Commissioners of Bel Air
Agenda
July 15, 2019

Resolution No. 1135-19: Police Station and Town Hall Facility

RECOMMENDED MOTION:"… that the Bel Air Board of Town Commissioners approve Resolution No. 1135-19 accepting the Feasibility Study prepared by Crabtree & Rohrbaugh Associates for the Expansion of the Police Department."

I. BACKGROUND

The Town of Bel Air has identified the need for expansion and/or renovation of the Police Department facilities. The Police currently lack dedicated space for crucial tasks, proper equipment to perform required duties and vital security improvements. Therefore, the Town Board decided in 2017 to address the situation before the conditions of the space currently occupied by the Police deteriorate any further.

II. PRIMARY ISSUES

Town staff assembled a Town Hall & Police Department Review Committee and collected materials related to the Police facilities. Crabtree & Rohrbaugh Associates was hired to interview critical police, administration, and potential users, review the existing facility and potential sites and make recommendations for renovation and/or expansion. The Town reached out to the public with information available through the Town website, Bond Newsletter and Facebook pages, conducted an open house and tours of the existing space at commencement of the study, initiated correspondence to Town residents, and public input meetings were held on November 27, 2018 and April 8, 2019.

III. DISCUSSION/EXPLANATION

Based on the information amassed by the Town and Crabtree & Rohrbaugh over a nine month period, a report was produced summarizing the results and providing several development options which address the need for adequate facilities by the Bel Air Police Department to varying degrees. This report is referred to as Exhibit A and attached hereto. It is the recommendation of the Committee that Option Two be explored further; however, acceptance of this report does not commit the Board of Town Commissioners to that or any option. This report is intended to serve as a framework to proceed further with design and engineering once a decision on an option is made.

IV. RECOMMENDATION

Staff recommends the Board of Town Commissioners approve Resolution No. 1135-19 for the Police Department expansion based on the feasibility study by Crabtree, Rohrbaugh & Associates Architects.

RESOLUTION NO. 1135-19

A RESOLUTION ACCEPTING THE 2019
BEL AIR POLICE DEPARTMENT FEASIBILITY STUDY

WHEREAS, the Town of Bel Air Board of Commissioners have identified that the present police building is inadequate and there is a need to renovate and/or expand the current facility; and

WHEREAS, a Feasibility Review Committee was formed 2018 to review the existing conditions and oversee a study done by architectural consultant Crabtree Rohrbaugh & Associates (CRA); and

WHEREAS, the study by CRA reviewed the existing space for renovation, potential alternative sites for expansion including both public and private options; and

WHEREAS, in April 2019, CRA produced a final report for distribution to the Board of Town Commissioners and Town staff for review which identified several options to address police department conditions with varying degrees of renovation and/or expansion of facilities.

NOW, THEREFORE, BE IT RESOLVED by the Bel Air Board of Town Commissioners that the 2019 Bel Air Police Department Feasibility Study, shown as Exhibit A and attached hereto, shall be officially accepted and shall provide requirements and data to be used as the basis for a long term solution for the Police Department.

AND BE IT FURTHER RESOLVED by the Bel Air Board of Town Commissioners that this Resolution No. 1135-19 has been received by the Board on July 15, 2019.

AYES:

NAYS:

ABSENT:

_____
Susan U. Burdette, Chairperson
Board of Town Commissioners

_____
Michael L. Krantz, Town Clerk

TOWN OF BEL AIR POLICE DEPARTMENT

39 North Hickory Avenue Bel Air, Maryland 21014

Facility Study

APRIL 26, 2019

CRA Project No. 3164

Crabtree, Rohrbaugh & Associates
Architects
100 West Road, Suite 402
Towson, MD 21204 (410) 528-0272

Table of Contents

1 | Introduction

Purpose of the Study

In April 2018, the Town of Bel Air requested that Crabtree, Rohrbaugh and Associates (CRA) complete a facility study of the existing Administration and Police Department Building to assess the administrative and police facility programmatic requirements, and to develop building strategies to accommodate current needs and projected needs based on anticipated growth and current building capacity. The process started by evaluating the existing conditions and determining the technical and economic impact of interior and exterior improvements to the building. A series of interviews and questionnaires were then used to document the facility program and identify specific space and facility needs. The product of the facility program development process is a function and area summary which in turn is used as the first step in developing the design concepts for the facility.

The Town of Bel Air also asked Crabtree, Rohrbaugh and Associates to review the existing site property, as well as an adjacent property owned by the Town of Bel Air, to determine the practicality of both sites for a new-building option. The Town of Bel Air also requested that consideration be given to consolidating additional Town of Bel Air departments currently remotely located, into a new or expanded Administration and Police Department. These departments include Planning and Public Works as well as Economic Development.

As such, this report should be viewed as a starting point, or benchmark; providing a framework from which both a short and long term facilities master plan can be implemented for any recommended or desirable facility improvements, as well as determining the potential for a new facility.

This study was prepared by Todd Vukmanic, Project Manager and Richard LeBlanc, AIA, LEED AP, Director of Design, of Crabtree, Rohrbaugh and Associates Architects of Mechanicsburg, Pennsylvania. Mechanical, electrical and plumbing engineering reviews and recommendations were completed by BKM and Associates, Engineering of Baltimore, Maryland. Mr. Vukmanic and representatives of BKM visited the building to review the current conditions and programmed spaces. Mr. LeBlanc visited the building as well, and conducted interviews with various personnel and staff.

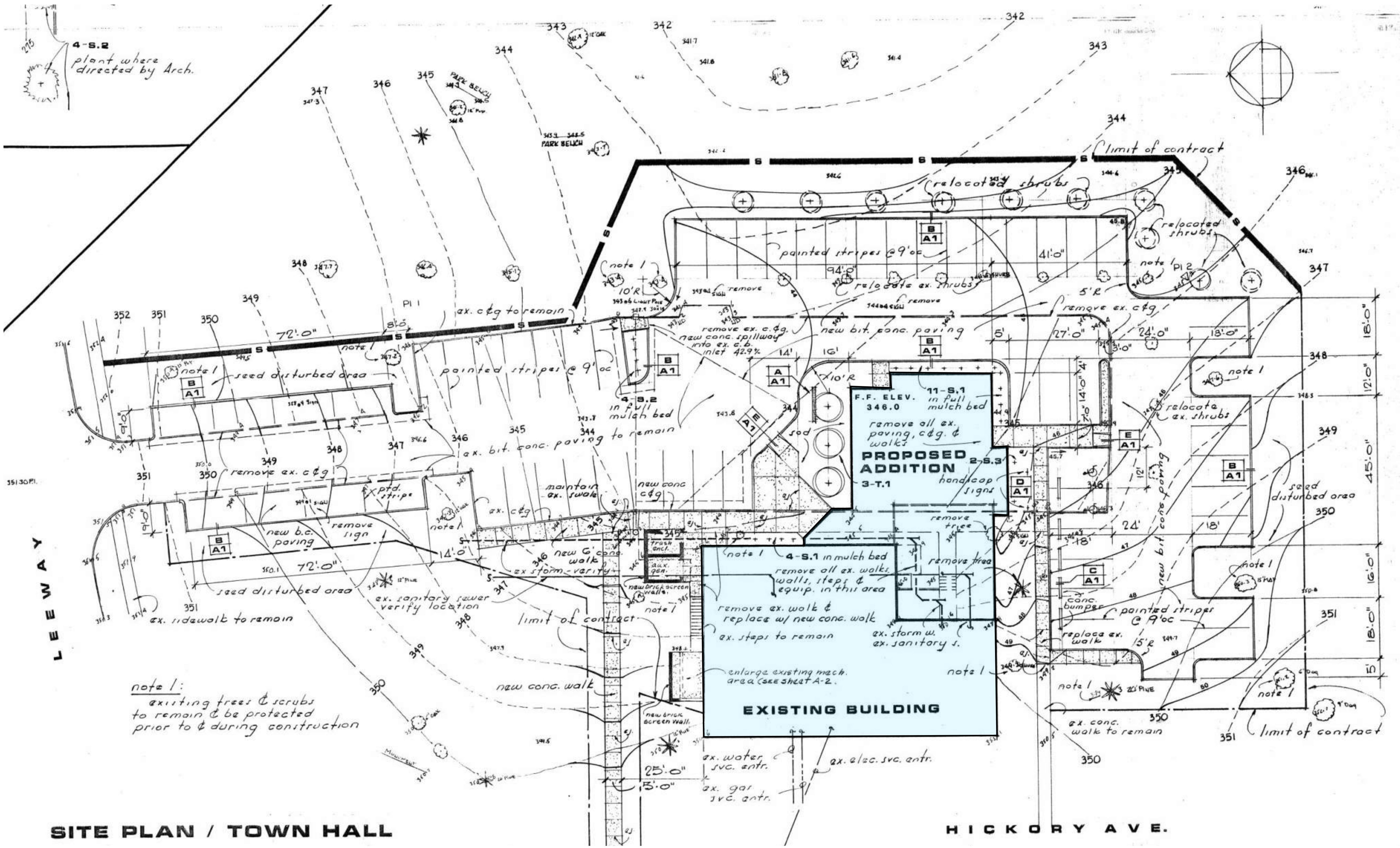
General Description of the Property

The property is located at 39 North Hickory Avenue, Bel Air, Maryland. The main public façade faces west, fronting North Hickory Avenue. Access to the site occurs to the north, at the intersection of North Hickory and Lee Way. The property is bounded to the north by Saint Margaret Parish Church. Directly to the south of the property is the Harford County Public Library. To the east of the building is the main parking lot, as well as the adjacent Shamrock Park. The parking lot is accessed from Lee Way running along the north side of the site, and exits onto North Hickory Avenue between the building and the public library.

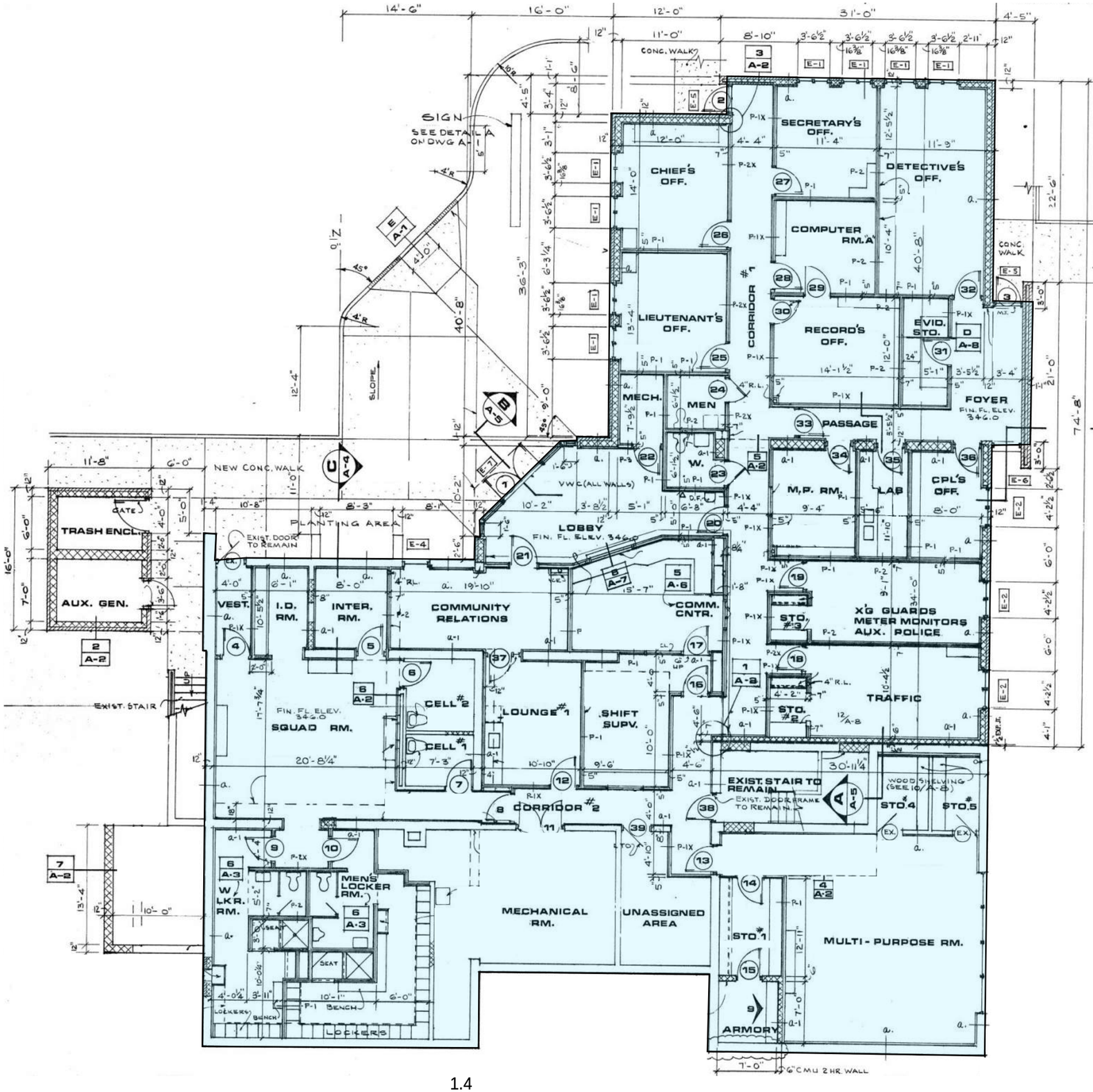
The Bel Air Administration and Police Department Building is primarily a two story structure, with two separate and distinct entrances. The main entrance to the Administration Building is accessed from North Hickory Avenue, with street parking and sidewalk access from the lower parking lot. The main entrance to the Police Department is accessed from the lower parking lot. The Building was constructed in 1963, with additions/renovations occurring in 1972 and 1987. The general condition of the building, both interior and exterior, is showing its age. The Administration office wing of the building was recently re-roofed, but the roof on the remainder of the building is original and has outlived its lifespan. The existing mechanical, electrical and plumbing systems are approaching the end of their expected lifespan and are starting to require substantial maintenance to keep them functioning. The building is currently at its maximum capacity and provides no room for growth for any of the agencies currently housed in the building.

The site plan and floor plans showing the existing building layout and uses follow:

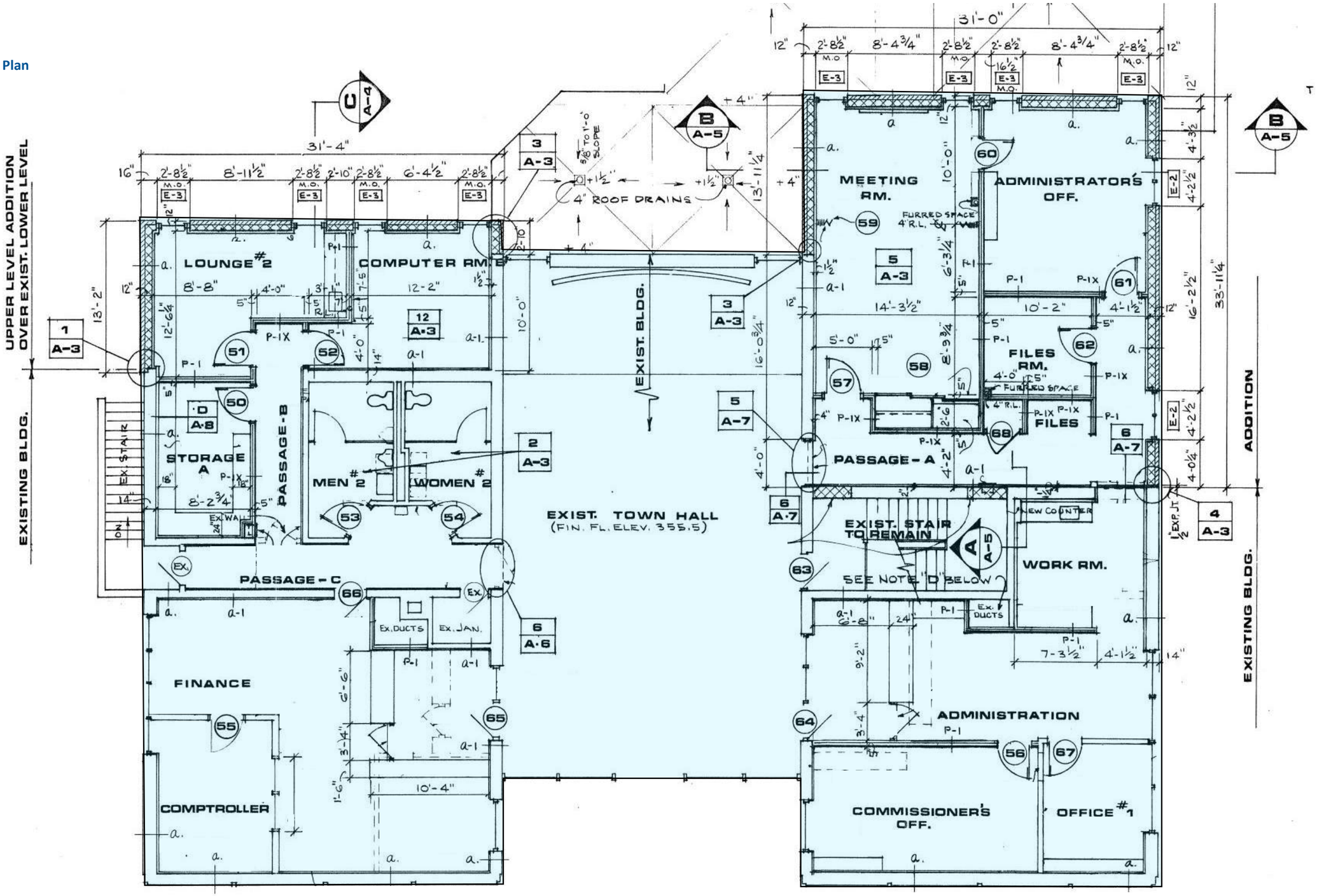
Existing Town Hall Site Plan



Existing Town Hall First Floor Plan



Existing Town Hall First Floor Plan



2 | Programming Analysis

Methodology and Approach

Crabtree, Rohrbaugh and Associates (CRA) began the process of identifying the existing program by documenting the existing floor plans through existing drawings and a survey of the existing building. CRA sent a programming questionnaire that allowed certain building staff to identify their individual spaces and major deficiencies along with any additional rooms that they felt are needed to support or enhance their current work activities. CRA then met with and interviewed various building staff to follow-up on the questionnaires and determine any other issues with the current building.

Agency Issues

- **Town of Bel Air – Police Department**

    - The Police Department currently occupies the entire lower level of the current building. The Department has grown considerably in recent decades to the point where the Department is overcrowded and not functioning as efficiently as desirable, nor is it as secure as desirable.
    - The current building is lacking in adequate access controls and security monitoring devices and systems.
    - The main Lobby space lacks a secured waiting area as well as public rest rooms available to visitors to the Police Department. Visitors must enter the secured department area to gain access to toilet facilities. These toilet rooms currently do not meet ADA standards.
    - The facility lacks a secured vehicle sallyport for transferring detainees into the police department, through the Processing/Holding areas.
    - Detainees are currently brought directly into the Suspect Processing Room. The Suspect Processing Room also doubles as the Squad Room. The Squad Room is inadequate in area for the current usage. Also, it's open to the detainee intake area which can be very disruptive.
    - The Holding Cells are adequate in size. There are two holding cells currently available. The adult cell and the juvenile cell are separated (visual separation between adult and juvenile detainees is required by law – these cells comply). All cells can be remotely monitored via a CCTV camera and monitor.
    - There is a small Interview Room that is inadequate in size for its intended use. This room is currently used by multiple organizations for meetings. This room should have space for a small table and three chairs. It is remotely located from the Intake/Processing area and holding area.
    - Evidence Storage area is not adequate in size. The Evidence Storage room is also remote from the main intake area. Evidence Processing currently occurs in the Detective's Office, which is adjacent to Evidence Storage, however the processing of evidence should occur in a secured room. The HVAC system in Evidence Storage is also inadequate.

