under foot. There is no evidence of shrinkage, cracking, or excessive ponding.
DRAINS	11	Roof drains appear to be functioning correctly. No leaks have been reported.
GUTTERS & DOWNSPOUTS	12	Gutters and downspouts are in average condition. Some of the gutter to storm water connections are damaged and need replaced. Gutter guards frequently get clogged with tree debris and need cleaned out in order for the gutters and downspouts to function properly.
FASCIA	13	Fascia are in average condition; the building could use a cleaning overall.



1 Brick is in overall good condition, but could use a cleaning overall



2 Heavy caulking joints are present at the sidewalk; photo taken at north side of building at the parking lot



3 Existing control joints do not extend to the building foundation



3 Control joints need replaced



4B West entry soffit is frequently infested with wasps



6 Typical window conditions



8 Mechanical room doors



10A Incorrectly installed starter shingles; shingles often peel away at the edge condition

BUILDING - EXTERIOR ENVELOPE

PORTICOS

14 Porticos are in average condition overall. Facilities reports that the railing at the southern facade along W Main St is a maintenance nuisance. The railing is in constant need of cleaning, painting, and debris removal. The column covers at the western entrance are cracked and need replaced.



12 Gutter guards frequently get clogged with tree debris and need cleaned out



12 Some gutter to storm water connections are damaged and need replaced



13 Fascia are in average condition; building could use an overall cleaning



10A Interior side of shingle parapet; no termination flashing was used between the PVC roofing membrane and the asphalt shingles



10A Interior side of shingle parapet; improper shingle overlap; roof ridge vent is in good condition



14 Loading dock portico



14 Loading dock portico



14 Loading dock portico



10B PVC roofing is in average condition



10B Roof vent condition; no leaks have been reported



11 Roof drains appear to be functioning correctly



14 Railing at portico along W Main St is a maintenance nuisance; the railing is in constant need of cleaning, painting, and debris removal



14 The column covers at the western entrance are cracked and need replaced

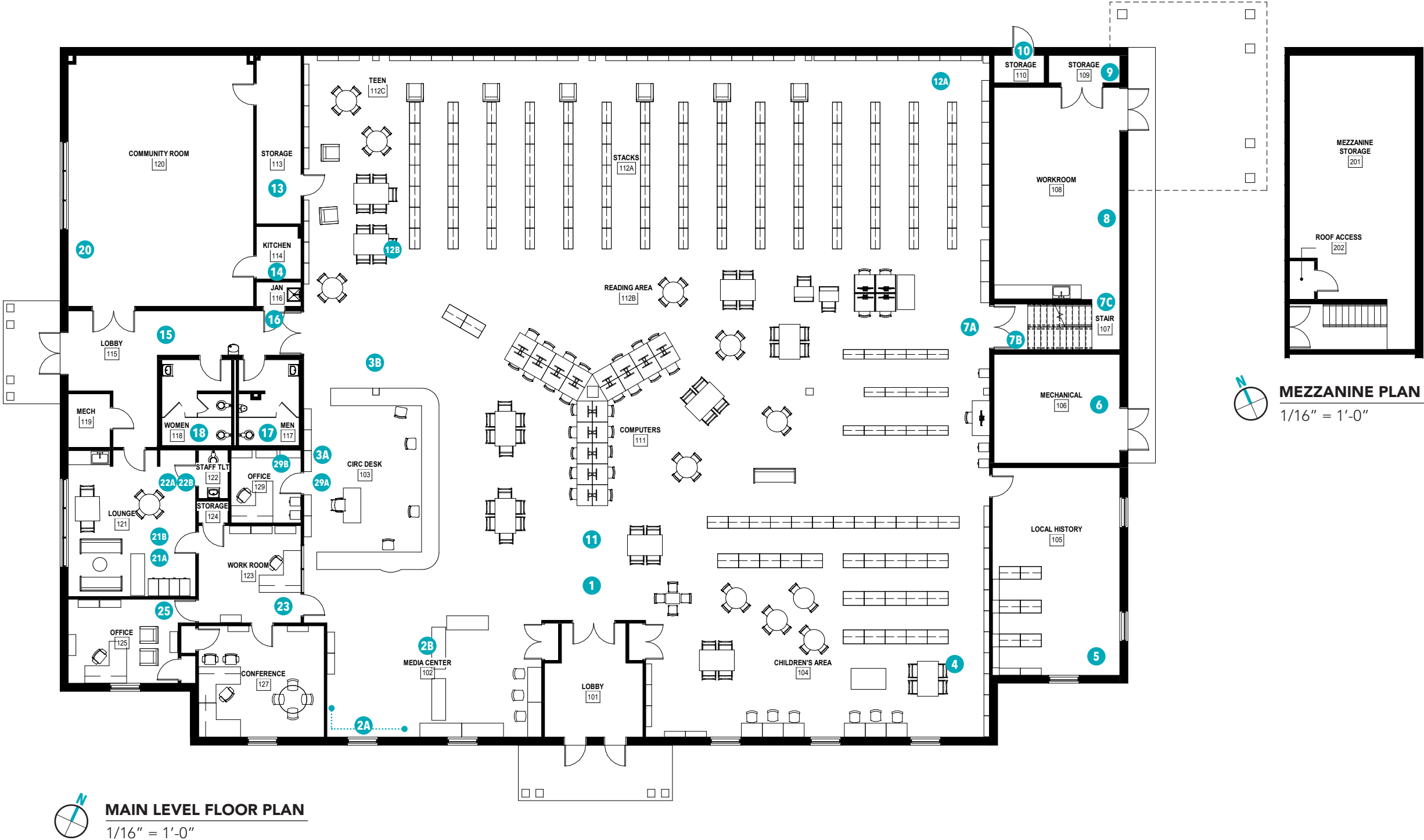
BUILDING - INTERIOR

OVERVIEW

MPS toured the existing library with a member of the Lincoln County Facilities Department in June 2022. The following notes are general observations made about the existing library:

- The circulation desk occupies a large foot print
- The shelving occupies a large amount of floor area
- The library has inadequate designated storage space throughout the entire facility
- The library does not have enough power and data for library patrons
- The existing accessible entry route, public restrooms, and stairs do not meet building code and/or ADA requirements
- The metal cantilever shelving is in good condition and can be reconfigured and reused.

The numbers on the adjacent plans coordinate with the notes and photos on the spreadsheet on the following pages.



BUILDING - INTERIOR

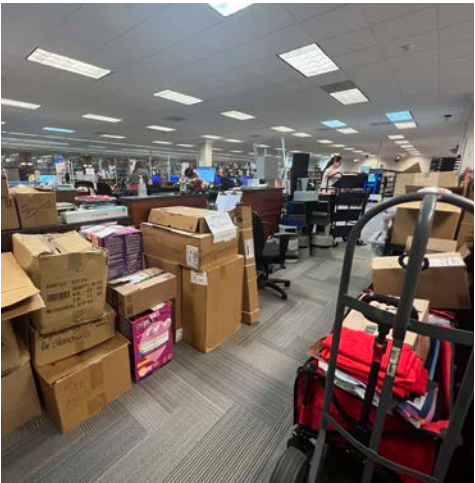
PROGRAMMING		
101 LOBBY	1	Lobby at W Main St entrance. Furniture was removed in order to discourage loitering.
102 MEDIA CENTER	2A	The library is in the process of installing a new media center, currently equipped with specialty computers and a 3D printer.
	2B	The media center is currently unusable and being used for storage.
103 CIRC DESK	3A	Holds shelving behind the desk provides plenty of space for holds and other materials, however, the shelving to the left of Office 129 is impeding code required door clearance. Shelving quantities can potentially be reduced.
	3B	The circ desk provides a counter height that complies with ADA side approach requirements. The book drop openings on the side of the desk comply with ADA side approach requirements.
104 CHILDREN'S AREA	4	Children's area is in good condition, but lacks a designated program space and adequate storage. Children's programming is currently done in the community room. Children's area is not easily identifiable. Several of the shelving units in this area do not coordinate with the adult collection, and are not recommended for re-use.
105 LOCAL HISTORY	5	The local history room utilizes shelving along the wall that creates small alcoves. The alcoves do not comply with ADA turning radius requirements. The furniture in this space is very worn and uninviting.
106 MECHANICAL	6	The air handler in the mechanical room is the original unit installed when the library was built; the old controls are no longer in service, and were recently replaced. There is no way to remove the existing air handler without demolishing it inside of the mechanical room, and then removing it in pieces. The fire alarm system was recently replaced.
107 STAIR	7A	Stair Entry. Stair provides access to storage mezzanine and lower level storage room that is currently being used as additional work room space. While the mezzanine and lower level are closed to the public, these areas are not accessible to staff members with mobile disabilities. There is no elevator or LULA lift.
	7B	There are handrails provided at the stair descending to the lower level, but it does not continue to the storage mezzanine. The handrail does not comply with building code.
	7C	The guard rail provided at the storage mezzanine does not comply with building code requirements; no handrail is provided. Should handrails be installed, the stair will not meet the minimum code required width.



1 Looking into the lobby from library reading area



2A Computers and 3D printer at the media center



2B Media center is currently being used for storage



3A Holds shelving



3B Side of circulation desk; book drop opening on the right complies with ADA side approach requirements



4 Children's area



5 Local history room



6 Mechanical room; air handler



7A Stair entry from reading area



7B Stair descending to lower level storage area



7C Stair descending from storage mezzanine down to reading area

BUILDING - INTERIOR

108 WORKROOM	8	Lower level workroom is being used primarily for storage. It's very difficult to access stored materials since the entire room is full. The staff working in the area don't have enough space to work.
109 STORAGE	9	Storage closet is completely full.
110 STORAGE	10	This room was not viewed on the walk through.
111 COMPUTERS	11A	The computer area is in good condition, but takes up a very large footprint. It's located close to the circulation desk.
	11B	The self service print station is located close to the computer area and to the circulation desk.
112A STACKS	12A	Shelves are in good condition. A majority of the shelving units are 90" tall, with the top shelf left empty. Shelving units could be reduced to 66" to improve sight lines. Lighting is a mixture of LED and fluorescent fixtures; lighting levels are poor at the base of the shelving units. Aisle sizes are adequate.
112B READING AREA	12B	Reading area interior finishes are in good condition. Reading space lacks adequate power supply for patrons. Furniture lacks convenience outlets for patrons; floor box power is occasionally available near seating areas, but power cords running to tables creates tripping hazards.
112C TEEN AREA	12C	Some of the furniture in the teen area is original to the library, is in good condition, and can be planned for refurbishment and reuse. The balance of the furniture is nearing the end of its functional and aesthetic life.
113 STORAGE	13	Table and chair storage for the community room has been re-purposed for general storage. The room is overflowing. Mechanical platforms were installed at the last renovation, and are very hard to service due to how full the storage room is.
114 KITCHEN	14	The kitchen has been re-purposed to accommodate additional storage, and is currently unusable as a kitchen.
115 LOBBY AND CORRIDOR	15A	Corridor connects the lobby to reading area. The drinking fountain protrudes into the corridor more than the allowable 4", and does not meet building code requirements.
	15B	Corridor connects the lobby to the reading area. The drinking fountain protrudes into the corridor more than the allowable 4", and should be recessed in order to comply with building code.
116 JANITOR	16	Janitor's closet is completely full.



8 Lower level workroom is being used primarily for storage



9 Storage closet completely full



11A Computer area, located in close proximity to circulation desk



11B Print station is located in close proximity to the computers and circulation desk



12A Library shelving and aisles



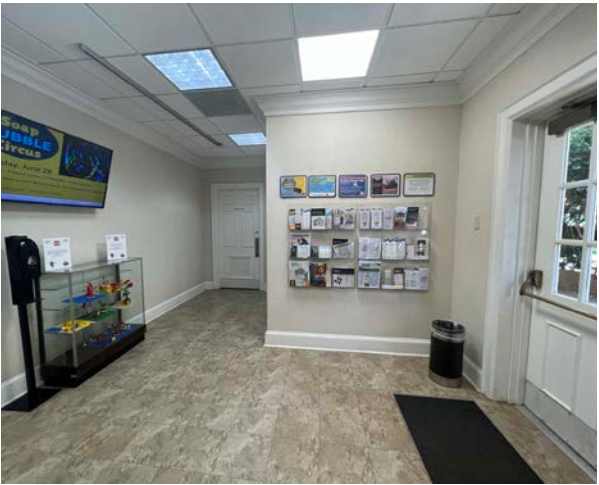
12B Reading area



13 Table and chair storage for the community room



14 Kitchen area is being used for storage



15A Lobby area looking towards staff break room



15B Corridor to reading area; protruding drinking fountain does not meeting building code requirements



16 Janitor's closet is completely full

BUILDING - INTERIOR

117 MEN	17	The door to the men's restroom does not have adequate door clearance required by building code. The sink is mounted too low, does not meet ADA requirements, and has exposed piping below. The toilet stall is not wide enough to meet ADA requirements; there is not enough space to properly install required grab bars, and the toilet tissue dispenser is not mounted at ADA height. The toilet is mounted too far away from the wall. It is not possible to meet ADA spatial requirements without reducing plumbing fixtures.
118 WOMEN	18	The door to the women's restroom does not have adequate door clearance required by building code. The sink is mounted too low, does not meet ADA requirements, and has exposed piping below. The toilet stall along the plan south wall is not wide enough to meet ADA requirements; there is not enough space to properly install required grab bars, and the toilet tissue dispenser is not mounted at ADA height. The toilet is mounted too far away from the wall. It is not possible to meet ADA spatial requirements without reducing plumbing fixtures.
119 MECH	19	This room was not observed during the tour.
120 COMMUNITY ROOM	20	When the community room is not being used, it is used as overflow work space to prepare library programs. While the community room can accommodate a higher capacity, occupants should be limited to 49 people in order to comply with building code egress requirements. No occupancy limitation signs have been posted. A second means of egress could be provided to increase the occupant capacity of the room.
121 LOUNGE	21A	Staff lounge kitchenette is outdated and being used as additional storage space. Furniture is very worn.
	21B	The range has been disconnected by facilities. The upper wall cabinets don't appear to be attached to the wall.
122 STAFF RESTROOM	22A	The toilet is mounted too far away from the wall, and the room is too small to meet ADA requirements. Toilet room accessories do not meet mounting dimensional requirements, and grab bars have not been provided.
	22B	The sink is mounted too low, does not meet ADA requirements, and has exposed piping below. There are no clean-outs provided in the building; whenever the plumbing lines are clogged, facilities must remove the sink to clear the waste lines.
123 WORK ROOM	23	The work room is being used for overflow storage.
124 STORAGE	24	The is a small storage closet for the work room. This room was not observed during the walk through.



17 The men's restroom has many code and ADA related issues



18 The women's restroom has many code and ADA related issues



20 The community room



21A Staff lounge kitchenette is outdated and being used as additional storage space; furniture is very worn



21B The range has been disconnected by facilities; the upper wall cabinets don't appear to be attached to the wall



22A The staff restroom toilet; this restroom has many code and ADA related issues



22B The staff restroom sink



23 The staff workroom is being used for overflow storage

BUILDING - INTERIOR

125 OFFICE	25	Office is being used for additional storage space.
126 STORAGE	26	Storage closet; not observed during tour.
127 CONFERENCE	27	Conference room is being used for additional storage space.
128 STORAGE	28	Storage closet; not observed during tour.
129 OFFICE	29A	The door into the office does not have adequate clearance from the Circulation Desk due to the placement of the holds shelving. There's no space to provide a room signage outside of the office.
	29B	The office space is lacking appropriate storage solutions, and is being used as additional storage space.
201 MEZZANINE STORAGE	30	The mezzanine storage area is completely full.
FLOORING		
CARPET	31	Carpet tiles are the primary floor finish throughout the space. The carpet tiles were recently updated and are in good condition.
LVT	32	LVT tile is installed at the lobbies. The tile is in average condition, but is in need of cleaning.
CERAMIC TILE	33	Ceramic floor tile and wall base is installed at the public restrooms. The grout and tile needs steam cleaned. The tile is in average condition.
STAIR TREAD	34	Rubber stair tread at stair 107 is in average condition.
VCT	35	VCT is installed at the staff restroom, lower level workroom, and mezzanine storage areas. VCT is in average condition, but needs stripped and waxed.
WALK OFF CARPET	36	Walk off carpet is installed in the reading area at both lobby doors and is in average condition. Lobby 101 has a small area of inlayed walk off carpet at the entry doors; it appears to be in average condition.
CEILINGS		
ACT	37	Acoustic ceiling tiles and grid are the primary ceiling finish throughout the building; the ACT ceilings are in average condition. Some of the tiles and grids are dirty and have rough cuts to fit into custom shaped grids.
GYPSUM BOARD	38	Painted gypsum board ceilings at the stair, lower level workroom, and storage mezzanine, are in average condition.
WALLS		
PAINT	39	Paint is in average condition throughout the building.
WALL COVERING	40	The primary wall finish in the library is wall covering has been painted. The finish is peeling at most of the seams and has reached the end of its functional and aesthetic life.
DOORS		
DOORS	41	Interior doors are wood panel doors, painted white
DOOR FRAMES	42	Interior door frames are hollow metal with wood trim, painted white
DOOR HARDWARE	43	A majority of the door hardware appears to be original hardware.



25 Office is being used as additional storage space



27 Conference room is being used as additional storage space



29A The office door does not have adequate clearances or room for signage



29B The office is being used as additional storage space



30 Mezzanine storage area is completely full

BUILDING - INTERIOR

VERTICAL CIRCULATION		
STAIR LANDINGS, NOSING & TREADS	44	The stair landings appear to be in good condition, but do not meet code required dimensions; the doors to the stair should not swing into the stair landing. The stair nosing and treads appear to be in good condition.
HANDRAILS & GUARDRAILS	45	There are handrails provided at the stair descending to the lower level, but the railing does not continue to the storage mezzanine. There is a guardrail provided from the main level to the storage mezzanine, but no handrail is provided. The handrails and guardrails do not comply with building code; should handrails be installed, the stair will not meet the minimum code required width.
ELEVATOR	46	No elevator is present in the building.
SIGNAGE		
DIRECTIONAL	47	No directional signage was observed in the building.
ROOM SIGNAGE	48	Other than at the restrooms, no room signage was observed in the building.
SPECIALTY		
SELF CHECKS	49	Self check appears to be in good condition.
RFID GATES	50	RFID gates at each lobby location appear to be in good condition.



49 Self check appears to be in good condition



50 Conference room is being used as additional storage space

BUILDING - SYSTEMS

The following report was prepared by Watlington Engineering, and provides observations of the major mechanical, electrical, plumbing, and life safety systems. Refer to the adjacent cover letter for more information.

**Watlington
Engineering**

Complete Communities for All

Charles R. Jonas Library Facility Condition Assessment

June, 23, 2022

Phone: (704) 957-9686
Victoria.Watlington@WatlingtonEngineering.com
www.WatlingtonEngineering.com



306 W Main St, Lincolnton, NC

Victoria Watlington



June 23, 2022

mcmillan pazdan smith architecture
1422 S Tryon St Suite 700
Charlotte, NC 28203
Attn: Elisa Walker

Dear Elisa:

Watlington Engineering, PLLC, has completed a Facility Condition Assessment and Report on the Charles R. Jonas Library, located in Lincolnton, NC, for mcmillan pazdan smith architecture. This survey consists of a photographic survey and review of the physical conditions of the mechanical and electrical components accessible or visible during the site visit; and observations regarding the quality of construction.

The site inspection took place on June 16, 2022, and the walk-through incorporated a review of existing conditions, fire and life safety systems, plumbing, HVAC, electrical systems, and interior spaces.

The sole purpose of this report is to observe the major MEPFP system components of the property and evaluate their condition. It is not the intent of this office to assume any part of the design responsibility but rather to report our findings to the client to whom this report is addressed.

Please do not hesitate to contact the undersigned with any questions.

Sincerely,

Victoria Watlington, PE, PMP

Watlington Engineering, PLLC
Principal

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MEP REPORT SUMMARY

The Charles Jonas Lincoln County Library is a 14,700 square foot facility in Lincolnton, NC, in generally good condition. The main capital improvement priorities over the next five years are replacing the air-cooled condensing unit and split system heat pumps, with a total current replacement value totaling approximately \$50,000. However, should bathrooms be renovated, metering faucets (and accessibility requirements) would be needed to brought to code.

Recent capital improvements include a 2021 AHU controls system upgrade and fire alarm system installation.

See Appendix A for equipment descriptions and condition assessment ratings.

DESCRIPTION

The Charles Jonas Lincoln County Library is a 14,700 square foot facility in Lincolnton, NC. It consists of the main library, office, lounge, and community meeting spaces. This building has as-built drawings from a 2011 renovation.

EVALUATION METHOD

Visual observation was the primary method used to evaluate the building system conditions during the physical survey conducted on June 16, 2022. Where 100% inspection was not physically possible, a sample technique was used in which a selected number of typical items were investigated, and the engineering opinion as to the overall conditions was derived from the selected samples. Overall conditions assessed:

- 1. Mechanical facilities for general conformance with accepted practices, evidence of leakage and/or corrosion, inadequate access for maintenance, general adequacy of capacity, controls and other operating considerations.
- 2. Electrical facilities for adequate capacity of panels and conductors for existing and reasonable future additions, weather proofing of exterior components, ground fault protection, fire alarm, and exterior lighting.
- 3. Plumbing facilities for compliance with building standards and accessibility.
- 4. A mechanical system load and an electrical load analysis will be performed, based on industry square foot averages, and the systems will be analyzed to determine their adequacy in accordance with industry standards.

Ratings were assigned based on the following scale:

- 1. Excellent
- 2. Good
- 3. Fair
- 4. Poor
- 5. Unsatisfactory

MECHANICAL

HVAC

The 14,700 sq ft building uses one air-cooled condensing unit and three individual split system heat pumps to condition the air in the space, achieving a cooling density of 306 square feet/ton. The 40-ton air-cooled condensing unit was installed in 2012, and the three splits (3-ton, 2-ton, and 3-ton) were installed in 2011, for a total of 48 tons in cooling capacity. The air-cooled condensing unit is in fair to poor condition. The three additional heat pumps are in good condition; however, with a life expectancy of 15-18 years, in five years, they will be nearing the end of useful service life.

The large air handling unit was installed in 1978, so is well past useful life. However, replacement has been delayed due to logistical challenges removing the unit from the mechanical room.



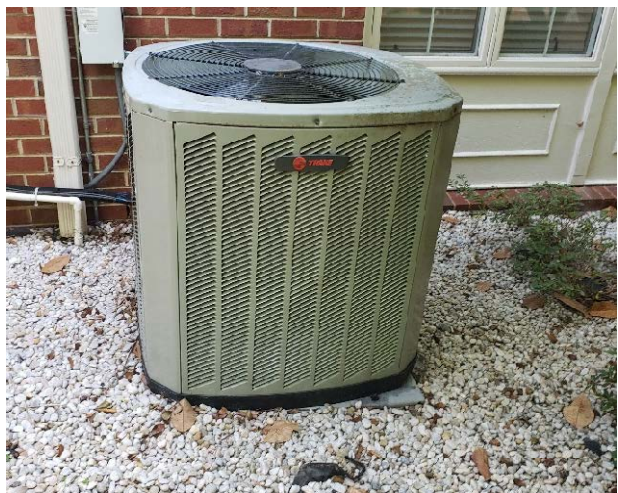
Air Cooled Condensing Unit



Split System (1)



Split System (2)



Split System (3)

Figure 1: Condensers



Figure 2: Air Handlers

Thermostat

The current thermostats were replaced as part of a 2021 AHU controls system upgrade.



Figure 3: Thermostat & Controls

Ductwork

All supply and return air ductwork off the units are insulated sheet metal ductwork with insulated flex duct coming off the branches to the supply diffusers and return grilles.

Diffusers (Supply, Return, Exhaust)

Diffusers are standard as pictured below, varying depending on area. All diffusers are metal, and painted to match the service area walls. See Figure 4 below.



Figure 4: Diffusers

Ventilation

For main library service areas, large air handling unit appears to include outside air; intake was observed on the unit. In the office areas, the building utilizes natural ventilation via windows in office areas which underwent 2011 renovation.

ELECTRICAL

ELECTRICAL SERVICE AND METERING

The existing electrical service is fed from a 225kVA pad mounted transformer located on West Sycamore Street. The secondaries from the transformer are fed underground conduits.



Figure 5: Utility Transformer

DISTRIBUTION

Panel MDP is a 1200A 208Y/120V, 3-Phase, 4-wire main distribution board feeding all other branch panels in the building. The panel is located in the exterior accessible mechanical closet. Panel MDP service entrance rated disconnect appears to have been removed and does it house a surge protection device as required by NEC 70 and NFPA 780.



Figure 6: Panel MDP

Panel A is a 42-pole 100A, 208Y/120V, 3-Phase, 4-wire branch panel manufactured by Square D. All existing breakers are in the “on” position with no spares available. This panel would not be physically capable of supporting any additional circuits.



Figure 7: Panel A

Panel LB is a 42-pole 225A, Main Lugs Only, 208Y/120V, 3-Phase, 4-wire branch panel manufactured by Square D. All existing breakers are in the “on” position with no spares available. This panel would not be physically capable of supporting any additional circuits.



Figure 8: Panel LB

Panel LC is a 30-pole 400A, Main Lugs Only, 208Y/120V, 3-Phase, 4-wire branch panel manufactured by Square D. The existing panel has (6) spaces available. The remaining existing breakers are in the “on” position.



Figure 9: Panel LC

LIGHTING

The existing interior lighting in the facility consisted of the original fixture types specified. The Lincoln County Maintenance team has begun the process of re-lamping fixtures - removing the standard tubular fluorescent lamps and replacing them with tubular LED equivalent lamps. Though the existing fixtures are in working conditions, it would not be recommended to utilize the existing fixture types in any new work.

The existing interior lighting control utilized localized switching and did not appear to have automatic off components.

The exterior building mounted fixtures consist of various fixture types - majority appear to have been replaced with LED equivalent fixtures.

Exterior lighting is controlled by switches at the exit nearest the fixture locations.

FIRE PROTECTION

SPRINKLERS AND STANDPIPES

There is no sprinkler system for the building.

ALARM SYSTEMS

The existing fire alarm system was replaced within the last 2 years. The control panel is located in the exterior accessible mechanical closet. Shop drawings and coordination with the manufacturer/ provider of the existing system will be required to determine existing systems limits and expandability options.



Figure 10: Fire Alarm Panel

SECURITY

An existing security system appears to be present. The touch pad is located at the rear entrance of the building.



Figure 11: Security Alarm Keypad

COMMUNICATION SYSTEMS

The existing communications entry point is located in the exterior accessible mechanical closet and has 2' of working clearance between the face of the equipment and mechanical unit housed within the room. All technology has been transitioned to a Voice Over Internet Provider with the exception of the fire alarm - which is to remain on analog.



Figure 12: Telecommunication System Service Equipment

The existing communication equipment rack(s) and patch panels are located in a storage closet located in the office area. There does not appear to be clear labeling or cable management provided for the racking system.



Figure 13: Communications Equipment Rack

PLUMBING

DOMESTIC WATER

The existing plumbing systems are located in the break room, bathrooms, kitchen, and janitor's closet. It consists of four toilets, one urinal, one mop sink, one floor drain, two lavatories, and a kitchen sink. As the library has an A-3 occupancy classification, restroom lavatory faucets are required to have metering capability, per 2018 NCPC 604.4.1. However, any updates to plumbing fixtures would compel the library to come up to current accessibility codes (2018 NCBC section 11) for ADA clearances and/or protection of piping in bathrooms.



Figure 14: Plumbing Fixtures

SANITARY

Sanitary traps are and vents are in good condition, with toilet lavatories needing minor attention for cleaning and P-trap connection alignment verification. It is noted by observation and per maintenance manager, that no wall cleanouts are present and there are no floor cleanouts within the library.





Figure 15: P-Traps

GAS

There are no gas-fueled systems in the building.

OPINION OF PROBABLE COSTS

In providing opinions of probable cost, the Client understands that the Design Professional has no control over costs or price of labor, equipment or materials, and the Contractor's method of pricing, and that the opinions of probable cost provided herein are to be made on the basis of the Design Professional's qualifications and experience. The Design Professional makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs. Maintenance has requested Trane HVAC units, so these have been specified specifically below:

Trane 4TWR5024H1/TEM6A0B24H21 2 Ton Split System Heat Pump: \$ 4,020
 Trane 4TWA4036A3/TEM6A0C36H31 3 Ton Split System Heat Pump: \$ 4330 x 2 = 8,660
 Trane RAUJC40EB 40 Ton Air-Cooled Condensing Unit: \$ 32,000
 Supply/Return Diffusers Replacement: \$8,000

Total = \$52,680

ADDITION/RENOVATION REQUIREMENTS CAPACITY

The total heating & cooling capacity provides a rate of 306 sqft/ton (14,7000 sq ft/48 tons) vs industry average of 250 sqft/ton for buildings of similar use. Any additions will require additional capacity.

Existing water load totals 41 fixture units. Therefore, remaining capacity could accommodate 89 additional fixture units, assuming main line is sized for existing equipment meets code (2").

Existing hot water load totals 9 fixture units. Depending on the number of additional fixtures being added, the existing water heater may need to be replaced or an additional one added.

Existing sanitary waste load totals 28 fixture units. Therefore, there is plenty of additional capacity, assuming the main line sized for existing equipment meets code (4").