- General Storage is also inadequate in size. There are storage closets located in the Training Office and Traffic Room that are adequate for that usage. There are no storage areas located within the Chief's office for his personal use and sensitive files (such as personnel files). File storage is very inadequate, with files and cabinets spilling out of designated storage rooms into inappropriate spaces (such as the corridors).
- There is no dedicated Conference Room located in the Police Department. The Interview Room can be used as a Conference Room. The space is inadequate in size for both functions. The Multipurpose room is also available for conference room use, but currently is not used for that function.
- The facility lacks an Exercise area for staff usage. Men's and women's bunk areas are also required, but not present in the facility.
- The staff toilet/locker rooms are in need of upgrades and repair. There are adequate lockers for the current staff but no room for growth. The locker and toilet areas are not accessible for ADA compliance, including plumbing fixtures, showers, and entrances.
- There are five office areas within the police station: the Chief's office, the Deputy Chief's Office, the Detective's Office, the Traffic Office area and the Sergeants open office area. The Chief's and Deputy's offices are adequate in size. The Detective's Office is adequate for staff needs, however the office is also used for evidence processing and interview at times.

- **Town of Bel Air – Administration**

  - The Town of Bel Air Police Department and Administration share the same building, but are fully separated by floor level. The Administration occupies the upper level of the building, with separate entrance and services.
  - The main lobby enters the central Town Hall meeting area. The Lobby has had a recent internal vestibule added at the front. This area is currently adequate for meetings and community use.
  - To the left of the main lobby is the receptionist that serves the finance department. An open office area is provided, along with a separate Controllers Office.
  - To the right of the main lobby is the receptionist to the Town of Bel Air Administration. An open office area is provided, along with separate Commissioner's Offices and Work Room area.
  - Building support areas are located adjacent to the Finance suite. Storage, Staff Lounge and Computer support are included in this area. Toilets are provided, which are used by the staff as well as the public. These toilet rooms currently do not meet ADA standards.
  - Administration and support areas are also located adjacent to the Commissioner's Office suite. File storage, the Administrator's Office as well as the shared Conference/Meeting room are located in this area.

Program and Area Summary

Working from the existing drawings, staff interviews and meetings, as well as site and facility surveys, CRA has developed Program and Area Summaries for each Department. These summaries are developed to document the recommended program required by the Town of Bel Air Police Department, when comparing the existing facility and program deficiencies to the required program. Each Departmental Program Summary compares the existing programmed space, area and staff positions to the required program. The required program summary also documents program areas currently not supported in the existing facility.

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates **CRA Project No. 3164**

Overview

Existing Conditions

The Town of Bel Air Police Department currently houses 32 police officers, 9 dispatch staff, 3 administrative and 3 parking enforcement personnel.

The Police Department currently has 39 patrol vehicles including specialized vehicles: CID Van, Command Truck, 3/4 ton pickup, motorcycle, and a digital speed monitoring trailer.

The current faciility was built in 1964 and of the 12,318 square feet in the building 7,128 square feet are occupied by the Police Department on the ground floor. The second floor area of 5,190 square feet is occupied by the Town of Bel Air Administrative Offices.

Operational Deficiencies / Justification of Need

Building Codes: The existing building does not conform to current building codes nor does it meet the Americans with Disability Act for providing accessibility to all spaces within the builidng.

Security: The existing building lacks the security equipment, adequate monitoring devices, and access control to meet current needs.

Police Adminstration: Offices are undersized and there is an significant need for increase in storage area for both staff and records storage. A Department supply / storage room does not existing and is badly needed. A Business Center for copying, fax, postage machine, paper storage is needed.

Lobby / Community Conference: The lobby lacks a proper vestibule, secure waiting area for visitors, and mens and womens public restrooms. A community meeting room is needed for community outreach and public events. Adequate space for the auxilliary police is needed as it does not currently exist. Auxilliary police for will increase from 2 to 4 positions.

Dispatch: The Dispatch position is a 24/7 position which also serves as the Department receptionist who oversee the lobby and visitors. An additional staff position is needed in this area as well as support spaces as personnel cannot leave their staff positions for any length of time. A Supervisors office for 2 staff positions is needed.

Patrol Officers: The squad room is inadequate in size and capacity must be increased from 2 to 4 workstations. A squad equipment/supply room is needed to support their work. A Sergeants office to support 3 staff positions is needed. A quiet room for report writing is needed.

Criminal Investigation Division: For security reasons a separate criminal records file room is needed separate from the CR Analytical office. Offices are undersized and there is inadequate evidence storage space. Two interview rooms are needed. All evidence storage must have restricted access and it shall be within the Department.

Sallyport / Detention / Traffic Operations: The Department lacks a safe and secure vehicle sallyport from which to transfer detainees into the processing and holding area. Intake holding is shared with squad room. This presents a safety and security concern for both the officers and the detainees.

Training: The existing multipupose room is inadequate in size to meet the need for the current training program. There is inadequate storage for the Quartermaster training equipment and supplies. The Armory and weapons cleaning areas are inadequate in size and lack proper ventilation.

Wellness Center: The department lacks any exercise facility for staff to maintain physical conditioning required for their line of work.

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates **CRA Project No. 3164**

Acknowledgements

This program document was prepared by:

Richard C. LeBlanc, AIA, Director of Design
Todd Vukmanic, Project Manager
Crabtree, Rohrbaugh & Associates
100 West Road, Baltimore, MD 21204

Crabtree, Rohrbaugh & Associates wishes to thank the following individuals for their time and input into developing this document:

Chief of Police Charles Moore	2.1	Administration
Officer First Class Alex McComas	2.2	Lobby / Community Conference
Patrol Sergeant Robert Pfarr	2.3	Dispatch
Deputy Chief Richard Peschek	2.4	Patrol Officers
Detective Sergeant Henry Marchesani	2.5	Criminal Investigation Division
Patrol Sergeant Robert Pfarr	2.6	Sallyport / Traffic Operations
Training Officer Zachary Miller	2.7	Training
Officer 1st Class Jonathan Kauffman	2.8	Exercise / Bunk Rms / Lkr Rms

We also which to acknowledge the Town of Bel Air Police Feasibility Study Committee for their input into this document.

Jesse Bane	Town Administrator
Charles Dawson	Deputy Director of Public Works
Steve Kline	Director of Public Works
Charles Moore	Chief of Police
Richard Peschek	Deputy Chief of Police
Kevin L. Small, Committee Chair	Director of Planning and Community Development

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

Site Requirements

Parking Requirements

Town Adminstration	
1. Town Administration	4 Spaces
2. Finance Department	5 Spaces
Subtotal	9 Spaces
Police Department	
1. Patrol Cars and Support Vehicles	8 Spaces
2. Police Employees	18 Spaces
3. Future Expansion	10 Spaces
Subtotal	36 Spaces
Total Parking Required	45 Spaces
Visitor Parking on Hickory Ave and Lee Way	12 Spaces
Overflow / Evening Parking	On Street spaces along Hickory Avenue and Lee Way plus Harford Co. Library Parking

Sallyport

Provisions shall be made for a drive thru sallyport if possible. A drive-in and back-up option can be considered if space does not permit the drive-thru.

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates **CRA Project No. 3164**

PROGRAM SUMMARY - OPTION 1

Town Hall Building Area	Existing SF	Programmed SF	Difference	Existing Staff Positions	Programmed Staff Positions	Notes
1.0 Town Administrative Offices	3,733	3,733	0	10	10	
1.1 IT Department		840	840		2	
Total Net Building Area	**3,733**	**4,573**		**10**	**12**	
Gross Building Area	**5,190**	**7,147**				

Police Department Building Area	Existing SF	Programmed SF	Difference	Existing Staff Positions	Programmed Staff Positions	Notes
2.0 Police Department						
2.1 Administration	585	1,276	691	4	5	Chief of Police Charles Moore
2.2 Lobby / Community Conference	398	1,943	1,545	4	6	Officer First Class Alex McComas
2.3 Dispatch	268	997	769	4	7	Patrol Sergeant Robert Pfarr
2.4 Patrol Officers	870	1,518	498	5	9	Deputy Chief Richard Peschek
2.5 Criminal Investigation Division	1,008	2,416	1,408	5	9	Detective Sergeant Henry Marchesani
2.6 Sallyport / Detention / Traffic Op	328	1,660	1,332	3	5	Patrol Sergeant Robert Pfarr
2.7 Training	927	1,547	620	1	2	Training Officer Zachary Miller
2.8 Wellness Center / Lckr Rms	475	1,281	806	0	0	Officer 1st Class Jonathan Kauffman
2.9 Building Support	406	720	314	0	0	
Total Net Building Area	**5,265**	13,358	7,983	26	43	Current Total Staff of 47
Gross Building Area	**7,128**	**20,571**				
Building Total	**12,318**	**27,718**	**15,400**	**36**	**55**	

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
1.1 Town Offices	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Town Hall	1	1,144	1144		1	1,144	1144		0
.02 Commissioners Office	1	214	214	1	1	214	214	1	0
.03 Office No. 1	1	100	100	1	1	100	100	1	0
.04 Administration Offices/ Reception	1	312	312	2	1	312	312	2	0
.05 Administrators Office	1	220	220	1	1	220	220	1	0
.06 Meeting Room	1	350	350		1	350	350		0
.07 File Room	1	90	90		1	90	90		0
.08 Work Room	1	120	120		1	120	120		0
.09 Finance Office	1	490	490	4	1	490	490	4	0
.10 Comptroller	1	110	110	1	1	110	110	1	0
.11 Storage A	1	110	110		1	110	110		0
.12 Computer Room	1	145	145		1	145	145		0
.13 Employee Lounge	1	160	160		1	160	160		0
.14 Mens Restroom No. 2	1	84	84		1	84	84		0
.15 Womens Restroom No. 2	1	84	84		1	84	84		0
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**3,733**	**10**			**3,733**	**10**	**0**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
1.2 IT Department	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Director of IT Office					1	180	180	1	180
.02 IT Technician Office					1	180	180	1	180
.03 IT Storage					1	120	120		120
.04 IT Server Room					1	360	360		360
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**0**	**0**			**840**	**2**	**840**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.1 Police Administration	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Police Chief's Office	1	168	168	1	1	180	180	1	12
.02 Police Chief's Closet					1	16	16		16
.03 Deputy Police Chief Office	1	160	160	1	1	180	180	1	20
.04 Deputy Police Chief's Closet					1	16	16		16
.05 Lieutenants Office					1	180	180	1	180
.06 Administrative Secretary Office	1	140	140	1	1	180	180	1	40
.07 Secure Records Storage					1	80	80		80
.08 PT Staff Office Assistant / Finance	1	117	117	1	1	144	144	1	27
.09 Supply / Storage Room					1	80	80		80
.10 Mens and Womens Staff Restrooms	2				2	60	120		120
.11 Business Center					1	100	100		100
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**585**	**4**			**1,276**	**5**	**691**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.2 Lobby / Community	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Lobby Vestibule					1	60	60		60
.02 Lobby	1	220	220		1	324	324		104
.03 M&W's Public Restrooms					2	60	120		120
.04 Community Conference					1	750	750		750
.05 Comm. Conf. Storage Room					1	100	100		100
.06 Community Policing Unit -	1	178	178	2	1	300	300	4	122
.07 Auxilliary Police				2	1	225	225	2	225
.08 Aux. Police Storage Closet					1	64	64		64
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	**Capacity**			**Program**	**Staff Positions**	**Additional SF**
Sub - Total			**398**	**4**			**1,943**	**6**	**1,545**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.3 Dispatch	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Communications Center	1	188	188	2	1	441	441	3	253
.02 Adm Lt / Sgt Office				1	1	180	180	2	180
.03 Storage Closet					1	16	16		16
.04 Supervisor Office				1	1	180	180	2	180
.05 Dispatch Break Room					1	120	120		120
.06 Unisex Staff Restroom	1	40	40		1	60	60		20
.07 Womens Staff Restroom	1	40	40						
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**268**	**4**			**997**	**7**	**769**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.4 Patrol Officer	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Squad Room	1	360	360	2	1	500	500	4	140
.02 Squad Equipment / Supply Room					1	150	150		
.03 Sergeant Office	1	250	250	3	1	300	300	3	50
.04 Duty Officers Office					1	224	224	2	224
.05 Office - Report Wrting	1	120	120		1	144	144		24
.06 Breakroom	1	140	140		1	200	200		60
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**870**	**5**			**1,518**	**9**	**498**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.5 Criminal Investigation Division	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Main Office - Criminal Records	1	170	170	1	1	180	180	1	10
.02 Analytical Office - Criminal Records					1	200	200	1	200
.03 Criminal Records File Room					1	400	400		400
.04 CID Copy Room					1	80	80		80
.05 Detective's Office	1	273	273	3	1	500	500	6	227
.06 Detective Sergeant Office	1	95	95	1	1	180	180	1	85
.07 Closet CID Sergeant					1	16	16		16
.08 Interview Room	1	110	110		2	100	200		90
.09 Property and Evidence Storage	1	60	60		1	260	260		200
.10 Evidence Processing & Lab					1	200	200		200
.11 Vehicle Evidence Storage @ SP					0	600	0		0
.12 CID Storage Room	1	300	300		1	200	200		-100
.13									
.14									
.15									
Note: Vehicle Evidence Storage will be at a remote location.									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			1,008	5			2,416	9	1,408

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.6 Sallyport / Detention / Traffic Operations	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Vehicle Sallyport					1	500	500		500
.02 Juvenile Holding Cells	1	44	44		2	81	162		118
.03 Adult Holding Cells	1	58	58		2	81	162		104
.04 Processing Room					1	196	196		196
.05 Unisex Toilet Room					1	40	40		40
.06 Child In Need Meeting Room					1	80	80		80
.07 Traffic Office	1	196	196	3	1	300	300	5	104
.08 Traffic - Radar Storage	1	30	30		1	120	120		90
.09 Intoximeter Room					1	100	100		100
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**328**	**3**			**1,660**	**5**	**1,332**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.7 Training	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Multipurpose Room - Roll Call	1	505	505		1	750	750		245
.02 AV Closet	1	40	40		1	25	25		-15
.03 Training Storage Closet	1	20	20		1	64	64		44
.04 Quartermaster / Training Office	1	172	172	1	1	224	224	2	52
.05 Quartermaster Closet	1	77	77		1	20	20		-57
.06 Quartermaster Storage Room					1	200	200		200
.07 Weapons Cleaning	1	65	65		1	120	120		55
.08 Armory	1	48	48		1	144	144		96
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**927**	**1**			**1,547**	**2**	**620**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.8 Exercise	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Exercise Room					1	800	800		800
.02 W Locker Room w T & Shower	1	200	200		1	225	225		25
.03 M Locker Room w T & Shower	1	275	275		1	256	256		-19
.04									
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
Note: Mens and Womens bunk rooms have been deleted to reduce building area.									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**475**	**0**			**1,281**	**0**	**806**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.9 Building Support	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Police Computer Network	1	46	46		1	100	100		54
.02 Mechanical Room	1	320	320		1	400	400		80
.03 Mechanical Room	1	40	40		1	120	120		80
.04 Trash Room					1	100	100		100
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**406**	**0**			**720**	**0**	**314**

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates **RA Project No. 3164**

Overview - OPTION 2

Existing Conditions

The Town of Bel Air Police Department currently houses 32 police officers, 9 dispatch staff, 3 administrative and 3 parking enforcement personnel.

The Police Department currently has 39 patrol vehicles including specialized vehicles: CID Van, Command Truck, 3/4 ton pickup, motorcycle, and a digital speed monitoring trailer.

The current faciility was built in 1964 and of the 12,318 square feet in the building 7,128 square feet are occupied by the Police Department on the ground floor. The second floor area of 5,190 square feet is occupied by the Town of Bel Air Administrative Offices.

Operational Deficiencies / Justification of Need

Building Codes: The existing building does not conform to current building codes nor does it meet the Americans with Disability Act for providing accessibility to all spaces within the builidng.

Security: The existing building lacks the security equipment, adequate monitoring devices, and access control to meet current needs.

Police Adminstration: Offices are undersized and there is an significant need for increase in storage area for both staff and records storage. A Department supply / storage room does not existing and is badly needed. A business center for copy, fax, postage machine, paper supplies, etc is needed.

Lobby / Community Conference: The lobby lacks a proper vestibule, secure waiting area for visitors, and mens and womens public restrooms. A community meeting room is needed for community outreach and public events. Adequate space for the auxilliary police is needed as it does not currently exist. Auxilliary police for will increase from 2 to 4 positions.

Dispatch: The Dispatch position is a 24/7 position which also serves as the Department receptionist who oversee the lobby and visitors. An additional staff position is needed in this area as well as support spaces as personnel cannot leave their staff positions for any length of time. A Supervisors office for 2 staff positions is needed.

Patrol Officers: The squad room is inadequate in size and capacity must be increased from 2 to 4 workstations. A squad equipment/supply room is needed to support their work. A Sergeants office to support 3 staff positions is needed. A quiet room for report writing is needed.

Criminal Investigation Division: For security reasons a separate criminal records file room is needed separate from the CR Analytical office. Offices are undersized and there is inadequate evidence storage space. A remote vehicle impound area is acceptable. Two interview rooms are needed. All evidence storage must have restricted access and it shall be within the Department.

Sallyport / Detention / Traffic Operations: The Department lacks a safe and secure vehicle sallyport from which to transfer detainees into the processing and holding area. Intake holding is shared with squad room. This presents a safety and security concern for both the officers and the detainees.

Training: The existing multipupose room is inadequate in size to meet the need for the current training program. There is inadequate storage for the Quartermaster training equipment and supplies. The Armory and weapons cleaning areas are inadequate in size and lack proper ventilation.

Wellness Center: The department lacks any exercise facility for staff to maintain physical conditioning required for their line of work.

Acknowledgements

This program document was prepared by:

Richard C. LeBlanc, AIA, Director of Design
Todd Vukmanic, Project Manager
Crabtree, Rohrbaugh & Associates
100 West Road, Baltimore, MD 21204

Crabtree, Rohrbaugh & Associates wishes to thank the following individuals for their time and input into developing this document:

Chief of Police Charles Moore	2.1	Administration
Officer First Class Alex McComas	2.2	Lobby / Community Conference
Patrol Sergeant Robert Pfarr	2.3	Dispatch
Deputy Chief Richard Peschek	2.4	Patrol Officers
Detective Sergeant Henry Marchesani	2.5	Criminal Investigation Division
Patrol Sergeant Robert Pfarr	2.6	Sallyport / Traffic Operations
Training Officer Zachary Miller	2.7	Training
Officer 1st Class Jonathan Kauffman	2.8	Exercise / Bunk Rms / Lkr Rms

We also which to acknowledge the Town of Bel Air Police Feasibility Study Committee for their input into this document.

Kevin L. Small	Director of Planning and Community Development
Charles Moore	Chief of Police
Richard Peschek	Deputy Chief of Police
Jesse Bane	Town Administrator
Steve Kline	Director of Public Works
Charles Dawson	Deputy Director of Public Works

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

Site Requirements

Parking Requirements

Town Adminstration	
1. Town Administration	4 Spaces
2. Finance Department	5 Spaces
Subtotal	9 Spaces
Police Department	
1. Patrol Cars and Support Vehicles	8 Spaces
2. Police Employees	18 Spaces
3. Future Expansion	10 Spaces
Subtotal	36 Spaces
Total Parking Required	45 Spaces
Visitor Parking on Hickory Ave and Lee Way	12 Spaces
Overflow / Evening Parking	On Street spaces along Hickory Avenue and Lee Way plus Harford Co. Library Parking

Secured Parking

A minimum of 8 spaces shall be enclosed in a fenced / secured parking lot.

Sallyport

Provisions shall be made for a drive thru sallyport if possible. A drive-in and back-up option can be considered if space does not permit the drive-thru.