The existing electrical service will require metering to determine the existing load on the building. It is probable that the existing service is right sized for the existing building, however, the existing service panel is not code compliant and current oversize for the service being provided to the building.

It is recommended to circuit trace all existing branch circuits in the facility - it has been mentioned there are areas where devices do not work or have sparked when a device has been attempted to be used.

All lighting shall be LED fixtures - flat lensed troffers shall be coordinated with Lincoln County Maintenance team to ensure the product being provided is equivalent in look to the current replacement flat lensed fixture being utilized by the county.

A designated low voltage closet with a cable management system for the low voltage equipment is recommended.

APPENDIX A: MEP Facility Condition Assessment Ratings

System	Equipment Description (Equipment/Model#)	Years of Service	Useful Life (Years)	Rating	Comments
HVAC	Trane XB13 Heat Pump Model #: 4TWB3024A1000BA Serial #: 11202LL34F	11	15-18	3	Rust on fencing
HVAC	Trane XB13 Heat Pump Model #: 4TWA3036A3000BA Serial #: 1110370B2F	11	15-18	2	
HVAC	Trane XB13 Heat Pump Model #: 4TWA3036A3000BA Serial #: 111550HY2F	11	15-18	2	
HVAC	Carrier Gemini Select 38AP Air-Cooled Condensing Unit Model #: 38APD04054A18020 Serial #: 2012Q45080	10	20	3	Maintenance comments that this unit is performing poorly.
HVAC	Air Handling Unit (near ceiling) Model #: unknown Serial #: unknown	unknown	15-18	2	
HVAC	Air Handling Unit (near ceiling) Model #: unknown Serial #: unknown	unknown	15-18	2	
HVAC	Trane Air Handling Unit Model #: 4TEC3F36B1000AA Serial #: 11265PFCAV	11	15-18	2	
HVAC	Trane Climate Changer Air Handling Unit (for Air-cooled condensing unit) Model #: unknown Serial #: unknown	1978	15-18	2	Well past useful life. 2021 controls upgrade. Mech room shows evidence of flooding
HVAC	Thermostats	2021	20	1	
HVAC	Duct System	10-11	20-25	2	
HVAC	Diffusers	11	20	3	However, library area diffusers (41) show evidence of rust (per mtce, previous leaks)
HVAC	Exhaust Fans (3) Model #: unknown Serial #: unknown	unknown	unknown	3	Dented
Domestic Water	Water Heater Model #: unknown Serial #: unknown	unknown	12	2	
Domestic Water	Lavatory Fixtures	unknown	20	4	A-3 for library—metering faucets needed in RRs. However, can't touch because the ADA noncompliance would need to be corrected.

DWV	Traps	unknown	30 (PVC)	2	Single cleanout for entire library. 2018 NCPC 708 <100ft. No wall cleanouts.
ELEC	Electrical Panel MDP Square D I-Line	Original to Building	30	5	Oversized for transformer provided, no main disconnecting means between the transformer and panel,
ELEC	Electrical Panel A Square D NQOB-31148-2B3	Original to Building	30	3	No additional physical space within panel to add additional circuits
ELEC	Electrical Panel LB Square D NQOB-31148-2B1	Original to Building	30	3	No additional physical space within panel to add additional circuits
ELEC	Electrical Panel LC Square D NQOB-31148-2B2	Original to Building	30	3	
LTG	Light Fixtures	Original to Building	-	2	Energy Efficient Lighting replacement solutions recommended
FIRE	Simplex Grinell 4010 System	2021(?)	-	1	

FLORENCE S. SHANKLIN LIBRARY

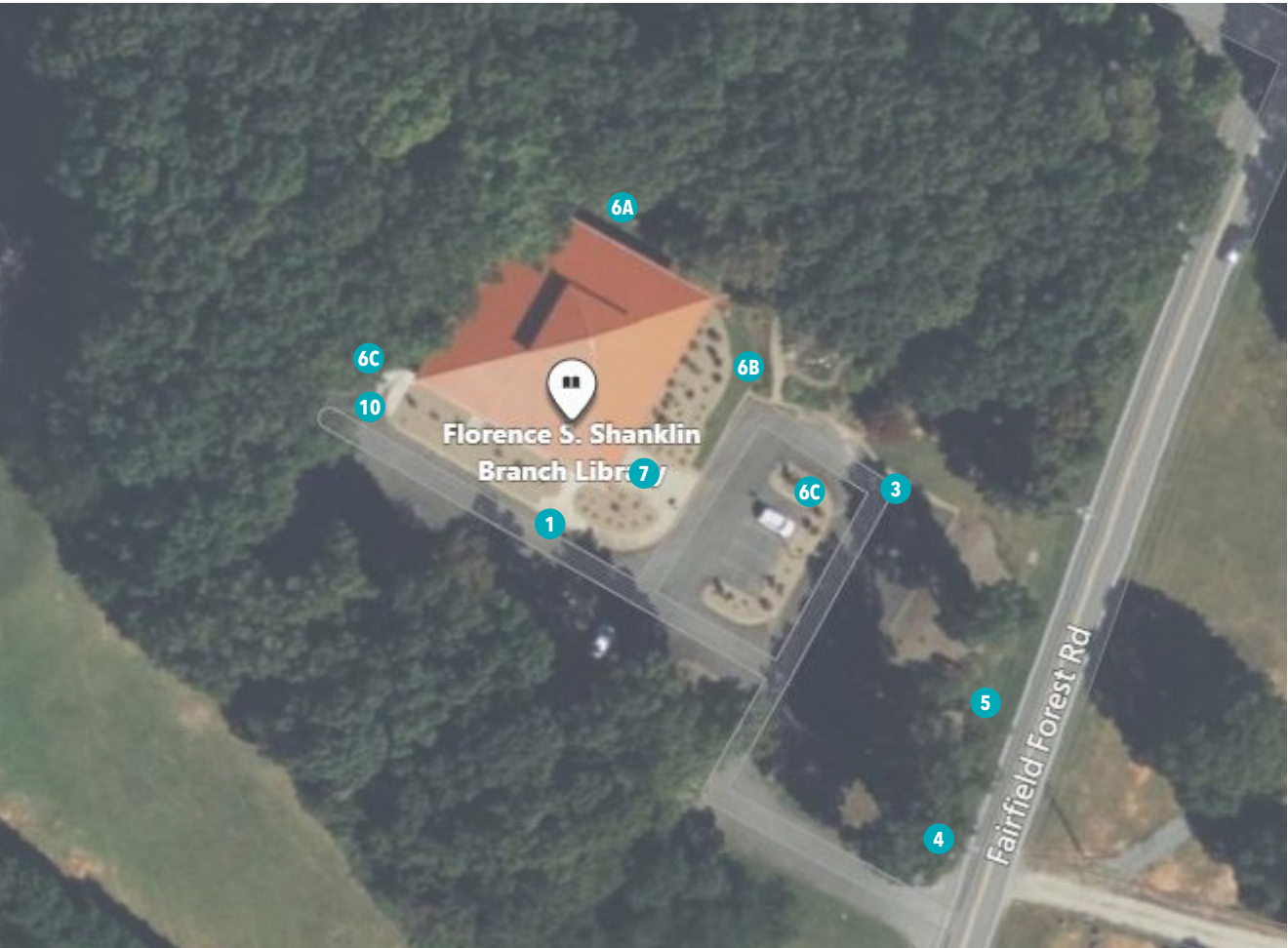
FACILITY ASSESSMENT

OVERVIEW

McMillan Pazdan Smith toured the Florence S. Shanklin Library on Thursday, June 9 accompanied by Lincoln County's Facilities Maintenance Supervisor. The following observations were made regarding the current condition of the facility.

SITE - GENERAL AND LANDSCAPING

SIDEWALKS	1	The sidewalks and curbs are in good condition, but need pressure washed.
PARKING LOT PAVING	2	The surface of the parking lot is in good condition with only minor blemishes.
PARKING LOT STRIPING	3	The parking lot striping is faded, the parking spaces are not clearly visible.
LIBRARY SIGNAGE	4	A small sign for library parking is provided at the curb cut at Fairfield Forest Rd.
MONUMENTAL SIGNAGE	5	A monumental sign is located along Fairfield Forest Rd. The sign needs pressure washed. The name on the monumental sign conflicts with the library's name listed on the library's webpage. The lettering on the sign is undersized, making it difficult to read from a vehicle driving at the posted speed limit.



 Site Plan
7837 Fairfield Forest Rd, Denver, NC 28037



1 The sidewalks and curbs are in good condition



2 The surface of the parking lot is in good condition with only minor blemishes



3 The parking lot striping is faded, the parking spaces are not clearly visible



4 A small sign for library parking is provided at the curb cut at Fairfield Forest Rd



5 A monumental sign is located on Fairfield Forest Rd

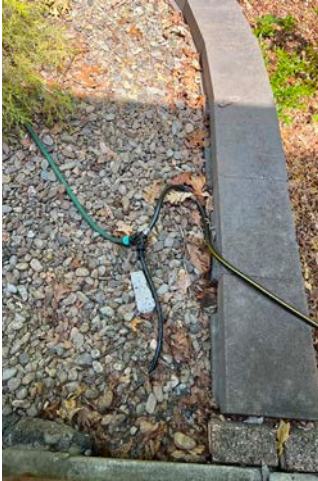
LANDSCAPING	6A	The trees at the north and north east side of the building make it difficult for the ground to dry out after it rains or snows.
	6B	Plantings around the building appear to be well maintained. The planting beds could use a fresh edge around them.
	6C	The irrigation system is visible at some of the planting beds.
SITE FURNITURE	7	Benches are trash cans are provided outside of the building's entry; site furnishings are in good condition.
BIKE RACKS	8	Bike racks appear worn, but are still functional.
LIGHTING	9	No site lighting was observed beyond code required lighting at building exits.
BOLLARDS	10	Bollards are functional, but are in need of painting.
STAIRS	11	Concrete stairs leading down to the mechanical room are in average condition. A railing should be installed on the face of the building to comply with current building codes. The existing stair railing could use a fresh coat of paint.



6A The trees at the north and north east side of the building make it difficult for the ground to dry out after it rains / snows.



6B The plantings around the building appear to be well maintained; the planting beds could use a fresh edge around them



6C The irrigation system is visible at some of the planing beds



7 Site furnishings are in good condition



8 Bike rack is worn but in working condition



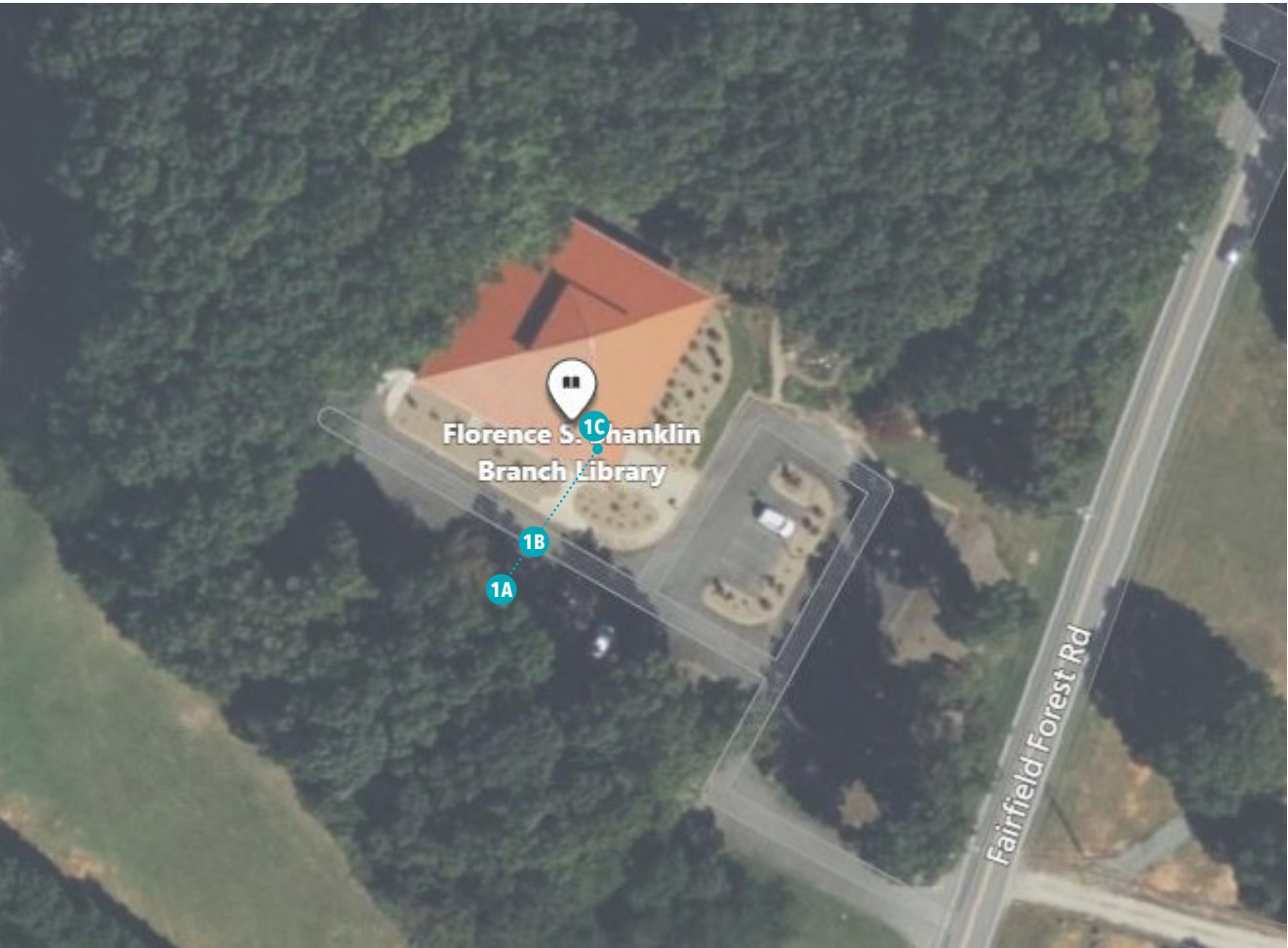
10 Bollards are functional, but could use a fresh coat of paint



11 A railing should be installed on the face of the building to comply with current building codes; the existing stair railing could use a fresh coat of paint

SITE - ACCESSIBILITY

ACCESSIBLE ROUTE	1A	There is an accessible route from the ADA parking spaces to the primary entrance on the southeast side of the building. The slope of the accessible route appears to meet ADA requirements.
	1B	A curb ramp is provided from the parking lot to the sidewalk in order to meet accessible route requirements.
	1C	The entrance doors along the accessible route meets ADA requirements. The entry doors are automated sliding doors with adequate width and clearances.
ACCESSIBLE PARKING	2A	An adequate number of ADA parking spaces are provided near the accessible entrance, and one of the ADA parking spaces meets van accessibility requirements.
	2B	Appropriate post mounted signage is provided at 3/4 spaces; the signage at the van parking should be revised to include "van accessible" in the signage message.



Site Plan
7837 Fairfield Forest Rd, Denver, NC 28037



1A 1B Accessible route from the parking lot to the building entrance



1C The sliding doors along the building's accessible route; photo taken from inside of lobby

BUILDING - EXTERIOR ENVELOPE

EXTERIOR WALLS		
OVERALL EXTERIOR WALL DESIGN	1	Upon reviewing the building's existing drawings and observing the exterior envelope, it is suspected that the existing exterior masonry walls were installed without an adequate drainage plane and/or water resistive barrier. Necessary flashings with weep and vent joints appear to be absent or undersized where required for proper discharge of moisture from the cavity wall. The drainage plane is required to have a 1" airspace to comply with the 'North Carolina Building Code' derived from the 'International Building Code' and the 'Building Code Requirements for Masonry Structures'. It is probable that the undersized drainage plane is partially or entirely blocked by mortar protruding from the back side of the brick veneer. It is likely that moisture becomes trapped in the wall, especially at the mechanical room and crawl space area, causing deterioration of building components and the exterior envelope. If the exterior wall system was constructed as shown in the existing drawings, the continuous blocking at the top of the wall cavity continues to inhibit airflow throughout the wall cavity.
CLADDING / FINISH	2A	Efflorescence is present on the brick around the building. It is mostly prevalent below the finish floor at the crawl space, mechanical room, and retaining wall at the mechanical yard.
	2B	Raked mortar joints contribute to moisture infiltration, as each joint becomes a ledge that holds water.
	2C	Brick and split face CMU are in need of a good cleaning to remove efflorescence and dirt, particularly at the northern and eastern facades
SEALANTS	3A	Caulking at the north east column needs repaired.
	3B	Storefront sill at the multipurpose room shows evidence of a prior leak; it appears that the leak was fixed with caulking.
EXPANSION / CONTROL JOINTS	4	No expansion or control joints were observed.
SOFFITS	5	Facilities report that there is inadequate insulation at the entry soffit, and the pipes serving the public restrooms have to be monitored for freezing in colder weather.
FLASHINGS	6A	It appears that the exterior envelope was designed with minimal through-wall flashings.
	6B	No flashing is present at the head or sill detailing at the glass block. This contributes to the poor venting of the wall cavity. It appears that a weep hole was drilled into the mortar after construction was completed in an attempt to vent the cavity.
	6C	No flashing is provided above grade for moisture to exit the wall cavity, contributing to the poor venting design of the cavity space. It appears than an inadequate amount of weep holes were drilled into the mortar after construction was completed in an attempt to vent the cavity. Flashing is typically provided at a minimum of 4" above grade.
	6D	No flashing or weep holes are present at the sill detailing of the storefront, compounding to the venting issues of the wall cavity design.



2A Efflorescence at the mechanical room door



2A Efflorescence on mechanical room wall



2B Raked mortar joint with moss growth; rake joint creates a ledge that holds water



2C Brick and split face CMU are in need of a good cleaning



3A Caulking at the north east exterior column needs repaired



3B Storefront sill at the multipurpose room shows evidence of a prior leak; it appears leak was fixed with caulking



6B No flashing is present at the head detailing at the glass block



6C No flashing is provided above grade; weep holes appear to be installed post-construction in an attempt to vent the wall cavity



6C No flashing or weep holes are present on the northern facade of the building



6D No flashing or weep holes are present at the sill detailing of the storefront

WALL OPENINGS		
LOUVERS / VENTS	7	The crawlspace vents appear undersized and perhaps have airflow restrictions, and are not likely to have functional adjustment capabilities for seasonal changes. A more effective system would be a powered exhaust fan with humidistat control; the mechanical room temperature was observed to be 75 degrees at 79% humidity at the time of the visit.
EXTERIOR WINDOWS	8A	Exterior storefront is in overall good condition, but is need of a good cleaning.
	8B	While storefront is in overall good condition, it was installed poorly. It is suspected that the storefront on grade was installed without a sill pan, making it much easier for moisture to infiltrate the building. As previously noted, it appears that prior leaks had been present and caulking was installed to combat this moisture infiltration.
	8C	The storefront was not installed correctly; there are many areas where the wood blocking is visible from the interior and / or exterior side of the wall.
PRIMARY ENTRY DOORS	9	Entrance doors at the southern facade appear to be in good condition; display items should be relocated so browsing patrons do not trigger the door actuator.
SECONDARY DOORS	10A	Concrete stoop at multipurpose room door should connect to the adjacent sidewalk in order to comply with building code requirements. The exterior doors appear to be in average condition. Reference multipurpose room interior facility assessment comments for additional details.
	10B	Staff workroom door appears to be in average condition, but the egress door does not have adequate clearances required by building code. The path of travel is impeded by the restroom door. Reference staff restroom interior facility assessment comments for additional details.
DOOR HARDWARE	11	Overall, door hardware appears to be in good condition. The staff workroom egress door should have panic hardware installed.
ROOFING		
ROOFING MATERIAL	12	Standing seam metal roof appears to be in good condition; there is no roof access to assess further. Facilities had no leaks to report.
GUTTERS & DOWNSPOUTS	13A	Gutters and downspouts with splash blocks are only provided near the building's entrance and appear to be in good condition.
	13B	There is a significant amount of staining on the northeast and northwest walls; this staining suggests that a significant amount of rainwater is discharged onto the ground from the roof with significant "back splash". It appears a stone drip line was installed to attempt to help mitigate this and provide drainage but likely with minimal benefit. This performance/behavior should be observed during a heavy rain for a better understanding of what the drainage pattern really is. The efflorescence is worst where the overhang is least at the curved walls, suggesting that much of the issue is roof runoff and waterfall or splash-back effects. A gutter and downspout may help mitigate future efflorescence, but the seemingly deficient wall is likely the primary cause.
FASCIA	14	Metal fascia appears to be in good condition.



7 The crawlspace vents appear undersized and perhaps have airflow restrictions



8A Storefront is in need of a good cleaning



8C Wood blocking is visible at storefront jamba



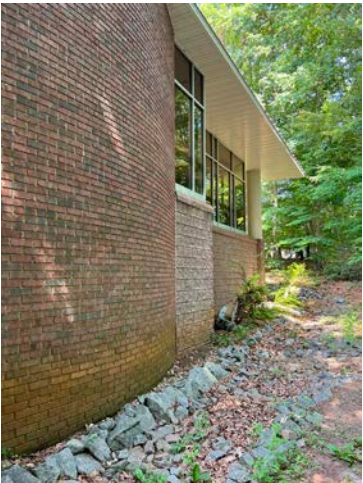
9 Primary entrance doors are in good condition



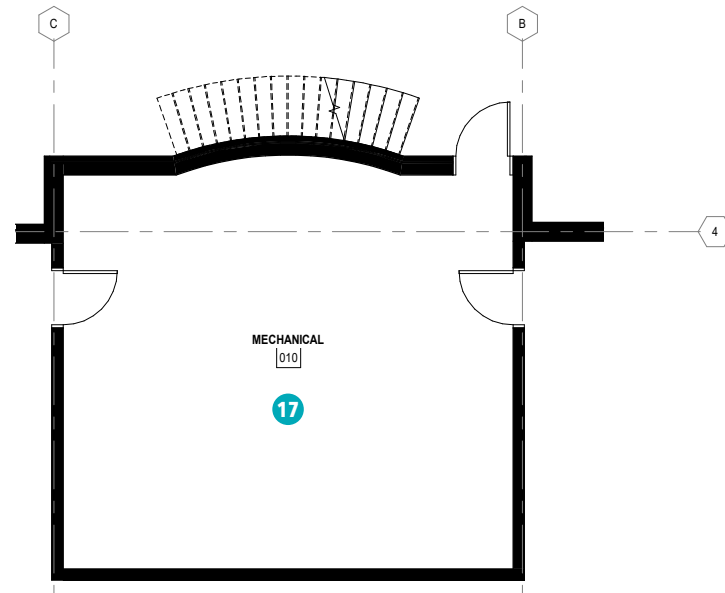
10B Staff workroom door does not have adequate clearance; path of travel is impeded by the restroom door



12 13A Standing seam metal roof appears to be in good condition; gutters and downspouts are provided near the entry



13B Staining on existing brick suggests that rainwater splashes back onto the building



 **EXISTING MECHANICAL FLOOR PLAN**
3/32" = 1'-0"

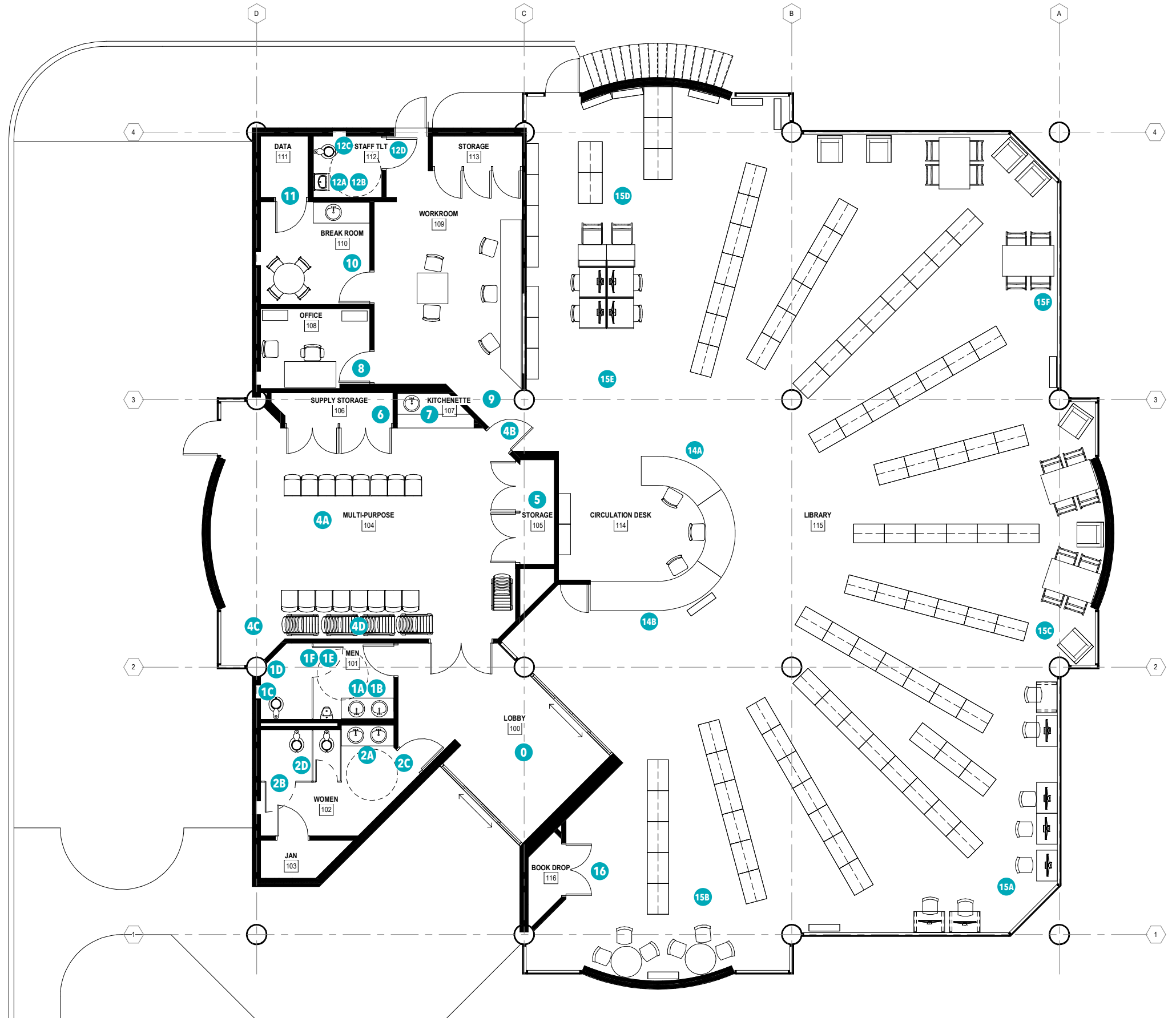
BUILDING - INTERIOR

OVERVIEW

MPS toured the existing library with a member of the Lincoln County Facilities Department in June, 2022. The following notes are general observations made about the existing library:

- The circulation desk occupies a large footprint
- The shelving occupies a large amount of floor area and creates problematic sight lines
- The library has inadequate designated storage space throughout the entire facility
- The library does not have enough power and data for library patrons
- The multi-purpose room seems undersized
- The library lacks group study space
- The restrooms are not ADA compliant
- The children's area is not distinguished from the rest of the library

The numbers on the adjacent plans coordinate with the notes and photos on the spreadsheet on the following pages.



 **EXISTING MAIN LEVEL FLOOR PLAN**
3/32" = 1'-0"

BUILDING - INTERIOR

PROGRAMMING		
100 LOBBY	0	Lobby 100 is the primary entrance to the library. The doors leading into the library are left in the “open” position during the day, and lets conditioned air out of the building. The exterior doors open and close more often than needed, as the sensor picks up patrons moving about the lobby area.
101 MEN	1A	The men’s restroom is not ADA compliant. There are exposed pipes underneath the sink that need to be covered.
	1B	Building code requires a 30” x 48” clear space at each sink location; the clear space is interrupted by the door leading into the men’s restroom.
	1C	The glass block wall prevents a vertical grab bar from being installed at the ADA stall.
	1D	The round column enclosure interrupts the 60” x 60” toilet stall dimensions required by building code.
	1E	If the baby changing station is in use, it is not possible to access the toilet stall.
	1F	The door to the ADA stall should have a self-closing door to meet building code and ADA requirements.
102 WOMEN	2A	The women’s restroom is not ADA compliant. There are exposed pipes underneath the sink that need to be covered.
	2B	The door to the ADA stall should have a self-closing door to meet building code and ADA requirements.
	2C	The door from Lobby 100 to Women 102 does not have adequate clearance required by building code on the push-side of the door.
	2D	No vertical grab bar is installed at the ADA stall.
103 JANITOR	3	This room was not observed.
104 MULTI-PURPOSE	4A	The multi-purpose room appears to be undersized, as the library has no designated children’s program room. Carpet is showing signs of wear, and is rippling
	4B	The door near the staff work room and circulation desk does not have adequate door clearance on the pull side.
	4C	Evidence of water damage is present at the tackable wall covering, soffit, and ceiling tiles. Facilities mentioned that the dormers that have since been demolished used to leak.
	4D	Tackable wall covering adhesive has released, and the wall covering is now bubbled and pulling away from the wall.
105 STORAGE	5	Multipurpose room storage is at capacity.
106 SUPPLY STORAGE	6	Multipurpose room storage is at capacity.
107 KITCHENETTE	7	Kitchenette is at capacity; accordion partition appears cumbersome. Carpet at a wet location is not ideal.