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates **CRA Project No. 3164**

PROGRAM SUMMARY - OPTION 2

Town Hall Building Area	Existing SF	Programmed SF	Difference	Existing Staff Positions	Programmed Staff Positions	Notes
1.0 Town Administrative Offices	3,733	3,733	0	10	10	
1.1 IT Department		840	840		2	
1.2 Economic Development		1,440	1,440		4	
Total Net Building Area	**3,733**	**6,013**	**2,280**	**10**	**16**	
Gross Building Area	**5,190**	**9,457**				

Police Department Building Area	Existing SF	Programmed SF	Difference	Existing Staff Positions	Programmed Staff Positions	Notes
2.0 Police Department						
2.1 Administration	585	1,276	691	4	5	Chief of Police Charles Moore
2.2 Lobby / Community Conference	398	1,943	1,545	4	6	Officer First Class Alex McComas
2.3 Dispatch	268	1,085	857	4	7	Patrol Sergeant Robert Pfarr
2.4 Patrol Officers	870	1,518	498	5	9	Deputy Chief Richard Peschek
2.5 Criminal Investigation Division	1,008	2,416	1,408	5	9	Detective Sergeant Henry Marchesani
2.6 Sallyport / Detention / Traffic Op	328	1,660	1,332	3	5	Patrol Sergeant Robert Pfarr
2.7 Training	927	1,547	620	1	2	Training Officer Zachary Miller
2.8 Wellness Center / Lckr Rms	475	1,281	806	0	0	Officer 1st Class Jonathan Kauffman
2.9 Building Support	406	720	314	0	0	
Total Net Building Area	**5,265**	**13,446**	**8,071**	**26**	**43**	Current Total Staff of 47
Gross Building Area	**7,128**	**20,841**				
Building Total	**12,318**	**30,298**	**17,980**	**36**	**59**	

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
1.1 Town Offices	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Town Hall	1	1,144	1144		1	1,144	1144		0
.02 Commissioners Office	1	214	214	1	1	214	214	1	0
.03 Office No. 1	1	100	100	1	1	100	100	1	0
.04 Administration Offices/ Reception	1	312	312	2	1	312	312	2	0
.05 Administrators Office	1	220	220	1	1	220	220	1	0
.06 Meeting Room	1	350	350		1	350	350		0
.07 File Room	1	90	90		1	90	90		0
.08 Work Room	1	120	120		1	120	120		0
.09 Finance Office	1	490	490	4	1	490	490	4	0
.10 Comptroller	1	110	110	1	1	110	110	1	0
.11 Storage A	1	110	110		1	110	110		0
.12 Computer Room	1	145	145		1	145	145		0
.13 Employee Lounge	1	160	160		1	160	160		0
.14 Mens Restroom No. 2	1	84	84		1	84	84		0
.15 Womens Restroom No. 2	1	84	84		1	84	84		0
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**3,733**	**10**			**3,733**	**10**	**0**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING					PROGRAMMED				SF
1.1 Town Offices	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Director of IT					1	180	180	1	180
.02 IT Tech Office					1	180	180	1	180
.03 IT Storage Room					1	120	120		120
.04 IT Server Room					1	360	360		360
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**0**	**0**			**840**	**2**	**840**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
1.1 Town Offices	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Director of Economic Development					1	200	200	1	200
.02 ED Offices					3	180	540	3	540
.03 Secretarial Reception					1	180	180		180
.04 Storage					1	120	120		120
.05 Conference Room					1	400	400		400
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**0**	**0**			**1,440**	**4**	**1,440**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.1 Police Administration	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Police Chief's Office	1	168	168	1	1	180	180	1	12
.02 Police Chief's Closet					1	16	16		16
.03 Deputy Police Chief Office	1	160	160	1	1	180	180	1	20
.04 Deputy Police Chief's Closet					1	16	16		16
.05 Lieutenants Office					1	180	180	1	180
.06 Administrative Secretary Office	1	140	140	1	1	180	180	1	40
.07 Secure Records Storage					1	80	80		80
.08 PT Staff Office Assistant / Finance	1	117	117	1	1	144	144	1	27
.09 Supply / Storage Room					1	80	80		80
.10 Mens and Womens Staff Restrooms	2				2	60	120		120
.11 Business Center					1	100	100		100
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**585**	**4**			**1,276**	**5**	**691**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING					PROGRAMMED				SF
2.2 Lobby / Community	**Qty.**	**Net SF Each**	**Subtotal**	**Staff Positions**	**Qty.**	**Net SF**	**Subtotal**	**Staff Positions**	**Difference**
.01 Lobby Vestibule					1	60	60		60
.02 Lobby	1	220	220		1	324	324		104
.03 M&W's Public Restrooms					2	60	120		120
.04 Community Conference					1	750	750		750
.05 Comm. Conf. Storage Room					1	100	100		100
.06 Community Policing Unit -	1	178	178	2	1	300	300	4	122
.07 Auxilliary Police				2	1	225	225	2	225
.08 Aux. Police Storage Closet					1	64	64		64
.09									
.10									
.11									
.12									
.13									
.14									
.15									
Note: In Option 2 Community Conference Moves to Existing Ground Level Space									
			Exist	**Capacity**			**Program**	**Capacity**	**Additional SF**
Sub - Total			**398**	**4**			**1,943**	**6**	**1,545**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.3 Dispatch	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Communications Center	1	188	188	2	1	441	441	3	253
.02 Adm Lt / Sgt Office				1	1	224	224	2	224
.03 Storage Closet					1	16	16		16
.04 Supervisor Office				1	1	224	224	2	224
.05 Dispatch Break Room					1	120	120		120
.06 Unisex Staff Restroom	1	40	40		1	60	60		20
.07 Womens Staff Restroom	1	40	40						
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**268**	**4**			**1,085**	**7**	**857**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.4 Patrol Officer	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Squad Room	1	360	360	2	1	500	500	4	140
.02 Squad Equipment / Supply Room					1	150	150		
.03 Sergeant Office	1	250	250	3	1	300	300	3	50
.04 Duty Officers Office					1	224	224	2	224
.05 Office - Report Wrting	1	120	120		1	144	144		24
.06 Breakroom	1	140	140		1	200	200		60
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**870**	**5**			**1,518**	**9**	**498**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.5 Criminal Investigation Division	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Main Office - Criminal Records	1	170	170	1	1	180	180	1	10
.02 Analytical Office - Criminal Records					1	200	200	1	200
.03 Criminal Records File Room					1	400	400		400
.04 CID Copy Room					1	80	80		80
.05 Detective's Office	1	273	273	3	1	500	500	6	227
.06 Detective Sergeant Office	1	95	95	1	1	180	180	1	85
.07 Closet CID Sergeant					1	16	16		16
.08 Interview Room	1	110	110		2	100	200		90
.09 Property and Evidence Storage	1	60	60		1	260	260		200
.10 Evidence Processing & Lab					1	200	200		200
.11 Vehicle Evidence Storage @ SP					0	600	0		0
.12 CID Storage Room	1	300	300		1	200	200		-100
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**1,008**	**5**			**2,416**	**9**	**1,408**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.6 Sallyport / Detention / Traffic Operations	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Vehicle Sallyport					1	500	500		500
.02 Juvenile Holding Cells	1	44	44		2	81	162		118
.03 Adult Holding Cells	1	58	58		2	81	162		104
.04 Processing Room					1	196	196		196
.05 Unisex Toilet Room					1	40	40		40
.06 Children In Need Meeting Room					1	80	80		80
.07 Traffic Office	1	196	196	3	1	300	300	5	104
.08 Traffic - Radar Storage	1	30	30		1	120	120		90
.09 Intoximeter Room					1	100	100		100
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**328**	**3**			**1,660**	**5**	**1,332**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.7 Training	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Multipurpose Room - Roll Call	1	505	505		1	750	750		245
.02 AV Closet	1	40	40		1	25	25		-15
.03 Training Storage Closet	1	20	20		1	64	64		44
.04 Quartermaster / Training Office	1	172	172	1	1	224	224	2	52
.05 Quartermaster Closet	1	77	77		1	20	20		-57
.06 Quartermaster Storage Room					1	200	200		200
.07 Weapons Cleaning	1	65	65		1	120	120		55
.08 Armory	1	48	48		1	144	144		96
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**927**	**1**			**1,547**	**2**	**620**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.8 Exercise	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Exercise Room					1	800	800		800
.02 W Locker Room w T & Shower	1	200	200		1	225	225		25
.03 M Locker Room w T & Shower	1	275	275		1	256	256		-19
.04									
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**475**	**0**			**1,281**	**0**	**806**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.9 Building Support	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Police Computer Network	1	46	46		1	100	100		54
.02 Mechanical Room	1	320	320		1	400	400		80
.03 Mechanical Room	1	40	40		1	120	120		80
.04 Trash Room					1	100	100		100
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Capacity	Additional SF
Sub - Total			**406**	**0**			**720**	**0**	**314**

Town of Bel Air, Maryland

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates **CRA Project No. 3164**

PROGRAM SUMMARY - OPTION 4

Town Hall Building Area	Existing SF	Programmed SF	Difference	Existing Staff Positions	Programmed Staff Positions	Notes
1.0 Town Administrative Offices	3,733	3,733	0	10	10	
1.1 IT Department		840	840		2	
Total Net Building Area	**3,733**	**4,573**		**10**	**12**	
Gross Building Area	**5,190**	**7,147**				

Police Department Building Area	Existing SF	Programmed SF	Difference	Existing Staff Positions	Programmed Staff Positions	Notes
2.0 Police Department						
2.1 Administration	585	1,276	691	4	5	Chief of Police Charles Moore
2.2 Lobby / Community Conference	398	1,869	1,471	4	6	Officer First Class Alex McComas
2.3 Dispatch	268	817	589	4	7	Patrol Sergeant Robert Pfarr
2.4 Patrol Officers	870	1,018	148	5	9	Deputy Chief Richard Peschek
2.5 Criminal Investigation Division	1,008	2,416	1,408	5	9	Detective Sergeant Henry Marchesani
2.6 Sallyport / Detention / Traffic Op	328	1,660	1,332	3	5	Patrol Sergeant Robert Pfarr
2.7 Training	927	1,547	620	1	2	Training Officer Zachary Miller
2.8 Wellness Center / Lckr Rms	475	481	6	0	0	Officer 1st Class Jonathan Kauffman
2.9 Building Support	406	720	314	0	0	
Total Net Building Area	**5,265**	11,804	6,579	26	43	Current Total Staff of 47
Gross Building Area	**7,128**	**18,171**				
Building Total	**12,318**	**25,318**	**13,000**	**36**	**55**	

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
1.1 Town Offices	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Town Hall	1	1,144	1144		1	1,144	1144		0
.02 Commissioners Office	1	214	214	1	1	214	214	1	0
.03 Office No. 1	1	100	100	1	1	100	100	1	0
.04 Administration Offices/ Reception	1	312	312	2	1	312	312	2	0
.05 Administrators Office	1	220	220	1	1	220	220	1	0
.06 Meeting Room	1	350	350		1	350	350		0
.07 File Room	1	90	90		1	90	90		0
.08 Work Room	1	120	120		1	120	120		0
.09 Finance Office	1	490	490	4	1	490	490	4	0
.10 Comptroller	1	110	110	1	1	110	110	1	0
.11 Storage A	1	110	110		1	110	110		0
.12 Computer Room	1	145	145		1	145	145		0
.13 Employee Lounge	1	160	160		1	160	160		0
.14 Mens Restroom No. 2	1	84	84		1	84	84		0
.15 Womens Restroom No. 2	1	84	84		1	84	84		0
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**3,733**	**10**			**3,733**	**10**	**0**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
1.2 IT Department	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Director of IT Office					1	180	180	1	180
.02 IT Technician Office					1	180	180	1	180
.03 IT Storage					1	120	120		120
.04 IT Server Room					1	360	360		360
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**0**	**0**			**840**	**2**	**840**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.1 Police Administration	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Police Chief's Office	1	168	168	1	1	180	180	1	12
.02 Police Chief's Closet					1	16	16		16
.03 Deputy Police Chief Office	1	160	160	1	1	180	180	1	20
.04 Deputy Police Chief's Closet					1	16	16		16
.05 Lieutenants Office					1	180	180	1	180
.06 Administrative Secretary Office	1	140	140	1	1	180	180	1	40
.07 Secure Records Storage					1	80	80		80
.08 PT Staff Office Assistant / Finance	1	117	117	1	1	144	144	1	27
.09 Supply / Storage Room					1	80	80		80
.10 Mens and Womens Staff Restrooms	2				2	60	120		120
.11 Business Center					1	100	100		100
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**585**	**4**			**1,276**	**5**	**691**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING					PROGRAMMED				SF
2.2 Lobby / Community	**Qty.**	**Net SF Each**	**Subtotal**	**Staff Positions**		**Qty.**	**Net SF**	**Subtotal**	**Staff Positions**	**Difference**
.01 Lobby Vestibule						1	60	60		60
.02 Lobby	1	220	220			1	250	250		30
.03 M&W's Public Restrooms						2	60	120		120
.04 Community Conference						1	750	750		750
.05 Comm. Conf. Storage Room						1	100	100		100
.06 Community Policing Unit -	1	178	178	2		1	300	300	4	122
.07 Auxilliary Police				2		1	225	225	2	225
.08 Aux. Police Storage Closet						1	64	64		64
.09										
.10										
.11										
.12										
.13										
.14										
.15										
			Exist	**Capacity**				**Program**	**Staff Positions**	**Additional SF**
Sub - Total			**398**	**4**				**1,869**	**6**	**1,471**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.3 Dispatch	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Communications Center	1	188	188	2	1	441	441	3	253
.02 Adm Lt / Sgt Office				1	1	0	0	2	0
.03 Storage Closet					1	16	16		16
.04 Supervisor Office				1	1	180	180	2	180
.05 Dispatch Break Room					1	120	120		120
.06 Unisex Staff Restroom	1	40	40		1	60	60		20
.07 Womens Staff Restroom	1	40	40						
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**268**	**4**			**817**	**7**	**589**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.4 Patrol Officer	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Squad Room	1	360	360	2	1	0	0	4	-360
.02 Squad Equipment / Supply Room					1	150	150		150
.03 Sergeant Office	1	250	250	3	1	300	300	3	50
.04 Duty Officers Office					1	224	224	2	224
.05 Office - Report Wrting	1	120	120		1	144	144		24
.06 Breakroom	1	140	140		1	200	200		60
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**870**	**5**			**1,018**	**9**	**148**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.5 Criminal Investigation Division	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Main Office - Criminal Records	1	170	170	1	1	180	180	1	10
.02 Analytical Office - Criminal Records					1	200	200	1	200
.03 Criminal Records File Room					1	400	400		400
.04 CID Copy Room					1	80	80		80
.05 Detective's Office	1	273	273	3	1	500	500	6	227
.06 Detective Sergeant Office	1	95	95	1	1	180	180	1	85
.07 Closet CID Sergeant					1	16	16		16
.08 Interview Room	1	110	110		2	100	200		90
.09 Property and Evidence Storage	1	60	60		1	260	260		200
.10 Evidence Processing & Lab					1	200	200		200
.11 Vehicle Evidence Storage @ SP					0	600	0		0
.12 CID Storage Room	1	300	300		1	200	200		-100
.13									
.14									
.15									
Note: Vehicle Evidence Storage will be at a remote location.									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			1,008	5			2,416	9	1,408

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.6 Sallyport / Detention / Traffic Operations	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Vehicle Sallyport					1	500	500		500
.02 Juvenile Holding Cells	1	44	44		2	81	162		118
.03 Adult Holding Cells	1	58	58		2	81	162		104
.04 Processing Room					1	196	196		196
.05 Unisex Toilet Room					1	40	40		40
.06 Child In Need Meeting Room					1	80	80		80
.07 Traffic Office	1	196	196	3	1	300	300	5	104
.08 Traffic - Radar Storage	1	30	30		1	120	120		90
.09 Intoximeter Room					1	100	100		100
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**328**	**3**			**1,660**	**5**	**1,332**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.7 Training	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Multipurpose Room - Roll Call	1	505	505		1	750	750		245
.02 AV Closet	1	40	40		1	25	25		-15
.03 Training Storage Closet	1	20	20		1	64	64		44
.04 Quartermaster / Training Office	1	172	172	1	1	224	224	2	52
.05 Quartermaster Closet	1	77	77		1	20	20		-57
.06 Quartermaster Storage Room					1	200	200		200
.07 Weapons Cleaning	1	65	65		1	120	120		55
.08 Armory	1	48	48		1	144	144		96
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**927**	**1**			**1,547**	**2**	**620**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.8 Exercise	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Exercise Room					1		0		0
.02 W Locker Room w T & Shower	1	200	200		1	225	225		25
.03 M Locker Room w T & Shower	1	275	275		1	256	256		-19
.04									
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
Note: Mens and Womens bunk rooms have been deleted to reduce building area.									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**475**	**0**			**481**	**0**	**6**

Town of Bel Air, Maryland

CRA Project No. 3164

Town Hall / Police Department Program Requirements

Crabtree, Rohrbaugh & Associates

	EXISTING				PROGRAMMED				SF
2.9 Building Support	Qty.	Net SF Each	Subtotal	Staff Positions	Qty.	Net SF	Subtotal	Staff Positions	Difference
.01 Police Computer Network	1	46	46		1	100	100		54
.02 Mechanical Room	1	320	320		1	400	400		80
.03 Mechanical Room	1	40	40		1	120	120		80
.04 Trash Room					1	100	100		100
.05									
.06									
.07									
.08									
.09									
.10									
.11									
.12									
.13									
.14									
.15									
			Exist	Capacity			Program	Staff Positions	Additional SF
Sub - Total			**406**	**0**			**720**	**0**	**314**

3A | Facilities Evaluation Criteria

Methodology and Approach

In order to adequately assess the Town of Bel Air Administration and Police Department Building it is imperative that a baseline, or benchmark be established, from which evaluations and any subsequent recommendations are based upon. In completing the facilities assessment and evaluation, Crabtree, Rohrbaugh & Associates developed and utilized several tools to assist in the process. They include the following:

- Building surveys and documentation
- Meeting with building staff
- Use of an Evaluation Criteria as a benchmarking tool
- Lifespan of Building Components

Evaluation Criteria

The criteria is based on the program needs as well as life cycle costs and life span expectations, maintenance needs, energy efficiency, and current applicable accessibility, life safety and building code considerations.

The following building codes are applicable:

- International Building Code 2015
- International Existing Building Code 2015
- National Electric Code 2014
- International Green Conservation Code 2012
- Life Safety Code 2015
- International Fuel Gas Code 2015
- International Mechanical Code 2015
- International Plumbing Code 2015
- Maryland Building Rehab Code, COMAR 05.16.01
- Maryland Accessibility Code, COMAR 05.02.02
- ASHRAE Standards
- ADAAG (Americans with Disabilities Accessibility Guidelines)

ADA, SAFETY AND BUILDING CODE CRITERIA

ADA Compliance

Recommendations in this report regarding upgrades related to the Americans with Disabilities Act are made when buildings or areas of a building can be made accessible without "undue burden". "Section 35.150 requires that each service, program, or activity conducted by a public entity, when viewed in its entirety, be readily accessible to and usable by individuals with disabilities."

ADA Regulation for Title II, as printed in the Federal Register.

Exterior Routes At least one accessible route shall be provided within the boundary of the site from accessible parking spaces, passenger loading areas and public streets and walks to an accessible building entrance. Handicapped access to grade (accessible entrances) shall be provided at a minimum of 50% of all public entrances.

Parking Properly configured and marked accessible parking spaces shall be provided per code requirements.

Total Parking in Lot	Required Minimum Number of Accessible Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total

Exterior Signage Proper signage shall be provided on-site to designate handicapped accessible route(s) to the building and related facilities. If a particular entrance is not made accessible, appropriate accessible signage indicating the location of the nearest accessible entrance(s) shall be installed at or near the inaccessible entrance, such that a person with disabilities will not be required to retrace the approach route from the inaccessible entrance.

Interior Routes At least one accessible route shall connect accessible building or facility entrances with available programs within the building. The path of travel to an altered area and the restrooms, telephones, and drinking fountains serving the altered area, shall be readily accessible to and usable by individuals with disabilities.

Railings Handrails and railings on stairs and/or ramps shall be designed to meet code requirements. Ramps shall have a maximum slope of 1 to 12.

Elevator One passenger elevator shall serve each level providing programs to the public including mezzanines, in all multi-story buildings.

Doors

At each accessible entrance to a building, at least one door shall meet code width and maneuvering clearances. Door openings are to be a minimum clear width of 32" and a minimum clearance of 7'-0" shall exist between pairs of entrance doors in vestibules. Each door that is an element of an accessible route or means of egress shall meet the width and maneuvering clearances per code requirements.

Egress/ Area of Rescue Assistance

Areas of Rescue Assistance shall be provided where there is no direct egress to grade. The total number of areas per story shall be not less than 1 for every 200 persons of calculated occupant load served by the area of rescue assistance. Area of Rescue Assistance may not be required if the building is fully sprinklered and the stair are open.

Interior Signage

Proper signage shall be placed throughout the building to adequately identify accessible routes and areas of rescue assistance. Room identification signs throughout the building shall be in compliance with ADA.

Hardware

Door locksets to all accessible spaces should be lever-type accessible units. Door closers should meet pull load requirements.

Restrooms

Existing toilet room facilities on each level of a building shall be accessible or an accessible toilet room shall be provided near the existing facilities. Additional toilet facilities shall be accessible when required by the program or service provided.