0 Interior doors are left open, and let conditioned air out of the building; the exterior doors open and close unnecessarily from patrons moving about the lobby area



1A There are exposed pipes below the sink
1B Clear space required at sink is interrupted by the restroom door



1C No vertical grab bar
1D Inadequate ADA toilet partition dimensions



2A Exposed pipes at sink
2C Inadequate door clearance



2B The door to the ADA stall should have a self-closing door



2D No vertical grab bar



4A Multipurpose room carpet is rippling
7 Accordion partition at kitchenette appears cumbersome



4C Water damage at soffit



4D Wall cover is bubbling and pulling away from the wall

BUILDING - INTERIOR

108 OFFICE	8	Office is undersized and does not have adequate storage solutions; current furniture arrangement impedes code required door clearance.
109 WORKROOM	9	Workroom is at capacity and is lacking adequate storage solutions.
110 BREAK ROOM	10	The break room is currently being used as overflow storage space. The kitchenette area is at capacity and appears to be undersized.
111 DATA	11	Data closet; door should have a louver to aid in the cooling of the data closet.
112 STAFF TOILET	12A	Staff toilet is not ADA compliant. Exposed pipes below the sink need to be covered.
	12B	The restroom is not wide enough. The toilet does not have adequate clearances; the sink is too close and interrupts the clear space requirement.
	12C	The glass block wall prevents a vertical grab bar from being installed.
	12D	The restroom door impedes the path of egress at the workroom door. The door should have a closure to keep the path of travel clear, or the door should be placed to swing into the restroom.
113 STORAGE	13	The storage room is at capacity.
114 CIRCULATION DESK	14A	The circulation desk takes up a large footprint. The ADA transaction counter is accessible by a side approach. This station should be kept clear of book carts to allow for adequate clearances.
	14B	The book return and self check area is accessible by a side approach. The display table should be relocated in order to allow for adequate clearances.
115 LIBRARY	15A	The children's area computer stations are too tall for younger children.
	15B	The children's area is not visually identifiable from the rest of the library space; the only indicator provided is a small sign hung from the ceiling.
	15C	The radial shelving layout throughout the library is very inefficient and leaves little space for library seating. The seating areas have limited power outlets.
	15D	Adult computer zone has good sight lines to the circulation desk and workroom.
	15E	Print release station has good sight lines to the circulation desk and workroom.
	15F	Power at the base of the windows is not working.
	15G	Direct / indirect linear lighting throws a lot of light up towards the ceiling; lighting levels towards the bottom of the stacks are inadequate, especially at night.



8 Current furniture arrangement impedes code required door clearance



9 Workroom is at capacity and is lacking adequate storage solutions



10 The break room is currently being used as overflow storage space; the kitchenette area is at capacity and appears to be undersized



12 The staff toilet does is not ADA compliant



14A Book carts should be parked further from the ADA transaction area to allow for adequate clearances



14B The display table should be relocated in order to allow for adequate clearances at the book drop and self check area



15A Children's computer stations are too tall for younger children



15B Children's area signage; shelving layout is inefficient



15C Inefficient shelving layout leaves little space for library seating; seating areas have limited power outlets



15D Adult computer zone has good sight lines to the circulation desk and workroom



15E Print release station has good sight lines to the circulation desk and workroom.

15G Direct / indirect linear lights throw too much light towards the ceiling, and not enough down towards the stacks



16 Book drop access doors; this room was not observed

BUILDING - INTERIOR

116 BOOK DROP	16	This room was not observed.
010 MECHANICAL	17	The mechanical room appears to be unconditioned space. At the time of visit, the mechanical room temperature was observed to be 75 degrees at 79% humidity at the time of the visit. Upon reviewing the existing drawings, it is suspected that no vapor barrier was installed to keep moisture from transferring from the mechanical room and crawlspace up to the library space above. Concrete floor shows evidence of prior flooding.
FLOORING		
BROADLOOM CARPET	18	Broadloom carpet paired with rubber floor base is the primary floor finish throughout the library. Seams are visible in some areas, and is starting to bunch in high traffic area.
CERAMIC TILE	19	Ceramic tile and wall base is installed in the public and staff restrooms. The grout and tile needs steam cleaned. The tile is in average condition.
SLATE TILE	20	Slate tile is installed in the lobby and is paired with a rubber wall base. The grout and tile needs steam cleaned. The tile is in good condition.
VCT TILE	21	VCT is installed in the break room and data closet. VCT is in average condition.
CEILINGS		
ACT	22	Acoustic ceiling tiles and grid are the primary ceiling finish throughout the building; the ACT ceilings are in average condition. Some of the tiles and grids are dirty and have rough cuts to fit into custom shaped grids.
GYPSUM BOARD	23	Gypsum board ceilings located in the janitor room, multi-purpose storage rooms, kitchenette, data closet, book drop, and cupola areas are in average condition, unless noted otherwise in the assessment.
SUSPENDED WOOD	24	Suspended wood ceiling at the circulation desk is in good condition.
WALLS		
CERAMIC TILE	25	Ceramic tile wainscot is installed in the public and staff restrooms along the wet walls. The grout and tile needs steam cleaned. The tile is in average condition.
PAINT	26	Paint is in average condition throughout the building
SLATE	27	Slate accent wall feature is installed at the lobby, along the wall where the water cooler is installed. The grout and tile needs steam cleaned. The tile is in good condition.
TACKABLE WALL COVERING	28	Tackable wall covering is located in the multi-purpose room along the southeast wall. Tackable wall covering adhesive has released, and the wall covering is now bubbled and pulling away from the wall.
VINYL WALL COVERING	29	Tackable wall covering is located in the lobby, multi-purpose room, work area, office, break room, kitchenette, circulation desk, and staff area. Wall covering at the work room is damaged. Other areas appear to be in average condition.
DOORS		
DOORS	30	Interior doors are pre-finished solid core wood doors, and are in good condition.
DOOR FRAMES	31	Interior door frames are painted hollow metal frames, and are in good condition.

DOOR HARDWARE	32	Door hardware appears to be in good condition. Programming narrative to provide specific notes regarding hardware suggestions or requirements.
SIGNAGE		
DIRECTIONAL	33	Collection signage is hung from the ceiling. No other directional signage was observed in the building.
ROOM SIGNAGE	34	Other than at the restrooms, no room signage was observed in the building.
SPECIALTY		
BOOK DROPS	35	Book drops appear to be in good condition.
RFID GATES	36	RFID gates at each lobby location appear to be in good condition.
SELF CHECKS	37	Self check appears to be in good condition.

BUILDING - SYSTEMS

The following report was prepared by Watlington Engineering, and provides observations of the major mechanical, electrical, plumbing, and life safety systems. Refer to the adjacent cover letter for more information.

<div><div>Watlington Engineering</div><div>Complete Communities for All</div></div>	<div><div>Florence S. Shanklin Library Facility Condition Assessment</div><div>June, 23, 2022</div><div><div>Phone: (704) 957-9686</div><div>Victoria.Watlington@WatlingtonEngineering.com</div><div>www.WatlingtonEngineering.com</div></div></div>
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7837 Fairfield Forest Rd, Denver, NC

Victoria Watlington



June 23, 2022

mcmillan pazdan smith architecture
1422 S Tryon St Suite 700
Charlotte, NC 28203
Attn: Elisa Walker

Dear Elisa:

Watlington Engineering, PLLC, has completed a Facility Condition Assessment and Report on the Frances S. Shanklin Library, located in Lincolnton, NC, for Mcmillan Pazdan Smith Architecture. This survey consists of a photographic survey and a review of the physical conditions of the mechanical and electrical components accessible or visible during the site visit; and observations regarding the quality of construction.

The site inspection took place on June 16, 2022, and the walk-through incorporated a review of site improvements, fire and life safety systems, plumbing, HVAC, electrical systems, and interior spaces as observable.

The sole purpose of this report is to observe the major MEPFP system components of the property and evaluate their condition. It is not the intent of this office to assume any part of the design responsibility but rather to report our findings to the client to whom this report is addressed.

Please do not hesitate to contact the undersigned with any questions.

Sincerely,

Victoria Watlington, PE, PMP

Watlington Engineering, PLLC
Principal

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MEP REPORT SUMMARY

The Frances S. Shanklin Lincoln County Library is a 6,100 square foot facility in Denver, NC. It is in generally fair condition. The main capital improvement priorities are to replace the boiler and air conditioning units, with a total current replacement value totaling approximately \$35,000.

See Appendix A for equipment descriptions and condition assessment ratings.

DESCRIPTION

The Frances S. Shanklin Lincoln County Library is a 6,100 square foot facility in Lincolnton, NC. It consists of the main library, office, lounge, and community meeting spaces. This building has as-built drawings from 2001.

EVALUATION METHOD

Visual observation was the primary method used to evaluate the building system conditions and the conditions of its systems during the physical survey conducted on June 16, 2022. Where 100% inspection was not physically possible, a sample technique was used in which a selected number of typical items were investigated, and the engineering opinion as to the overall conditions was derived from the selected samples. Overall conditions assessed:

- 1. Mechanical facilities for general conformance with accepted practices, evidence of leakage and/or corrosion, inadequate access for maintenance, general adequacy of capacity, controls and other operating considerations.
- 2. Electrical facilities for adequate capacity of panels and conductors for existing and reasonable future additions, weather proofing of exterior components, ground fault protection, fire alarm, and exterior lighting.
- 3. Plumbing facilities for compliance with building standards and accessibility.
- 4. A mechanical system load and an electrical load analysis will be performed, based on industry square foot averages, and the systems will be analyzed to determine their adequacy in accordance with industry standards.

Ratings were assigned based on the following scale:

- 1. Excellent
- 2. Good
- 3. Fair
- 4. Poor
- 5. Unsatisfactory

MECHANICAL

HVAC

The 6,100 sq ft building uses three individual split systems to condition the air in the space, achieving a cooling density of 338 square feet/ton. The three condensers (6-ton each) were installed in 2002, for a total of 18 tons capacity. They are in fair condition; however, with a life expectancy of 15-18 years, they are past their useful service life. There is evidence of previous flooding in mechanical room, which, per staff, has been repaired. The refrigerant lines need insulation replacement as well.

For heating, the building uses a 22-ton hot water boiler, which is also at the end of its useful life, and shows signs of wear and tear (rusting).



Split System 1



Split System 2



Figure 2: Hot Water Boiler



Split System 3



Refrigeration Lines

Figure 1: Condensing Units



Figure 3: Air Handlers

Thermostat



Figure 4: Thermostats

Ductwork

All supply and return air ductwork off the units are insulated sheet metal ductwork with insulated flex duct coming off the branches to the supply diffusers and return grilles..



Figure 5: Basement Ductwork

Diffusers (Supply, Return, Exhaust)

Diffusers meet current standards, varying depending on area. All diffusers are metal, off-white, or painted to match the service area walls. See Figure 4 below.



Figure 6: Diffusers (Typical)

ELECTRICAL

ELECTRICAL SERVICE AND METERING

The existing electrical service is fed from a pole mounted transformer located on Fairfield Forest Road. The secondaries from the transformer are fed underground to a building mount meter found on the exterior of the building. Coordination with the existing utility company will be critical for any expansion to determine if the existing utility needs to be replaced or an additional service will need to be provided to the site.



Figure 7: Electrical Utility Equipment

DISTRIBUTION

Panel M is a 300A 208Y/120V, 3-Phase, 4-wire main distribution board feeding all other branch panels in the building. The panel is located on the lower level/ crawl space for the building. Panel M main breaker is service entrance rated and the panel has an external Surge Protection Device located adjacent to the panel. The existing main panel will require metering to determine the existing load on the equipment and if the Panel would need to be replaced in its entirety.



Figure 8: Panel M

Panel R is a 42-pole 100A, 208Y/120V, 3-Phase, 4-wire branch panel manufactured by Square D. The panel is located in the electrical/ utility close on the main floor. All existing breakers are in the “on” position with no spares available. This panel would not be physically capable of supporting any additional circuits - all existing breakers currently feed existing loads.



Figure 9: Panel R

Panel L is a 24-pole 100A, 208Y/120V, 3-Phase, 4-wire branch panel manufactured by Square D. The panel is located in the electrical/ utility closet on the main entry level. All existing breakers are in the “on” position with no spares available. This panel would not be physically capable of supporting any additional circuits - all existing breakers currently feed existing loads.



Figure 10: Panel L

Additional notes from the maintenance staff are captured below:

- Floor boxes were added at the last renovation, and now the wall power on the exterior walls does not work.

- Wiring issues at column wraps
- The building's wiring is a mess - it's not grounded well.
- There's exposed wiring in the lower level mechanical room - wiring leaves the conduit to run unprotected through the exterior wall

LIGHTING

The existing interior lighting in the facility consisted of the original fixture types specified on the 2001 drawings. The Lincoln County Maintenance team has begun the process of re-lamping fixtures - removing the standard tubular fluorescent lamps and replacing them with tubular LED equivalent lamps. Though the existing fixtures are in working conditions, it would not be recommended to utilize the existing fixture types in any new work.

The existing interior lighting control utilized localized switching and did not appear to have automatic off components.

The exterior building mounted fixtures consist of the original fixture types specified on the 2001 drawings. The Lincoln County Maintenance team did not mention any lamping transition for exterior fixtures.

The existing building mounted exterior fixtures are controlled by a photocell with a lighting contactor.

The existing parking lot lighting consists of various shoe box pole mounted fixtures. It is unclear who manages the site lighting and how it is controlled.

FIRE PROTECTION

SPRINKLERS AND STANDPIPES

There is no sprinkler system for the building.

ALARM SYSTEMS

There is an existing fire alarm system present. The control panel is located in the electrical/utility closet on the main entry level. Shop drawings and coordination with the manufacturer/ provider of the existing system will be required to determine existing systems limits and expandability options.



Figure 11: Fire Alarm Panel

SECURITY

An existing security system appears to be present. The touch pad is located at the rear entrance of the building.

COMMUNICATION SYSTEMS

The existing communications entry, equipment rack(s) and patch panels are located in the electrical/utility closet on the main entry level. There does not appear to be clear labeling or cable management provided for the racking system.

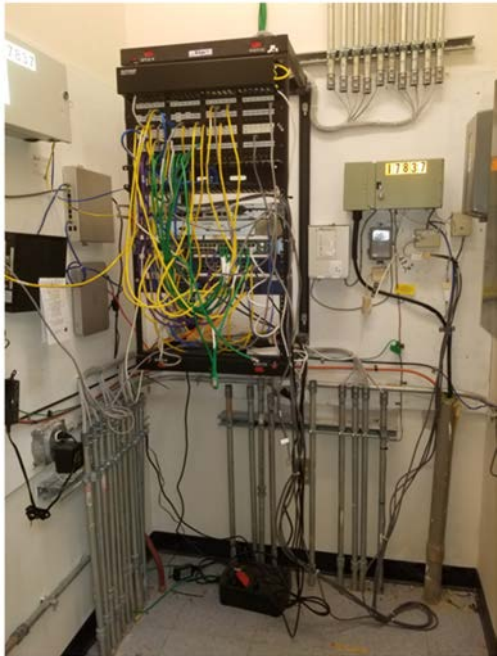


Figure 12: Communication Equipment

PLUMBING

DOMESTIC WATER

The existing plumbing systems are located in the break room, bathrooms, kitchen, and janitor’s closet. It consists of four toilets, one urinal, one mop sink, one floor drain, five lavatories, and two kitchen sinks. As the library has an A-3 occupancy classification, restroom lavatory faucets are required to have metering capability, per 2018 NCPC 604.4.1. However, any updates to plumbing fixtures would compel the library to come up to current accessibility codes (2018 NCBC section 11) for ADA clearances and/or protection of piping in bathrooms.



Figure 13: Plumbing Fixtures



Figure 14: Water Heater



Figure 15: Water Lines

SANITARY

Sanitary traps and vents are in good condition, while the sump pump is in fair condition, though nearing the end of life (per maintenance, the sump pump was installed at the high side instead of the low side). In the restrooms, ADA required protection is in place.



Figure 16: Sump Pump



Figure 17: Sanitary Waste Line





Figure 18: P-Traps

GAS

There are no gas-fueled systems in the building.

OPINION OF PROBABLE COSTS

In providing opinions of probable cost, the Client understands that the Design Professional has no control over costs or price of labor, equipment or materials, and the Contractor's method of pricing, and that the opinions of probable cost provided herein are to be made on the basis of the Design Professional's qualifications and experience. The Design Professional makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs. Maintenance has requested Trane HVAC units, so these have been specified specifically below:

Sump Pump Replacement: \$500

Boiler Replacement: \$10,000

Trane TWA07243DAA**AS/ TWE07243BAA**A 6 Ton Split System Heat Pump: \$ 8.470 x 3 = \$25,410

Total = \$35,910

ADDITION/RENOVATION REQUIREMENTS CAPACITY

The total cooling capacity provides a rate of 338 sqft/ton vs the industry average of 250 sqft/ton for buildings of similar use. Any additions will require additional cooling capacity.

The existing boiler provides heat at a rate of 277 sqft/ton vs the industry average of 250 sqft/ton for buildings of similar use. Any additions may require additional heating capacity.

Existing water load totals 71 fixture units. Therefore, remaining capacity could accommodate 59 additional fixture units, assuming main line is sized for existing equipment meets code (2").

Existing hot water load totals 16 fixture units. Depending on the number of additional fixtures being added, the existing water heater may need to be replaced or an additional one added.

Existing sanitary waste load totals 41 fixture units, with plenty of capacity for additional plumbing fixtures.

The existing electrical service will require metering to determine the existing load on the building. It is probable that the existing service is right sized for the existing building and therefore does not have the capacity to accommodate additional square footage.

It is recommended to circuit trace all existing branch circuits in the facility - it has been mentioned there are areas where devices do not work and are currently not labeled with circuit information.

All lighting shall be LED fixtures - flat lensed troffers shall be coordinated with Lincoln County Maintenance team to ensure the product being provided is equivalent in look to the current replacement flat lensed fixture being utilized by the county.

Cable management for the low voltage equipment is recommended.

APPENDIX A: MEP Facility Condition Assessment Ratings

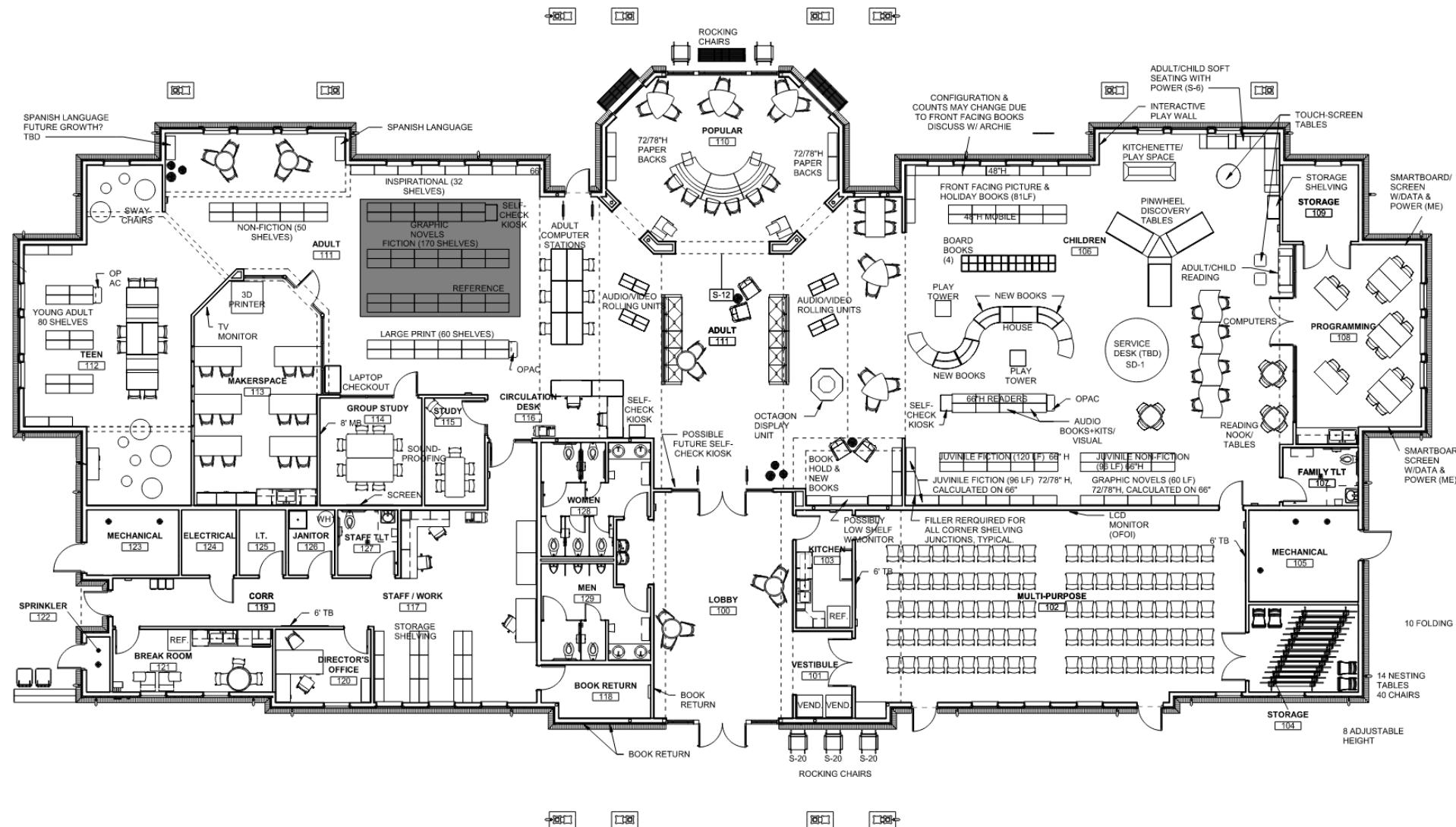
System	Equipment Description (Equipment/Model#)	Years of Service	Useful Life (Years)	Rating	Comments
HVAC	Trane Air Conditioner Condenser Model #: 2TTA0072A3000AA Serial #: 23753J32F	20	15-18	3	Past useful life
HVAC	Trane Air Conditioner Condenser Model #: 2TTA0072A3000AA Serial #: 23753GL2F	20	15-18	3	Past useful life
HVAC	Trane Air Conditioner Condenser Model #: 2TTA0072A3000AA Serial #: 237527N2F	20	15-18	3	Past useful life
HVAC	Raypak Hot Water Boiler Model #: H3-0330A Serial #: 1311367939	9	10-15	3	Nearing end of life
HVAC	Trane Air Handling Unit Model #: TWE09DA300DA Serial #: 2402T025H	20	15-18	2	Past useful life
HVAC	Trane Air Handling Unit Model #: TWE09DA300DA Serial #: 2402K4W5H	20	15-18	2	Past useful life
HVAC	Trane Air Handling Unit Model #: TWE09DA300DA Serial #: unknown	20	15-18	2	Past useful life
Plumbing	Liberty Pumps Model #: 253 Serial #: B59653197	9	7-10	3	Nearing end of life
HVAC	Thermostats	unknown	20	1	
HVAC	Duct System	unknown	20-25	2	
HVAC	Diffusers	unknown	20	3	
Domestic Water	A.O. Smith Water Heater Model #: E6-19C15SV Serial #: 1918114785830	3	12	2	
Domestic Water	Lavatory Fixtures	unknown	20	1	
DWV	Traps	unknown	30 (PVC)	1	
ELEC	Electrical Panel M SQ D NQOD Cat. #:12173894070010001	Original to Building	30	2	Located in crawl space and exposed to elements - not enough physical space to support addition
ELEC	Electrical Panel R SQ D NQOD Cat. #:12173894070010001	Original to Building	30	2	Located in crawl space and exposed to elements - not

					enough physical space to support addition
ELEC	Electrical Panel L SQ D NQOD Cat. #:12173894070010001	Original to Building	30	2	No additional physical space within panel to add additional circuits
LTG	Light Fixtures	Original to Building	-	2	Energy Efficient Lighting replacement solutions recommended
FIRE	Simplex Grinell 4010 System	Original to Building	-	2	

WEST LINCOLN LIBRARY

OVERVIEW

A full assessment of the new 12,300 SF West Lincoln Library was not included in the scope of this report, but it should be acknowledged in order to provide a comprehensive analysis of library spaces within Lincoln County.



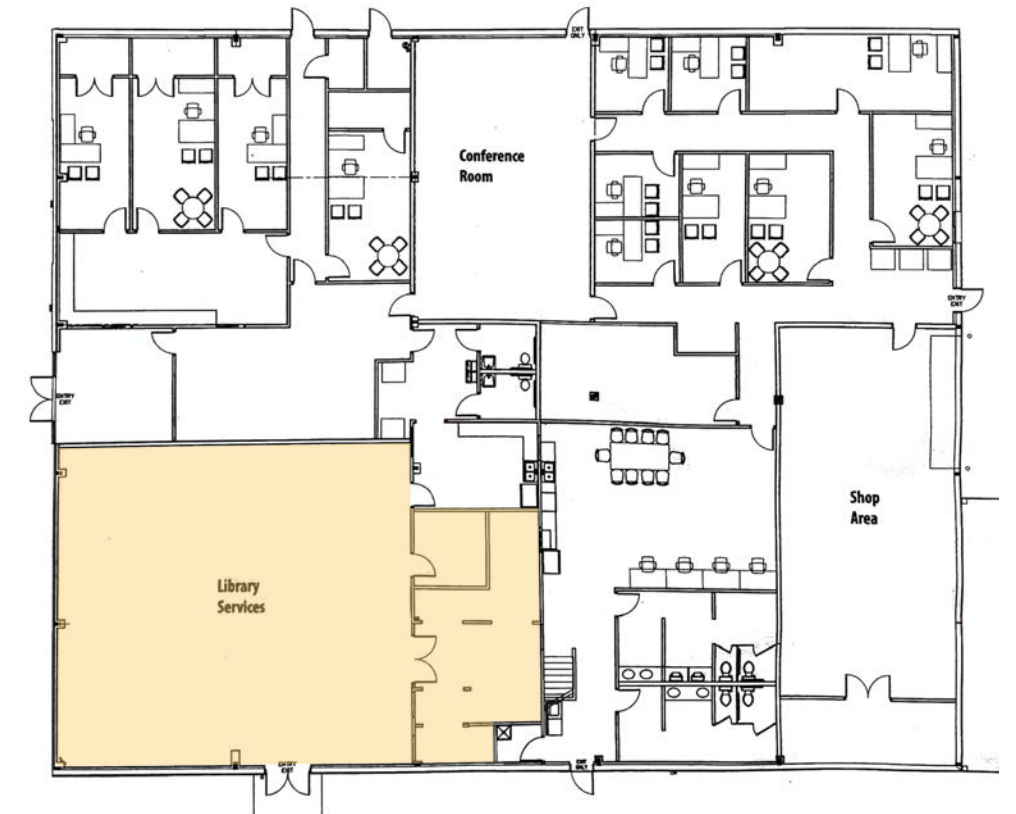
WEST LINCOLN LIBRARY FLOOR PLAN

not to scale

TECHNICAL SERVICES

OVERVIEW

The library's technical services staff are currently occupying approximately 2,500 SF in the Lincoln County Field Operations Center. A full assessment of this space was not included in the scope of this report, but it should be acknowledged in order to provide a comprehensive analysis of library spaces within Lincoln County.



TECHNICAL SERVICES FLOOR PLAN

not to scale

LIBRARY PROGRAM AND COLLECTION ANALYSIS

LIBRARY PROGRAM AND COLLECTION ANALYSIS

OVERVIEW

McMillan Pazdan Smith Architecture hosted a series of focus group meetings with the library staff and board members, library patrons, and community members. These conversations are essential for the design team to determine the types and quantities of spaces that should be included in the building program for each library location. Meeting minutes from these conversations can be found in section 7 of this document.

The following building programs and collection summaries represent the ideal quantities and types of spaces needed at the Jonas and Shanklin libraries in order to best accommodate the needs of the residents of Lincoln County. In both library locations, the building program square footage requirements exceed the existing library footprint and potential expansion areas. An analysis of these overages can be found on page 56.

JONAS LIBRARY BUILDING PROGRAM											
Area/Space A	Area								Notes		
	Quantity B	C	D	E		F	G	H		I	J Total Patron Seats
		# of Occupants	Length	X	ANSF per Person	Width	ANSF per item	Total ANSF		Totals	
BUSINESS CENTER									589		
Business Center	1	0	10			12	120	120		Patron Print / Copy / Scan / Fax area	
Business Center - Office	1	0	10			12	120	120		Office space for library partners	

Typical program spreadsheet for reference, shown in its entirety on the following pages

CHARLES R. JONAS LIBRARY

BUILDING PROGRAM

OVERVIEW

The following pages provide a detailed enumeration of the programmatic elements for the renovated Charles R. Jonas Library. This program quantifies the square-footage requirements for the Lincoln County Library Administration staff, as well as the square-footage requirements for library and support spaces. The building program assumes that the Technical Services staff will relocate to the Jonas Library.

A description and explanation of the programming spreadsheet can be referenced below.

Column "A" organizes the spaces and areas within the library program.

Column "B" denotes the quantity of each program area or space (column "A") and is multiplied by either columns "C" and "E", or columns "D" and "F" to determine the 'adjusted net square feet' (ANSF), shown item in columns "G" and "H" for each program area or space.

- Columns "C" and "E" are used to determine the ANSF when the library desires a specified quantity of occupants per space (i.e. when the library desires a 200 person meeting room). Column "C" lists the desired number of occupants, and column "E" lists the total area in square feet per person that is required by building code.
- Columns "D" and "F" are used when the size of the program area or space is determined by an assumed length and width required to accommodate the programmatic needs determined in the focus group and community input meetings.
- Column "G" is the calculated ANSF per single program item. Column "H" multiplies column "G" by the quantity shown in column "B" to provide a total ANSF.
- Adjusted net square feet (ANSF) represents the net square-feet for an item and adjusted for clearances required for its actual use. For example, and 4'-0" x 6'-0" table has a net area of 24 square-feet, but is adjusted in the program to a 10'-0" x 10'-0" 100 square-foot area to allow room for patrons to circulate around the table, and to be able to move the chairs surrounding it.
- The total ANSF is calculated at the bottom of column "I". This total ANSF does not account for the non-programmatic spaces such as circulation, mechanical rooms, wall thicknesses, public restrooms, janitorial/custodial rooms, etc.

Column "J" totals the number of public seats provided in the library.

At the bottom of the spreadsheet, the ANSF is totaled for each project phase, and is multiplied by the net to gross multiplier to calculate the build's total anticipated square-footage. This net to gross multiplier accounts for wall thicknesses, public restrooms, janitorial/custodial rooms, etc.

JONAS LIBRARY BUILDING PROGRAM

Area										Total Patron Seats	Notes
Area/Space	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF	Totals			
		OR	X	OR							
LINCOLN COUNTY LIBRARY SYSTEM ADMINISTRATION											
LIBRARY ADMIN AND SERVICES	1,541										
Offices	4										
Library Director	1		16		21	336	336				
Library Assistant Director	1		12		15	180	180				
Library Administrative Assistant	1		15		15	225	225				
Digital Services Librarian	1		10		12	120	120				
Workstations	1										
Admin Assist. Workstation	1		8		6	48	48				
Conference Room	1	10		20		200	200				
Filing Cabinet	5		2		3	6	30				
Filing Cabinet - Lateral	4		3		5	15	60				
Lounge Seating	4		5		5	25	100				
Staff Copier/Printer	1		5		10	50	50				
Storage	1		10		12	120	120		supplies, promotional materials		
Work Counter w/ sink	1		6		12	72	72		provide counterspace for paper cutter		

JONAS LIBRARY											
PUBLIC SPACE											
ENTRANCE											
746											
Airlock	2		8		12	96	192				
Lobby	2		12		12	144	288				
RFID Security Gates	2		6		6	36	72				
Self Service Book Return	2		4		4	16	32				
Self Service Check-out Kiosk	3		6		9	54	162				
BUSINESS CENTER											
589											
Business Center	1	0	10		12	120	120				
Business Center - Office	1	0	10		12	120	120				
Computers	12	0	4		5	20	240		12		
Laptop Kiosk	1	0	10		10	100	100				
Pay Station	1	0	3		3	9	9				
CHILDREN'S AREA											
4,633											
Children's Area Entry	1		8		12	96	96				
Activity Center	1	20			20		400	400	20		
Charging Stations	2		3		3	9	18				
Interactive Learning Stations	10		4		4	16	160		10		
Juvenile Computers	2		6		5	30	60		2		
Lounge Seats	10		5		5	25	250		10		
OPACs	1		3		3	9	9				
Reading Nook	1	4			20		80	80	4		
Reader Tables (2-4 person)	8		8		10	80	640		24		
Self Service Book Return	1		4		4	16	16				
Self Service Check-out Kiosk	1		6		9	54	54				

JONAS LIBRARY BUILDING PROGRAM													
Area/Space	Area								Total Patron Seats	Notes			
	Quantity	# of Occupants	Length	X	ANSF per Person	Width	ANSF per item	Total ANSF			Totals		
												OR	OR
Family Restroom	1		8			8	64	64					
Nursing Room	1		8			10	80	80		rocking chair and end table, changing station, soothing music			
Sensory Room	1		15			18	270	270		Jellyfish chair, large bubble tubes, light up floor pads. Platform seating area			
Children's Help Desk													
Help Desk Workstation	1		10			8	80	80		consolidated help desk for youth services			
Book Carts	4		2			4	8	32					
Print / Copy / Scan	1		6			6	36	36		staff use			
Queuing Space	4		5			6	30	120		space for 2 caregivers and 2 children			
Shelving	4		6			2	12	48		assumed 90" single face shelving			
Easy + Juvenile Collection	2,120									(linked from collection & shelving summary)			
CHILDREN'S PROGRAM ROOM	1,036												
Program Room / Story Time	1	100	0		7	0	700	700	100	smart board/tv, gaming projector			
Work Counter w/ Sink	1		6			12	72	72		lockable upper and lower cabinets			
Storage - Supplies	1		10			12	120	120					
Storage - Table and Chair Storage	1		12			12	144	144		All furniture for program room should be able to fit in this space			
COLLECTIONS	3,296												
Adult Collection	3,260									(linked from collection & shelving summary)			
OPACs	2		3			6	18	36		Stand up station; 1 for fiction, 1 for non-fic			
FOOD SERVICE	140												
Table - 2 person bar height	2		3			6	18	36	4				
Vending Machines	2		3			4	12	24					
Vending Machine - Storage	1		8			10	80	80					
GENEALOGY	2,568												
Computers	3		4			5	20	60	3				
Exhibit Space	1		3			10	30	30		lockable exhibit space with lockable cabinets			
Filing Cabinet - Flat Map	2		4			6	24	48					
Filing Cabinet - Vertical	4		2			3	6	24					
Digitization Area	1		8			8	64	64		scanner, computer, book scanner			
Microfilm Cabinet	4		2			3	6	24					
Microfilm Reader	2		3			3	9	18					
Table - 4 person	6		10			10	100	600	24				
Genealogy Desk													
Help Desk Workstation	1		8			8	64	64					
Print / Copy / Scan	1		6			6	36	36		staff use			
Local History Collection	1,600									(linked from collection & shelving summary)			

JONAS LIBRARY BUILDING PROGRAM										
Area/Space	Area								Total Patron Seats	Notes
	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF	Totals		
CREATION STUDIOS	1,700									
Creation Studio - Maker Space							926		messy programs (i.e. painting, sewing, crafting), a/v recording for podcasts with green screen, computers with adobe software	
3D printer stations - mobile	3		3		3	9	27			
Charlie Cart Station	1		8		8	64	64	1		
CNC Booth	1		10		12	120	120		Assumes desktop CNC router; provide appropriate dust control system	
Dream Box Station	2		6		9	54	108	2		
Heat Press Station	1		3		3	9	9	1		
Laser Cutter Station	1		5		6	30	30	1	provide adequate ventilation	
Pottery Kiln	1		5		5	25	25			
Print / Copy / Scan	1		6		6	36	36			
Shelving - Utility	4		3		5	15	60		storage for 6 sewing machines, 2 embroidery machines, 3 cricuts, and supplies	
Work Stations - patrons	1	25		15		375	375	25		
Work Counter w/ Sink	1		6		12	72	72		upper and lower lockable cabinets	
Creation Studio - Storage	1		12		15	180	180	180	42" door; storage for resin, fabric bolts, sewing supplies, sublimation materials, laser cutter materials, PPE, craft supplies; provide room for charlie cart demo kitchen	
Digital Media Suite							594			
Digital Media Studio	1		15		15	225	225	4	VR Gaming / Experience Rooms	
Processing Room	1		15		15	225	225	4	3d scanner, 8mm wolverine converter, computer with editing software, digital converter, work table & headphones	
Recording Room	1		12		12	144	144	2	table, computer, soundboard, microphone, mix table, lockable storage cabinets	
HELP DESK & SUPPORT	994									
Workstations	4									
Help Desk Workstation	3		10		8	80	240		Consolidated help desk for adult / ya / children's	
Help Desk Workstation - SAMS	1		6		6	36	36		Technology public access help workstation	
Book Carts	4		2		4	8	32			
Print / Copy / Scan	1		6		6	36	36		staff use	
Queuing Space	8		5		6	30	240		2 patrons standing at each staff workstation	
Self Service Book Return	1		4		4	16	16			
Storage	1		8		8	64	64			
Quick Access Collections	330									(linked from collection & shelving summary)
MEETING & STUDY ROOMS	4,865									
Group Study Room (4 person)	4	4		30		120	480	16	equip with smart tv	
Group Study Room (8 person)	2	8		30		240	480	16	equip with smart tv	
Large Meeting Room	2	100		15		1,500	3,000	200	dividable meeting room suite	
Large Meeting Room - Kitchenette	1		10		15	150	150		undercounter ice maker and refrigerator	
Large Meeting Room - Furniture & A/V Storage	2		10		12	120	240			
Small Meeting Room	1	25		15	0	375	375	25	homeschooling, scout troop meetings, 4H, etc	
Small Meeting Room - Kitchenette	1		6		10	60	60		undercounter ice maker and refrigerator	
Small Meeting Room - Storage	1		8		10	80	80			

JONAS LIBRARY BUILDING PROGRAM												
Area/Space	Area								Total Patron Seats	Notes		
	Quantity	# of Occupants	Length	E		F	G	H			I	
				OR	X							OR
							ANSF per item	Total ANSF	Totals			
OUTDOOR PROGRAMMING	500										SF omitted from total Building Gross SF	
Fenced in Patio	1	25			20		500	500		25	Accessible to children's area	
SEATING	2,199											
Intergeneration Living Room	1	25			15		375	375		25	Seating area for all ages near children's, adult, and teen area	
Lounge Seating	20		5			5	25	500		20		
Table - 2 person bar height	8		3			6	18	144		16		
Table - 2 person	10		3			6	18	180		20		
Table - 4 person	10		10			10	100	1,000		40		
TEEN AREA	1,039											
Computers - YA	6		4			5	20	120		6	4 computers + 2 BYOTechnology	
Dream Box Station	1		6			9	54	54		1		
Gaming Area	2	4			15		60	120		8		
OPACs	1		3			3	9	9				
Seating - Lounge	6		5			5	25	150		6		
Seating - Table - 2 person	2		3			6	18	36		4	high-top seating	
Seating - Table - 4 person	3		10			10	100	300		12		
Teen Collection	250										(linked from collection & shelving summary)	
SUPPORT SPACE												
CHILDREN'S WORKROOM	901											
Offices	1											
Youth Coordinator	1		12			15	180	180				
Workstations	2											
Youth Services Staff	2		8			8	64	128				
Filing Cabinet - Flat Map Size	2		4			6	24	48				
Large Format Poster Printer	1		4			6	24	24				
Shelving - 90" SF Shelving	3		3			5	15	45				
Shelving - Utility	4		3			5	15	60			located in storage room or workroom	
Work Counter w/ Sink	1		6			12	72	72			upper and lower cabinets storage for cricuts, die cuts, etc; space for laminator	
Work Table	1		8			8	64	64				
Storage - Early Literacy Outreach	1		10			10	100	100				
Storage - Programming Supplies	1		12			15	180	180			programming carts, puppet house. provide utility shelving for stop animation bins, legos, & games. mounted storage for posters, bulletin board supplies, big books	
GENEALOGY WORKROOM	656											
Office	1											
Genealogy Librarian	1		8			8	64	64				
Workstations	2											
Genealogy staff	1		8			8	64	64				
Processing	1		8			8	64	64				
Digitization Area	1		12			15	180	180				
Processing - Donation Sorting & Storage	1		10			12	120	120				
Shelving	4		6			2	12	48			assumed 90" single face shelving	
Storage	1		10			12	120	120				
Work Counter w/ Sink	1		6			10	60	60				

JONAS LIBRARY BUILDING PROGRAM											
Area/Space	Area								Total Patron Seats	Notes	
	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF	Totals			
											OR
OUTREACH WORKROOM	951										
Offices	1										
Outreach Coordinator	1		12		15	180	180				
Workstations	3										
Outreach staff	3		8		8	64	192				
Book Carts	10		2		4	8	80				
Charging Carts	3		4		4	16	48				
Filing Cabinet	4		2		3	6	24				
Shelving - Outreach holds	4		3		3	9	36				
Shelving - Utility - Bookmobile	2		3		5	15	30				
Shelving - Utility - STEAM technology	15		3		5	15	225				
Work Counter w/ Sink	1		6		12	72	72				
Work Table	1		8		8	64	64				
STAFF WORKROOM & SUPPORT	3,951										
Offices	3										
Branch manager	1		12		15	180	180				
Grant / Adult / VR Coordinator	1		10		12	120	120				
Library IT	1		10		12	120	120				
Workstations	6										
Branch staff	4		8		8	64	256				
Drive-through workstation	1		8		8	64	64				
Hoteling workstation	1		8		8	64	64				
AMH Area	1		15		25	375	375				
Book Carts	4		2		4	8	32				
Circ Staff Project Work area	1		10		15	150	150				
Laminator Station	1		10		10	100	100				
Laundry Room	1		10		10	100	100				
MDF/IDF Room	1		10		8	80	80				
Shelving (SF, 90" Unit)	20		3		3	9	180				
Shelving - Utility	5		3		5	15	75				
Shipping & Receiving	1		15		18	270	270				
Staff Copier/Printer	1		5		10	50	50				
Staff Toilet	2		8		8	64	128				
Storage - Custodial / Maintenance	1		12		15	180	180				
Storage - General	1		15		20	300	300				
Storage - Supplies	1		10		12	120	120				
Storage - Technology	1		12		15	180	180				
Trash + Recycling Bins	3		3		3	9	27				
Work Counter w/ Sink	1		6		12	72	72				
Work Table	2		8		8	64	128				
Garage Parking	3		10		20	200	600				
STAFF BREAKROOM	600										
Table - 4 person	3		10		10	100	300				
Kitchenette	1		6		10	60	60				
Lounge seating	4		4		6	24	96				
Staff lockers	12		2		6	12	144				

JONAS LIBRARY BUILDING PROGRAM

JONAS LIBRARY BUILDING PROGRAM													
Area/Space		Area								Total Patron Seats		Notes	
A		B	C	D	E	F	G	H	I	J			
		Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF	Totals				
			OR	X	OR								
TECHNICAL SERVICES WORKROOM		2,245											
Offices		1											
Tech Serv. Coordinator		1		12		15	180	180					
Workstations		4											
Tech Serv. staff		4		8		8	64	256					
Book Carts		15		2		4	8	120					
Filing Cabinet		4		2		3	6	24					
Shelving (SF, 90" Unit)		10		3		3	9	90			single face shelving		
Shelving - Utility - Book sale		15		3		5	15	225					
Shelving - Utility		5		3		5	15	75			located in storage room or workroom		
Work Counter w/ Sink		1		6		12	72	72					
Work Table		2		8		8	64	128					
Storage - Book Donations		1		25		25	625	625					
Storage - Supplies		1		15		15	225	225					
Storage - Surplus		1		15		15	225	225					
							</						

Jonas Library Existing SF	15,000	SF
Jonas Library Building Program Total Gross SF	46,778	SF
Total SF Deficit	(31,778)	SF

CHARLES R. JONAS LIBRARY

COLLECTION SUMMARY

OVERVIEW

Working with the Lincoln County Library staff, MPS developed a collection summary that enumerates and quantifies the collection requirements to be included in the renovation of the Charles R. Jonas library.

COLLECTION SUMMARY

Column “A” lists each individual collection identified by MPS and the library staff that need to be shelved in the renovated library.

Column “B” identifies the collection measured in linear feet at the time of field verification. This number also accounts for the collection’s current circulation rate.

Columns “C” and “D” reflect anticipated collection weeding or anticipated growth of the collection over time.

Column “E” represents an adjustment factor to account for how much empty space should be provided per shelf.

- An adjustment factor of 1.00 assumes that each 3’-0” shelf is at 100% capacity.
- An adjustment factor of 1.20 provides 6” of empty space per 3’-0” library shelf.
- An adjustment factor of 1.50 provides 12” of empty space per 3’-0” library shelf.

Column “F” totals how many linear feet of collection should be shelved in the library renovation design.

Column “G” calculates how many standard 3’-0” library shelves should be provided in the library renovation to shelve the total number of linear feet of collection.

MPS and the library worked together to determine how tall the shelving should be for each collection. This information, listed as shelves per side for one single face shelving unit, is shown in column “H”.

Column “I” calculates how many double face shelving units should be provided in the library renovation.

Finally, column “I” is multiplied by the square-footage occupied by each double face unit (column “J”) to determine how much area (in square feet) each library collection needs (column “K”). This area is then included in the detailed program summary.

JONAS LIBRARY COLLECTION AND SHELVING SUMMARY											
Collection	Collection By Occupied Linear Feet of Shelving					OR		Shelving Configuration			Area
A	B	C	D	E	F		G	H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Total # of 3' shelves	Shelves per SF Side	# of DF units	SF per DF unit	Total SF
E - Readers	62		50%	1.20	112		38	2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	7	20	140

Typical collection summary spreadsheet for reference, shown in its entirety on the following pages

JONAS LIBRARY COLLECTION AND SHELVING SUMMARY

Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
	B	C	D	E	F		H	I	J	
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	Total SF
A						G				K
QUICK ACCESS					371			17		330
Holds	144			1.00	144		5	5	20	100
Book Club Kits	10			1.00	10		5	1	10	10
Homeschool Connection	24		30%	1.00	31		5	2	20	40
Mobile Device	8			1.00	8		5	1	20	20
Rotating Collection	48			1.00	48		4	2	20	40
Stories To Go	40		18%	1.00	47		3	3	20	60
WiFi Device	83			1.00	83		5	3	20	60
EASY + JUVENILE	1,543				2224			108		2,120
New Arrivals	18			1.20	22		3	2	20	40
E - Board Books	9		100%	1.20	22		3	2	10	20
E - Picture Books	199		100%	1.20	478		3	27	20	540
E - Readers	62		50%	1.20	112		3	7	20	140
E - Vox Books	9		50%	1.20	16		3	1	10	10
Juv - Fiction	380		12%	1.20	511		5	18	20	360
Juv - Graphic Novels	33		50%	1.20	59		5	2	20	40
Juv - Holiday	39			1.20	47		5	2	20	40
Juv - Magazines	7			1.20	8		3	1	10	10
Juv - Non Fiction & Biog.	297		7%	1.20	381		5	13	20	260
Hanging Bag Kits	6			1.50	9		3	1	20	20
Wonderbooks	9		100%	1.00	18		3	1	20	20
Juv A/V	475	5%		1.20	542		3	31	20	620
TEEN COLLECTION	230				363			15		250
New Arrivals	11			1.20	13		5	1	10	10
YA - Fic & Non-Fic	160		45%	1.20	278		5	10	20	200
YA - Graphic Novels	5		3%	1.20	6		5	1	10	10
Steam Kits	54			1.20	65		5	3	10	30

JONAS LIBRARY COLLECTION AND SHELVING SUMMARY

Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
	B	C	D	E	F		H	I	J	
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	Total SF
A						G				K
LOCAL HISTORY	771				2660			80		1,600
Local History	336		300%	1.20	1613		6	45	20	900
Manuscripts	300			1.20	360		6	10	20	200
Newspapers	102		300%	1.20	490		6	14	20	280
Yearbooks	33		400%	1.20	198		3	11	20	220
ADULT COLLECTION	3,969				5610			164		3,260
New Arrivals	84			1.20	101		3	6	20	120
Biographies	176	5%		1.20	201		6	6	20	120
Experience Kits	21			1.20	25		6	1	20	20
Fiction	1,186		60%	1.20	2277		6	64	20	1280
Inspiration	245		40%	1.20	412		6	12	20	240
Large Print	123		25%	1.20	185		6	6	20	120
Magazines	3			1.20	4		3	1	10	10
Non-Fiction	1,318	15%		1.20	1344		6	38	20	760
Oversize	8			1.20	10		4	1	10	10
Paperbacks	69	30%		1.20	58		6	2	20	40
Reference	88	10%		1.20	95		6	3	20	60
Science Fiction	124		5%	1.20	156		6	5	20	100
Spanish	49	2%		1.20	58		6	2	20	40
Audiobooks	249	0%	25%	1.20	374		7	9	20	180
DVDs	226		15%	1.20	312		7	8	20	160
	6,513				11,228			304		7,560

FLORENCE S. SHANKLIN LIBRARY

BUILDING PROGRAM

OVERVIEW

The following pages provide a detailed enumeration of the programmatic elements for the renovated Florence S. Shanklin Library. A description and explanation of the programming spreadsheet can be referenced below.

Column “A” organizes the spaces and areas within the library program.

Column “B” denotes the quantity of each program area or space (column “A”) and is multiplied by either columns “C” and “E”, or columns “D” and “F” to determine the ‘adjusted net square feet’ (ANSF), shown item in columns “G” and “H” for each program area or space.

- Columns “C” and “E” are used to determine the ANSF when the library desires a specified quantity of occupants per space (i.e. when the library desires a 200 person meeting room). Column “C” lists the desired number of occupants, and column “E” lists the total area in square feet per person that is required by building code.
- Columns “D” and “F” are used when the size of the program area or space is determined by an assumed length and width required to accommodate the programmatic needs determined in the focus group and community input meetings.
- Column “G” is the calculated ANSF per single program item. Column “H” multiplies column “G” by the quantity shown in column “B” to provide a total ANSF.
- Adjusted net square feet (ANSF) represents the net square-feet for an item and adjusted for clearances required for its actual use. For example, and 4'-0" x 6'-0" table has a net area of 24 square-feet, but is adjusted in the program to a 10'-0" x 10'-0" 100 square-foot area to allow room for patrons to circulate around the table, and to be able to move the chairs surrounding it.
- The total ANSF is calculated at the bottom of column “I”. This total ANSF does not account for the non-programmatic spaces such as circulation, mechanical rooms, wall thicknesses, public restrooms, janitorial/ custodial rooms, etc.

Column “J” totals the number of public seats provided in the library.

At the bottom of the spreadsheet, the ANSF is totaled for each project phase, and is multiplied by the net to gross multiplier to calculate the build’s total anticipated square-footage. This net to gross multiplier accounts for wall thicknesses, public restrooms, janitorial/custodial rooms, etc.

SHANKLIN LIBRARY BUILDING PROGRAM										
Area/Space A	Area								Total Seats J	Notes
	B	C	D	E	F	G	H	I		
	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF	Totals		
		OR	X	OR						
PUBLIC SPACE										
ENTRANCE								480		
Airlock	1		8		12	96	96			
Lobby	1		12		12	144	144			
RFID Security Gates	1		6		6	36	36			
Self Service Book Return	1		4		4	16	16			
Self Service Check-out Kiosk	2		6		9	54	108			
Quick Access Collections							80			(linked from collection & shelving summary)
CHILDREN'S AREA								1,928		
Interactive Learning Stations	6		4		4	16	96		6	
Juvenile Computers	3		6		5	30	90		3	
Lounge Seats	6		5		5	25	150		6	
OPACs	1		3		3	9	9			standup station
Reader Tables (2-4 person)	4		8		10	80	320		12	
Activity Center	1	25		15		375	375			
Family Toilet	1		8		8	64	64			
Nursing Room	1		8		8	64	64			
Easy + Juvenile Collection							760			(linked from collection & shelving summary)
CHILDREN'S PROGRAM ROOM								661		
Program Room / Story Time	1	55		7		385	385		55	
Work Counter w/ Sink	1		6		6	36	36			
Storage - Supplies	1		10		12	120	120			
Storage - Table and Chair Storage	1		10		12	120	120			All furniture for program room should be able to fit in this space
COLLECTIONS								1,020		
Adult Collection							1,020			(linked from collection & shelving summary)
FOOD SERVICE								92		
Vending Machine	1		3		4	12	12			
Vending Machine - Storage	1		8		10	80	80			
GROUP COLLABORATION								1,220		
Creation Studio - Maker Space	1	20	0	20	0	400	400		20	messy programs (i.e. painting, sewing, crafting), a/v recording for podcasts with green screen, computers with adobe software
Creation Studio - Storage	1		10		10	100	100			
Group Study Room (4 person)	2		10		12	120	240		8	
Group Study Room (8 person)	2		20		12	240	480		16	

SHANKLIN LIBRARY BUILDING PROGRAM											
Area/Space	Area								Total Seats	Notes	
	Quantity	# of Occupants	Length	X	ANSF per Person	Width	ANSF per item	Total ANSF			Totals
HELP DESK	452										
Workstations	3										
Help Desk Workstation	2		10			8	80	160		Consolidated help desk for adult / ya / children's	
Help Desk Workstation - SAMS	1		6			6	36	36		Technology public access help workstation	
Book Carts	2		2			4	8	16			
Print / Copy / Scan	1		6			6	36	36		staff use	
Queuing Space	6		5			6	30	180		2 patrons standing at each workstation	
Shelving - Storage	2		6			2	12	24		assumed 90" single face shelving	
MEETING ROOMS	1,770										
Large Meeting Room	2	50			15		750	1,500	100	dividable meeting room suite	
Large Meeting Room - Kitchenette	1		10			12	120	120			
Large Meeting Room - Storage	1		10			15	150	150			
SEATING	832										
Intergeneration Living Room	1	8			20		160	160	8	Seating area for all ages near children's, adult, and teen area	
Lounge Seating	8		5			5	25	200	8		
Table - 2 person	4		3			6	18	72	8		
Table - 4 person	4		10			10	100	400	16		
TECHNOLOGY	298										
Business Center	1		10			12	120	120		Patron Print / Copy / Scan area	
BYOT Area	4		4			5	20	80	4	BYOTechnology for personal devise use or laptop checkout	
Computers	4		4			5	20	80	4	Supplement hardwired computers with laptops	
OPACs	1		3			6	18	18		Stand up station; 1 for fiction, 1 for non-fic	
TEEN AREA	397										
Computers - YA	2		4			5	20	40	2		
Gaming Station	1		4			5	20	20			
OPAC - YA	1		3			3	9	9		standup station	
Seating - Lounge	2		5			5	25	50	2		
Seating - Table - 2 person	1		3			6	18	18	2		
Seating - Table - 4 person	1		10			10	100	100	4		
Teen Collection	160									(linked from collection & shelving summary)	

SHANKLIN LIBRARY BUILDING PROGRAM											
Area/Space	Area								Total Seats	Notes	
	Quantity	# of Occupants	Length	X	# ANSF per Person	Width	ANSF per item	Total ANSF			Totals
SUPPORT SPACE											
STAFF WORKROOM	1,439										
Offices	1										
Branch Manager	1		10			12	120	120			
Workstations	3										
Drive through workstation	1		8			8	64	64			
Staff workstation	1		8			8	64	64			
Volunteer workstation	1		8			8	64	64			
Book Carts	6		2			4	8	48			
MDF/IDF Room	1		10			8	80	80			
Shelving (SF, 90" Unit)	12		3			3	9	108			
Shelving - Experience Kit (Utility Shelv)	20		3			3	9	180			
Shipping & Receiving	1		15			18	270	270			
Staff Copier/Printer	1		5			10	50	50			
Staff Toilet	1		8			8	64	64			
Storage - Custodial / Maintenance	1		10			10	100	100			
Storage - Supplies	1		10			10	100	100			
Trash + Recycling Bins	3		3			3	9	27			
Work Counter	1		4			10	40	40			
Work Table (3 x4)	1		6			10	60	60			
STAFF BREAKROOM	256										
Lounge Seating	2		4			6	24	48	2		
4 Person Table	1		10			10	100	100	4		
Staff Lockers	4		2			6	12	48		double tier (8 lockers total)	
Kitchenette	1		6			10	60	60			
Total ANSF									10,845	290	
Net to Gross Multiplier									1.45		
TOTAL GROSS SF									15,725		
Existing Library SF									6,100	SF	
SF Deficit									(9,625)	SF	

FLORENCE S. SHANKLIN LIBRARY

COLLECTION SUMMARY

OVERVIEW

Working with the Lincoln County Library staff, MPS developed a collection summary that enumerates and quantifies the collection requirements to be included in the renovation of the Florence S. Shanklin Library.

COLLECTION SUMMARY

Column “A” lists each individual collection identified by MPS and the library staff that need to be shelved in the renovated library.

Column “B” identifies the collection measured in linear feet at the time of field verification. This number also accounts for the collection’s current circulation rate.

Columns “C” and “D” reflect anticipated collection weeding or anticipated growth of the collection over time.

Column “E” represents an adjustment factor to account for how much empty space should be provided per shelf.

- An adjustment factor of 1.00 assumes that each 3’-0” shelf is at 100% capacity.
- An adjustment factor of 1.20 provides 6” of empty space per 3’-0” library shelf.
- An adjustment factor of 1.50 provides 12” of empty space per 3’-0” library shelf.

Column “F” totals how many linear feet of collection should be shelved in the library renovation design.

Column “G” calculates how many standard 3’-0” library shelves should be provided in the library renovation to shelve the total number of linear feet of collection.

MPS and the library worked together to determine how tall the shelving should be for each collection. This information, listed as shelves per side for one single face shelving unit, is shown in column “H”.

Column “I” calculates how many double face shelving units should be provided in the library renovation.

Finally, column “I” is multiplied by the square-footage occupied by each double face unit (column “J”) to determine how much area (in square feet) each library collection needs (column “K”). This area is then included in the detailed program summary.