Fountains

At least one accessible drinking fountain should be provided on each level of a building and 50% of the total number of drinking fountains provided shall be accessible. Two drinking fountains mounted side by side or on a single post, are usable by people with disabilities and people who find it difficult to bend over.

Fire Alarm

Visual strobe alarms are to be provided in toilet rooms and other general use areas. (Meeting rooms, lobbies, corridors and common use areas.)

Telephone

If public pay telephones are provided, they are to be accessible. An accessible telephone shall meet the maneuvering clearances per ADA requirements and be mounted at the proper height. TDD or equally effective telecommunication systems shall be available to communicate with individuals with impaired hearing or speech.

Seating

In places of assembly with fixed seating, accessible wheelchair locations shall be provided. At least one companion fixed seat shall be provided next to each wheelchair seating area. When the seating capacity exceeds 300, wheelchair spaces shall be provided in more than one location.

Capacity of Seating in Assembly Area	Number of Required Wheelchair Locations
4 to 25	1
26 to 50	2
51 to 300	4
301 to 500	6
over 500	6 plus 1 additional space for each total seating capacity increase of 100

Site Code Compliance

Security	Vehicular routes and pedestrian paths should be clear in terms of field of view. Pedestrian paths shall be well lighted.
Parking	Vehicular parking shall be designed to meet local municipal authority requirements. An adequate amount of parking should be available for staff and visitors.
Drainage	Storm water management shall be designed to meet local municipal authority requirements. Walks and drives shall be properly drained to prevent icy conditions in winter.

Building Code Compliance

Security	Entries shall be observable and promote scrutiny of visitors. Access to roof and other high areas shall be secured.
Means of Egress	Interior elements comprising *means of egress* shall be continuous and unobstructed from any space within the building to the *exit discharge* in accordance with local building codes.
Fire Alarm System	There should be a NFPA 70 panel, connected to the local fire department for alarm with localized alarm stations as required with available spare parts and maintenance service.
Annunciator	There should be a NFPA 70 remote panel in an easily accessed area, well protected, with available parts and maintenance service.
Fire Suppression System	An automatic fire suppression system shall be installed throughout all buildings in accordance with local building codes and the International Fire Code.
Fire Extinguishers	Fire extinguishers shall be an approved type to meet local building code criteria for number and spacing and shall be mounted at the proper height. Fire extinguishers shall be annually serviced by licensed personnel and inspected monthly by building operations employees.

PHYSICAL PLANT CRITERIA

Site Condition

Paving	Asphalt paving should be in good condition, showing no signs of deterioration or cracking. Storm water should be diverted to drainage inlets with no ponding.
Walkways	Concrete sidewalks should be in good condition, showing no signs of deterioration, major cracks or tripping hazards.
Landscaping	Landscaping should be attractive, conducive to activity and well- maintained.

Building Condition

Structural System	Structural systems should be intact with no uncertified modifications. There should be no evidence of cracking or settling of structural components.
Energy	Buildings should meet or exceed ASHRAE 90.1 Standards.
Roofing System	Roofing systems should be in maintainable condition with adequate slope to roof drains or gutters and no ponding, roof leaks or visible damage.
Exterior Trim	Exterior trim should be heavy gauge metal, stone, precast concrete or wood with no rotted areas, completely painted and properly fastened.
Windows	Windows should be clear glass units, in thermally broken aluminum frames, or wood frames, with undamaged finish. Windows should be easily operable and have proper caulking.
Exterior Doors	Exterior doors must swing in the direction of egress travel, and be accessible.
Interior Walls	Interior partitions should be structurally sound, free of finish defects and have adequate acoustical properties.
Interior Doors	Doors should have undamaged finish and not obstruct emergency egress.
Interior Glass	Interior glass should be ¼" tempered or safety glass where required.

Interior Finishes Condition

Resilient Flooring	Resilient floor surfaces should be free of defects, with no cracks, open seams or missing tiles.
Carpeting	Carpet should have tight seams, with no unraveling or exposed/frayed ends. They should have anti microbial treatment and be stain resistant where applicable. Area rugs should be non-slip type with no tripping hazards.
Ceramic Tile	Ceramic tile should be free of cracked, loose, missing or broken tiles with adequate waterproof grout.
Wood Flooring	Wood floors should have appropriate finish and smooth transition to adjacent floor surfaces. They must allow for movement without buckling or spreading. There should be no squeaky or soft spots.
Plaster Walls	Plaster walls should have smooth, clean surface with no damage or stains and appropriate transition to adjacent ceiling and wall materials.
Paint	Painted surfaces should have a smooth finish, with no peeling or stains. Appropriate colors should be chosen for reduction of glare, for light reflectivity and overall compatibility with use of space. Lead based paint should not be present.

Specialties Condition

Casework	Cabinets should have a solid wood or particleboard core with a high-density plastic laminate finish. Surfaces should be undamaged with properly functioning hardware.
Toilet Partitions	Partitions should be painted, galvanized metal or solid phenolic construction. Partitions should be floor supported, overhead braced. Panel surfaces should not be dented, bent or rusted and all hardware should be present and in good working condition.
Lockers	Lockers should be painted, galvanized metal or solid phenolic construction. Lockers for police officers should be single-tier wardrobe lockers, sized to accommodate each officer's equipment. And of sufficient quantity to provide a locker for each officer, regardless of gender. Panel surfaces should not be dented, bent or rusted and all hardware should be present and in good working condition.
Shower Stalls	Shower stalls should be lined with ceramic tile, fiberglass panels or stainless steel panels. Shower stalls should be clean, with ceramic tile mortar joints free of stains and mold.

HVAC Condition

System Design	HVAC System installed should be one that is the most ideal and current for the type of building. Equipment and air distribution should contain fire protection devices such as fire dampers and duct smoke detectors to meet current local code and life safety requirements.
Ventilation	Outside air quantities should be designed per local code requirements.
Exhaust	Proper quantities of exhaust air should be provided in toilet rooms, mechanical rooms, maintenance closets, storage rooms and copy rooms.
Distribution	HVAC piping and ductwork should be in good condition
Equipment	HVAC equipment should be well maintained and in good working condition to operate within the system design. Equipment should be designed to meet local building code requirements.
Energy Management	Automatic temperature control systems should be current and have energy management capabilities.

Plumbing Condition

Distribution	Sanitary drainage, domestic water and gas piping should be in good condition and operating within system design. Hot water supply shall be provided to every hand sink within restrooms and to every shower stall.
Plumbing Fixtures	Plumbing fixtures should be well maintained and in good working condition to operate within the system design.
Equipment	Plumbing equipment should be well maintained and in good working condition to operate within the system design.

Electrical Condition

Interior Fixtures	Light fixtures should have energy efficient long life lamps with non-PCB ballasts. Fixtures should have undamaged finishes and lens with no cracked or discolored items. Illumination levels should meet the minimum criteria based on foot-candle (fc) levels established by the Illuminating Engineers Society (IES).
Power Supply	Power supply should be 480/277 volts, 3 phase, 4 wire from Power Company. The transformer should be located in a safe isolated area.
Service	Service box should have a functional panel cover and lock, available replacement branch devices and expansion capacity.
Distribution	Equipment should have functional panel covers and locks with 480 volts, 3 phase for power to HVAC and other heavy equipment; 277 volts, 3 phase for interior or lighting distribution; available replacement parts. All panel schedules shall be accurately labeled.
Transformers	There should be 480 120/208 volts, 3 phase step-down transformers for power to receptacles and other small 12 volt equipment.
Wiring	There should be no signs of deteriorating insulation or loose connections.
Receptacles	Receptacles should be grounded type with no broken covers. They should be appropriately located for program needs. Ground fault interrupters are required at wet areas.
Emergency Generator/ Battery packs	Emergency generators should be property located and sized to meet desired emergency load requirements.
Telephone System	A telephone system should be provided. Specific functioning and use of the system should be programmed from the central control unit.
Data Transfer System	Data systems should be implemented to meet the needs of the various agencies and a long-range technology plan. Systems should be flexible and adaptable for future technological changes.

3B | Facilities Evaluation

ARCHITECTURAL NARRATIVE

Existing Conditions

Survey of the existing 12,318 SF two story structure was performed during the summer of 2018. Evaluation of the exterior site, including pedestrian walkways, entrance ways, parking and vehicular circulation were performed and documented. The exterior building envelope, including masonry walls and fenestration, as well as entrances and roof system were analyzed for their current condition. The interior of the building was also surveyed to ascertain the condition of the interior partitions, flooring, ceilings and general structure, as well as evaluations of life safety and ADA accessibility standards throughout. This information was utilized in determining the potential renovations scope required as part of a comprehensive renovations and additions project for the Town of Bel Air Town Hall and Police Department facilities. A summation of these evaluations is included in the Facility Conditions Index as part of this section. Specific areas of evaluation included:

Site and Site Accessibility

Deteriorated Concrete Walkways

Deteriorated Macadam Driveway

Site and Site Accessibility (cont)

Deteriorated Concrete Curbing

Exterior HVAC Service

Deteriorated Exterior Stairs

Deteriorated Masonry Retaining Wall

Exterior Building Envelope

Deteriorated Concrete Banding

Deteriorated Concrete Banding

Existing Built-Up Roofing

Deteriorated Concrete Roof Structure

Exterior Building Envelope (cont)

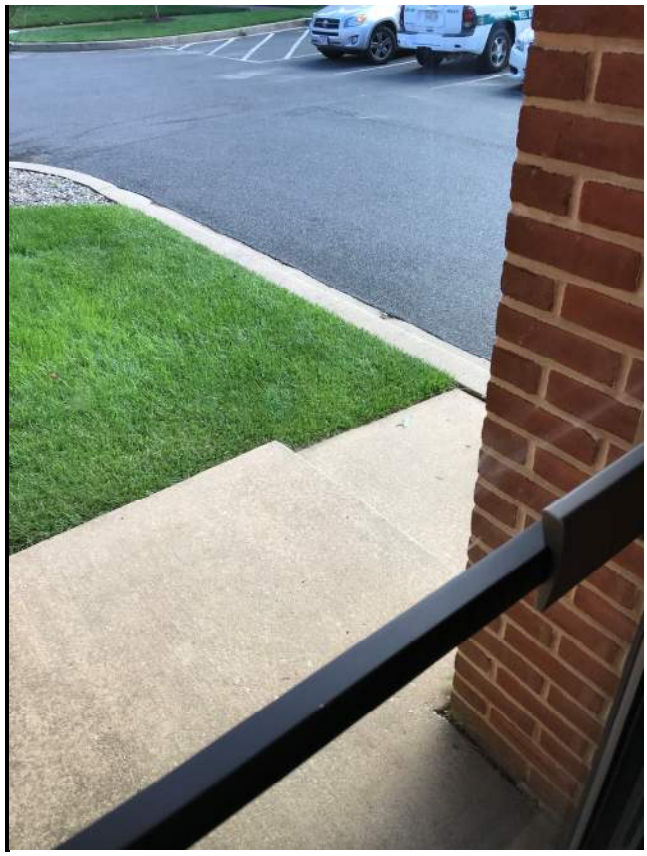
Steel Support Lintel Deterioration

Deteriorated Masonry Wall

Deteriorated Concrete Areaway

Deteriorated Masonry Wall

Interior Accessibility



Non-ADA Accessible Exit

Non-ADA Accessible Exit

Non-ADA Accessible Door Hardware

Non-ADA Accessible Door Approach

Interior Accessibility (cont)

Non-ADA Accessible Sink/Cabinet(s)


Non-ADA Accessible Doorway/Corridor


Non-ADA Accessible Water Fountain


Non-ADA Accessible Main Reception Window

Interior Elements

Deteriorated/Damaged Wall and Base

Deteriorated/Damaged Wall and Base

Damaged Door and Hardware

Deteriorated/Damaged Floor Tile

Interior Elements (cont)

Damaged CMU Wall and Finish

Damaged CMU Wall and Finish

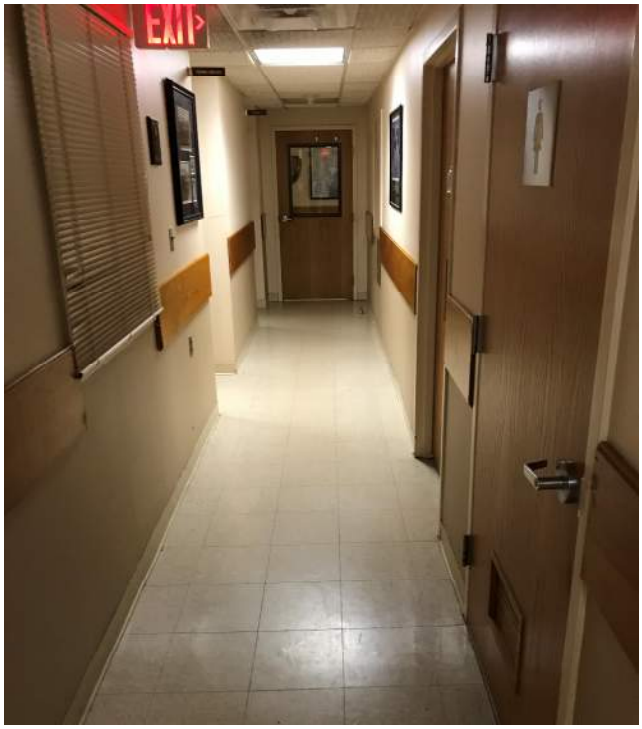
Deteriorated/Damaged Floor Tile

Damaged Wall Finish

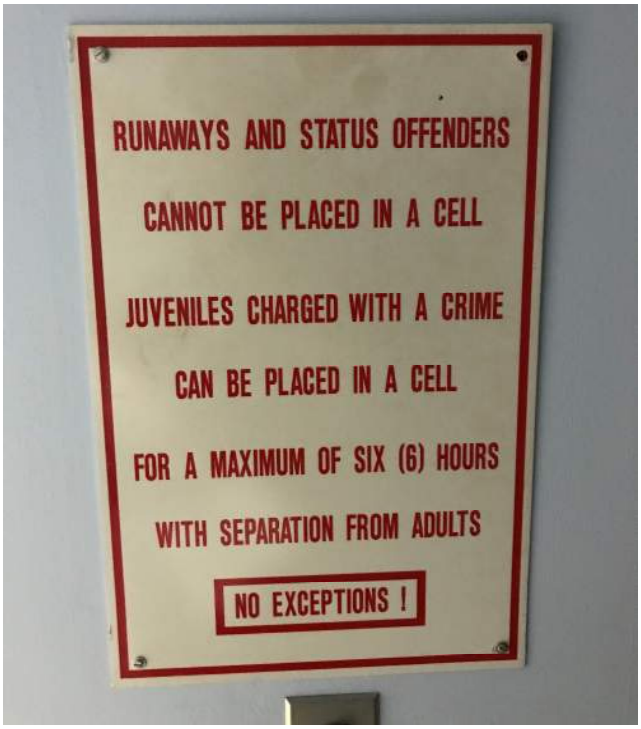
Safety and Security

Non-Code Compliant Stair Railings/Guardrails

Non-Code Compliant Stair Railings/Guardrails



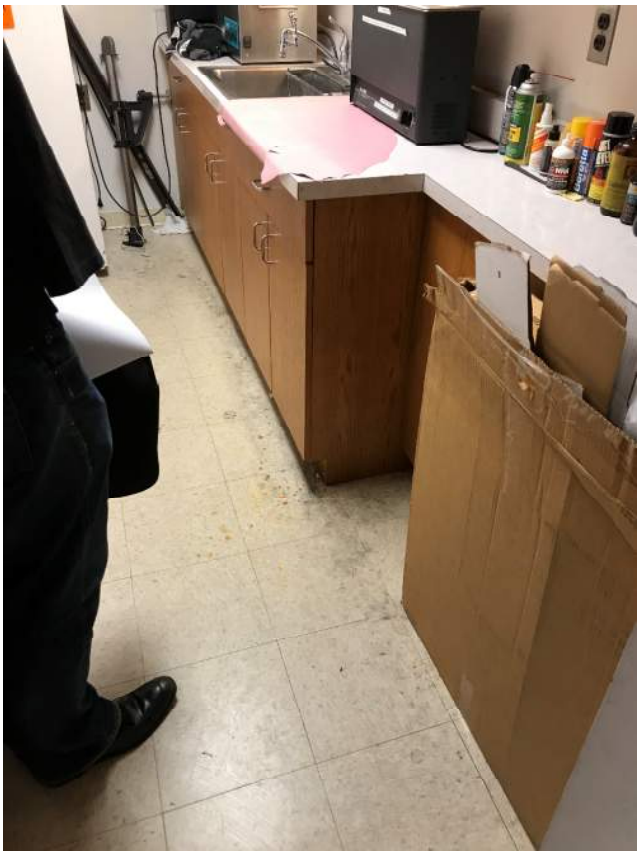
Narrow Corridors with Out-Swinging Doors



Lack of Audible Separation between Juveniles/Adults

Safety and Security (cont)

No Public Support Areas within Secured Vestibule



Improper Size and Ventilation for Armory Area

Inadequate Evidence Storage and Processing Area

Inadequate Work and Office Spaces

MECHANICAL NARRATIVE

Applicable Codes

The electrical systems will be designed in accordance with applicable local, state and federal codes/standards including the following:

International Building Code 2015 (IBC)
International Energy Conservation Code 2015 (IECC)
International Mechanical Code - 2015
National Fire Protection Agency (NFPA) Standards Including (but not limited to):
NFPA 90A Standard for the Installation of Air-Conditioning and Ventilating Systems - 2018

Existing Conditions

The existing building is a 12,318 SF two story structure with entrances on both levels. The heating ventilation and air conditioning (HVAC) systems are comprised of a central heating system, and distributed cooling and ventilating systems. The central heating system is comprised of a single natural gas fired hot water boiler with two end suction circulating pumps, the hot water is utilized to temper make-up air to the locker rooms and provide additional heating at the air handling systems. Cooling and ventilation is provided by six direct exchange air handling units each serving a distinct area of the facility. There are three outdoor air intakes, one located adjacent to the lower level entrance, one in an area well adjacent to the meeting room entrance, and one at the roof.

New Work & Recommendations

The proposed scope consists of two options; Option 1 – 15,400 SF addition and Option 2 – 19,080 SF addition. Both options include extensive renovation to the 12,318 SF existing facility. The addition will be supplied with new central heating and ventilating systems suitable to serve the addition and back feed the existing building. Cooling will either be accomplished either by central air or by variable refrigerant flow (VRF). Zone level controls are planned and will be accomplished using variable air volume (VAV) air terminal units (ATU's) with hot water reheat if air cooling is used and with the VRF system otherwise.

Heating – Option 1

The central heating system will be a circulating hot water system served by natural gas fired condensing boilers. Redundant circulators will supply hot water through a distribution system consisting of Schedule 40 steel pipe or Type K Copper Pipe. The size of the equipment will be different depending on the cooling strategy.

The existing boiler is no more than 10 years old and is capable of providing 517 MBH of heat. This boiler likely has several years of remaining service life. For central air-based cooling, the boilers will need to provide a total of 3,375 MBH. Based on the required heating capacity relative to the capacity of the existing boiler, keeping the existing boiler would complicate the system without greatly reducing the size of the new boilers required for this project. Therefore, it is not recommended to keep the existing boiler if central air-based cooling is selected. Rather, it is recommended that an entirely new central heating water system be provided with two new boilers along with two 15 HP base mounted end suction centrifugal pumps. For a VRF based cooling system, the boilers will need to provide a total of 810 MBH. Based on this required heating capacity relative to the capacity of the existing boiler, keeping the existing boiler would allow the new boilers to be of reduced size. For this option, two new boilers along with two 5 HP inline centrifugal pumps would be

provided in addition to utilizing the existing boiler. Standard piping appurtenances common to either system will include an air separator, expansion tank, make-up water connection, balancing devices, vibration isolation, and miscellaneous piping appurtenances.

Heating – Option 2

Similar to Option 1, the central heating system will be a circulating hot water system served by natural gas fired condensing boilers. Redundant circulators will supply hot water through a distribution system consisting of Schedule 40 steel pipe or Type K Copper Pipe. The size of the equipment will be different depending on the cooling strategy.