SHANKLIN LIBRARY COLLECTION AND SHELVING SUMMARY											
Collection	Collection By Occupied Linear Feet of Shelving					OR		Shelving Configuration			Area
A	B	C	D	E	F		G	H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Total # of 3' shelves	Shelves per SF Side	# of DF units	SF per DF unit	Total SF
E - Picture Books	193			1.20	232		78	2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	13	20	260

Typical collection summary spreadsheet for reference, shown in its entirety on the following pages

SHANKLIN LIBRARY COLLECTION AND SHELVING SUMMARY										
Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
A	B	C	D	E	F		H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	Total SF
QUICK ACCESS					94		5	4	20	80
Holds	30			1.00	30		3	2	20	40
Rotating Collection	24			1.00	24		3	2	20	40
Homeschool Connection	3			1.00	3		3	1	20	20
Mobile Device	6			1.00	6		3	1	20	20
Stories To Go	3			1.00	3		3	1	20	20
WiFi Device	18			1.00	18		3	1	20	20
Book Club Kits	10			1.00	10		3	1	20	20
EASY + JUVENILE	767				920			38		760
New Arrivals	15			1.20	18		3	1	20	20
E - Board Books	10			1.20	12		3	1	20	20
E - Picture Books	193			1.20	232		3	13	20	260
E - Readers	74			1.20	89		4	4	20	80
Juv - Fiction	275			1.20	330		6	10	20	200
Juv - Holiday	18			1.20	22		6	1	20	20
Juv - Non Fiction	148			1.20	178		6	5	20	100
Audio Books	8			1.20	10		3	1	20	20
DVDs	26			1.20	31		3	2	20	40
TEEN COLLECTION	205				246			8		160
New Arrivals	15			1.20	18		3	1	20	20
YA - Graphic Novels	10			1.20	12		6	1	20	20
YA - Fiction	180			1.20	216		6	6	20	120

SHANKLIN LIBRARY COLLECTION AND SHELVING SUMMARY										
Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
A	B	C	D	E	F		H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	Total SF
ADULT COLLECTION	1,608				1930			51		1,020
New Arrivals	28			1.20	34		3	2	20	40
Biography, Ref, Oversize	107			1.20	128		6	4	20	80
Fiction	777			1.20	932		7	23	20	460
Large Print	118			1.20	142		6	4	20	80
Non-Fiction	293			1.20	352		7	9	20	180
Paperbacks	44			1.20	53		7	2	20	40
Audio Books	110			1.20	132		8	3	20	60
DVDs	131			1.20	157		8	4	20	80

3,190

1,072

101

2,020

PROGRAM ANALYSIS

CHARLES R. JONAS LIBRARY

The existing Jonas Library has an existing footprint of approximately 15,000 SF. The building program requires 46,778 SF in order to be fully implemented.

The existing library building is fairly land-locked and has limited opportunity for expansion without drastically reducing the library’s parking capacity. Expansion area A below shows an expansion area of approximately 3,000 SF, but eliminates many parking spaces. Expansion area B on the site plan below shows an expansion area of approximately 5,400 SF but eliminates the courtyard area. The existing building can accommodate a 1,600 SF addition with triggering the installation of a sprinkler system or fire wall partition under current building codes. These expansion areas cannot provide a large enough building footprint to accommodate the entire library program.

In order to accommodate the entire building program, it is recommended that the library either be relocated to another site that is able to fully accommodate the building program, or that the existing building be demolished and a new multi-story library be constructed at the existing site in order to meet the needs of the community. It may be challenging to relocate the library to a new site in downtown Lincolnton due to lack of available building sites in the downtown area. A new library facility at the existing site offers an opportunity to potentially reuse existing construction and utilities, and would provide a more accessible and code compliant building better suited to serving the community.

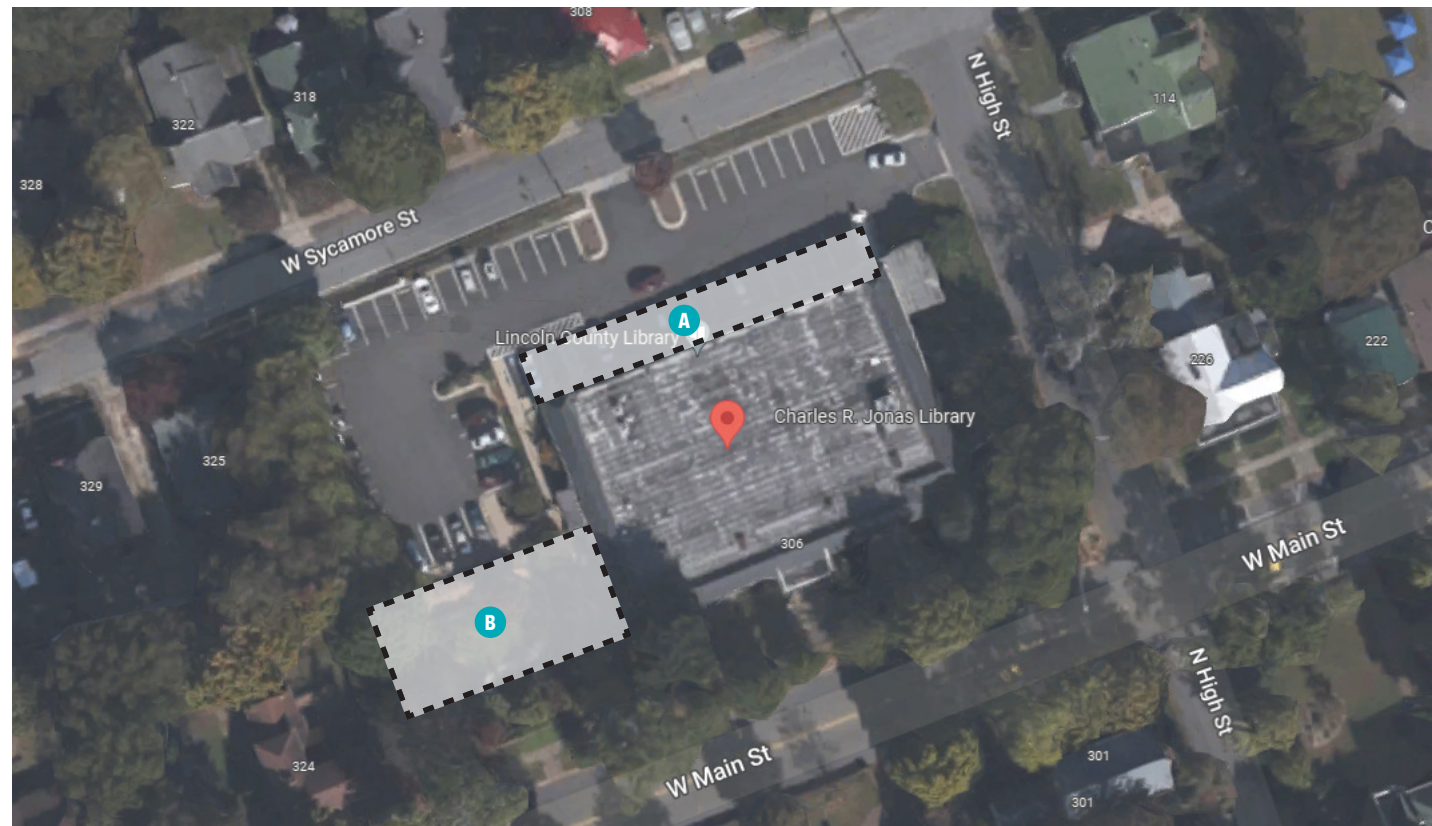
FLORENCE S. SHANKLIN LIBRARY


The existing Shanklin Library has an existing footprint of approximately 6,100 SF. The building program requires 15,725 SF in order to be fully implemented. In order to implement the desired program, an 9,625 SF addition would be required.

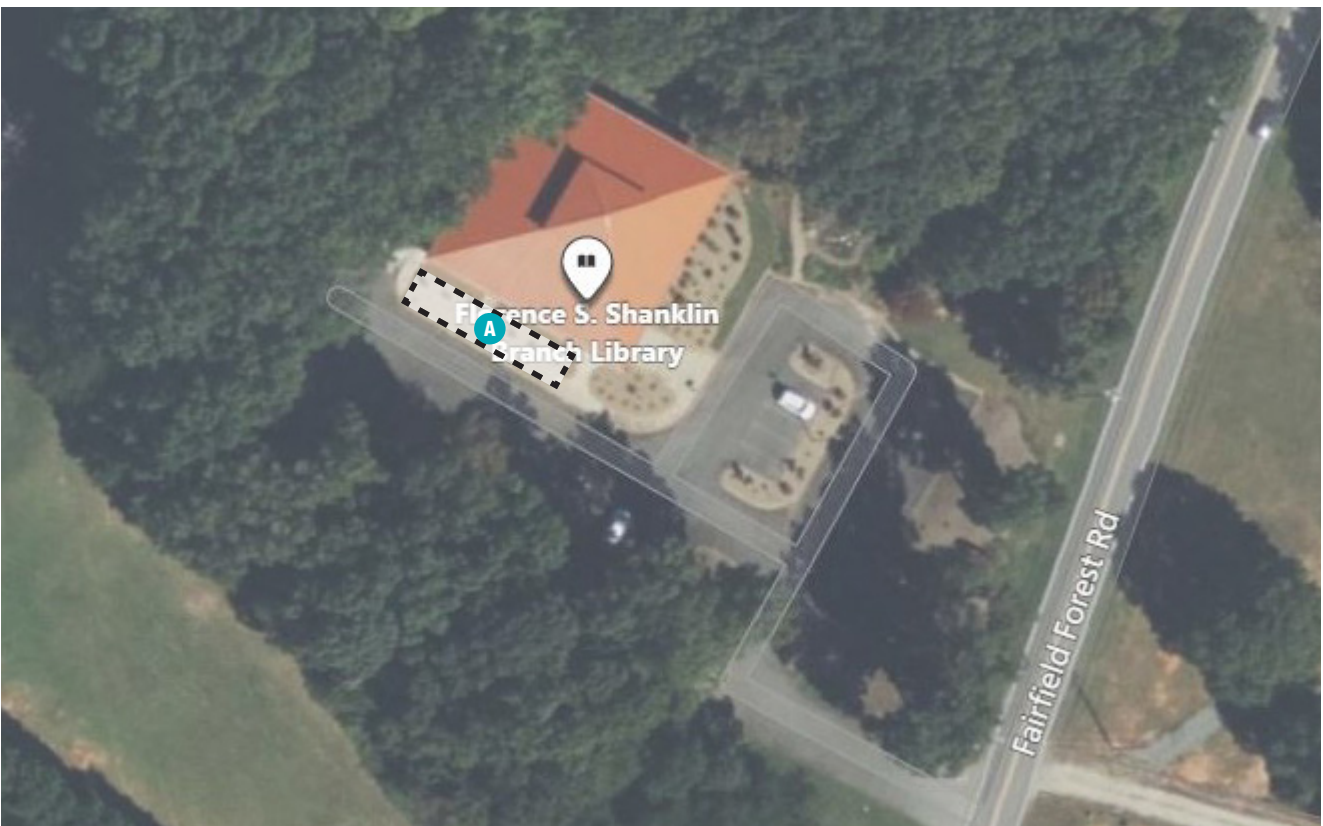
Due to existing site constraints, it is not possible to almost double the square footage of the existing library building. Expansion area A on the site plan below shows an expansion area of approximately 1,500 SF by eliminating existing landscaping. This area still falls short of the building foot print required to meet the program requirements by 11,262 SF.


The existing Shanklin Library is a beloved boutique library location; with little room to expand, it is recommended that the existing library be reconfigured to better serve the current community’s needs. As funds are available, expansion area A offers an opportunity to expand the existing meeting room and staff work space.

Without significant expansion opportunities, it is recommended that a new branch library be constructed to accommodate the growing population in Lincoln County. The following section analyzes the current and future demographics and library square-footage of Lincoln County and provides recommendations for a future branch library location.



 Charles R. Jonas Site Plan
306 W Main Street, Lincolnton, NC 28092



 Florence S. Shanklin Site Plan
7837 Fairfield Forest Rd, Denver, NC 28037



DEMOGRAPHICS

DEMOGRAPHICS

OVERVIEW

In order to verify the appropriate size for a new branch library, McMillan Pazdan Smith researched the library spatial recommendations provided by the State Library of North Carolina, and then compared this square-footage recommendation to neighboring State Library guidelines and the building programs developed for each library location.

Table 4.1 enumerates the system wide library square-footage (Jonas, Shanklin, and West Lincoln Libraries) per capita shortage for the 2020 Lincoln County population. The delta square-footage subtracts the existing square-footage of the three existing libraries from the recommended library square-footage to calculate a quantified spatial deficit. When comparing the existing library square-footage to the State Library of North Carolina (or any of the neighboring state library recommendations), there is a clear deficit of library space within the county.

Using the ‘enhanced’ standard of square-footage recommendations per the State Library of North Carolina, this analysis concludes that in 2020, there was a **27,367 SF shortage** of library space in Lincoln County.

For long term planning purposes, MPS analyzed the system wide library square-footage per capita shortage for the projected 2040 population. Table 4.2 enumerates the 2040 square-foot requirements recommended by the State Library of North Carolina and neighboring State Libraries.

Using the ‘enhanced’ standard of square-footage recommendations per the State Library of North Carolina, this analysis concludes that in 2040, there will be a **43,199 SF shortage** of library space in Lincoln County.

TABLE 4.1 LINCOLN COUNTY LIBRARY SQUARE FOOTAGE PER CAPITA ANALYSIS (2020)

STATE LIBRARY	SF PER CAPITA	2020 LINCOLN COUNTY POPULATION	2020 RECOMMENDED LIBRARY SF	EXISTING LIBRARY SF	DELTA (SF DEFICIT)
North Carolina					
Essential	.65 *		56,426 SF		-23,027 SF
Enhanced	.7 *	86,810	60,767 SF	33,400 SF	-27,367 SF
Exemplary	.75 *		65,108 SF		-31,708 SF
Georgia	.6		52,086 SF		-18,686 SF
South Carolina	1.25		108,513 SF		-75,113 SF
Tennessee	.5		43,405 SF		-10,005 SF
Virginia					
Essential	.6 *		52,086 SF		-18,686 SF
Enhanced	.8 *		69,448 SF		-36,048 SF
Exemplary	1.0 *		86,810 SF		-53,410 SF

TABLE 4.2 LINCOLN COUNTY LIBRARY SQUARE FOOTAGE PER CAPITA ANALYSIS (2040)

STATE LIBRARY	SF PER CAPITA	PROJECTED 2040 LINCOLN COUNTY POP.	2040 RECOMMENDED LIBRARY SF	EXISTING LIBRARY SF	DELTA (SF DEFICIT)
North Carolina					
Essential	.65*		71,128 SF		-37,728 SF
Enhanced	.7 *	109,427	76,599 SF	33,400 SF	-43,199 SF
Exemplary	.75 *		82,070 SF		-48,670 SF
Georgia	.6		65,656 SF		-32,256 SF
South Carolina	1.25		136,784 SF		-103,384 SF
Tennessee	.5		54,714 SF		-21,314 SF
Virginia					
Essential	.6 *		65,656 SF		-32,256 SF
Enhanced	.8 *		87,542 SF		-54,142 SF
Exemplary	1.0 *		109,427 SF		-76,027 SF

GIS Mapping and Demographics Analysis

OVERVIEW

Working with the Lincoln County Planning and Inspections Department, McMillan Pazdan Smith analyzed the existing libraries proximities, service area size, and service area population to provide incite to where a new branch library should be located.

LIBRARY PROXIMITY

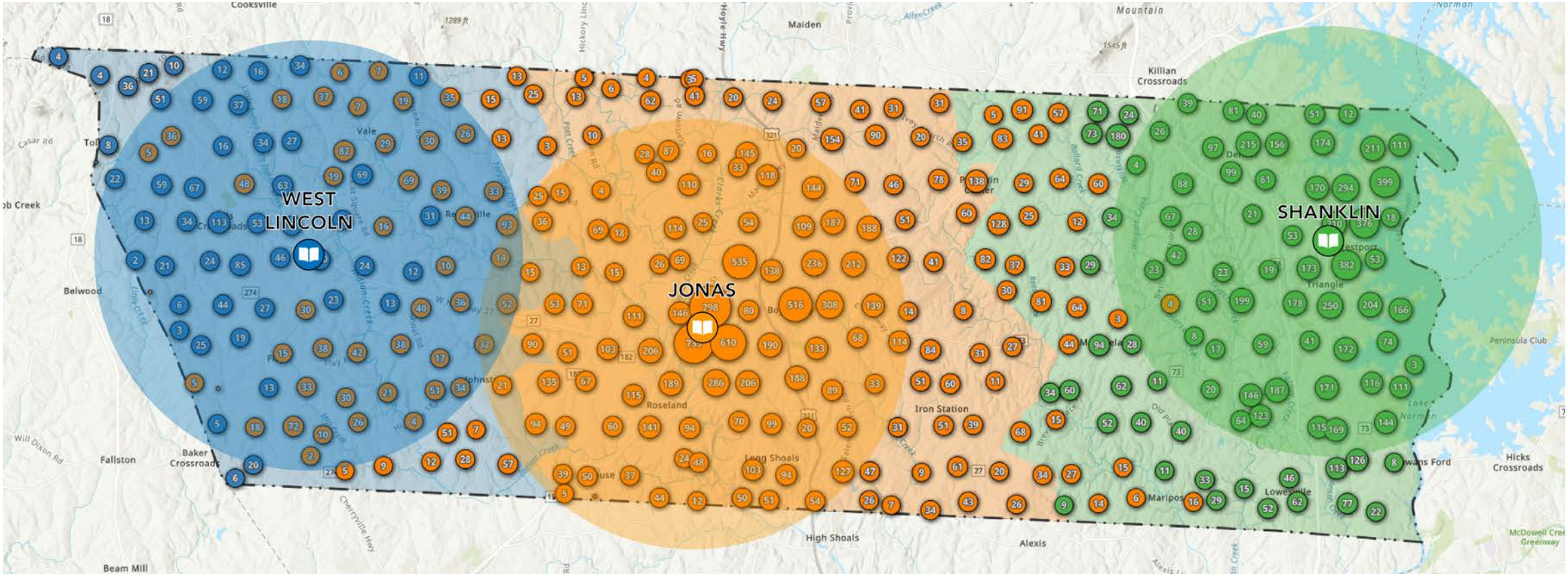
The Jonas Library is centrally located at the county seat in Lincolnton, and is in an ideal location to serve as the LCL’s headquarters library. As the headquarters library, Jonas Library should provide square-footage for LCL’s Administration and Technical Services staff to minimize the commute to each of the other branch locations. West Lincoln and Shanklin currently service the western and eastern proximities of the county, respectively. While West Lincoln and Jonas Libraries have over-lapping 5-mile radii, there is a noticeable gap between Shanklin and Jonas.

SERVICE AREA AND POPULATION

The Lincoln County Planning and Inspections Department provided the following demographic information for each library service area. The table below shows the service area population and existing library square-footage for each library location.

Library Location	Service Area Population	Existing Library SF
Jonas	38,497	15,000 SF
Shanklin	37,543	6,100 SF
West Lincoln	10,770	12,300 SF

When comparing the existing service area population to the existing library square-footage of each location, it is clear that the Shanklin Library is much too small for its service area.



PATRON GEO-CODING

The Lincoln County Planning and Inspections Department developed a geocoding system that graphically communicates how many patrons are visiting each library location in proximity to where they live. These are represented as numbered bubbles, color-coded to each library location.

The highest amount of patrons utilizing any library location are centrally located to the library location in their service area. These numbers generally thin out as the distance from the library increases, with a few outliers.

The map shows a blending of geocoding results at the edge of each service location. This happens for a variety of reasons: program accessibility at each location, drive times, personal preference, etc.

Important observations about the geocoding and service area populations include:

- The service areas and populations for the Jonas and Shanklin libraries are about the same, but Shanklin is almost 60% smaller than Jonas, indicating a massive programming and service deficit at the Shanklin library
- There are no overlapping areas shown at the 5 mile radius metric at the Jonas and Shanklin libraries
- High geocoding numbers at the furthest regions of Shanklin’s 5-mile radius indicate areas of growth
- Many patrons in the West Lincoln service area and 5 mile radius are still utilizing the Jonas Library location

RECOMMENDATIONS

These observations suggest that a new library location should be located between the Jonas and Shanklin Libraries in eastern Lincoln County to provide relief for each library location.

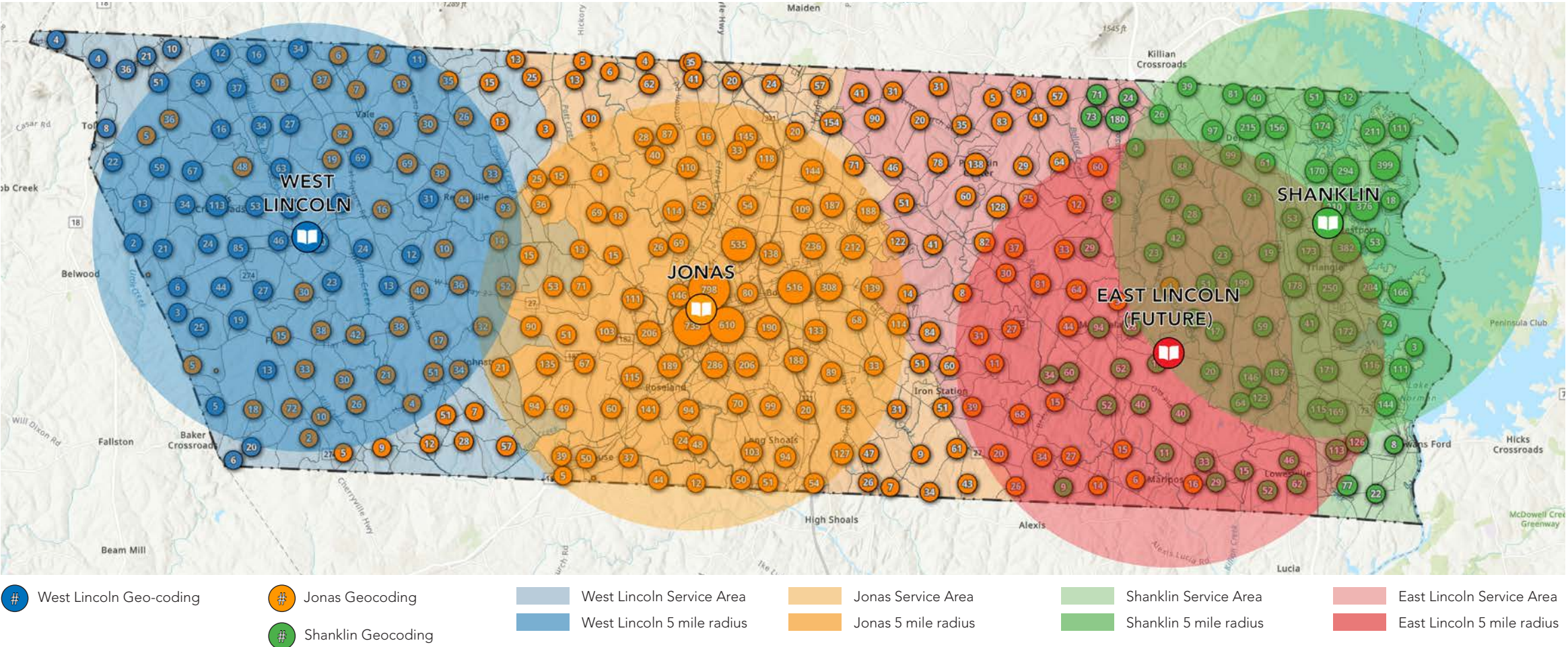
FUTURE BRANCH LIBRARY DEMOGRAPHICS IMPACT

OVERVIEW

After reviewing the demographic conclusions with the Lincoln County Planning and Inspections Department, the GIS staff made a suggestion where a site might be available for a new branch library location in Iron Station. Using route 16 and the approximate mid-point between the Jonas and Shanklin libraries to define a new service area boundary, MPS re-analyzed the libraries proximities, service area size, and service area population in order to study the impacts of a new branch library, and ultimately made a recommendation on how to proceed with renovating and expanding each existing library to resolve the square-footage deficit.

LIBRARY PROXIMITY

The proposed East Lincoln Branch Library location resolves the noticeable gap of service between the Shanklin and Jonas Libraries. This proximity is expected to relieve some of the square-footage deficits between each of the existing library locations.



SERVICE AREA AND POPULATION

The Lincoln County Planning and Inspections Department updated the service area population, as shown in the table below. The population decrease at the Jonas and Shanklin Libraries are expected to provide service and programmatic relief at each location.

Library Location	Existing Service Area Population	New Service Area Population	Population Delta
East Lincoln	n/a	21,783	+21,783
Jonas	38,497	32,713	-5,784
Shanklin	37,543	21,544	-15,999
West Lincoln	10,770	10,770	0

PATRON GEO-CODING

For the purposes of the study, the existing geocoding only shows the existing library locations. Important observations about the geocoding and new service area populations include:

- The new 5-mile radius at the East Lincoln location overlaps the Shanklin 5-mile radius by approximately 50%; this is anticipated to provide relief for the programming and service deficit at this location
- The 5-mile radius at the East Lincoln location encapsulates some of the highly populated areas of the Shanklin service area, and is located in an area that is expected to keep its high growth trend for the foreseeable future
- The Iron Station service area begins to capture some of the high-numbered geocoding for the Jonas library; this is anticipated to provide relief for the programming and service deficit at this location.

CONCLUSIONS

These observations and analysis confirm that locating a new branch library in the East Lincoln area is strategically advantageous for the Lincoln County Library System.

The following pages provide in-depth information of the impact a new branch library has on the existing libraries long term renovation and expansion plans.



RECOMMENDATIONS

RECOMMENDATIONS

OVERVIEW

In order to address the square-footage deficit, MPS recommends that Lincoln County implement the following solutions to best address the library and community needs and square-footage shortage:

- Jonas Library should function as a headquarters library, and should be relocated or reconstructed as a +/-46,800 SF library to accommodate the new building program and meet community and staffing needs; this provides an additional 31,800 SF towards the library spatial deficit. Should this location be relocated or reconstructed first, this improvement resolves the 2020 square-footage deficit.
- A new +/- 20,000 SF branch library should be constructed to help resolve the square-footage shortage and accommodate the growing population of Lincoln County. A new branch library of this size resolves the 2040 square-footage deficit.
- Shanklin Library should be reconfigured to maximize it’s existing building footprint, and a new +/- 1,500 SF addition could be provided should funding be available to meet community and staff needs.

The solutions above exceed the “exemplary” State Library of North Carolina recommendations by approximately 4,600 square-feet, and exceeds the “enhanced” State Library of North Carolina recommendation by approximately 10,100 SF. Table 5.1 enumerates how the proposed new headquarters library, branch library and addition to the existing Shanklin library building effect the square-footage deficit in greater detail by comparing the 2020 demographic information with the 2040 projected demographic information. While population projections for the individual service areas are unavailable through census data, MPS assumed that the population will continue to grow by approximately 26% by the 2040 census — matching Lincoln County’s overall population growth trend.

Due to existing conditions, it is not possible to resolve the square-footage shortage for each library’s individual service area, however, each library location is able to see an improvement. When looking at the library system as a whole, the proposed solutions create an overall surplus of square-footage up to and beyond the 2040 population projections.

CHARLES R. JONAS LIBRARY RECOMMENDATIONS

As a new headquarters library, Jonas Library has been programmed for the largest expansion in order to provide new creation studios, digital media suites, a large meeting suite, smaller meeting and study spaces, and centralized staff space for administration and technical services. With no other large meeting venues in downtown Lincolnton, the design team anticipates these spaces to be highly utilized.

The analysis shown in Table 5.1 concludes that the defined building program for the Jonas Library and Lincoln County Library Administration staff are within reason to accommodate population growth up to 2040. Due to the limiting site factors, the entire program is unable to be implemented to the existing library building.

MPS presented the following options to the Library:

Option A

- Jonas Library relocates to a new +/- 46,800 square-foot building on a site able to accommodate the entire library and administration program and operates as a headquarters library.
- This option requires further study, as building sites in downtown Lincolnton are limited.

Option B

- Jonas Library remains at the existing location, but the existing library is demolished and reconstructed as a multi-story library in order to accommodate the entire library and administration building program and operates as a headquarters library.

Ultimately, MPS recommended that the library proceed with Option B due to limited building site options in downtown Lincolnton.