For the central air-based cooling, the boilers will need to provide 4,075 MBH. Again, for this option, an entirely new central heating water system is recommended. This system will include two 20 HP base mounted end suction centrifugal pumps. For a VRF based cooling system, the boilers will need to provide 980 MBH. Two new boilers along with two 5 HP inline centrifugal pumps would be provided. The VRF cooling option could make use of the existing boiler in order to reduce the size of the boilers added to the project. Standard piping appurtenances common to either system will include an air separator, expansion tank, make-up water connection, balancing devices, vibration isolation, and miscellaneous piping appurtenances.

Cooling – Option 1

In the case of the central air-cooled cooling system, the six existing air handling units will be reconfigured to serve the existing portion of the building. A single air-cooled condensing unit (ACCU) coupled to a direct exchange (DX) coil will provide all the cooling for the addition spaces. The total capacity of the new air handling unit will be 45 tons. In the case of a VRF system is selected, for system simplicity, it is recommended that the six existing air handling units be removed. For this system a ventilating unit will have a DX coil coupled to a 75 ton ACCU plus two 30 ton VRF condensing systems.

Cooling – Option 2

In the case of the central air-cooled cooling system, the six existing air handling units will be reconfigured to serve the existing portion of the building. A single ACCU coupled to a DX coil will provide all the cooling for the addition spaces. The total capacity of the new air handling unit will be 60 tons. Again, if a VRF system is selected, it is recommended that all existing air handling units be removed. In the case of a VRF system the ventilating unit will have a DX coil coupled to a 90 ton ACCU plus two 35 ton VRF condensing systems.

Ventilation – Option 1

Ventilation will be supplied by packaged rooftop air handling units. In the air cooling scenario a single 20,600 CFM unit will be required. In the VRF scenario a single 12,200 CFM unit will be required.

A 1,250 CFM general exhaust fan for the restrooms, holding cells, and janitorial closets will be provided.

Ventilation – Option 2

Ventilation will be supplied by packaged rooftop air handling units. In the air cooling scenario a single 28,300 CFM unit will be required. In the VRF scenario a single 10,000 CFM unit will be required.

A 1,500 CFM general exhaust fan for the restrooms, holding cells, and janitorial closets will be provided.

Controls

For both options and both HVAC system types, a self-contained direct digital control (DDC) building energy management system will be provided. If the air-cooled system is selected, zone control will be accomplished with variable air volume (VAV) air terminal units (ATU's) and hot water reheat coils. If the VRF system is selected, a combination of concealed and ceiling mounted VRF cassettes will be utilized. The total number of zones anticipated for Option 1 (either system type) is 50. The total number of zones anticipated for Option 1 (either system type) is 60.

PLUMBING NARRATIVE

Applicable Codes

The plumbing systems will be designed in accordance with applicable local, state and federal codes/standards including the following:

International Building Code 2015 (IBC)
International Energy Conservation Code 2015 (IECC)
International Plumbing Code - 2015
National Fire Protection Agency (NFPA) Standards Including (but not limited to):
NFPA 13 Standard for the Installation of Sprinkler Systems - 2016

Existing Conditions

The existing 2 ½" water service enters the lower level in the mechanical room and serves both potable and non-potable service within the building. A natural gas hot water heater supplies recirculated hot water throughout the existing facility.

The existing 4" sanitary main exits the building in the direction of the new edition.

An existing 1-1/2" natural gas service enters the lower level in the mechanical room and serves both the domestic and heating water heaters.

A piped storm water system was not identified during survey.

New Work & Recommendations

New water and sanitary services will be planned for the addition, natural gas will be reroute from the existing service entry to the new mechanical room. Water services in the existing building will be back fed from the new water service. Sanitary from the existing building will be incorporated into the new sanitary service.

Domestic Water

A new 6" water service will be required with the increased size required to serve fire protection systems. A new natural gas fired domestic water heater with recirculating hot water and a master mixing valve will be supplied in the addition. The circulators will be redundant 1 HP inline pumps. Connections to each fixture with dead legs limited to 25 feet on the hot water system will be provided.

Drain, Waste, and Vent

The existing 4" sanitary main should be replaced in the area of the addition, the size is sufficient for the anticipated number of fixtures.

Storm Water

A central system is not anticipated, storm water will be managed by gutters and downspouts with overflow scuppers. Consideration will be given to routing gutters to appropriate containment or storage to meet local regulations.

Fire Protection

A fire pump is not anticipated. A fire department connection will be provided on the address side of the building. Full sprinkler protection will be specified in conformance with NFPA 13.

ELECTRICAL NARRATIVE

Applicable Codes

The electrical systems will be designed in accordance with applicable local, state and federal codes/standards including the following:

International Building Code 2015 (IBC)
International Energy Conservation Code 2015 (IECC)
International Fire Code - 2015
National Fire Protection Agency (NFPA) Standards Including (but not limited to):
NFPA 72 Fire Alarm Signaling Code – 2013
NFPA 101 Life Safety Code – 2015
NFPA 70 (National Electrical Code) – 2017

Existing Conditions

The existing building is served from an exterior pole mounted utility transformer. Power enters the building into the existing main electrical room on the lower level. The incoming secondary feeders from the utility enter a BGE CT cabinet and meter in the room then terminate at a 208V, 600A service entrance rated disconnect switch. Feeders exit the disconnect through a wire trough which then serves an automatic transfer switch (ATS). The output of the 208V, 600A Kohler ATS feeds back into the wire trough. The two-section panel A for “Town Hall” and “Police Department”, panel B for “Utilities”, and panel E are served from this wire trough. Branch panels and load centers are located throughout the building to serve local branch circuits. The existing panels were manufactured by Cutler Hammer and appeared to be in fair condition, however they are past the expected equipment lifecycle.

The emergency side of the ATS is served from an exterior natural gas generator rated at 208Y/120V, 3-phase, 200kW with a 600A internal output circuit breaker. The existing generator is model 200REZXB by Kohler. Based on the visual field inspection, it appears that the entire building is backed up by the generator power.

An existing photovoltaic (PV) system covers a portion of the roof. This system feeds back to a disconnect on the exterior of the building, and then to the main electrical room into a 208V, 40A enclosed circuit breaker which connects to the utility source. The PV system appears to be relatively new and in good condition.

The interior lighting is provided by fluorescent fixtures. Site lighting is provided by wall mounted, bollards, and pole mounted fixtures. The existing lighting system and controls do not meet the current energy code requirements. We did not observe emergency lighting in the form of battery units. There is not a dedicated life safety transfer switch as required by NEC article 700. This is a code violation.

The existing fire alarm system consists of smoke detectors and horn strobes. No manual pull stations were observed within the building which is a code violation per NFPA 72.

New Work & Recommendations

The proposed scope consists of two options; Option 1 – 15,000 SF addition and Option 2 – 20,600 SF addition. Both options include extensive renovation to the 12,000 SF existing facility.

The existing electrical distribution will be insufficient to accommodate the additional load of the new addition. A new service should be provided to the building from BGE which will serve a new main distribution panel in the new addition electrical room. This distribution panel will back feed the distribution equipment located in the existing electrical room. The main distribution panel will also serve new branch panels as necessary.

The emergency gas fueled generator and gas line must be relocated to accommodate the new building addition. Because the generator is in good condition, it is recommended to retain the generator for reconnection. The emergency power needs of the new addition and renovation shall be evaluated to determine whether the existing 200kW gas fueled generator has sufficient capacity to serve the new equipment. If it is desired to have the entire building on generator power, including the new addition, then the existing 200kw generator must either be replaced with a higher capacity model or a second generator must be purchased. This second generator would then be paralleled with the existing 200kW generator. BKM will confirm with Kohler for the controls requirements for paralleling the existing generator. It is yet to be confirmed whether the existing generator can be modified to enable it to be paralleled. A new automatic transfer switch should be provided based on the required generator load. A separate life safety transfer switch would be provided for emergency lighting as required by NEC article 700.

Power to the existing portion of the building will remain in place throughout the construction of the new addition. The existing main distribution panel shall be re-fed from the new service entrance distribution panel located in the new addition. The existing branch panels and associated branch circuits shall remain in place. Existing to remain branch circuits shall be spliced and extended as necessary to accommodate the renovations to the existing facility.

We have developed preliminary electrical load calculations for the renovations based on the proposed square footages and space types (see calculations below).

PROPOSED LOAD CALCULATIONS – OPTION 1

New Addition	
General Receptacle Loads – 4 VA / SF x 15,000 SF =	60.0 KVA
Interior Lighting Loads – 3.5 VA / SF x 15,000 SF =	52.5 KVA
Exterior Lighting Loads =	5.0 KVA
Miscellaneous Loads – 2 VA / SF x 15,000 SF =	30.0 KVA
HVAC and Plumbing Loads – 8.5 VA / SF x 15,000 SF =	127.5 KVA
Total Electrical Load =	275.0 KVA

The total new load, taken at 208V, 3-phase, 4 wire, draws 763 amps of current. As a result of this total, and when combined with the existing loads, we recommend back-feeding the existing 600A service entrance disconnect switch with a 1200A service entrance rated main distribution panel. A total of 400kW of generator backup will be required if the entire building is to be on emergency power.

At this anticipated service load, a new 480V, 3-phase, 4 wire service can be considered instead of using 208V. Switching to 480V will reduce the feasibility and cost savings potential of reusing the existing 208V, 200kW generator. The service size at 480V would be approximately 600A.

PROPOSED LOAD CALCULATIONS – OPTION 2

New Addition	
General Receptacle Loads – 4 VA / SF x 20,600 SF =	82.4 KVA
Interior Lighting Loads – 3.5 VA / SF x 20,600 SF =	72.1 KVA
Exterior Lighting Loads =	5.0 KVA
Miscellaneous Loads – 2 VA / SF x 20,600 SF =	41.2 KVA
HVAC and Plumbing Loads – 8.5 VA / SF x 20,600 SF =	175.1 KVA
Total Electrical Load =	375.8 KVA

The total new load, taken at 208V, 3-phase, 4 wire, draws 1043 amps of current. As a result of this total, and when combined with the existing loads, we recommend back-feeding the existing 600A service entrance disconnect switch with a 1600A service entrance main switchboard. A total of 500kW of generator backup will be required if the entire building is to be on emergency power.

At this anticipated service load, a new 480V, 3-phase, 4 wire service can be considered instead of using 208V. Switching to 480V will reduce the feasibility and cost savings potential of reusing the existing 208V, 200kW generator. The service size at 480V would be approximately 800A.

Power Distribution

All feeders should be copper wire with THHN/THWN insulation in conduit. Interior, above grade conduits should be EMT conduit. Conduits in wet locations or if exposed should be rigid steel. Feeders should be provided to all power distribution equipment including panels, and large equipment. General power for convenience receptacles and mechanical equipment are to be extended from the new distribution system.

Branch Circuits and Wiring Devices

New branch circuits should consist of copper wire with THHN/THWN insulation in EMT conduit. Flexible metallic conduit should be used for vibrating equipment. Rigid steel conduit should be used where exposed or in wet locations. For vibrating equipment in wet locations type LFMC conduit should be used. Conductors with XHHW-2 insulation should be used on the roof.

Receptacles should be provided as needed throughout the building. Receptacles should be specification grade and NEMA type 5-20R. GFCI type receptacles should be provided in all wet locations or within 6’ of sinks. All kitchen receptacles should be GFCI type. All receptacles located outside should be weatherproof while in use type.

Lighting

The existing fluorescent lighting and associated controls should be removed. New LED light fixtures should be provided. Exterior lighting should consist of building mounted, bollard, and pole mounted fixtures as needed.

Light levels for general fixtures should be calculated and provided per IES recommendations. Lighting power density should be per energy code requirements.

Lighting controls should be provided in accordance with IECC 2015. Occupancy sensors, time clocks, daylight sensors, and dimming should be provided throughout as required.

Fire Alarm

A new fire alarm system should be installed. New devices should be provided in accordance with NFPA 72. Strobe and horn locations should be coordinated with the architect. Smoke/Heat detectors should be provided as needed. New pull stations shall be provided in accordance with NFPA 72.

Photovoltaic System

The existing photovoltaic system should be retained for connection to the new electrical distribution system. The associated existing disconnect switches shall be relocated as part of the building addition work.

Crabtree, Rohrbaugh & Associates Architects
100 West Road, Suite 402
Towson, MD 21204 (410) 528-0272

Town of Bel Air
Bel Air Administration and Police Deparment

SCALE		DESCRIPTION	TIMELINE
5	NEW	New or like-new condition; Reevaluate in 8 - 10 years	8-10 YRS.
4	GOOD	Minimal wear for age, no issues	6-8 YRS.
3	FAIR	Average wear for age, approaching end of lifecycle	4-6 YRS.
2	POOR	Worn from use or age, end of expected lifecycle	2-4 YRS.
1	CRITICAL	Extremely worn or damaged, replace as soon as possible	> 2 YRS.

FACILITY CONDITION INDEX (FCI)

Site		5	4	3	2	1	NA	Comments & Recommendations
1	Perimeter Fencing & Gates						•	n/a
2	On-Site Sidewalks			•				Minimal wear, some cracking ; good condition in most parts, main level concrete is in worse condition
3	Paving			•				Macadam drives and parking areas are in good condition, with minimal spalling/cracking
4	Striping, Markings, Speed Bumps			•				Painting for parking and directional areas is starting to wear down
5	Curbing			•				Areas of spalling and damage were found in multiple locations
6	On-Site Signage		•					Signage is clean and legible
7	Exterior Furniture, Bike Racks, Storage						•	none
8	Retaining Walls, Site Walls			•				Masonry retaining walls surrounding outdoor mechanical equipment and storage are in fair condition, showing signs of deterioration
9	Freestanding Walkway Canopies						•	none

Site Accessibility		5	4	3	2	1	NA	Comments & Recommendations
1	Pedestrian Access - ADA & Safety		•					The main entrance has ADA accessibility from N. Hickory Street parking. The main entrance to the Lower Level has ADA accessiblity from parking lot adjacent to the building.
2	Vehicular Access - Vehicles		•					Site access is good from Lee Street, with adequate drive widths for vehicular and delivery usage. Note: Only one entry/exit at Lee Street. Secondary exit adjacent to Library is narrow.
3	Vehicular Access - Deliveries		•					
4	Handicap Parking	•						Parking at Hickory is adjacent to main entrance. Parking at lower lot is level and adjacent to main entrance.
5	Accessible Entry			•				Main entrances are both accessible. Secondary entrances/exits do not meet ADA standards with several exits at the lower level with 6" high concrete landings/steps at the doorway
6	Exterior Stairs and Railings			•				Exterior stairs and railings are in fair condition; spalled concrete and rusting railings were observed
7	Exterior Ramps			•				

Crabtree, Rohrbaugh & Associates Architects
100 West Road, Suite 402
Towson, MD 21204 (410) 528-0272

Town of Bel Air
Bel Air Administration and Police Deparment

SCALE		DESCRIPTION	TIMELINE
5	NEW	New or like-new condition; Reevaluate in 8 - 10 years	8-10 YRS.
4	GOOD	Minimal wear for age, no issues	6-8 YRS.
3	FAIR	Average wear for age, approaching end of lifecycle	4-6 YRS.
2	POOR	Worn from use or age, end of expected lifecycle	2-4 YRS.
1	CRITICAL	Extremely worn or damaged, replace as soon as possible	> 2 YRS.

	Exterior Building Envelope	5	4	3	2	1	NA	Comments & Recommendations	
1	Structure		•					Structure is in good condition; minimal settlement was observed	
2	General Appearance				•			Consider cleaning and repointing as part of a comprehensive project	
3	Roof				•			Areas of roof have been recently replaced. Upper main roof is original and requires replacement	
4	Soffits		•					Hard soffit at PD entrance is in good condition. Concrete roof overhang at Administration entrance is in fair condition, and spalled concrete should be patched/repaired.	
5	Walls					•		Masonry facade is in fair condition; cracking was observed in several areas; mortar requires repointing in several areas. Below grade water proofing should be considered at N Hickory side of the building, as evidence of water infiltration into the building was observed	
6	Doors & Hardware			•				Exterior doors and hardware in average condition	
7	Windows		•					Generally in good condition; consider replacement for longer life and energy savings as part of a comprehensive renovation	
8	Miscellaneous						•		

	Interior Elements	5	4	3	2	1	NA	Comments & Recommendations	
1	Finishes - Walls				•			Finishes are in fair to poor condition; water damage, cracking, holes and paint damage were observed.	
2	Finishes - Flooring				•			VCT flooring is in fair to poor condition, and requires replacement	
3	Finishes - Ceilings				•			ACT ceilings are in fair to poor condition throughout. Consider replacing all ACT	
4	Casework and Millwork				•			Casework and millwork is in fair condition, with signs of damage and delamination observed	
5	Signage/ Wayfinding					•		Signage is present, but does not meet current ADA standards	
6	Moveable/Operable Partitions						•		
7	Doors - Frame and Door			•				Doors in good to fair condition overall; several doors with damage/delamination were observed	
8	Toilet Rooms				•			Refer to Plumbing below for fixture recommendations; consider finish repairs/replacement in these rooms as fixtures are replaced. Locker rooms require fixture/finish replacement	

Crabtree, Rohrbaugh & Associates Architects
100 West Road, Suite 402
Towson, MD 21204 (410) 528-0272

Town of Bel Air
Bel Air Administration and Police Deparment

SCALE		DESCRIPTION	TIMELINE
5	NEW	New or like-new condition; Reevaluate in 8 - 10 years	8-10 YRS.
4	GOOD	Minimal wear for age, no issues	6-8 YRS.
3	FAIR	Average wear for age, approaching end of lifecycle	4-6 YRS.
2	POOR	Worn from use or age, end of expected lifecycle	2-4 YRS.
1	CRITICAL	Extremely worn or damaged, replace as soon as possible	> 2 YRS.

	Interior Accessibility	5	4	3	2	1	NA	Comments & Recommendations	
1	Stairs, Ramps and Railings				•			The main entrance to the First Floor area has ADA accessible ramping. The main entrance to the Lower Level has direct access from grade.	
2	Elevators, Chairlifts						•	n/a	
3	Doors - Openings and Hardware					•		Several door openings do not comply with ADA push/ pull clearances; door hardware does to comply with ADA standards	
4	Toilet Rooms					•		Toilet Rooms do not comply with proper ADA clearances	
5	Signage					•		Signage does not comply with ADA standards	

	Safety & Security	5	4	3	2	1	NA	Comments & Recommendations	
1	Appropriate Exterior Lighting		•					Exterior lighting seems appropriate for safety. Refer to electrical regarding the fixtures themselves. Consider strategic placement to equally illuminate building and site.	
2	Natural Surveillance		•					Natural Surveillance at Main Entrances is good	
3	Camera System - Interior and Exterior		•					Camera system is recent, and should be expanded for new addition	
4	Secure Entry Vestibule				•			Consider installing a secure vestibules that connect directly to an administrative reception area	
5	Card Access at Exterior Exits			•				Consider adding card readers to all exterior entrances.	
6	PA System - Heard Throughout Building			•				Add speakers to spaces that do not have a PA system	
7	Building Lockdown - Layered				•			The exterior doors are the only layer between outside and Administration areas at upper level. Public is secured in vestibule at lower level, but require access into secured PD areas for conference and interview. Consider additional lockdown at corridors as an additional layer	
8	Office Door - Lockdown		•					Office doors can be locked and secured from corridors	
9	Number all Exterior Exit Doors					•		Consider adding numbers to each exterior door. This helps guide the emergency services into the building.	

Crabtree, Rohrbaugh & Associates Architects
100 West Road, Suite 402
Towson, MD 21204 (410) 528-0272

Town of Bel Air
Bel Air Administration and Police Deparment

SCALE		DESCRIPTION	TIMELINE
5	NEW	New or like-new condition; Reevaluate in 8 - 10 years	8-10 YRS.
4	GOOD	Minimal wear for age, no issues	6-8 YRS.
3	FAIR	Average wear for age, approaching end of lifecycle	4-6 YRS.
2	POOR	Worn from use or age, end of expected lifecycle	2-4 YRS.
1	CRITICAL	Extremely worn or damaged, replace as soon as possible	> 2 YRS.