TABLE 5.1 LINCOLN COUNTY LIBRARIES LONG TERM SQUARE-FOOTAGE RESOLUTION PLAN

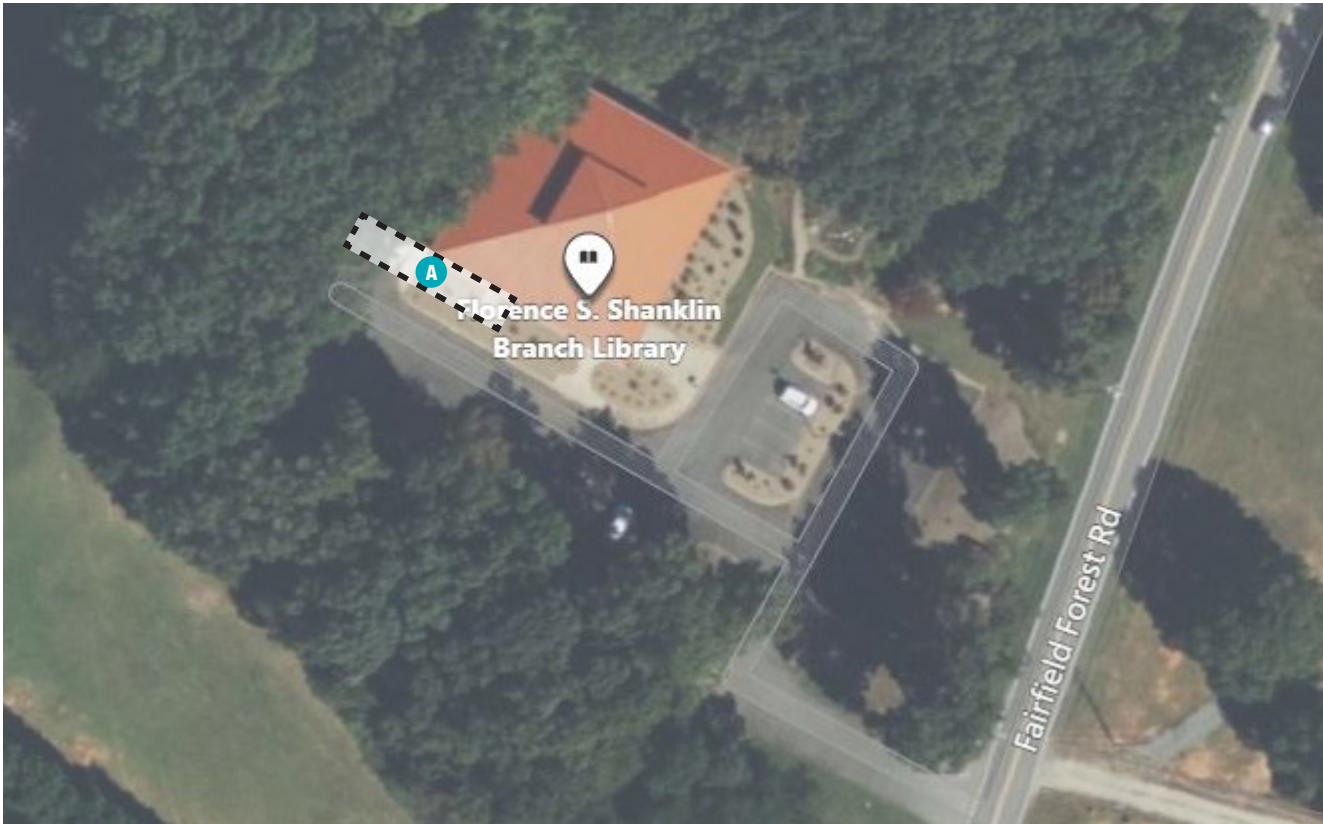
LIBRARY LOCATION	2040 SERVICE AREA POPULATION	NC STATE LIBRARY REC. PER CAPITA (ENHANCED)	2040 RECOMMENDED LIBRARY SF	2022 EXISTING LIBRARY SF	DELTA (SF DEFICIT OR SURPLUS)	NEW LIBRARY SF	NEW DELTA (SF DEFICIT / SURPLUS)
LCL System	109,427	.7	76,599 SF	33,400 SF	-43,199 SF	+53,300 SF	10,101 SF
Jonas	41,236		28,865 SF	15,000 SF	-13,865 SF	+ 31,800 SF	17,935 SF
Shanklin	27,157		19,010 SF	6,100 SF	-12,910 SF	+ 1,500 SF	-11,410 SF
West Lincoln	13,576		9,503 SF	12,300 SF	2,797 SF	0 SF	2,797 SF
East Lincoln	27,458		19,221 SF	0 SF	-19,221 SF	20,000 SF	779 SF


FLORENCE S. SHANKLIN LIBRARY RECOMMENDATIONS

While Table 5.1 suggests that the Shanklin Library needs a substantial expansion to meet community needs, the limiting site factors prevent the entire building program from being implemented; the new East Lincoln Branch Library location will provide an adequate expansion for the surrounding community. MPS presented the following additional options to the Library:

- Option A
- Shanklin Library to remain a 6,100 SF facility
 - The existing facility is renovated to accommodate a reduced and revised library program
- Option B
- Shanklin Library adds +/- 1,500 SF to become a 7,600 SF facility
 - The existing facility is renovated to accommodate a reduced and revised library program

Ultimately, MPS recommended that the library proceed with Option B.



 Florence S. Shanklin Site Plan
7837 Fairfield Forest Rd, Denver, NC 28037

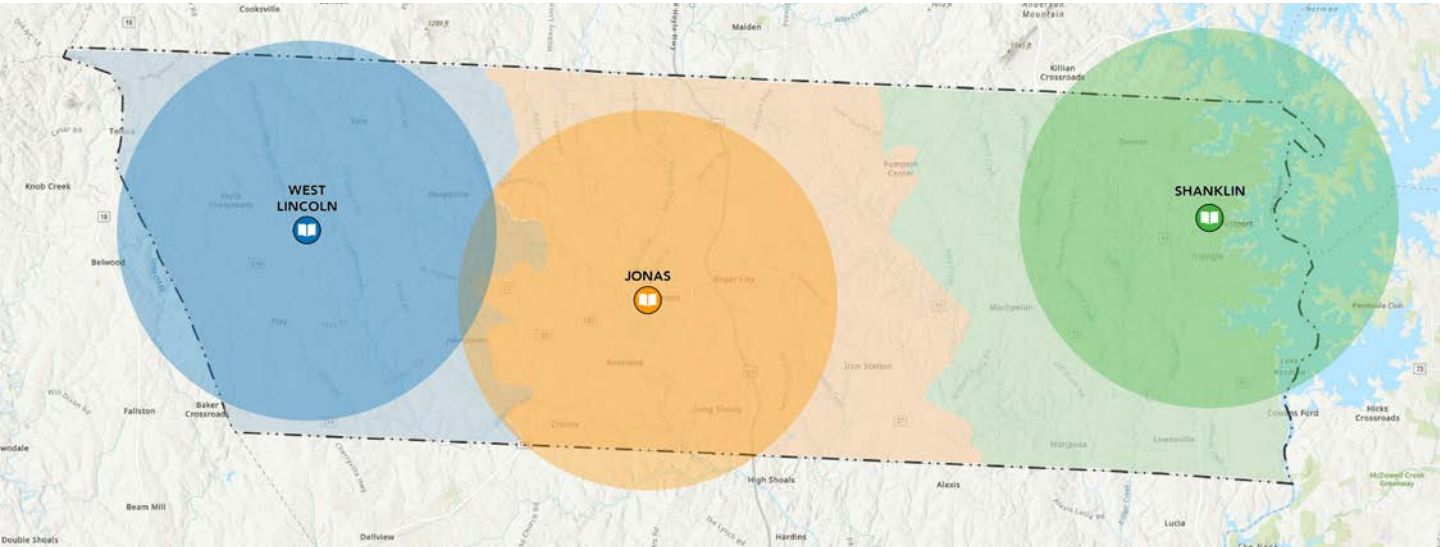
WEST LINCOLN LIBRARY RECOMMENDATIONS

Table 5.1 reveals that this library location is currently larger than recommended by the State Library of North Carolina, is well-positioned for future growth, and will continue to provide relief for the Jonas library or allow for unforeseen population growth rate increases.

No additions are anticipated to be required for this location up to the 2040 population projections.

FUTURE EAST LINCOLN LIBRARY RECOMMENDATIONS

Table 5.1 reveals that the future East Lincoln library program is right-sized for its service area population as recommended by the State Library of North Carolina, is well-positioned for future growth, and will provide relief for the Shanklin library or allow for unforeseen population growth rate increases.



Existing Library Service Areas with 5 mile radius shown. West Lincoln Library's proximity and SF likely contributing programmatic relief for the Jonas Library Location.

FLORENCE S. SHANKLIN LIBRARY

REVISED BUILDING PROGRAM

OVERVIEW

The following pages provide a revised detailed enumeration of the programmatic elements for the renovated Florence S. Shanklin Library. This program has been reduced to accommodate the existing building, and a new +/- 1,500 SF addition. A description and explanation of the programming spreadsheet can be referenced below.

Column “A” organizes the spaces and areas within the library program.

Column “B” denotes the quantity of each program area or space (column “A”) and is multiplied by either columns “C” and “E”, or columns “D” and “F” to determine the ‘adjusted net square feet’ (ANSF), shown item in columns “G” and “H” for each program area or space.

- Columns “C” and “E” are used to determine the ANSF when the library desires a specified quantity of occupants per space (i.e. when the library desires a 200 person meeting room). Column “C” lists the desired number of occupants, and column “E” lists the total area in square feet per person that is required by building code.
- Columns “D” and “F” are used when the size of the program area or space is determined by an assumed length and width required to accommodate the programmatic needs determined in the focus group and community input meetings.
- Column “G” is the calculated ANSF per single program item. Column “H” multiplies column “G” by the quantity shown in column “B” to provide a total ANSF.
- Adjusted net square feet (ANSF) represents the net square-feet for an item and adjusted for clearances required for its actual use. For example, and 4'-0" x 6'-0" table has a net area of 24 square-feet, but is adjusted in the program to a 10'-0" x 10'-0" 100 square-foot area to allow room for patrons to circulate around the table, and to be able to move the chairs surrounding it.
- The total ANSF is calculated at the bottom of column “I”. This total ANSF does not account for the non-programmatic spaces such as circulation, mechanical rooms, wall thicknesses, public restrooms, janitorial/custodial rooms, etc.

Column “J” totals the number of public seats provided in the library.

At the bottom of the spreadsheet, the ANSF is totaled for each project phase, and is multiplied by the net to gross multiplier to calculate the build’s total anticipated square-footage. This net to gross multiplier accounts for wall thicknesses, public restrooms, janitorial/custodial rooms, etc.

SHANKLIN LIBRARY REDUCED BUILDING PROGRAM										
Area/Space	Area								Total Seats	Notes
	B	C	D	E	F	G	H	I		
	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF	Totals		
	OR		X	OR						
PUBLIC SPACE										
ENTRANCE	465									
Lobby	1		15		15	225	225			
RFID Security Gates	1		6		6	36	36			
Self Service Book Return	1		4		4	16	16			
Self Service Check-out Kiosk	2		6		9	54	108			
Quick Access Collections	80									(linked from collection & shelving summary)
CHILDREN'S AREA	1,157									
Interactive Learning Stations	2		4		4	16	32		2	
Juvenile Computers	2		6		5	30	60		2	
Lounge Seats	4		5		5	25	100		4	
OPACs	1		3		3	9	9			
Reader Tables (2-4 person)	2		8		8	64	128		6	
Family Toilet	1		8		8	64	64			
Nursing Room	1		8		8	64	64			
Easy + Juvenile Collection	700									(linked from collection & shelving summary)
COLLECTIONS	678									
Adult Collection	660									(linked from collection & shelving summary)
OPACs	1		3		6	18	18		Stand up station; 1 for fiction, 1 for non-fic	
GROUP COLLABORATION	370									
Creation Studio - Maker Space	1	16		15		240	240		16	
Creation Studio - Storage	0									
Group Study Room (5 person)	1		10		13	130	130		4	
HELP DESK	416									
Workstations	2									
Help Desk Workstation	2		10		8	80	160		Consolidated help desk for adult / ya / children's / SAMS	
Book Carts	2		2		4	8	16			
Print / Copy / Scan	1		6		6	36	36		staff use	
Queuing Space	6		5		6	30	180		2 patrons standing at each workstation	
Shelving - Storage	2		6		2	12	24		assumed 90° single face shelving	
MEETING ROOMS	1,266									
Large Meeting Room	1	67		15	0	1,005	1,005		67	
Large Meeting Room - Kitchenette	1		2		18	36	36			
Large Meeting Room - Storage	1		15		15	225	225			
SEATING	172									
Lounge Seating	4		5		5	25	100		4	
Table - 2 person	4		3		6	18	72		8	
TECHNOLOGY	80									
Computers	4		4		5	20	80		4	
									Supplement computers with laptops	

SHANKLIN LIBRARY REDUCED BUILDING PROGRAM										
Area/Space	Area								J Total Seats	Notes
	B	C	D	E	F	G	H	I		
	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF	Totals		
	OR		X	OR						
TEEN AREA									447	
Computers - BYOT	2		4		5	20	40		2	
Gaming Station	1		4		5	20	20		3	
OPAC - YA	1		3		3	9	9			
Seating - Lounge	4		5		5	25	100		4	
Seating - Booth	1		3		6	18	18		4	
Seating - Table - 4 person	1		10		10	100	100		4	
Teen Collection	160									(linked from collection & shelving summary)
SUPPORT SPACE										
STAFF WORKROOM	906									
Offices	1									
Branch Manager	1		10		0 13	130	130			
Workstations	4									
Staff workstation	3		8		8	64	192			
Volunteer workstation	1		8		8	64	64			
Book Carts	6		2		4	8	48			
Shipping & Receiving	1		15		18	270	270			
Staff Copier/Printer	1		5		10	50	50			
Staff Toilet	1		6		7	42	42			
Storage - Supplies	1		7		10	70	70			
Work Counter	1		4		10	40	40			
STAFF BREAKROOM	144									
4 Person Table	1		6		6	36	36		4	
Staff Lockers	4		2		6	12	48		double tier (8 lockers total)	
Kitchenette	1		6		10	60	60			
Total ANSF								6,101	138	
Net to Gross Multiplier								1.25	(net to gross multiplier does not include SF from existing mechanical space in the lower level)	
TOTAL GROSS SF								7,600		

FLORENCE S. SHANKLIN LIBRARY

REVISED COLLECTION SUMMARY

OVERVIEW

Working with the Lincoln County Library staff, MPS developed a revised collection summary that enumerates and quantifies the collection requirements to be included in the renovation and expansion of the Florence S. Shanklin Library.

COLLECTION SUMMARY

Column “A” lists each individual collection identified by MPS and the library staff that need to be shelved in the renovated library.

Column “B” identifies the collection measured in linear feet at the time of field verification. This number also accounts for the collection’s current circulation rate.

Columns “C” and “D” reflect anticipated collection weeding or anticipated growth of the collection over time.

Column “E” represents an adjustment factor to account for how much empty space should be provided per shelf.

- An adjustment factor of 1.00 assumes that each 3'-0”shelf is at 100% capacity.
- An adjustment factor of 1.20 provides 6” of empty space per 3'-0” library shelf.
- An adjustment factor of 1.50 provides 12” of empty space per 3'-0” library shelf.

Column “F” totals how many linear feet of collection should be shelved in the library renovation design.

Column “G” calculates how many standard 3'-0” library shelves should be provided in the library renovation to shelve the total number of linear feet of collection.

MPS and the library worked together to determine how tall the shelving should be for each collection. This information, listed as shelves per side for one single face shelving unit, is shown in column “H”.

Column “I” calculates how many double face shelving units should be provided in the library renovation.

Finally, column “I” is multiplied by the square-footage occupied by each double face unit (column “J”) to determine how much area (in square feet) each library collection needs (column “K”). This area is then included in the detailed program summary.

SHANKLIN LIBRARY REDUCED COLLECTION AND SHELVING SUMMARY											
Collection	Collection By Occupied Linear Feet of Shelving					OR		Shelving Configuration			Area
A	B	C	D	E	F		G	H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Total # of 3' shelves	Shelves per SF Side	# of DF units	SF per DF unit	Total SF
E - Board Books	10			1.20	12		4	2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	1	20	20
E - Picture Books	193			1.20	232		78	3	13	20	260

SHANKLIN LIBRARY REDUCED COLLECTION AND SHELVING SUMMARY										
Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
	B	C	D	E	F		H	I	J	
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	
										Total SF
QUICK ACCESS					94		5	4	20	80
Holds	30			1.00	30		3	2	20	40
Rotating Collection	24			1.00	24		3	2	20	40
Homeschool Connection	3			1.00	3		3	1	20	20
Mobile Device	6			1.00	6		3	1	20	20
Stories To Go	3			1.00	3		3	1	20	20
WiFi Device	18			1.00	18		3	1	20	20
Book Club Kits	10			1.00	10		3	1	20	20
EASY + JUVENILE	767				811			35		700
New Arrivals	15			1.20	18		3	1	20	20
E - Board Books	10			1.20	12		3	1	20	20
E - Picture Books	193			1.20	232		3	13	20	260
E - Readers	74			1.20	89		4	4	20	80
Juv - Fiction	275	20%		1.20	264		6	8	20	160
Juv - Holiday	18			1.20	22		6	1	20	20
Juv - Non Fiction	148	20%		1.20	142		6	4	20	80
Audio Books	8	20%		1.20	8		3	1	20	20
DVDs	26	20%		1.20	25		3	2	20	40
TEEN COLLECTION	205				246			8		160
New Arrivals	15			1.20	18		3	1	20	20
YA - Graphic Novels	10			1.20	12		6	1	20	20
YA - Fiction	180			1.20	216		6	6	20	120

SHANKLIN LIBRARY REDUCED COLLECTION AND SHELVING SUMMARY										
Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
	B	C	D	E	F		H	I	J	
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	
										Total SF
ADULT COLLECTION	1,608				1228			33		660
New Arrivals	28			1.20	34		3	2	20	40
Biography, Ref, Oversize	107	50%		1.20	64		6	2	20	40
Fiction	777	30%		1.20	653		7	16	20	320
Large Print	118	25%		1.20	106		6	3	20	60
Non-Fiction	293	30%		1.20	246		7	6	20	120
Paperbacks	44			1.20	53		7	2	20	40
Audio Books	110	75%		1.20	33		8	1	20	20
DVDs	131	75%		1.20	39		8	1	20	20

2,379

802

80

1,600

FUTURE EAST LINCOLN LIBRARY

BUILDING PROGRAM

OVERVIEW

The following pages provide a detailed enumeration of the programmatic elements for the future East Lincoln Branch Library. A description and explanation of the programming spreadsheet can be referenced below.

Column “A” organizes the spaces and areas within the library program.

Column “B” denotes the quantity of each program area or space (column “A”) and is multiplied by either columns “C” and “E”, or columns “D” and “F” to determine the ‘adjusted net square feet’ (ANSF), shown item in columns “G” and “H” for each program area or space.

- Columns “C” and “E” are used to determine the ANSF when the library desires a specified quantity of occupants per space (i.e. when the library desires a 200 person meeting room). Column “C” lists the desired number of occupants, and column “E” lists the total area in square feet per person that is required by building code.
- Columns “D” and “F” are used when the size of the program area or space is determined by an assumed length and width required to accommodate the programmatic needs determined in the focus group and community input meetings.
- Column “G” is the calculated ANSF per single program item. Column “H” multiplies column “G” by the quantity shown in column “B” to provide a total ANSF.
- Adjusted net square feet (ANSF) represents the net square-feet for an item and adjusted for clearances required for its actual use. For example, and 4'-0" x 6'-0" table has a net area of 24 square-feet, but is adjusted in the program to a 10'-0" x 10'-0" 100 square-foot area to allow room for patrons to circulate around the table, and to be able to move the chairs surrounding it.
- The total ANSF is calculated at the bottom of column “I”. This total ANSF does not account for the non-programmatic spaces such as circulation, mechanical rooms, wall thicknesses, public restrooms, janitorial/ custodial rooms, etc.

Column “J” totals the number of public seats provided in the library.

At the bottom of the spreadsheet, the ANSF is totaled for each project phase, and is multiplied by the net to gross multiplier to calculate the build’s total anticipated square-footage. This net to gross multiplier accounts for wall thicknesses, public restrooms, janitorial/custodial rooms, etc.

EAST LINCOLN LIBRARY BUILDING PROGRAM											
Area/Space A	Area								Totals I	Patron Seats J	Notes
	B	C	D	E	F	G	H				
	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF				
	OR		X	OR							
PUBLIC SPACE											
ENTRANCE									352		
Airlock	1		8		12	96	96				
Lobby	1		10		10	100	100				
RFID Security Gates	1		6		6	36	36				
Quick Access Collections									120		(linked from collection & shelving summary)
BOOK SALE AREA									64		
Book Sale Shelving / Display / Sales	1		8		8	64	64				
CHILDREN'S AREA									2,635		
Activity Center	1	12		15		180	180		12		
Children's Help Desk	1		10		10	100	100		1		
Interactive Learning Stations	2		4		4	16	32		2		
Juvenile Computers	6		6		5	30	180		6		
Lounge Seats	10		5		5	25	250		10		
OPACs	1		3		3	9	9			standup station	
Print / Copy / Scan	1		6		6	36	36				
Reader Tables (2-4 person)	6		8		10	80	480		18		
Family Toilet	1		8		8	64	64				
Nursing Room	1		8		8	64	64				
Sensory Room	1		10		12	120	120				
Easy + Juvenile Collection									1,120		(linked from collection & shelving summary)
CHILDREN'S PROGRAM ROOM									880		
Program Room / Story Time	1	40	0	15	0	600	600		40	accessible from staff workroom & youth staff	
Work Counter w/ Sink	1		6		10	60	60				
Storage - Supplies	1		10		12	120	120				
Storage - Table and Chair Storage	1		10		10	100	100			All furniture for program room should be able to fit in this space	
COLLECTIONS									1,118		
Adult Collection									1,100		(linked from collection & shelving summary)
OPACs	1		3		6	18	18			Stand up station	
FOOD SERVICE									108		
Table - 2 person - high top	2		3		6	18	36		4		
Vending Machine	2		3		4	12	24				
Vending Machine - Storage	1		6		8	48	48				
GROUP COLLABORATION									1,780		
Creation Studio - Maker Space	1	25		20		500	500		25	messy programs (i.e. painting, sewing, crafting), a/v recording for podcasts with green screen, computers with adobe software, charlie cart	
Creation Studio - Storage	1		10		10	100	100				
Digital Media Studio	1		15		20	300	300		4		
Small Meeting Room	1	20		15		300	300		4		
Small Meeting Room - Storage	1		10		10	100	100				
Group Study Room (4-6 person)	4		10		12	120	480		16		

EAST LINCOLN LIBRARY BUILDING PROGRAM														
Area/Space	Area								Totals	Patron Seats	Notes			
	Quantity	C # of Occupants	D Length	E ANSF per Person	F Width	G ANSF per item	H Total ANSF	I						
												OR	X	OR
HELP DESK	540													
Workstations	3													
Help Desk Workstation	2		10		8	80	160							
Help Desk Workstation - SAMS	1		6		6	36	36			Technology public access help workstation				
Book Carts	2		2		4	8	16							
Print / Copy / Scan	1		6		6	36	36			staff use				
Queuing Space	3		5		6	30	90			2 patrons standing at each workstation				
Self Service Book Return	1		4		4	16	16							
Self Service Check-out Kiosk	3		6		9	54	162							
Shelving - Storage	2		6		2	12	24			assumed 90" single face shelving				
MEETING ROOMS	2,620													
Large Meeting Room	2	80	0	15	0	1,200	2,400		160	dividable meeting room suite				
Large Meeting Room - Kitchenette	1		10		10	100	100							
Large Meeting Room - Storage	1		10		12	120	120							
SEATING	852													
Intergeneration Living Room	1	12	0	15	0	180	180		12	Seating area for all ages near children's, adult, and teen area				
Lounge Seating	8		5		5	25	200		8					
Table - 2 person	4		3		6	18	72		8					
Table - 4 person	4		10		10	100	400		16					
TECHNOLOGY	264													
Business Center	1		8		8	64	64			Patron Print / Copy / Scan area				
BYOT Area	4		4		5	20	80		4	BYOTechnology for personal devise use or laptop checkout				
Computers	6		4		5	20	120		6	Supplement hardwired computers with laptops				
Laptop Kiosk	1		8		8	64	64							
TEEN AREA	1,003													
Computers - YA	2		4		5	20	40		2					
Gaming Zone	2		8		8	64	128		8					
OPAC - YA	1		3		3	9	9			standup station				
Print / Copy / Scan	1		6		6	36	36							
Seating - Lounge	6		5		5	25	150		6					
Seating - Table - 4 person	3		10		10	100	300		12					
Teen Collection	340										(linked from collection & shelving summary)			

EAST LINCOLN LIBRARY BUILDING PROGRAM											
Area/Space	Area								Totals	Patron Seats	Notes
	B	C	D	E	F	G	H	I			
	Quantity	# of Occupants	Length	ANSF per Person	Width	ANSF per item	Total ANSF				
	OR		X	OR							
SUPPORT SPACE											
STAFF WORKROOM	1,808										
Offices	1										
Branch Manager	1		10		12	120	120				
Workstations	5										
Drive through workstation	1		8		8	64	64				
Staff workstation	3		8		8	64	192				
Volunteer workstation	1		8		8	64	64				
AMH Room	1		14		15	210	210				
Book Carts	6		2		4	8	48				
Charging Carts	3		4		4	16	48				
Shelving (SF, 90" Unit)	6		3		3	9	54				
Shelving - Experience Kit (Utility Shelv)	10		3		3	9	90				
Shipping & Receiving	1		10		12	120	120				
Staff Copier/Printer	1		6		10	60	60				
Staff Toilet	2		8		8	64	128				
Storage - Adult Programming	1		10		12	120	120				
Storage - Children's	1		10		12	120	120				
Storage - Custodial / Maintenance	1		8		10	80	80				
Storage - Supplies	1		10		10	100	100				
Trash + Recycling Bins	2		3		3	9	18				
Work Counter w/ sink	1		6		12	72	72				
Work Table (4 x6)	1		10		10	100	100				
STAFF BREAKROOM	256										
Lounge Seating	2		4		6	24	48				
4 Person Table	1		10		10	100	100				
Staff Lockers	4		2		6	12	48			double tier (8 lockers total)	
Kitchenette	1		6		10	60	60				
Total ANSF 14,280 384											
Net to Gross Multiplier 1.4											
TOTAL GROSS SF 19,992											

FUTURE EAST LINCOLN LIBRARY

COLLECTION SUMMARY

OVERVIEW

Working with the Lincoln County Library staff, MPS developed a collection summary that enumerates and quantifies the collection requirements to be included in the new East Lincoln Branch Library. This collection summary uses the Shanklin Library collection as a starting point, and provides increases as necessary to accommodate the new East Lincoln Library Branch.

COLLECTION SUMMARY

Column “A” lists each individual collection identified by MPS and the library staff that need to be shelved in the renovated library.

Column “B” identifies the collection measured in linear feet at the time of field verification. This number also accounts for the collection’s current circulation rate.

Columns “C” and “D” reflect anticipated collection weeding or anticipated growth of the collection over time.

Column “E” represents an adjustment factor to account for how much empty space should be provided per shelf.

- An adjustment factor of 1.00 assumes that each 3’-0” shelf is at 100% capacity.
- An adjustment factor of 1.20 provides 6” of empty space per 3’-0” library shelf.
- An adjustment factor of 1.50 provides 12” of empty space per 3’-0” library shelf.

Column “F” totals how many linear feet of collection should be shelved in the library renovation design.

Column “G” calculates how many standard 3’-0” library shelves should be provided in the library renovation to shelve the total number of linear feet of collection.

MPS and the library worked together to determine how tall the shelving should be for each collection. This information, listed as shelves per side for one single face shelving unit, is shown in column “H”.

Column “I” calculates how many double face shelving units should be provided in the library renovation.

Finally, column “I” is multiplied by the square-footage occupied by each double face unit (column “J”) to determine how much area (in square feet) each library collection needs (column “K”). This area is then included in the detailed program summary.