	Systems - Plumbing & Fire Protection	5	4	3	2	1	NA	Comments & Recommendations	
1	Fire Protection Systems					•		Currently no sprinkler system is in place. It is assumed that the building will be provided with a full sprinkler system.	
2	Camera Inspect Sanitary & Storm Piping			•				Recommended as piping is approaching 50 year life span.	
3	Sanitary Piping			•				Approaching 50 year life span - condition to be determined by inspection of system.	
4	Storm Piping			•				Approaching 50 year life span - condition to be determined by inspection of system.	
5	Provide secondary drainage on roof				•			Only required if roof is replaced and water not allowed to spill off parapet.	
6	Provide a secondary gas feed to gen.				•			New Line lets rest of gas in building be shut-down in fire situation.	
7	Adjust DWH and main TMV				•			Supply at least 140 degree hot water to TMV to avoid Legionella.	
8	Provide ASSE 1070 TMV's			•				Newer code requirement, only need if major renovation occurs.	
9	Provide ADA sinks					•		ADA compliant fixtures should be provided throughout building.	
10	Domestic Water Storage Tank			•				55 gallon domestic water storage tank of unknown age is in fair condition.	
11	Plumbing Fixtures			•				Replace approximately 6 flush tank water closets, 2 urinals, 6 lavatories, 2 break room sinks, 2 ligature resistant water closets/lavs, 2 mop sinks.	
12	Domestic Water Piping				•			Visible domestic water piping showed signs of corrosion especially at the incoming water service.	
13	Insulation				•			Piping insulation in poor condition.	

	Systems - Electrical	5	4	3	2	1	NA	Comments & Recommendations	
1	Normal Power Distribution				•			The distribution equipment is at the end of its expected lifecycle. The equipment will need to be upgraded to accommodate the new addition.	
2	Emergency Generator, Transfer Switch, Emergency Distribution			•				The emergency generator and transfer switch are in fair condition. The emergency power needs of the customer will need to be evaluated to determine if the existing emergency equipment is sufficient for the additional loads.	
3	Interior Lighting and Controls				•			The fluorescent lamped light fixtures and associated controls do not meet current energy code. Replace with LED lighting for energy savings and code compliancy.	
4	Exterior Lighting and Controls			•				Changing the site light fixtures to LED will save energy and maintenance.	
5	Wiring and Conduit			•				The wiring and conduit is in fair condition, but will need to be replaced to accommodate the distribution system upgrades and room layout changes. Existing branch circuits shall be reused where possible.	

Crabtree, Rohrbaugh & Associates Architects
100 West Road, Suite 402
Towson, MD 21204 (410) 528-0272

Town of Bel Air
Bel Air Administration and Police Deparment

SCALE		DESCRIPTION	TIMELINE
5	NEW	New or like-new condition; Reevaluate in 8 - 10 years	8-10 YRS.
4	GOOD	Minimal wear for age, no issues	6-8 YRS.
3	FAIR	Average wear for age, approaching end of lifecycle	4-6 YRS.
2	POOR	Worn from use or age, end of expected lifecycle	2-4 YRS.
1	CRITICAL	Extremely worn or damaged, replace as soon as possible	> 2 YRS.

6	Photovoltaic (PV) System	•						The PV system is in like new condition and should be serviceable for at least another 10 years. There will be some cost associated with relocating the disconnect equipment to accommodate the new addition.	
7	Fire Alarm & Security			•				The fire alarm system will be serviceable for about 5 more years, then require replacement. Code compliancy issues should be addressed.	

Systems - HVAC		5	4	3	2	1	NA	Comments & Recommendations	
1	Air Handling Units		•					Single zone, constant volume air handling have been replaced over several years. Most appear to be between 8-12 years old.	
2	Boiler			•				450 MBH Boiler appears to be in good condition, but of unknown age.	
3	Heating Water Pumps			•				Pumps not operating during suvery. No visible evidence of leaks. One pump was manufactured in 1987. The other pump was manufactured in 2013.	
4	Heat Exchanger			•				Heat exchanger is of unknown age. Used for domestic hot water generation.	
5	Ductless Split Systems (approx 6)			•				Ductless split systems used throughout the building for supplemental cooling. Style and age varied.	
6	Hydronic Reheat Coils (approx 2)			•				Reheat coils of unknown age.	
7	Ductwork	•						Ductwork appears to have been replaced as the air handling units have been replaced.	
8	Piping	•						Visible hydronic piping did not appear to be corroded or show signs of leaks.	
9	Insulation				•			Duct insulation was mostly new and in good shape. Some of the older insulation was in need of repair. Piping insulation was in poor condition.	

FCI Rating %	51%

FCI SCORE DESCRIPTIONS		FCI
General Maintenance (Annual Budget)	NEW	91% - 100%
Minor Building and Component Upgrades	GOOD	61% - 90%
Moderate Building and Component Upgrades	FAIR	31% - 60%
Major Building Upgrades and Component Replacement	POOR	16% - 30%
Building Replacement	CRITICAL	0% - 15%

4 | Construction Options

Overview

Crabtree, Rohrbaugh & Associates has developed the following preliminary facility options for the Town of Bel Air, to assist the administration in the decision-making process regarding the future utilization of the existing Administration and Police Department building.

As such, this report should be viewed as a starting point, or benchmark; providing a framework from which decisions regarding prioritized facility upgrades can be made. Any recommendations that result in upgrades to the present facilities should be structured to align with the Town of Bel Air's Mission, Beliefs and Operational Protocol.

The information presented outlines various options that the Town of Bel Air can take to address the pressing facility needs at the current police department. The Town Hall facility has also been evaluated, with areas of deficiencies and improvements noted and quantified.

The information has been developed to:

1. Address the present and foreseeable Town Hall and Police Department program necessities

2. Identify and address existing facility needs in order to renovate and modernize the facility and to extend the useful life of the physical plant and operational systems.

3. Provide preliminary construction and projecting cost information as a means of budgeting for any major project, designed to address the facility needs in a prioritized and structured approach.

Option Development

The information presented in this section details various options that the Town of Bel Air can take to address the facility needs and improvements as defined in the information contained within this study.

Several options were alalyzed and developed to address various programmatic and functional deficiencies throughout the existing Town Hall and Police Department facility. These options range from addressing current needs and deficiencies, to concentrating on future programmatic and functional requirements. The options also evaluated a new Police Department, as well as the suitablility of housing partial Police Department program located at a remote site property.

No option presented is intended to be a final solution. The facility options presented in this study should be viewed as conceptual. The options serve to facilitate the discussion of the overall building layout, and the relationship of elements necessary to reinforce, even enhance the municipal programs. The final solution may encompass select components of one or more options whereas the construction costs and floor plan detail are dependent on the final program as well.

The probable construction costs identified are preliminary costs only. Probable costs are prepared to allow the Town of Bel Air to identify the approximate value of various construction options. Probable costs are not intended to be an actual indicator of actual project costs and should be identified as preliminary costs only. Costs are based on historical data and building construction cost information. It is not necessary to implement all items on these cost estimates other than code deficient items as required for upgrade. Final project descriptions and more precise costs can be developed as the district develops and finalizes the educational program and scope of improvements.

1. Costs should be adjusted for inflation and market conditions from the date of this report.

2. A prioritization of improvements may be necessary to finalize a program or final option/solution.

3. The Potential Total Project Costs noted in the following Options Analysis include:

4. Site and Building Construction Costs (Bid Costs) - based on required site development improvements and a $/per SF for renovations, additions or new construction.

5. Construction Contingency and Escalation – construction contingency is a predetermined amount or percentage of the contract held for unpredictable changes in the project. Cost escalation is defined as changes in the cost or price of specific goods or services in a given economy over a period.

6. Potential Project “Soft” Costs – “soft” costs are indirect costs associated with a building construction project and vary by project and project cost. These “soft” costs are typically based on a percentage of the construction costs. Typical range of “soft” costs is between 18% - 25% of the construction costs dependent on size and scope of work/project.

These “soft” costs include, but not limited to the following:

Professional Fees	Testing and Inspections
Financing Costs	Permits, Agency Approvals
Moveable Fixtures and Equipment	Reimbursables
Technology Improvements	Project Printing
Project Supervision	Project Construction Contingency

Option 1 | Town Hall and Police Department Improvements

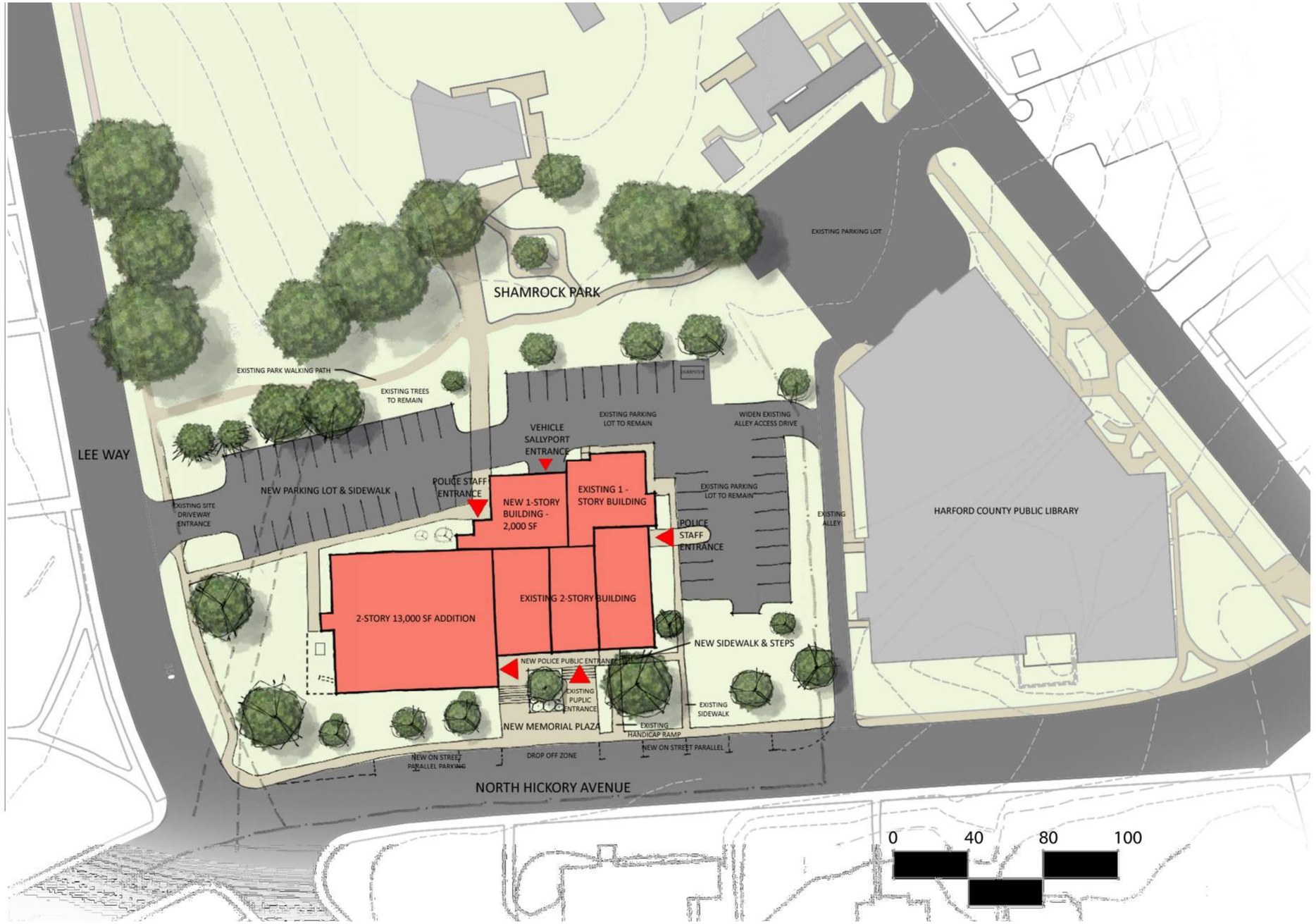
The first option for the Town of Bel Air includes maintaining the existing Town Hall program at the current upper level of the facility. Renovations at this area will include upgrading current deficiencies and areas needing improvement. Portions of the Police Department program will remain at the current lower level of the facility. Renovations and alterations to this area include upgrading the current building deficiencies and providing the required programmatic areas within the existing facility. The balance of the required Police Department program will be housed in a new two-story addition adjacent to the existing facility. This expansion is required to satisfy the current and future Police Department programmatic needs.

- Selective Site and Building Demolition | 7,128 SF
- Proposed Renovations to Town Hall | 5,190 SF
- Proposed Alterations to Police Department | 7,128 SF
- Proposed Additions for Police Department | 15,400 SF

Pros and Cons

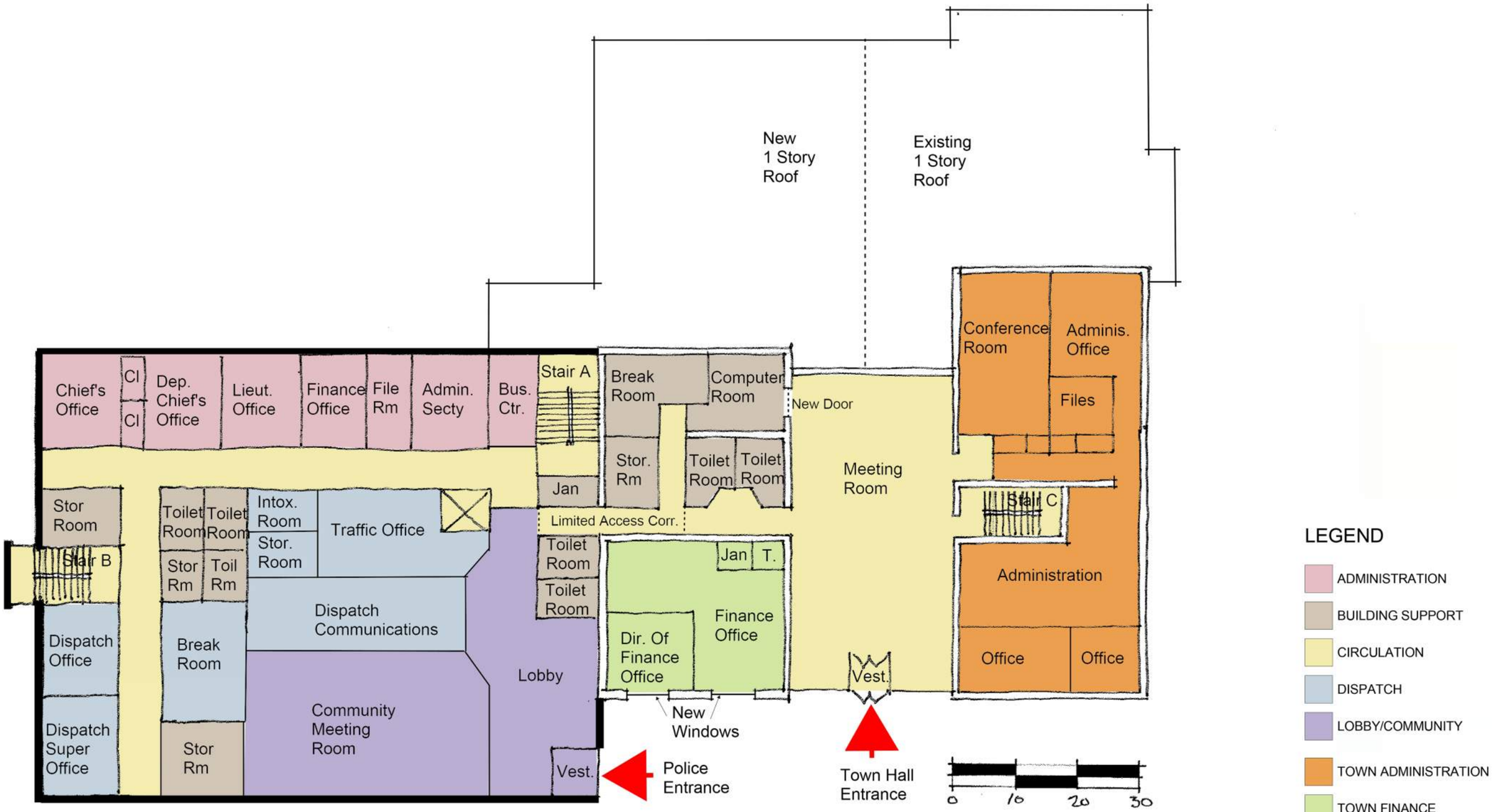
The pros of this option includes addressing the programmatic and allocated space deficiencies for the Town of Bel Air Police Department, as well as necessary upgrades to the existing building, including life-safety, ADA/Accessibility, safety/security, and physical plant improvements. The cons of this option include not incorporating auxiliary Town of Bel Air program departments, such as Data/Technology and Economic Development.

Option 1 | Town Hall and Police Department Improvements



Option 1 First Floor Plan: Police Department Additions and Renovations to Bel Air Town Hall

10-9-18



Option 1 Second Floor Plan: Police Department Additions and Renovations to Bel Air Town Hall

10-9-18

Option 2 | Town Hall and Police Department Improvements + Auxiliary Departments

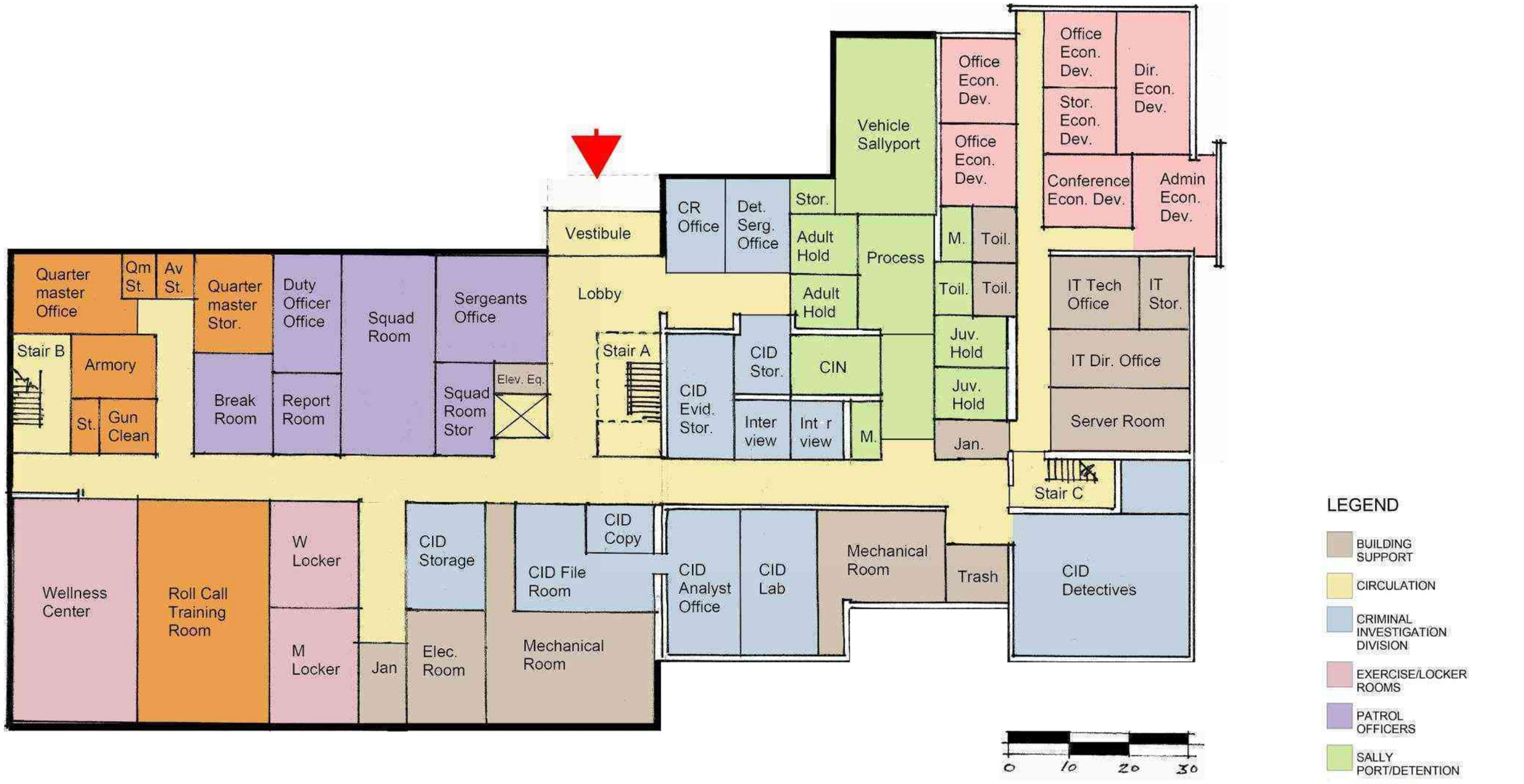
The second option for the Town of Bel Air includes maintaining the existing Town Hall program at the current upper level of the facility. Renovations at this area will include upgrading current deficiencies and areas needing improvement. Portions of the Police Department program will remain at the current lower level of the facility. This lower level will also include auxiliary Town of Bel Air program departments, such as Data/Technology and Economic Development. Renovations and alterations to this area include upgrading the current building deficiencies and providing the required programmatic areas within the existing facility. The balance of the required Police Department program will be housed in a new two-story addition adjacent to the existing facility. This expansion is required to satisfy the current and future Police Department programmatic needs.