EAST LINCOLN LIBRARY COLLECTION AND SHELVING SUMMARY											
Collection	Collection By Occupied Linear Feet of Shelving					OR		Shelving Configuration			Area
A	B	C	D	E	F		G	H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Total # of 3' shelves	Shelves per SF Side	# of DF units	SF per DF unit	Total SF
E - Board Books	10		100%	1.20	24		8	2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	2	20	40
E - Picture Books	193		50%	1.20	347		116	3	20	20	400

EAST LINCOLN LIBRARY COLLECTION AND SHELVING SUMMARY										
Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
A	B	C	D	E	F		H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	Total SF
QUICK ACCESS					156		5	6	20	120
Holds	30		100%	1.00	60		3	4	20	80
Rotating Collection	24		50%	1.00	36		3	2	20	40
Homeschool Connection	3		50%	1.00	5		3	1	20	20
Mobile Device	6		50%	1.00	9		3	1	20	20
Stories To Go	3		50%	1.00	5		3	1	20	20
WiFi Device	18		50%	1.00	27		3	2	20	40
Book Club Kits	10		50%	1.00	15		3	1	20	20
EASY + JUVENILE	684				1162			56		1,120
New Arrivals	15		20%	1.20	22		3	2	20	40
E - Board Books	10		100%	1.20	24		3	2	20	40
E - Picture Books	193		50%	1.20	347		3	20	20	400
E - Readers	74		50%	1.20	133		3	8	20	160
Juv - Fiction	220		50%	1.20	396		5	14	20	280
Juv - Holiday	18		20%	1.20	26		5	1	20	20
Juv - Non Fiction	120		20%	1.20	173		5	6	20	120
Audio Books	8		0%	1.20	10		3	1	20	20
DVDs	26		0%	1.20	31		3	2	20	40
TEEN COLLECTION	205				492			17		340
New Arrivals	15		100%	1.20	36		3	1	20	20
YA - Graphic Novels	10		100%	1.20	24		5	1	20	20
YA - Fiction	180		100%	1.20	432		5	15	20	300

EAST LINCOLN LIBRARY COLLECTION AND SHELVING SUMMARY										
Collection	Collection By Occupied Linear Feet of Shelving					OR	Shelving Configuration			Area
A	B	C	D	E	F		H	I	J	K
	Collection (in linear feet)	Anticipated Reduction	Anticipated Increase	Adjustment Factor (empty space on shelf)	Total LF Required		Shelves per SF Side 2 = 42"/45" 3 = 42"/45" 4 = 66" 5 = 66"-90" 6 = 84"/90" 7 = 84"/90"	# of DF units	SF per DF unit	Total SF
ADULT COLLECTION	862				1696			55		1,100
New Arrivals	28		100%	1.20	67		3	4	20	80
Biography, Ref, Oversize	60		50%	1.20	108		5	4	20	80
Fiction	235		75%	1.20	494		5	17	20	340
Large Print	90		75%	1.20	189		5	7	20	140
Non-Fiction	205		20%	1.20	295		5	10	20	200
Paperbacks	44		20%	1.20	63		5	3	20	60
Audio Books	100		100%	1.20	240		8	5	20	100
DVDs	100		100%	1.20	240		8	5	20	100

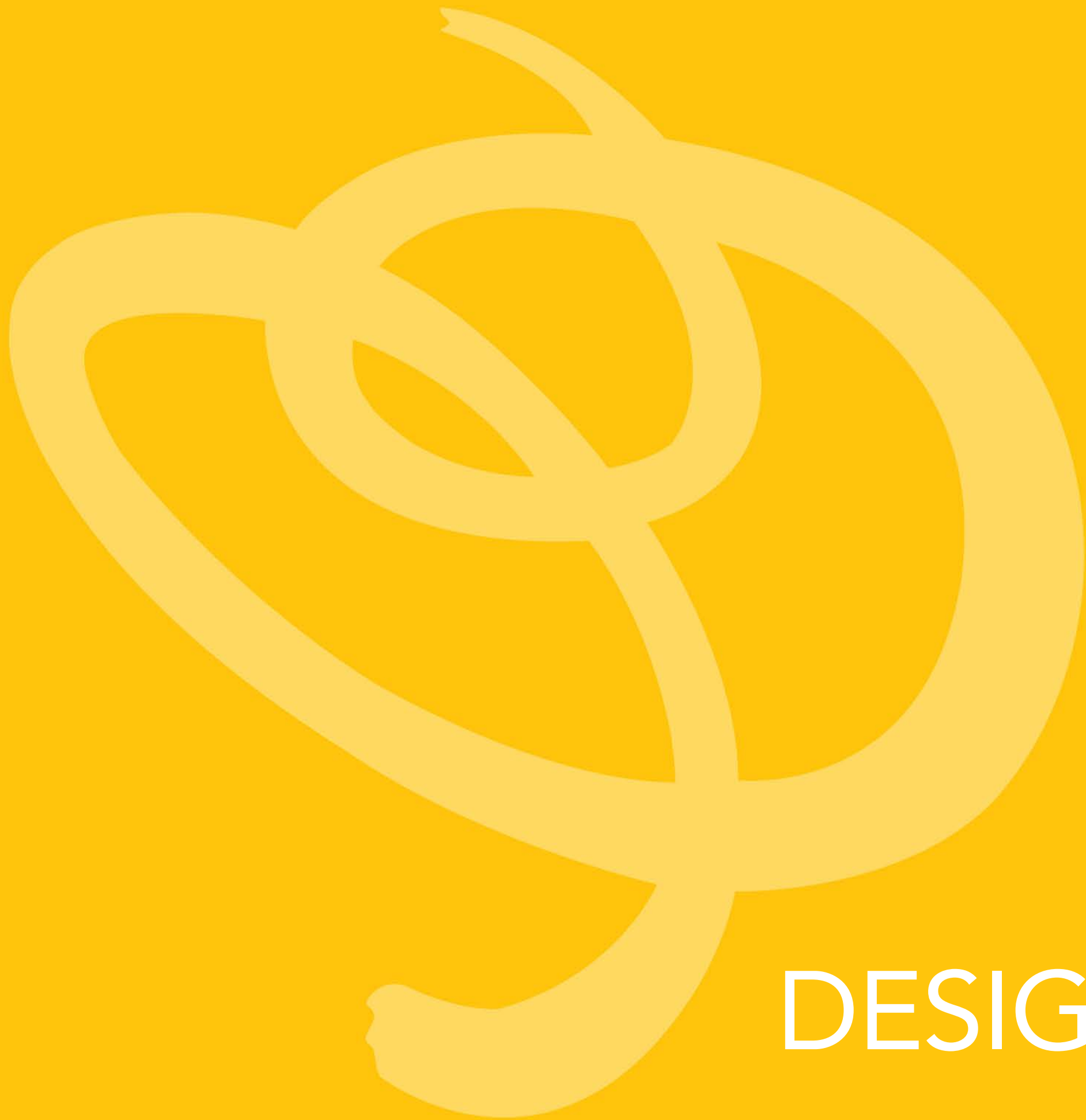
3,506

1,170

134

2,680

6



DESIGN CONCEPTS

FLORENCE S. SHANKLIN LIBRARY

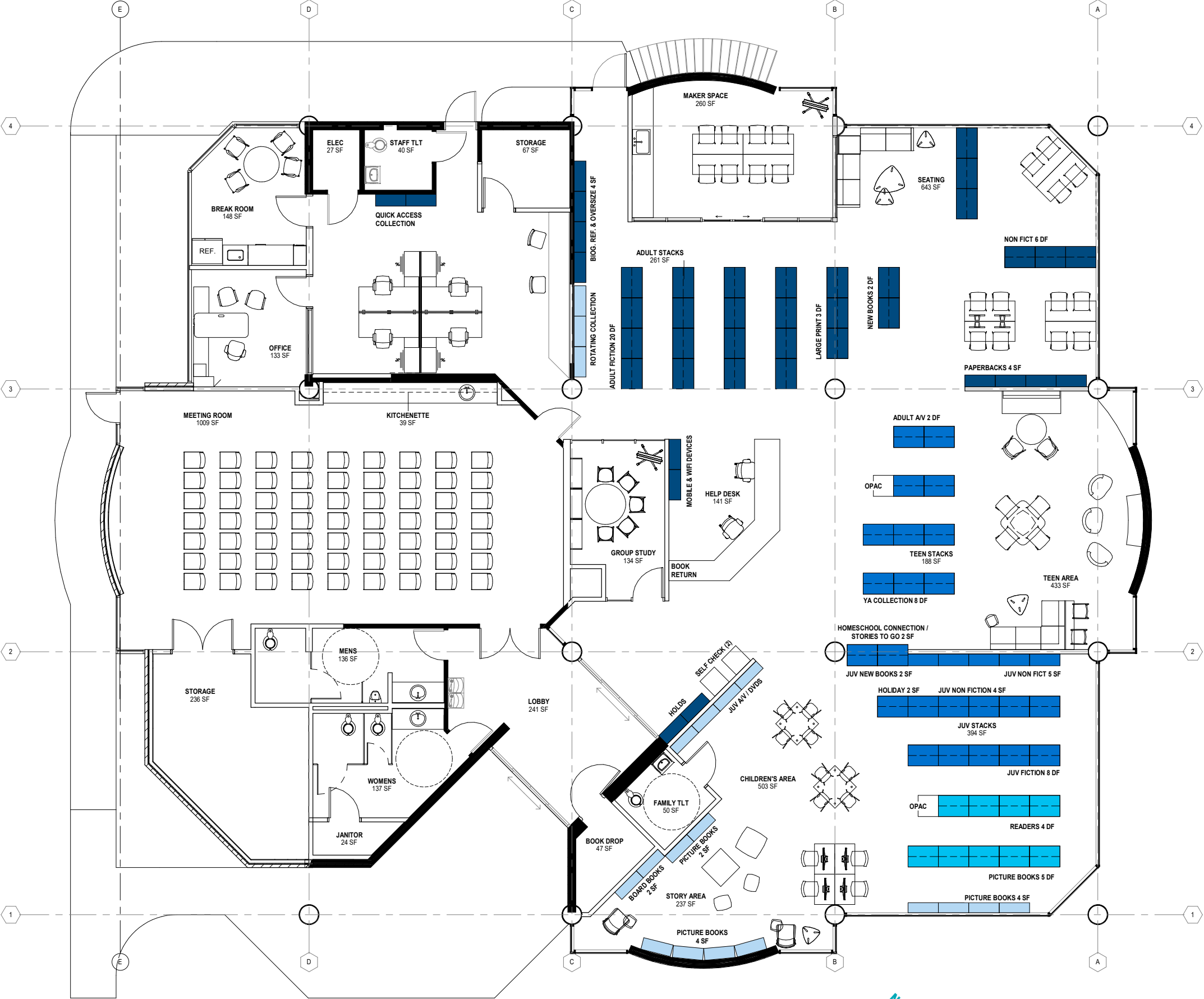
CONCEPTUAL PLAN

OVERVIEW

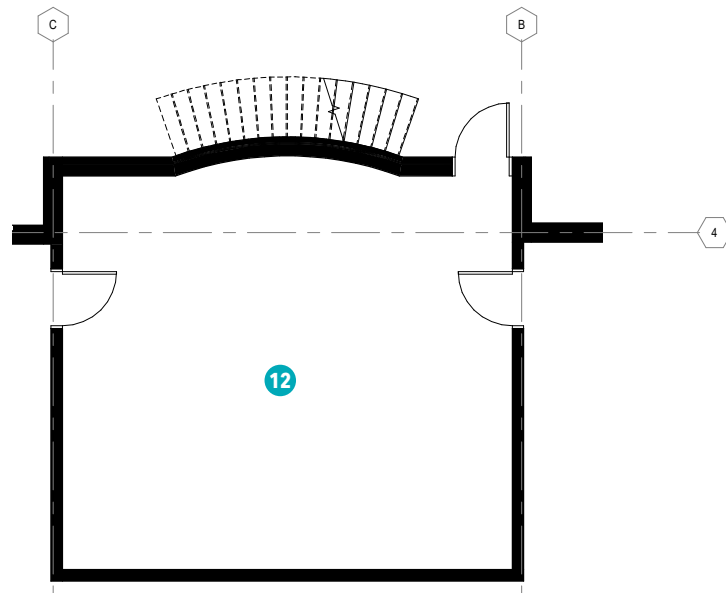
The design concept to the right frees up floor area by reducing and consolidating the library's collection, and provides a small addition to expand the existing meeting room, staff spaces, and storage areas.

By expanding and reconfiguring the existing building, Shanklin Library is able to provide the following:

- Seating areas near the windows
- New creation studio / maker space
- New teen area
- More seating at the children's area
- New family restroom
- ADA compliant public restrooms
- Expanded meeting room, kitchenette, and meeting room storage
- Expanded staff workroom and storage room, with adequately sized staff office and break room



 **PROPOSED MAIN LEVEL FLOOR PLAN**
3/32" = 1'-0"



MECHANICAL DEMO FLOOR PLAN

3/32" = 1'-0"

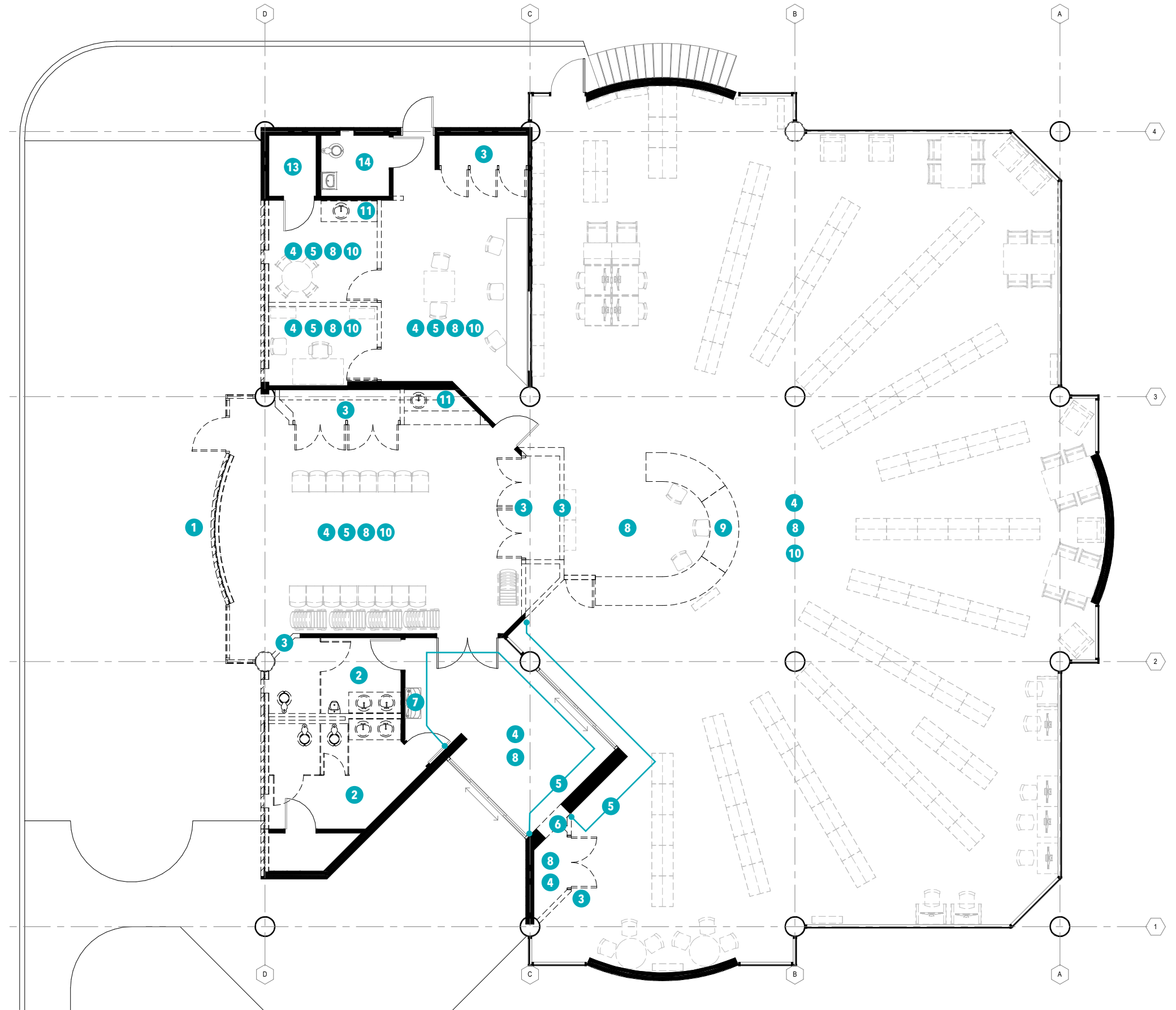
CONCEPTUAL DEMOLITION PRICING PLANS

OVERVIEW

The following notes were provided to Cost Plus Estimating in order to obtain a conceptual construction estimate.

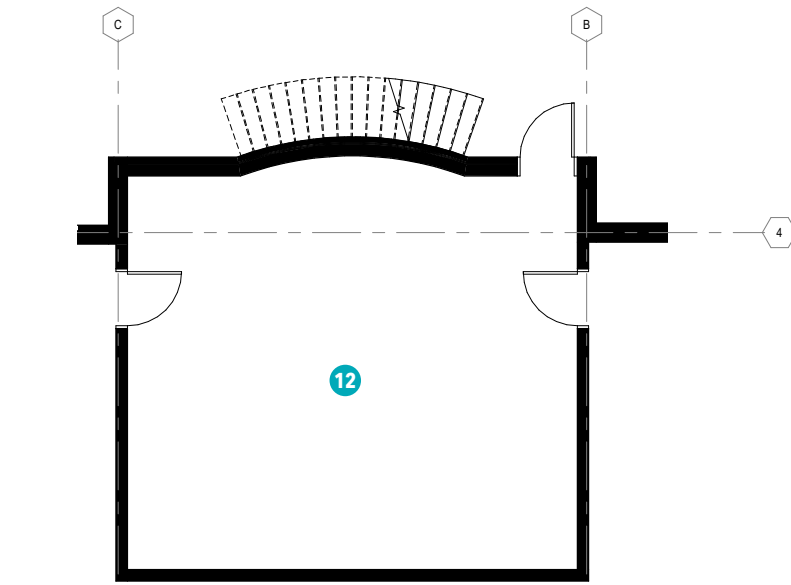
CONCEPTUAL DEMOLITION NOTES

- 1 Demolish existing exterior walls and window systems.
- 2 Demolish existing floor tiles, tile wainscot, restroom partitions and accessories, sinks and associated casework, toilets and urinals, ACT ceiling, lighting, and mechanical accessories.
- 3 Demolish existing interior wall and any associated doors or windows.
- 4 Demolish existing ceiling.
- 5 Demolish existing wall covering (0'-0" AFF to +/- 10'-0" AFF; prepare wall for new finishes.
- 6 Demolish a portion of the existing wall for new door.
- 7 Existing tile wainscot to remain. (0'-0" AFF to 7'-2" AFF).
- 8 Demolish existing lighting.
- 9 Demolish existing Help Desk
- 10 Demolish existing carpet.
- 11 Demolish existing kitchenette in its entirety.
- 12 Demolish existing mechanical system in its entirety.
- 13 Area not in scope.
- 14 Demolish existing floor tiles, tile wainscot, plumbing fixtures, ceiling, and lighting.



MAIN LEVEL DEMO FLOOR PLAN

3/32" = 1'-0"



 **MECHANICAL DEMO FLOOR PLAN**
3/32" = 1'-0"

CONCEPTUAL PRICING PLANS

OVERVIEW

Conceptual design plans were provided to Cost Plus Estimating in order to develop a conceptual statement of probable construction cost.



 **PROPOSED MAIN LEVEL FLOOR PLAN**
3/32" = 1'-0"

CONCEPTUAL PRICING PLAN NOTES

OVERVIEW

The following notes were provided to Cost Plus Estimating in order to obtain a conceptual construction estimate.

CONCEPTUAL PLAN NOTES

- 1

New exterior wall system;
5/8" Gypsum board
4" Metal stud with batt insulation
5/8" plywood sheathing
1" Polyiso continuous insulation
Face brick to match existing
New monoslope standing seam metal roof on wood trusses above.
New interior wall system;
3 5/8" metal studs with full height acoustical insulation
5/8" gypsum wall board each side
- 2

New 4.5" exterior storefront system; 0'-0" - 10'-0" AFF.
- 3

Patch and repair gypsum board. Install new ACT ceiling, LED lighting, and mechanical devices. New paint.
- 4

New epoxy flooring system with cove base. New full height ceramic wall tile, typical all walls. New floor mounted toilets/urinals. New restroom partitions and accessories. New gypsum ceiling, LED lighting, and mechanical accessories. New solid surface counter top with apron, under-mount sink with pipe insulation below.
- 5

New help desk millwork; solid surface top, plastic laminate lower millwork. Provide 1 book drop return slot. Existing wood accent ceiling to remain, provide new LED lighting. New paint at plan west wall.
- 6

New STC rated interior glass wall system; assume demountable furniture system. New carpet. New paint. New wall covering at plan west media wall. New gypsum ceiling with acoustical insulation above, LED lighting, and mechanical accessories.
- 7

Reading Room typical finishes. New carpet; assume 3 carpet tile design. New paint. New ACT ceiling, LED lighting, and mechanical accessories.
- 8

New flocked resilient tile flooring at this area; see note 7 for additional notes.
- 9

New STC rated interior glass wall system with sliding double sliding doors; assume demountable furniture system, 0'-0" - 10'-0" AFF. New LVT flooring. New epoxy paint. New ACT ceiling, LED lighting, and mechanical accessories. New solid surface counter top, under-mount sink with plaster trap, and custom upper / lower lockable plastic laminate millwork with tile back splash. Provide (2) new floor boxes.
- 10

New flocked resilient tile flooring. New paint. New interior brick veneer finish at curved exterior wall. New ACT ceiling, LED lighting, and mechanical accessories. New solid surface counter top, under-mount sink, and custom upper / lower lockable plastic laminate millwork with tile back splash at kitchenette. Provide new under counter refrigerator and ice maker. Provide (2) new floor boxes. New ceiling mounted projector screen at plan west wall.
- 11

New LVT flooring. New paint. New ACT ceiling, LED lighting, and mechanical accessories.
- 12

New epoxy flooring system with cove base. New full height ceramic wall tile, typical all walls. New floor mounted toilet. New restroom accessories. New gypsum ceiling, LED lighting, and mechanical accessories. New wall mounted sink with pipe insulation below.
- 13

New LVT flooring. New paint. New ACT ceiling, LED lighting, and mechanical accessories. New power for new workstations. Provide 4 new double metal lockers.

- 14

New LVT flooring. New paint. New ACT ceiling, LED lighting, and mechanical accessories. New solid surface counter top, under-mount sink with garbage disposal, and custom upper / lower plastic laminate millwork with tile back splash at kitchenette. Provide new dishwasher, refrigerator, and microwave.
- 15

New sidewalk at addition.
- 16

Pressure-wash exterior masonry veneer to remain, typical all facades.
- 17

Provide new gutter and downspouts at plan north and east roof line.
- 18

Re-size and replace existing crawl space vents, typical for plan north and east facades.
- 19

Re-caulk all existing exterior windows.
- 20

Diagnose and repair electrical circuit failure for wall power at plan north and east facades.
- 21

Provide new floor box where indicated.
- 22

Install new mechanical system. Assume a partial removal and re-installation of exterior wall will be necessary to remove existing system and install new system. Reference systems narrative for additional information.
- 23

Regrade along building facade and provide new landscaping

General notes:
Assume that additional wall power is provided where furniture is shown. Furniture and shelving shall not be included in construction pricing. Existing roof to remain. Existing sitework and landscaping to remain unless noted otherwise.

CONCEPTUAL PROJECT BUDGET

10/5/2022

I. TOTAL ESTIMATED CONSTRUCTION COST					\$2,479,260
A. Estimated Construction Cost					
a. from cost estimate	7,156 GSF @	\$267	per SF	\$1,907,123	
B. Design Contingency & Escalation	15.00% of A			\$286,068	
C. Construction Contingency	15.00% of A			\$286,068	
(unforeseen site conditions and minor scope changes during construction)					
II. FIXTURES FURNISHINGS & EQUIPMENT COSTS					\$345,185
D.1 Fixtures and Furnishings					
a. Furniture	7,156 GSF @	\$30	per SF	\$214,680	
(assumes all existing furniture is removed and replaced)					
b. Shelving	7,156 GSF @	\$10	per SF	\$71,560	
(assumes reuse and modification of existing shelving and new end panels)					
c. Shelving Signage	7,156 GSF @	\$1.25	per SF	\$8,945	
D.2 Equipment Allowances					
a. RFID System / AMH / Self Check				\$0	
b. Building Security System				\$20,000	
c. Audio Visual Equipment				\$25,000	
d. Creation Studio Equipment				\$5,000	
III PROFESSIONAL DESIGN COMPENSATION					\$300,956
E.1 Pre Design Services					
a. Site Feasibility Studies				\$0	
E.2 Architecture and Engineering Design Services					
a.	8% of I. (Total Est Construction Cost)			\$198,341	
E.3 Interior Design Services					
a. FF&E Design and Procurement	8% of II. (Fixtures & Furnishing Costs)			\$27,615	
E.4 Additional Service Allowances					
a. Landscape Architect				\$5,000	
b. Civil Engineering Permitting Services				\$15,000	
(minor sitework near the building addition, re-grading at north east facade)					
c. Building Envelope Consultant				\$20,000	
(Diagnose Building Envelope Moisture Infiltration)					
d. Cost Estimating				\$10,000	
E.5 Reimbursable Expense Allowance					
travel, meals, printing, renderings, models, postage, etc.....				\$25,000	
IV OWNER'S COSTS					\$40,000
F.1 Pre-Design Phase Expenses					
a. Land Acquisition Cost				\$0	
I.K Design & Construction Testing Expenses					
a. Site Survey				\$10,000	
b. Commissioning agent	(LEED required)			\$0	
(assumes no commissioning required for new mechanical system)					
c. Geotechnical testing				\$10,000	
d. Special inspections	(Code required)			\$20,000	
I.L Post Construction Expenses					
a. Library materials	(TBD)			\$0	
b. Moving cost/s allowances	(TBD)			\$0	
c. Temporary storage	(TBD)			\$0	
VI. ESTIMATED TOTAL PROJECT BUDGET					\$3,165,400

CONCEPTUAL STATEMENT OF PROBABLE CONSTRUCTION COST

Schematic Design: Construction Cost Estimate

PROJECT: Frances S. Shanklin Library

LOCATION: Dallas, NC

OWNER: Lincoln County Libraries

ARCHITECT: McMillan Pazdan Smith

COST PLUS

+++++

864 / 653-6320

Cpestimating@ATT.net

www.Costplusestimating.com

06 - October - 2022

Estimator: R. Roark

Project No: 58-22

Project Area:

+ Renovations6,080 SF

+ Addition1,076 SF

Total Building Area7,156 SF

Probable Construction Cost Summary	TOTAL COST	COST / SF	% OF COST
01 GENERAL CONDITIONS	\$145,000	\$20.26	7.60%
02 SELECTIVE DEMOLITION	\$63,520	\$8.88	3.33%
03 CONCRETE	\$17,122	\$2.39	0.90%
04 MASONRY	\$23,587	\$3.30	1.24%
06 WOOD, PLASTICS & COMPOSITES	\$63,582	\$8.89	3.33%
07 THERMAL & MOISTURE PROTECTION	\$40,313	\$5.63	2.11%
08 DOORS & WINDOWS	\$106,080	\$14.82	5.56%
09 FINISHES	\$219,390	\$30.66	11.50%
10 SPECIALTIES	\$18,895	\$2.64	0.99%
11 EQUIPMENT	\$10,450	\$1.46	0.55%
12 FURNISHINGS	\$0	\$0.00	0.00%
21 FIRE PROTECTION	\$0	\$0.00	0.00%
22 PLUMBING	\$55,985	\$7.82	2.94%
23 HVAC	\$322,650	\$45.09	16.92%
26 ELECTRICAL	\$235,923	\$32.97	12.37%
27 COMMUNICATIONS	\$26,000	\$3.63	1.36%
28 ELECTRONIC SAFETY & SECURITY	\$58,250	\$8.14	3.05%
31 EARTHWORK	\$59,050	\$8.25	3.10%
32 EXTERIOR IMPROVEMENTS	\$12,908	\$1.80	0.68%
33 UTILITIES	\$0	\$0.00	0.00%
SUBTOTAL	\$1,478,705	\$206.64	77.54%
MARK-UPS			
- Bonding & Insurance2.15%	\$31,792	\$4.44	1.67%
- Overhead & Profit10.00%	\$147,871	\$20.66	7.75%
SUBTOTAL:	\$1,658,368	\$231.75	86.96%
- Design / Estimating Contingency10.00%	\$165,837	\$23.17	8.70%
- Escalation (12 months)5.00%	\$82,918	\$11.59	4.35%
TOTAL ESTIMATED PROBABLE CONSTRUCTION COST:	\$1,907,123	\$266.51	100.00%

01 GENERAL CONDITIONS

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
General Conditions of the Contract	1	LS		0		0	145,000	145,000	145,000
<u>Includes:</u>									
* Management & Coordinatio									
* Field Personnel									
* Documentation									
* Regulations / Quality Control									
* Testing / Reports									
* Temporary Services									
* Office / Storage / Staggering									
* Construction Aids									
SUBTOTAL - GENERAL CONDITIONS			0		0		\$145,000		\$145,000

02 SELECTIVE DEMOLITION

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
<u>Remove: (Includes Haul & Dump)</u>									
- exterior wall system	840	SF		0		0	8	6,720	6,720
- floor tile	280	SF		0		0	3.75	1,050	1,050
- carpet	5,795	SF		0		0	0.40	2,318	2,318
- tile wainscot	420	SF		0		0	2.50	1,050	1,050
- wall covering / prep walls	1,560	SF		0		0	0.75	1,170	1,170
- toilet partition	3	EA		0		0	35	105	105
- toilet accessories	1	LS		0		0	450	450	450
- plumbing fixtures	10	EA		0		0	185	1,850	1,850
- counters	10	LF		0		0	10.50	105	105
- ceilings / lighting	6,075	SF		0		0	2.05	12,454	12,454
- doors / frames	16	EA		0		0	85	1,360	1,360
- interior walls	1,536	SF		0		0	1.85	2,842	2,842
- cut new door opening	1	EA		0		0	285	285	285
- help desk	32	LF		0		0	20	640	640
- kitchenette	6	LF		0		0	25	150	150
- mechanical / electrical systems	1	LS		0		0	15,000	15,000	15,000
- misc. items	1	LS		0		0	4,721	4,721	4,721
Protect Existing Materials	1	LS		0		0	2,500	2,500	2,500
Shoring / Bracing	1	LS		0		0	8,750	8,750	8,750
Hazardous Material Abatement	N/A			0		0		0	0
SUBTOTAL - SELECTIVE DEMOLITION				0		0	\$63,520		\$63,520

03 CONCRETE

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Footings / Foundation (complete)	5	CY		0		0	1,025	5,125	5,125
Slab on Grade (Complete System)	1,076	SF		0		0	11.15	11,997	11,997
SUBTOTAL - CONCRETE			0		0		\$17,122		\$17,122

04 MASONRY

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Brick Veneer	916	SF		0		0	25.75	23,587	23,587
SUBTOTAL - MASONRY			0		0		\$23,587		\$23,587