- Selective Site and Building Demolition | 7,128 SF
- Proposed Renovations to Town Hall | 5,190 SF
- Proposed Alterations to Police Department | 7,128 SF
- Proposed Additions for Police Department | 17,980 SF

Pros and Cons

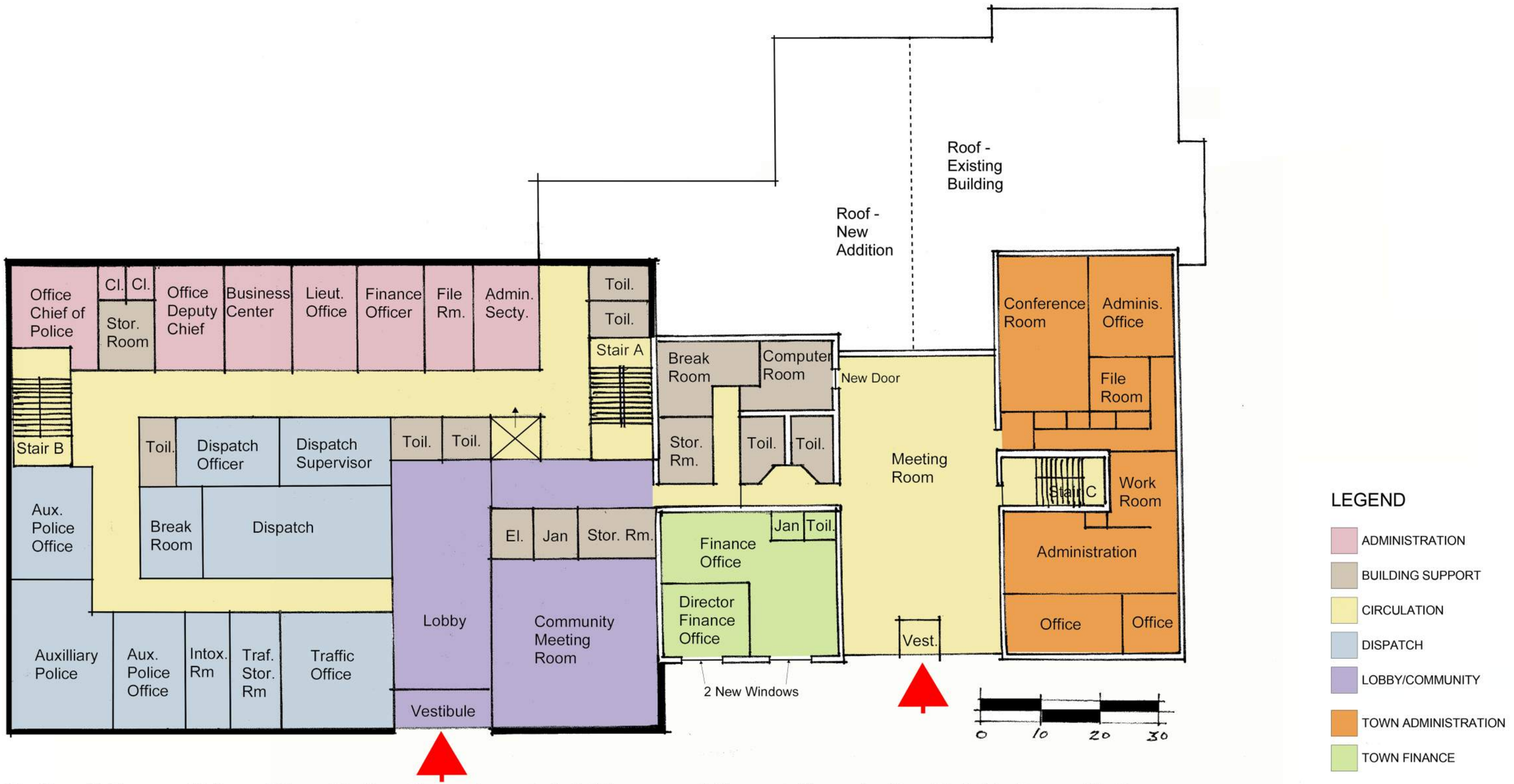
The pros of this option includes addressing the programmatic and allocated space deficiencies for the Town of Bel Air Police Department, as well as necessary upgrades to the existing building, including life-safety, ADA/Accessibility, safety/security, and physical plant improvements. It also includes auxiliary Town of Bel Air program departments, such as Data/Technology and Economic Development. The cons of this option include the greater impact to the site development scope, as well as the increase in construction costs due to the larger proposed addition.

Option 2 | Town Hall and Police Department Improvements + Auxiliary Departments



Option 2 First Floor Plan: Police Department Additions and Renovations to the Bel Air Town Hall

10-9-18



Option 2 Second Floor Plan: Police Department Additions and Renovations to the Bel Air Town Hall

10-9-18

Option 3 | New Police Department Facility + Town Hall Improvements + Auxiliary Departments

The third option for the Town of Bel Air includes maintaining the existing Town Hall program at the current upper level of the facility. Renovations at this area will include upgrading current deficiencies and areas needing improvement. The current lower level of the facility will receive alterations and renovations, including upgrades to the current building deficiencies and providing the required programmatic areas within the existing facility. These lower level alterations will include auxiliary Town of Bel Air program departments, such as Data/Technology and Economic Development. The required Police Department program will be housed in a new two-story facility located at a remote site, and will satisfy the current and future Police Department programmatic needs.

- Proposed Renovations to Town Hall | 5,190 SF
- Proposed Alterations to lower level | 7,128 SF
- Proposed Facility for Police Department | 21,514 SF

Pros and Cons

The pros of this option includes addressing the programmatic and allocated space deficiencies for the Town of Bel Air Police Department in a separate facility, as well as necessary upgrades to the existing building, including life-safety, ADA/Accessibility, safety/security, and physical plant improvements. It also includes auxiliary Town of Bel Air program departments, such as Data/Technology and Economic Development, and allows for future program growth within the existing facility. The cons of this option include the increase in construction costs due to the larger proposed addition and the increased operational costs of maintaining two sites.

Option 3 | New Police Department Facility + Town Hall Improvements + Auxiliary Departments

Option 4 | Town Hall and Police Department Improvements

The forth option for the Town of Bel Air includes maintaining the existing Town Hall program at the current upper level of the facility. Renovations at this area will include upgrading current deficiencies and areas needing improvement. Portions of the Police Department program will remain at the current lower level of the facility. Renovations and alterations to this area include upgrading the current building deficiencies and providing the required programmatic areas within the existing facility. The balance of the required Police Department program will be housed in a new two-story addition adjacent to the existing facility. This expansion is required to satisfy the current and future Police Department programmatic needs.

- Selective Site and Building Demolition | 7,128 SF
- Proposed Renovations to Town Hall | 5,190 SF
- Proposed Alterations to Police Department | 7,128 SF
- Proposed Additions for Police Department | 13,000 SF

Pros and Cons

The pros of this option includes addressing the programmatic and allocated space deficiencies for the Town of Bel Air Police Department, as well as necessary upgrades to the existing building, including life-safety, ADA/Accessibility, safety/security, and physical plant improvements. The cons of this option include a reduction in program areas as compared to Option 1 and not incorporating auxiliary Town of Bel Air program departments, such as Data/Technology and Economic Development.

Option 5 | Partial Police Department Program at Remote Property

The fifth option for the Town of Bel Air includes locating a portion of the required Police Department program at a remote property. The investigation of this option was requested by the Bel Air Town Hall, to compare the feasibility of relocating a portion of required Police Department program from the proposed new addition to available lease properties along Main Street. It was determined that the proposed CID program, as well as required staff and administration areas, would fit programmatically within the available lease space(s). This option compares the viability of reducing the required new construction to the overall costs required as part of the lease agreement. This option could be considered in conjunction with either Options 1, 2 or 3.

- Proposed Lease Properties | 3,250 – 3,748 SF
- Proposed CID/Administration Program | 3,250 SF
- Selective Site and Building Demolition | 7,128 SF
- Proposed Renovations to Town Hall | 5,190 SF
- Proposed Alterations to Police Department | 7,128 SF
- Proposed Additions for Police Department | 12,150-15,830 SF

Pros and Cons

The pros of this option includes a reduction in the required new Police Department addition, which will reduce the overall new construction cost. The potential leased properties also afford Main Street visibility, and the available properties are similar in size to the desired program allocation. The cons of this option include the separation of the CID program from the Police Department, the required additional staff/administration and redundant technology/data/maintenance, potential security issues for property/evidence, and limited parking at the one location. Potential increased operational costs for this scenario also include additional costs for additional staff and inefficiencies that will be realized due to the separation of the CID program from the Police Department, while maintaining two sites.

Option 5 | Partial Police Department Program at Remote Property

101 North Main Street, Bel Air MD, 21014

Option 5 | Partial Police Department Program at Remote Property

126 North Main Street, Bel Air MD, 21014

5 | Cost Analysis

Crabtree, Rohrbaugh and Associates (CRA) has a well-established cost estimating matrices, formulated from annual construction costs comparisons. This estimating methodology was developed over the years, and is incorporated into our budgetary information and estimating.

Separate Construction and Project Cost estimates were developed for each Option within this study. These construction cost estimates include pricing for the following:

- Selective building demolition
- Selective site demolition
- New site construction
- Level 1 (minor) renovation work
- Level 2 (major) renovation work
- New building construction
- Contingencies

Project Cost estimates include soft cost items such as:

- A&E Fees
- Civil Engineering
- Permits and Approvals
- Financing
- Testing and Inspections
- Subsurface Investigation
- Furniture, Fixtures and Equipment (FFE)

OPTION 1

	Area	Cost / SF	Subtotal
Option 1: Additions and Renovations			
Sitework			
Selective Site Demolition		LS	$50,000
Selective Building Demolition	7,128	$10.00	$71,280
New Construction			$517,160
			$638,440
Renovations: Level 1- Minor (Town Offices)			
General Construction	5,190	$36.00	$186,840
Plumbing	5,190	$1.80	$9,342
Fire Protection	5,190	$6.20	$32,178
HVAC	5,190	$15.00	$77,850
Electrical	5,190	$6.00	$31,140
Security	5,190	$3.00	$15,570
Special Systems	5,190	$3.00	$15,570
		$71.00	$368,490
Renovations: Level 2- Major (Police Department)			
General Construction	7,128	$72.00	$513,216
Plumbing	7,128	$10.00	$71,280
Fire Protection	7,128	$6.00	$42,768
HVAC	7,128	$39.00	$277,992
Electrical	7,128	$27.00	$192,456
Security	7,128	$3.00	$21,384
Special Systems	7,128	$3.00	$21,384
		$160.00	$1,140,480
New Construction			
General Construction	15,400	$170.00	$2,618,000
Plumbing	15,400	$18.00	$277,200
Fire Protection	15,400	$6.00	$92,400
HVAC	15,400	$40.00	$616,000
Electrical	15,400	$27.00	$415,800
Security	15,400	$5.00	$77,000
Special Systems	15,400	$4.00	$61,600
		$270.00	$4,158,000
Subtotal Sitework, Renovations & New Construction			**$6,305,410**
Estimating Contingency		10%	$630,541
Subtotal			$6,935,951
Construction Contingency		4%	$277,438
Subtotal			$7,213,389
Escalation		4%	$288,535.56
Total Construction Costs			**$7,501,925**
Soft Costs			
Including FF&E, A&E Fees, Permits and Approvals			
Testing and Inspections, and Financing		14%	**$1,050,269.44**
Total	**27,718 sf**		**$8,552,194**

OPTION 2

	Area	Cost / SF	Subtotal
Option 2: Additions and Renovations			
Sitework			
Selective Site Demolition		LS	$75,000
Selective Building Demolition	7,128	$10.00	$71,280
New Construction			$531,760
			$678,040
Renovations: Level 1- Minor (Town Offices)			
General Construction	5,190	$36.00	$186,840
Plumbing	5,190	$1.80	$9,342
Fire Protection	5,190	$6.20	$32,178
HVAC	5,190	$15.00	$77,850
Electrical	5,190	$6.00	$31,140
Security	5,190	$3.00	$15,570
Special Systems	5,190	$3.00	$15,570
		$71.00	$368,490
Renovations: Level 2- Major (Police Department)			
General Construction	7,128	$72.00	$513,216
Plumbing	7,128	$10.00	$71,280
Fire Protection	7,128	$6.00	$42,768
HVAC	7,128	$39.00	$277,992
Electrical	7,128	$27.00	$192,456
Security	7,128	$3.00	$21,384
Special Systems	7,128	$3.00	$21,384
		$160.00	$1,140,480
New Construction			
General Construction	17,980	$170.00	$3,056,600
Plumbing	17,980	$18.00	$323,640
Fire Protection	17,980	$6.00	$107,880
HVAC	17,980	$40.00	$719,200
Electrical	17,980	$27.00	$485,460
Security	17,980	$5.00	$89,900
Special Systems	17,980	$4.00	$71,920
		$270.00	$4,854,600
Subtotal Sitework, Renovations & New Construction			**$7,041,610**
Estimating Contingency		10%	$704,161
Subtotal			$7,745,771
Construction Contingency		4%	$309,831
Subtotal			$8,055,602
Escalation		4%	$322,224.07
Total Construction Costs			**$8,377,826**
Soft Costs			
Including FF&E, A&E Fees, Permits and Approvals			
Testing and Inspections, and Financing		14%	**$1,172,895.63**
Total	**30,298 sf**		**$9,550,722**

OPTION 3

	Area	Cost / SF	Subtotal
Option 3: All New Construction			
Sitework			
Selective Site Demolition		LS	$150,000
New Construction			$1,000,000
			$1,150,000
Renovations: Level 1- Minor (Town Offices)			
General Construction	5,190	$36.00	$186,840
Plumbing	5,190	$1.80	$9,342
Fire Protection	5,190	$6.20	$32,178
HVAC	5,190	$15.00	$77,850
Electrical	5,190	$6.00	$31,140
Security	5,190	$3.00	$15,570
Special Systems	5,190	$3.00	$15,570
		$71.00	$368,490
Renovations: Level 2- Major (Police Department)			
General Construction	7,128	$72.00	$513,216
Plumbing	7,128	$10.00	$71,280
Fire Protection	7,128	$6.00	$42,768
HVAC	7,128	$39.00	$277,992
Electrical	7,128	$27.00	$192,456
Security	7,128	$3.00	$21,384
Special Systems	7,128	$3.00	$21,384
		$160.00	$1,140,480
New Construction			
General Construction	21,514	$170.00	$3,657,380
Plumbing	21,514	$18.00	$387,252
Fire Protection	21,514	$6.00	$129,084
HVAC	21,514	$40.00	$860,560
Electrical	21,514	$27.00	$580,878
Security	21,514	$5.00	$107,570
Special Systems	21,514	$4.00	$86,056
		$270.00	$5,808,780
Subtotal Sitework & New Construction Costs			**$8,467,750**
Estimating Contingency		10.0%	$846,775
Subtotal			$9,314,525
Construction Contingency		4%	$372,581
Subtotal			$9,687,106
Escalation		4%	$387,484.24
Total Construction Costs			**$10,074,590**
Soft Costs			
Including FF&E, A&E Fees, Permits and Approvals			
Testing and Inspections, and Financing		14%	**$1,410,442.63**
Total	**33,832 sf**		**$11,485,033**

OPTION 4

	Area	Cost / SF	Subtotal
Option 4: Additions and Renovations			
Sitework			
Selective Site Demolition		LS	$50,000
Selective Building Demolition	7,128	$10.00	$71,280
New Construction			$517,160
			$638,440
Renovations: Level 1- Minor (Town Offices)			
General Construction	5,190	$36.00	$186,840
Plumbing	5,190	$1.80	$9,342
Fire Protection	5,190	$6.20	$32,178
HVAC	5,190	$15.00	$77,850
Electrical	5,190	$6.00	$31,140
Security	5,190	$3.00	$15,570
Special Systems	5,190	$3.00	$15,570
		$71.00	$368,490
Renovations: Level 2- Major (Police Department)			
General Construction	7,128	$72.00	$513,216
Plumbing	7,128	$10.00	$71,280
Fire Protection	7,128	$6.00	$42,768
HVAC	7,128	$39.00	$277,992
Electrical	7,128	$27.00	$192,456
Security	7,128	$3.00	$21,384
Special Systems	7,128	$3.00	$21,384
		$160.00	$1,140,480
New Construction			
General Construction	13,000	$170.00	$2,210,000
Plumbing	13,000	$18.00	$234,000
Fire Protection	13,000	$6.00	$78,000
HVAC	13,000	$40.00	$520,000
Electrical	13,000	$27.00	$351,000
Security	13,000	$5.00	$65,000
Special Systems	13,000	$4.00	$52,000
		$270.00	$3,510,000
Subtotal Sitework, Renovations & New Construction			**$5,657,410**
Estimating Contingency		10%	$565,741
Subtotal			$6,223,151
Construction Contingency		4%	$248,926
Subtotal			$6,472,077
Escalation		4%	$258,883.08
Total Construction Costs			**$6,730,960**
Soft Costs			
Including FF&E, A&E Fees, Permits and Approvals			
Testing and Inspections, and Financing		14%	**$942,334.42**
Total	**25,318 sf**		**$7,673,295**

OPTION 5

This option includes the evaluation of two remote properties under consideration as part of the proposed Town of Bel Air Police Department Additions and Renovations project. These lease-properties would house a portion of the Police Department program, and as such could reduce the size/scope of the proposed addition in kind. After program review comparison, it was determined that the Criminal Investigation Department (CID) program was appropriate to be housed with the available area at the leased properties. The survey and analysis of the two properties is intended to investigate the remote facility for appropriate CID use, compare the potential cost savings/expenditure of leasing the remote facility to potential construction cost savings, and list pros/cons of this alternate location. Our surveys included review of the buildings located at 126 North Main Street and 101 North Main Street, respectively. CRA also reviewed the existing Armory Building, and have determined that this facility would not be suitable for Police Department use due to construction type, current space allocation, as well as possible cost prohibitive construction requirements.

Property A: 126 N. Main Street

- 3,748 sf building
- 3,250 sf – Required CID program area (2,500 sf CID + 500 sf administration + 250 sf supervisor offices)
- $125,000 NNN lease
- $375,000 - Property fit out ($100/sf) Property will require fit-out, as current offices/areas do not match required program requirements.
- $125,000 – Site landscaping improvements (lump sum)

Pros:
Stand-alone property with adequate on-site property
Main street location for visibility
Reduction of 2500 sf new construction area at proposed TOBA Police Station

Cons:
Separation/remoteness of CID from Police Department
Security issues for Property/Evidence vault
Redundant technology/data at both locations
Redundant office/support staff
Additional 750 sf of administration and staff program required
Size of building approximately 15% larger than program requirements

Cost of annual lease agreement, fit-out, subsequent site work:

First year: $625,000

Cost of construction savings at proposed Police Department:

2500 sf x $270/sf = $675,000

It appears that the break-even point is less than 2 years.

*Note: The findings do not include additional Operating Costs to the Town of Bel Air from additional staff requirements as well as operational inefficiencies due to the remote location of the CID from the Police Department.

Property B: 101 N. Main Street

- 3,250 sf building
- 3,250 sf – Required CID program area (2,500 sf CID + 500 sf administration + 250 sf supervisor offices)
- $80,695 NNN lease (includes additional fees, taxes, maintenance)
- $325,000 - Property fit out ($100/sf) –Property was recently fit-out, but current offices/areas do not match required program requirements.

Pros:
Main street location for visibility
Size of building appropriate for program requirements
Reduction of 2500 sf new construction area at proposed TOBA Police Station

Cons:
Separation/remoteness of CID from Police Department
Security issues for Property/Evidence vault
Redundant technology/data at both locations
Redundant office/support staff
Additional 750 sf of administration and staff program required
Limited street and remote off-site parking

Cost of annual lease agreement, fit-out, subsequent site work:

First year: $405,695
Second – Fourth Year: $242,085 ($80,695 each year)

Cost of construction savings at proposed Police Department:

2500 sf x $270/sf = $675,000

It appears that the break-even point is approximately 4 years.