06 WOOD, PLASTICS & COMPOSITES

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Blocking / Nailers	202	BF		0		0	3.80	768	768
Wood Truss Roof Structure / Sheathing	1,275	SF		0		0	21.25	27,094	27,094
<u>Casework:</u>									
- Base Cabinets	40	LF		0		0	325	13,000	13,000
- Wall Cabinets	40	LF		0		0	185	7,400	7,400
- Help Desk	22	LF		0		0	485	10,670	10,670
- Counter	16	LF		0		0	125	2,000	2,000
- Restroom Vanities	10	LF		0		0	265	2,650	2,650
SUBTOTAL - WOOD, PLASTICS & COMPOSITES			0		0		\$63,582		\$63,582

07 THERMAL & MOISTURE PROTECTION

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Existing Metal Roofing System	No Work			0			0	0	0
New Metal Roofing System @ Addition	14	SQ		0			1,890	26,460	26,460
Gutters / Downspouts	1	LS		0		0	5,328	5,328	5,328
Replace Foundation Vents	8	EA		0		0	485	3,880	3,880
Recaulk / Seal Exterior Windows	1	LS		0		0	4,645	4,645	4,645
SUBTOTAL - THERMAL & MOISTURE PROTECTION			0		0		\$40,313		\$40,313

08 DOORS & WINDOWS

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
<u>Doors / Frames / Hardware:</u>									
- Glass - Entry	1	EA		0		0	3,275	3,275	3,275
- SCWD, flush (Interior)	7	EA		0		0	1,375	9,625	9,625
- SCWD, w/ view glass (Interior)	2	EA		0		0	1,530	3,060	3,060
- Interior Glass (Bi-Parting) - manual	1	PR		0		0	3,370	3,370	3,370
New Hardware @ Existing Doors	1	LS		0		0	7,350	7,350	7,350
Interior Storefront System	44	LF		0		0	725	31,900	31,900
Exterior Storefront System	500	SF		0		0	95	47,500	47,500
SUBTOTAL - DOORS & WINDOWS				0		0	\$106,080		\$106,080

09 FINISHES

Item Description			Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
					u/c	Total	u/c	Total	u/c	Total	
<u>Floors:</u>											
- poured epoxy			373	SF		0		0	24	8,952	8,952
- LVT			1,356	SF		0		0	8.50	11,526	11,526
- Carpet			1,318	SF		0		0	5	6,590	6,590
- Resilient , flocked			3,621	SF		0		0	9	32,589	32,589
<u>Base:</u>											
- 4" rubber			940	LF		0		0	4.25	3,995	3,995
- epoxy			174	LF		0		0	10.50	1,827	1,827
<u>Wall Systems:</u> (MI Studs / Insulation / GWB)											
- Exterior: 6" (complete system)			724	SF		0		0	17.45	12,634	12,634
- interior wall system, 4"			3,038	SF		0		0	9.15	27,798	27,798
- interior wall system, 6"			72	SF		0		0	10.40	749	749
- interior wall system, 8"			456	SF		0		0	12.75	5,814	5,814
- demountable systems			14	LF		0		0	385	5,390	5,390
- patch / repair walls			425	LF		0		0	8	3,400	3,400

09 FINISHES - Continued

Item Description			MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
Quantity	u/m	u/c	Total	u/c	Total	u/c	Total		
<u>Ceilings:</u>									
- ACT: 2'x2'	6,410	SF	0		0	5.75	36,858	36,858	
- GWB	524	SF	0		0	7.50	3,930	3,930	
<u>Painting / Wall Covering:</u>									
- paint walls	8,327	SF	0		0	0.95	7,911	7,911	
- paint walls (epoxy)	668	SF	0		0	1.50	1,002	1,002	
- wall tile	1,747	SF	0		0	25	43,675	43,675	
- WC (wall covering)	200	SF	0		0	12	2,400	2,400	
- doors / frames (new & existing)	16	EA	0		0	75	1,200	1,200	
Pressure Wash Exterior	1	LS	0		0	1,150	1,150	1,150	
SUBTOTAL - FINISHES			0		0	\$219,390		\$219,390	

10 SPECIALTIES

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
<u>Toilet Partitions :</u>									
- standard	1	EA		0		0	2,050	2,050	2,050
- handicap	2	EA		0		0	2,275	4,550	4,550
Urinal Screen	1	EA		0		0	715	715	715
<u>Accessories :</u>									
- GB18	4	EA		0		0	85	340	340
- GB36	4	EA		0		0	100	400	400
- GB42	4	EA		0		0	115	460	460
- TTD	5	EA		0		0	75	375	375
- SD	4	EA		0		0	60	240	240
- CH	3	EA		0		0	5	15	15
- SND	2	EA		0		0	125	250	250
- MR (Framed)	2	EA		0		0	200	400	400
- MR (Vanity)	50	SF		0		0	15	750	750
- PTD	4	EA		0		0	230	920	920
- Changing Station	2	EA		0		0	560	1,120	1,120
Mop Rack & Shelf	1	EA		0		0	260	260	260
Visual Display Boards:	N/C								
Interior Signage	1	LS		0		0	4,750	4,750	4,750
Fire Extinguishers / Cabinets	4	EA		0		0	325	1,300	1,300
SUBTOTAL - SPECIALTIES				0		0	\$18,895		\$18,895

11 EQUIPMENT

			MATERIAL		LABOR		SUBCONTRACT		TOTAL COST	
Item Description	Quantity	u/m	u/c	Total	u/c	Total	u/c	Total		
Dishwasher / Refrigerator / Microwave	1	LS		0		0	4,500	4,500	4,500	
Undercounter Refrigerator / Ice Maker	1	LS		0		0	2,250	2,250	2,250	
Lockers	4	EA		0		0	325	1,300	1,300	
Projector Screen	1	EA		0		0	2,400	2,400	2,400	
Office Equipment	N/C			0		0		0	0	
SUBTOTAL - EQUIPMENT				0		0	\$10,450		\$10,450	

12 FURNISHINGS

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Window Blinds	By Owner			0		0		0	0
Stacks	By Owner			0		0		0	0
Shelving / Storage Systems	By Owner			0		0		0	0
Loose Furniture	By Owner			0		0		0	0
SUBTOTAL - FURNISHINGS				0		0		\$0	\$0

21 FIRE PROTECTION

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Sprinkler System	N/A			0		0		0	0
SUBTOTAL - FIRE PROTECTION				0		0		\$0	\$0

22 PLUMBING

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
New Plumbing Systems	1	LS		0		0	55,985	55,985	55,985
* Includes: - New Fixtures - Water Heater - Sump Pump - Floor Drains - Water Distribution - Sanitary Waste / Venting - Insulation									
SUBTOTAL - PLUMBING				0		0		\$55,985	\$55,985

23 H.V.A.C.

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Remove / Rebuild Exterior Wall (Access	1	LS		0		0	10,450	10,450	10,450
New Mechanical System:	1	LS		0		0	312,200	312,200	312,200
* Includes: - Equipment - Building Piping - Ductwork / Fittings - Insulation - Controls - Test & Balance									
SUBTOTAL - H.V.A.C.				0		0		\$322,650	\$322,650

26 ELECTRICAL

Item Description		Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
				u/c	Total	u/c	Total	u/c	Total	
Transformer:		Existing								
New Electrical Systems:		1	LS		0		0	235,923	235,923	235,923
* Includes:										
- Main Panel										
- Branch Panels										
- Distribution										
- Receptacles / floor boxes										
- Lighting / Controls										
SUBTOTAL - ELECTRICAL					0		0		235,923	\$235,923

27 COMMUNICATIONS

Item Description			Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
					u/c	Total	u/c	Total	u/c	Total	
<u>Telecommunications System (Rough-In)</u>											
- Raceways / Power Connections			1	LS		0		0	18,500	18,500	18,500
- Technology Systems			By Owner			0		0		0	0
<u>Audio / Visual Raceway (Rough-In)</u>											
- Raceways / Power Connections			1	LS		0		0	7,500	7,500	7,500
- A/V Systems			By Owner			0		0		0	0
SUBTOTAL - COMMUNICATIONS						0		0		\$26,000	\$26,000

28 ELECTRONIC SAFETY & SECURITY

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
<u>Fire Alarm System:</u>									
- Control Pnl / Devices / Wiring & Condi	1	LS		0		0	40,000	40,000	40,000
<u>Security System Raceway (Rough-In)</u>									0
- Raceways / Power Connections	1	LS		0		0	18,250	18,250	18,250
- CCTV / Access Control / Systems		By Owner		0		0		0	0
SUBTOTAL - ELECTRONIC SAFETY & SECURITY				0		0	\$58,250		\$58,250

31 EARTHWORK

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Mobilization	1	LS		0		0	25,000	25,000	25,000
Construction Fencing	350	LF		0		0	18	6,300	6,300
Construction Gates	1	PR		0		0	1,200	1,200	1,200
Signage / Barriers	1	LS		0		0	2,500	2,500	2,500
Construction Entrance	1	LS		0		0	2,450	2,450	2,450
Layout / Staking	1	LS		0		0	3,500	3,500	3,500
<u>Demolition: (Incl. Haul & Dump)</u>									
- misc. @ New Addition / Walks	1	LS		0		0	5,000	5,000	5,000
<u>Erosion Control Measures:</u>									
<u>Grading:</u>									
- Rough Grading	1	LS		0		0	3,350	3,350	3,350
- Final Grading	1	LS		0		0	1,250	1,250	1,250
- ReGrading @ East Side	1	LS		0		0	2,500	2,500	2,500
<u>Stormwater Management:</u>									
- roof drain leaders / tie-in	175	LF		0		0	20	3,500	3,500
SUBTOTAL - EARTHWORK				0		0		\$59,050	\$59,050

32 EXTERIOR IMPROVEMENTS

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Concrete Walks @ Addition	720	SF		0		0	8.90	6,408	6,408
Landscaping @ East Side	1	LS		0		0	6,500	6,500	6,500
Irrigation Systems	N.I.C.			0		0		0	0
Site Furnishings	N.I.C.			0		0		0	0
SUBTOTAL - EXTERIOR IMPROVEMENTS				0		0		\$12,908	\$12,908

33 UTILITIES

Item Description	Quantity	u/m	MATERIAL		LABOR		SUBCONTRACT		TOTAL COST
			u/c	Total	u/c	Total	u/c	Total	
Water Distribution:	Existing			0		0		0	0
Sanitary Sewer:	Existing			0		0		0	0
Electrical Service	Existing			0		0		0	0
Site Lighting	Existing			0		0		0	0
SUBTOTAL - UTILITIES				0		0		0	0
SUBTOTAL				\$0		\$0		\$1,478,705	\$1,478,705
- Bonding & Insurance	2.15%								\$31,792
- Overhead & Profit	10.00%								\$147,871
SUBTOTAL:									\$1,658,368
- Design / Estimating Contingency	10.00%								\$165,837
- Escalation (12 Months)	5.00%								\$82,918
SUBTOTAL:									\$1,907,123

Unit Cost: \$266.51 / SF

CHARLES R. JONAS LIBRARY

CONCEPTUAL PROJECT BUDGET

I. TOTAL ESTIMATED CONSTRUCTION COST					\$20,475,000
A. Estimated Construction Cost					
a. multi-story new library on existing site	46,800 GSF @	\$350	per SF	\$16,380,000	
B. Design Contingency & Escalation					
	15.00% of A			\$2,457,000	
C. Construction Contingency					
(unforeseen site conditions and minor scope changes during construction)	10.00% of A			\$1,638,000	
II. FIXTURES FURNISHINGS & EQUIPMENT COSTS					\$2,923,500
D.1 Fixtures and Furnishings					
a. Furniture	46,800 GSF @	\$30	per SF	\$1,404,000	
(assumes all existing furniture is removed and replaced)					
b. Shelving	46,800 GSF @	\$20	per SF	\$936,000	
(assumes reuse of existing shelving supplement with new for growing collections)					
c. Shelving Signage	46,800 GSF @	\$1.25	per SF	\$58,500	
D.2 Equipment Allowances					
a. RFID System / AMH / Self Check				\$350,000	
b. Building Security System				\$50,000	
c. Audio Visual Equipment				\$100,000	
d. Creation Studio Equipment				\$25,000	
III PROFESSIONAL DESIGN COMPENSATION					\$1,981,880
E.1 Pre Design Services					
a. Site Feasibility Studies				\$0	
E.2 Architecture and Engineering Design Services					
a.	8% of I. (Total Est Construction Cost)			\$1,638,000	
E.3 Interior Design Services					
a. FF&E Design and Procurement	8% of II. (Fixtures & Furnishing Costs)			\$233,880	
E.4 Additional Service Allowances					
a. Landscape Architect				\$30,000	
b. Civil Engineering Permitting Services				\$30,000	
d. Cost Estimating				\$20,000	
E.5 Reimbursable Expense Allowance					
travel, meals, printing, renderings, models, postage, etc.....				\$30,000	
IV OWNER'S COSTS					\$60,000
F.1 Pre-Design Phase Expenses					
a. Land Acquisition Cost				\$0	
I.K Design & Construction Testing Expenses					
a. Site Survey				\$20,000	
b. Commissioning agent	(LEED required)			\$0	
(assumes no commissioning required for new mechanical system)					
c. Geotechnical testing				\$20,000	
d. Special inspections	(Code required)			\$20,000	
I.L Post Construction Expenses					
a. Library materials	(TBD)			\$0	
b. Temporary storage	(TBD)			\$0	
VI. ESTIMATED TOTAL PROJECT BUDGET					\$25,440,380

FUTURE EAST LINCOLN LIBRARY

CONCEPTUAL PROJECT BUDGET

I. TOTAL ESTIMATED CONSTRUCTION COST					\$11,250,000
A. Estimated Construction Cost					
a. assumes new library on undeveloped site	20,000 GSF @	\$450	per SF	\$9,000,000	
B. Design Contingency & Escalation					
	15.00% of A			\$1,350,000	
C. Construction Contingency					
(unforeseen site conditions and minor scope changes during construction)	10.00% of A			\$900,000	
II. FIXTURES FURNISHINGS & EQUIPMENT COSTS					\$1,395,000
D.1 Fixtures and Furnishings					
a. Furniture	20,000 GSF @	\$30	per SF	\$600,000	
(assumes all existing furniture is removed and replaced)					
b. Shelving	20,000 GSF @	\$20	per SF	\$400,000	
(assumes reuse of existing shelving supplement with new for growing collections)					
c. Shelving Signage	20,000 GSF @	\$1.25	per SF	\$25,000	
D.2 Equipment Allowances					
a. RFID System / AMH / Self Check				\$250,000	
b. Building Security System				\$30,000	
c. Audio Visual Equipment				\$75,000	
d. Creation Studio Equipment				\$15,000	
III PROFESSIONAL DESIGN COMPENSATION					\$1,131,600
E.1 Pre Design Services					
a. Site Feasibility Studies				\$10,000	
E.2 Architecture and Engineering Design Services					
a.	8% of I. (Total Est Construction Cost)			\$900,000	
E.3 Interior Design Services					
a. FF&E Design and Procurement	8% of II. (Fixtures & Furnishing Costs)			\$111,600	
E.4 Additional Service Allowances					
a. Landscape Architect				\$30,000	
b. Civil Engineering Permitting Services				\$30,000	
d. Cost Estimating				\$20,000	
E.5 Reimbursable Expense Allowance					
travel, meals, printing, renderings, models, postage, etc.....				\$30,000	
IV OWNER'S COSTS					\$60,000
F.1 Pre-Design Phase Expenses					
a. Land Acquisition Cost	(TBD)			\$0	
I.K Design & Construction Testing Expenses					
a. Site Survey				\$20,000	
b. Commissioning agent	(LEED required)			\$0	
(assumes no commissioning required for mechanical system)					
c. Geotechnical testing				\$20,000	
d. Special inspections	(Code required)			\$20,000	
I.L Post Construction Expenses					
a. Library materials	(TBD)			\$0	
b. Temporary storage	(TBD)			\$0	
VI. ESTIMATED TOTAL PROJECT BUDGET					\$13,836,600

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MEETING MINUTES

shanklin focus group meeting minutes

Issue Date:	06.29.2022	Meeting Date:	06.09.2021
		Meeting Location:	Shanklin Library
<hr/>			
Project Name:	Lincoln County Library – Facility Assessment		
Project Number:	022163.00		
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Attendees:	<u>McMillan Pazdan Smith (MPS)</u> David Moore Elisa Walker <u>Lincoln County Library (LCL)</u> Jennifer Sackett, Director Crystal Edwards, Technical Services Alyson Kent, Branch Supervisor Brent Burch, Library Associate Erin Schuermeyer, Library Associate Devin Ortiz-Hoffman, Library Associate		
Distribution:	John Henry (Lincoln County), Jennifer Sackett, David Moore, file		
Writer:	Elisa Walker, MPS		

The following notes represent our understanding of matters discussed and actions agreed upon. Please report corrections and/or omissions to the writer within five (5) working days.

- Shanklin Library Staff and MPS had open discussion on the following:
- The library is located in a developing/growing area, but primarily serves the lake community because others find the library difficult to access (traffic)
 - There is concern that patrons only understand libraries as book repositories
 - The property deed requires that the library must stay a library or a community center
 - The previous study revealed that the library expanding into a vacant lot wasn't feasible
 - There are many areas that are undersized or that create workflow bottle necks
 - Staff area- 4 full time employees (including the Branch Supervisor) / volunteers (1 at a time)
 - Collection layout is inefficient and the sight lines from the desk are bad
 - The staff want to grow graphic novels and children's picture books, but there is no room
 - The staff would like study rooms for 1-2 individuals. Study rooms should be able to accommodate interviews
 - The staff would like a board room style room for group meetings
 - Staff would like a Maker Space: bigger than West Lincoln, multiple cricuts, multiple laser printers, painting classes, programs to support cottage businesses, 3D printers
 - o Maker space should accommodate classes up to 20 people
 - Meeting room: staff would like this to be 2-3 times larger than the current room; there is no place to store tables and chairs because closets are used for craft storage; kitchenette needs to be separate from the room

shanklin focus group meeting minutes

- A dedicated children's program room would help staff better manage the high volume of programs offered
 - There is currently no teen area, but staff would like to have VR+ video games, unique furnishing, activity table, stop gap video
- Circulation desk could be smaller
 - There is no place for patrons to linger- especially with open plan, no group/demographic can own their own space
 - Children: 6 computer station is adequate, but there is no place for caregivers to sit; need sensory space or room for other literacy elements
 - This is a "to go" type library and patrons have a "convenience" mentality
 - 6 Adult computers is adequate; there is an increased need from senior patrons for computer help, used for printing, faxing, and email
 - Friends group is only 2 members, so burden falls on staff and books are often stored in meeting room
 - Staff would like special area for book sale
 - Staff likes having exterior and interior book drops
 - Open to drive through drop off and holds pickups
 - The branch does not have high enough circulation to justify an AMH
 - Toilets need to be upgraded
 - Breakroom is too small and staff can't relax
 - There is not enough parking for large events and the library doesn't own the entry drive (have an easement)
 - There is a very active garden group
 - LCL's Tech Services and MPS had open discussion about the following:
 - 3 staff, 2 people are cross trained on all parts of process, 1 can only catalog
 - Need a loading dock for deliveries and space for boxes to stack, need 10X20 foot space to accommodate end of year volume, ½ that the balance of the year
 - The department provides programming support youth services
 - Staff would like one large board room type table for processing
 - 4 desks, Cataloging (2), Tech assistant, hoteling or check in /check out, plus Crystal's office
 - Currently Crystal's office is the staging area for all program supplies
 - Tech services will take on digitalization role due to staff limitations, but equipment is at Jonas, history room is not large enough
 - Crystal does senior programming
 - Shanklin's Youth Services Staff and MPS had open discussion about the following:
 - Staff can't leave story time set up from day to day, so they have to clean up multiple times throughout the each day
 - Average story time attendance: 40 total= 20 children + 20 Caregivers
 - Babies program: 12 total = 6 babies + 6 caregivers
 - Room isn't vibrant and doesn't match the energy level of the children
 - Prep- occurs at help desk or workroom
 - Needs to have ability to darken the room
 - Children's area is not identifiable

shanklin focus group meeting minutes

- Staff would like to have space for outdoor programming space.
- Teens don't typically show up, they don't have a space to "own"
- There is a need for a nursing room
- Staff needs prep space for programs and privacy from public (Need door and no glass), need true staff only space
- There is a need for a family bathroom
- Shanklin's Adult Services Staff and MPS had open discussion about the following:
- Circulation desk is too big and doesn't face entry, which makes it awkward
- If the workroom was adequate, you could reduce help desk to 2 seats and 3rd could be roaming
- Staff would like back of house space to process carrier bins so that it doesn't happen at the desk
- 8 hold shelves
- Print release and friends sales are one station
- There is a need better reading areas
- Staff would like an exterior digital sign- it is hard to see that the library is there

Distribution:
John Henry
Jennifer Sackett
David Moore
File

shanklin library community forum meeting minutes

Issue Date:	06.29.2022	Meeting Date:	06.09.2022
		Meeting Location:	Shanklin Library
Project Name:	Lincoln County Libraries – Facility Assessment		
Project Number:	022163		
Attendees:	McMillan Pazdan Smith (MPS) David Moore Elisa Walker <u>Lincoln County Library (LCL)</u> Jennifer Sackett, Director Approximately 25-35 Community members		
Distribution: (if different from above)	John Henry (Lincoln County), Jennifer Sackett, David Moore, file		
Writer:	Elisa Walker, MPS		

The following notes represent our understanding of matters discussed and actions agreed upon. Please report corrections and/or omissions to the writer within five (5) working days.

MPS facilitated a community forum at the Shanklin Library and the following input was provided:

- The library needs more electronic volumes.
- Patrons would like better access to e-books.
- Patrons are concerned about a community center vs a library
 - They don't want to have to pay to schedule meeting rooms – they would like more library meeting room access.
- The senior center is not convenient – it would be good for the library to fill the gap.
- Patrons would like a drive though pick-up / drop off.
- The existing meeting room is not big enough for the children's programs
 - A dividable meeting room would be heavily utilized.
- The library interiors are not inspiring or imaginative.
- The library needs study rooms.
- Some patrons are concerned about an active library environment disturbing the quiet space.
- A child requested an A/V recording space.
- There is a need for technology spaces with access to adobe and 3D software.

shanklin library community forum meeting minutes

- These programs are too expensive for families to buy.
- Access to light room software and educational resources

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jonas focus group meeting minutes

Issue Date:	06.29.2022	Meeting Date:	06.16.2022
		Meeting Location:	Jonas Library

Project Name:	Lincoln County Libraries – Facility Assessment
Project Number:	022163

Attendees: McMillan Pazdan Smith (MPS)

David Moore

Lincoln County Library (LCL)

Jennifer Sackett, Director
Helena Brittain, Branch Supervisor
Philip Overholtzer, Program Outreach Manager
Bryanna Johnson, Outreach Assistant
John Russel, Youth Services Coordinator
Jen Wood, Library Associate (Homeschooling program)
Kelly Kinard, Library Associate (Story Time Coordinator, Holiday Event Coordinator)
Chris Finelli, Library Associate (lego club)
Lauren Hu, Library Associate
Liz Bandolini, Library Associate
Joshua Leonhardt, Library Associate
Stephanie, Admin Assistant
Jamie Setzer, Library Associate

Distribution: (if different from above) John Henry (Lincoln County), Jennifer Sackett, David Moore, file

Writer: Elisa Walker, MPS

The following notes represent our understanding of matters discussed and actions agreed upon. Please report corrections and/or omissions to the writer within five (5) working days.

Staff Group 1: Jonas Library Staff and MPS had open discussion on the following:

- The library needs storage for specific things:
 - Crafts, temperature control storage space for technology and charging ports, puppet closet, branch library storage, display closet
- The staff would like a children’s work area with sink
- The library would like a secure closed in garage, secure; interior loading area

jonas focus group meeting minutes

- Meeting room should be able to accommodate messy programming, like step by step painting classes
- Library staff would enjoy a culinary kitchen to host classes on healthy eating
- Need larger meeting room 200-250
- The staff would like 4-5 small group study rooms
 - The library can have 10 tutors using the library at a time
 - Can also use built in reading nooks
 - Small group study rooms can also be used for digital job interviews
- The staff would like for the college students to have access to recording/podcast/green screen (painted wall)
- The library wants extra office space to host outside partners
- The staff would like to reduce the number of computers from 24 to 10
- The library would like a laptop cart
 - Use laptops for overflow computer use and technology classes
- Staff likes the idea of a covered patio
- Storage home school bins and kits
- The staff would like for the Makerspace to have access to sewing, embroidery, 3D printing, and crafting
- Staff would like a space for classes with 12-24 patrons for homeschool children, scout troops, and 4H
- Staff would like a through-wall / drive up book drop
- Staff would like artwork and outdoor spaces
- Book mobile room is now being used as a workroom and for shipping and receiving
 - Storage for crafts to send out (needs low shelving)
 - Storage for technology for outreach
 - Charging area for outreach iPads
 - Shipping and receiving should have shelves for courier bins
 - The workroom is being used for supply storage for the community room
 - Staff would like stackable washer and dryer and utility sink
- Library would like small group study rooms for zoom calls
- Library would like a quiet room
- Library would like a designated area for food and drink
- Library would like better cameras with no hidden or blind spots
 - All furniture should be visible in security cameras
- Water cooler should be upgraded to have water bottle filler station
- Staff would like dishwasher with garbage disposal at the break room
- Library would like an enclosed children's and teen area
- Genealogy area
 - This area needs a work area; genealogy public space is underutilized
 - Library would like copier, scanner, and overhead scanner for public use
 - There are currently 2 computers in this area
 - There's a microfilm reader located outside of the space
 - Genealogy room could also be a quiet room
 - Genealogy needs more file cabinets
 - Genealogy room needs a secure area
- Program spaces

jonas focus group meeting minutes

- Small study rooms should accommodate 5-10 people
- Small meeting room should accommodate 20-25 people
- Meeting room should = accommodate 150 people
- There should be outdoor stage and seating
- The need for a small and portable stage

Distribution:

John Henry
Jennifer Sackett
David Moore
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jonas library community forum meeting minutes

Issue Date:	06.29.2022	Meeting Date:	06.16.2022
		Meeting Location:	Jonas Library
Project Name:	Lincoln County Libraries – Facility Assessment		
Project Number:	022163		
Attendees:	<u>McMillan Pazdan Smith (MPS)</u> David Moore Elisa Walker <u>Lincoln County Library (LCL)</u> Jennifer Sackett, Director Approximately 5-10 Community Members		
Distribution: (if different from above)	John Henry (Lincoln County), Jennifer Sackett, David Moore, File		
Writer:	Elisa Walker, MPS		

The following notes represent our understanding of matters discussed and actions agreed upon. Please report corrections and/or omissions to the writer within five (5) working days.

MPS facilitated a community forum at the Jonas Library and the following input was provided:

- Love the idea of a fenced-in, rubber floor outdoor children’s space, would give option for children to have change of scenery
- Concern for homeless population interaction in garden was expressed by families
- Not enough meeting space in county; would love to have group study rooms and options for local groups to meet
- No space for tutoring (focus), homeschool population is growing rapidly and the library needs more homeschool resources
- Parking is inadequate and sometimes patrons have to park down the street and walk, especially when attending popular programs
- Like all the technology and outdoor amenities of West Lincoln
- Would like a homeschool resource/ curriculum collection
- Location needs access to public transit
- Like idea of old farmers market as new location
- Would love space where parents can be close, but not on hovering over children

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jonas library community forum meeting minutes

- Would love a garage door approach for meeting space because of flexibility
- No destination place in area for youth – This is a desperate need.

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lincoln county library board conversation

Issue Date:	06.29.2022	Meeting Date:	06.16.2022
		Meeting Location:	Jonas Library
Project Name:	Lincoln County Libraries – Facility Assessment		
Project Number:	022163		
Attendees:	<u>McMillan Pazdan Smith (MPS)</u> David Moore Elisa Walker <u>Lincoln County Library (LCL)</u> Jennifer Sackett, Director Stephanie Green, Administrative Assistant Doris Little, Library Board Member Rebecca Wentworth, Library Board Member Rebecca Powell, former Board Member		
Distribution: (if different from above)	John Henry (Lincoln County), Jennifer Sackett, David Moore, File		
Writer:	Elisa Walker, MPS		

The following notes represent our understanding of matters discussed and actions agreed upon. Please report corrections and/or omissions to the writer within five (5) working days.

The Lincoln County Library Board Conversation and MPS had open discussion about the following:

- The library board has concerns about noise transfer.
- The library board referenced Ashe County Library as a good space plan example by LCL attendees.
- The board likes the idea of drive through service window as a convenience.
- Staff love the Jonas library location, but the library needs to be larger. The existing site is land-locked and there isn't room to expand so there have been conversations about moving. There is a concern that downtown does not have many available sites for the library to move to.
- The planning study should consider turning Jonas into a "satellite" location, and build a larger off site building for other needs.
- The board loves the classic look of the Jonas library building.
- The history room is too small.
- There is never enough storage for branch operations

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lincoln county library board conversation

- The planning study should consider that Shanklin could need 2 additional neighborhood libraries to address sprawl and separation of school
- The library administration needs to be centrally located in the county and between library locations to provide better service to branch locations.
- The existing cultural center does not serve the community well
- Programming space is a high priority

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