*Note: The findings do not include additional Operating Costs to the Town of Bel Air from additional staff requirements as well as operational inefficiencies due to the remote location of the CID from the Police Department.

Richard C. LeBlanc, AIA, LEED AP

Principal in Charge

Mr. LeBlanc has over 30 years of experience and joined the firm in 1985. Mr. LeBlanc will have the responsibility of directing and coordinating all professional activities as well as oversee internal design review meetings with the project team. As Director of Design, Mr. LeBlanc will be assisted by other professional and technical personnel within the firm.

> A successful work of architecture combines the talents of all key stakeholders. It requires proper planning and understanding of the problem and development of a solution that meets the requirements of the owner's budget and schedule.

Education

Bachelor of Science in Architecture, Ohio State University, 1976

Membership in Alpha Rho Chi Professional Architecture Fraternity

Registered Architect

Pennsylvania, Maryland, Virginia, Ohio, Louisiana, New Jersey and Manitoba, Canada & Nova Scotia Canada

Affiliations

AIA, Central PA Chapter

The National Trust for Historic Preservation

Pennsylvania Society of Architects

Council of Educational Facility Planners

American Society for Healthcare Engineering

Awards

Nine buildings cited for Design Excellence by AIA Central PA Chapter

National Association of Housing and Redevelopment Officials: National Award of Merit- 2000

Relevant Project Experience

Harford County Southern Precinct Headquarters & Sheriff's Office

New Construction / 29,000 SF / $7,764,700

The new two-story facility contains the regional headquarters for the Harford County Sheriff's Office as well as their Tactical Center. The Sheriff's Office includes a satellite police station, including a processing (detention) area with four processing rooms. The police station includes office space, a roll call room, evidence storage and processing, agency library and a monitoring center, as well as a vehicle maintenance and storage.

Harford County Northern Precinct Headquarters & Sheriff's Office

Addition & Renovation / 12,000 SF / $1,300,000

This 2,000 SF addition and 10,000 SF renovation project involved the creative re-use of an existing building. The structure, built as speculative grocery retail space, was vacant for several years before it was purchased for use as a precinct office for the Harford County Sheriff's Office.

Queen Anne's County Adult Detention Center- Parts 1 and 2 Assessment

The Feasibility Study and Facility Needs Assessment investigates the county's Adult Detention Center and provides center's needs for the next 10 years and develops multiple options to solve those needs.

Adams County Office & Sheriff

Study, Adaptive Re-Use Renovation / 91,000 SF / $8,500,000 (est)

The project consists of a facility assessment, programming and design of the Herff Jones Building conversion to create new county office and sheriff's space. The goal is to consolidate several county office functions into this single location. The overall space planning effort includes the entire build out, planning the building systems and services for the future phases.

Washington County Public Safety Center

New Construction

The training center project is designed to be a multi-phase project that will over time provide a site with several facilities for use by fire and rescue, emergency medical services, and law enforcement throughout the county. The Washington County Division of Emergency Services has been working with other public safety agencies in the county (Sheriff's Office, Volunteer Fire Rescue Association, City of Hagerstown Fire and Police Departments) on a vision for the site.

R. Jeffrey Straub AIA, REFP, LEED AP BD+C, CPD

Principal / Senior Project Manager / Security Design

Mr. Straub has more than 16 years of experience and joined the firm in 1999. Mr. Straub is responsible for overseeing design-related activities pertaining to LEED and Security design. Jeff will actively participate in all design review meetings that will be held throughout the life of the project. Additionally he brings an in-depth level of expertise in Premise Security and Liability and has successfully used Crime Prevention Through Environmental Design (CPTED) techniques.

> In 1914, Paul Scheerbart wrote, 'If we want our culture to rise to a higher level, we are obliged, for better or for worse, to change our architecture. And this only becomes possible if we take away the closed character from the rooms in which we live.' Over the years, this idea has become part of my design philosophy.

Education

Bachelor of Architecture and Art History, The Pennsylvania State University, 2001

Sedi Di Roma Program, Rome, Italy, 1999

Distinguished Thesis (Educational Architecture within the Inner City)

Registered Architect

Maryland, Pennsylvania, Virginia, Delaware, Ohio, West Virginia, New York, New Jersey, Texas, Michigan & Colorado

Affiliations

The American Institute of Architects Board Member- Central PA Design Awards Chairman

US Green Building Council

AFREC (Alternative Fuels & Renewable Energies Council)

AIA Pennsylvania Education SubCommittee- Co-Chair

Awards

Sixteen projects cited for design recognition from American Institute of Architects, U.S. Green Building Council, CEFPI and PA Historic Museum Commission

Thirteen projects receiving U.S. Green Building Council Certification from Certified through Gold Designation

Relevant Project Experience

Harford County Southern Precinct Headquarters & Sheriff's Office

New Construction / 29,000 SF / $7,764,700

The new two-story facility contains the regional headquarters for the Harford County Sheriff's Office as well as their Tactical Center. The Sheriff's Office includes a satellite police station, including a processing (detention) area with four processing rooms. The police station includes office space, a roll call room, evidence storage and processing, agency library and a monitoring center, as well as a vehicle maintenance and storage.

National Guard Combined Readiness Center

New Construction / $10,617,313 / 38,619 SF

The new Combined Readiness Center for the National Guard will house a National Guard Unit and will be primarily be used for weekend drills. The building's 5,400 SF assembly hall and kitchen facilities were designed so the facility can also be rented for public events. The building will replace the National Guard's existing facility in York, PA.

Senator Jeffrey E. Piccola Law Enforcement Complex

Master Plan & New Construction / 50,000 SF / $9,125,110 / LEED Silver Certified

At the completion of a Master Plan of the Public Safety Training Center, HACC moved forward with the new construction of the Senator Jeffrey E. Piccola Law Enforcement Complex (LEC). The LEC Building contains administration space, classrooms, department offices and support space, storage and a 15 lane 150' long pistol range and a 10 lane 300' long rifle range and includes.

Swatara Township Fire Company Station No. 1

Addition/Renovation / 17,500 SF / $2,450,000

The Swatara Township Fire Station Project involved two community volunteer fire companies merging into a one facility to address the growing needs of Swatara Township and facilitate the future development of a full time professional fire company. The existing building was renovated to include offices, training rooms and living quarters. The addition consisted of six daylit drive -through apparatus bays, dispatch center and forty-foot tall training tower.

Jefferson County Courthouse

Study, Programming, Addition & Renovation

The renovations to the interior of the courthouse included reconfiguring office space through the facility and public space upgrades, such as restoring marble-lined corridors and entrances.

Todd J. Vukmanic

Senior Project Manager

Mr. Vukmanic has more than 20 years of experience and joined the firm in 2017. He is responsible for assisting in all aspects of technical documentation including detailed coordination of all disciplines. During the development of construction documents. He will be assisted by Principal In Charge and other technical personnel assigned to your project.

> Striving every day to develop safe, flexible and interactive learning environments for students and educators alike.

Education

Bachelor of Architecture, Pratt Institute, Brooklyn, 1995

Awards

Benjamin Olewine III Nature Center at Wildwood Lake Sanctuary, Merit Award for Design Excellence, Central PA Chapter of AIA

Scott Elementary & Rowland Middle School, Citation for Design Excellence, Learning By Design Magazine

Pratt Circle of Excellence Award for Outstanding Academic Achievement

Relevant Project Experience

York County Judicial Center, York PA – 5th Floor Build-Out*

Renovation / 27,100 SF / $7M

York County determined that the unfinished 5th floor, in the seven-story York County Judicial Center that was opened in 2004, should be completed. Due to increasing judicial requirements and courtroom demands, the County concluded that additional courtrooms and administration areas were required to satisfy their needs. The programming and design of the previously open-shell 5th floor included: two large Multi-Purpose rooms to provide flexibility for staff and public usage, eight non-jury courtrooms serving smaller civil cases, holding cells and secured vestibules for court transfer and detainees, as well as Judge's Chambers and ancillary administration and staff areas. The design challenge of the 5th Floor Build-Out project was developing a new judicial program and courtroom layout that creates a unique identity and comprehensive space, while maintaining the building's original design integrity through seamless detailing and finishes.

New Municipal Services Complex, West Hempfield Township PA*

New Construction / 33,500 SF / $6.5M

The West Hempfield Township determined that combining their township public services into one facility was the most appropriate solution when assessing the replacement of their separate and aging buildings. The new 33,500 sf Municipal Services Complex will house the West Hempfield Administration offices and staff, Police Department and the West Hempfield Fire and Rescue Company under one roof. The facility is optimally located on a five-acre parcel that is located across the street from the existing Administration/Police Department building, and will provide public services to the township in one central location.

York County Resource Recovery Center, York PA*

Addition & Renovation / +2 acres / $62M

York County Solid Waste Authority authorized improvements and modernization to the York County Resource Recovery Center, which has been in operation since 1989. The improvements to this expansive facility included renovations and additions to the receiving, processing and reclamation areas, and reconfiguration of site infrastructure and circulation. It also includes a new 8,200 sf administrative and public support addition, creating a new main entrance for both staff and public use. This addition contains new second floor administration spaces, including new office areas and staff support spaces.

*personal experience

John A. Pryor Jr., RA

Project Architect

Mr. Pryor has more than 30 years of experience and joined the firm in 2004. As Project Architect, Mr. Pryor will be responsible assist in all aspects of technical documentation including detailed coordination of all disciplines as well as developing the cost estimate. John will actively participate in in-house design review meetings throughout the life of the project.

> A vital part of my job is to work with the client and our talented professionals so that our team provides the most creative, functional and cost-efficient building possible, At the end of the project, our goal is to be proud of what we have accomplished.

Education

Bachelor of Architecture, Kansas State University, 1981

Associates Degree, Architectural Technology, Northampton County Area Community College, 1977

Registered Architect

13448 / Maryland

Affiliations

2014 USGBC Green School of the Year- Sudlersville Middle School

2012 USGBC Maryland "Public Project of the Year"- Sudlersville Middle School

Relevant Project Experience

Harford County Southern Precinct Headquarters & Sheriff's Office

New Construction / 29,000 SF / $7,764,700

The new two-story facility contains the regional headquarters for the Harford County Sheriff's Office as well as their Tactical Center. The Sheriff's Office includes a satellite police station, including a processing (detention) area with four processing rooms. The police station includes office space, a roll call room, evidence storage and processing, agency library and a monitoring center, as well as a vehicle maintenance and storage.

Washington County Public Safety Center

New Construction

The training center project is designed to be a multi-phase project that will over time provide a site with several facilities for use by fire and rescue, emergency medical services, and law enforcement throughout the county. The Washington County Division of Emergency Services has been working with other public safety agencies in the county (Sheriff's Office, Volunteer Fire Rescue Association, City of Hagerstown Fire and Police Departments) on a vision for the site.

National Guard Combined Readiness Center

New Construction / $10,617,313 / 38,619 SF

The new Combined Readiness Center for the National Guard will house a National Guard Unit and will be primarily be used for weekend drills. The building's 5,400 SF assembly hall and kitchen facilities were designed so the facility can also be rented for public events. The building will replace the National Guard's existing facility in York, PA.

Senator Jeffrey E. Piccola Law Enforcement Complex

Master Plan & New Construction / 50,000 SF / $9,125,110 / LEED Silver Certified

At the completion of a Master Plan of the Public Safety Training Center, HACC moved forward with the new construction of the Senator Jeffrey E. Piccola Law Enforcement Complex (LEC). The LEC Building contains administration space, classrooms, department offices and support space, storage and a 15 lane 150' long pistol range and a 10 lane 300' long rifle range and includes.

Education

Masters, Landscape Architecture, North Carolina State University, 1996

B.A., History, Duke University, 1992

Professional Registration

PLA, MD No. 3136
PLA, VA No. 0406001477
PLA, NC No. 1055

LEED AP BD+C

Years' Experience

21

SITERESOURCES

Patrick G. Pleasants
Civil/Site Evaluator

Mr. Pleasants has worked on institutional, recreational, industrial and commercial land development, from feasibility studies, master planning and rezoning, through contract documents and construction administration. He is the point person for SRI's participation in the development of facility studies for the Baltimore City and Baltimore County Public School Systems. Each study notes existing site conditions, determines needed upgrades and compliance issues, and notes required elements for potential expansion, modernization and replacement options.

School of Nursing Feasibility Study, Johns Hopkins University, Baltimore, MD
Civil/Site Evaluator – assessment of site ramifications in tightly urban setting and possible Baltimore City development process for proposed renovation/expansion concepts associate with the Pinkard Building, School of Nursing House and Student House; site aspects focused on ramifications of the project on the existing courtyard, relocation implications for sanitary line and transformers, and water meter size/location (2016)

Building 201 Feasibility and Programming Study, Johns Hopkins University, Applied Physics Laboratory, Laurel, MD
Project Manager – programming and feasibility study to evaluate if continuation with approved plan for mixed-use office/lab building is best option considering owner goals, budget & schedule; assessed site location to confirm building design effort would be congruent with campus master plan; examined site grades, soils, hydrology (flood plain/critical area), stormwater management, vegetation, vehicular and pedestrian circulation, site security and site utilities (2015); subsequent participation on site design for 263,000 GSF mixed-use signature building 2019/$120M est.

Part I Programs for Three Facilities, Bowie State University, Bowie, MD
Project Manager – site/civil feasibility assessments for development of Part I Programs in accordance with MD Dept. of Budget & Mgt. for Thurgood Marshall Library, Facilities Management Building, McKeldin Gymnasium renovation and renovation of Goodloe Apartments; documented existing site conditions, noted required elements for potential expansion/ modernization options; provided observations concerning vehicular access & circulation issues; pedestrian circulation & ADA compliance; availability of existing storm drain, sanitary system & water services; identification of stormwater management quantity/quality practices & suitable outfall possibilities if facilities are expanded (2016)

Campus Master Plan, Towson University, Towson, MD
Civil/Site Evaluator - updated master plan including analysis of university space needs, parking, infrastructure and environmental impact of proposed enrollment scenarios; updated campus stormwater master plan and developed forest stand conservation plan responsive to planned campus development; updated existing conditions plan for all utilities (storm, steam, chilled water, electric, telecom); developed construction sequencing, staging & logistics plan for capital projects; identified opportunities to support remediation of university's carbon footprint (2015)

Facilities Master Plan, University of Maryland, Baltimore, MD
Civil/Site Evaluator – worked with consultant team to update utility mapping; documented existing campus site conditions and stormwater management status; developed assessment of site-related implications based on team's preferred campus layout options (2016)

Facilities Master Plan 2014-2024, Salisbury University, Salisbury, MD
Civil/Site Evaluator – documented current conditions, planning issues and recommendations for further detailed system evaluations related to stormwater management and sanitary sewer and water systems and their relationship within utility corridors to other campus utilities; analysis included identifying existing utility inventory, noting deficiencies in current systems, determining how much development present systems can handle, and identifying future needs

Facilities Master Plan, Harford Community College, Bel Air, MD
Civil/Site Evaluator - participated in development of campus' ten year facilities master plan with a twenty year land use plan covering the property located on the west side of Thomas Run Rd. (west campus/148-acres) and the main developed campus area on the east side of Thomas Run Rd. (203-acres); provided input for terrain, hydrology (watersheds and jurisdictional boundaries), flood plain and wetlands, stormwater management, storm drainage infrastructure, campus

Role:	Lead Electrical Engineer
Years with BKM:	6
Total years of experience:	17
Education:	Bachelor of Science, Electrical Engineering, Pennsylvania State University, 2002
Registrations	PE: MD, MO, NY, OH

Tony Page, PE, LEED AP

Tony serves as project engineer and project manager for many projects where he is responsible for electrical design, preparation of contract drawings, specifications, construction services, project management, supervision and client coordination. He has worked with various private, commercial clients.

Tony has experience working on many types of electrical engineering projects including the design of low voltage power distribution, medium voltage power distribution, indoor and outdoor lighting, standby and emergency power systems and fire alarm systems. He also provides services for fault current, coordination, and arc flash studies.

Police Station Feasibility Study, Town of Bel Air, Bel Air, MD
BKM provided MEP engineering services for a study of the existing Town of Bel Air Police Station. The design team studied three options; Option 1 – 15,000 SF addition to the existing structure, Option 2 – 20,600 SF addition to the existing structure, and Option 3 – 21,500 SF new building plus renovation of the spaces vacated by the police department within the existing building. All three options include extensive renovation to the 12,000 SF existing facility. The additions will be supplied with completely a new power distribution system including back up power. Feasibility of reusing the existing natural gas generator and possibly paralleling with new generators to back up the entire facility was reviewed. Motorola communication standards were reviewed for a central grounding system. Critical operations power systems (NEC COPS requirements) as well as seismic support systems were considered. // Role: Principal in Charge/Project Manager

North Point Police Precinct 12, Baltimore County Government, Baltimore, MD
BKM provided MEP design services for the relocation of the North Point Police station to Eastern Primary School. Over 90% of the existing school structure was gutted and fitted-out for the precinct, including a new chiller, rooftop units (including an energy recovery unit), VAV boxes to serve each internal space, new electrical/lighting, and fire protection. The 38,000-square-foot police precinct contains holding cells, office/administrative work station, storage, gymnasium, and locker room. // Role: Electrical Engineer, Cost $6.8 M, Size: 38,000 SF

Maryland Department of General Services, Barrack C Cumberland New Barrack and Garage, Cumberland, MD
BKM provided MEP design services for a new police barrack and garage serving MD DGS in Cumberland, MD. Barrack C has several space types including normal business occupancy, 24-hour occupied spaces, bunk rooms, communication equipment rooms, jail cells, property evidence storage rooms, and maintenance garages. A separate ventilation system conditions and ventilates the evidence storage room in accordance with the International Association for Property and Evidence standards. // Role: Project Manager/ Lead Electrical Engineer, Cost: $13 M, Size: 20,000 SF

Replace Emergency Generators at Backbone Mountain Youth Detention Center, MD Department of General Services, Swanton, MD
BKM provided MEP design services for electrical systems at a youth detention center under our current prime contract for MD DGS. The design work at Backbone Mountain consisted of providing a new generator to back-up the entire facility, as well as moving the entire overhead power distribution system underground. BKM was responsible for coordinating phasing and security protocol within a secure perimeter. // Role: Project Manager, Cost: $1 M

Eastern Correctional Institution Replace Electrical Door Control System, Maryland Department of General Services, Westover, MD
BKM provided MEP design services for the replacement of the telecommunications and security systems of the existing door control system at the Eastern Correctional Institute. The project scope included the design of new relays, programmable logic controllers (PLCs), master control systems, and power supplies. New liquid crystal display (LCD) touch screens were provided for the master controls. New surge protective devices (SPDs) were provided at all 120 volt power sources serving the new security equipment in order to protect proposed equipment from transient power surges. // Role: Project Manager, Cost: $1.4 M

Role:	Lead Mechanical Engineer
Years with BKM:	2
Total years of experience:	11
Education:	Bachelor of Science, Mechanical Engineering, Rochester Institute of Technology, 2008
Registrations	PE: MD

William Jamieson, PE, LEED AP BD+C

Bill serves as Mechanical Engineer with extensive experience designing HVAC and plumbing systems on federal government, healthcare, higher education, and K-12 school system projects. He has been responsible for various successful projects, including the design of phased data centers with N+1 redundancy, air and water-cooled chiller plants, and a LEED Gold Certified neighborhood recreation center. Bill specializes in the use of building information modeling (BIM) to prepare fully coordinated designs resulting in reduced construction change orders.

Police Station Feasibility Study, Town of Bel Air, Bel Air, MD
BKM provided MEP engineering services for a study of the existing Town of Bel Air Police Station. The design team studied three options; Option 1 – 15,000 SF addition to the existing structure, Option 2 – 20,600 SF addition to the existing structure, and Option 3 – 21,500 SF new building plus renovation of the spaces vacated by the police department within the existing building. All three options include extensive renovation to the 12,000 SF existing facility. The additions will be supplied with new central HVAC systems suitable to serve the addition. The new building in Option 3 will be provided with a completely standalone central HVAC system. Two heating and cooling systems were considered for each building option. The systems considered were 1) DX central forced air with hydronic heating and 2) a variable refrigerant flow (VRF) heat recovery system. // Role: Lead Mechanical Engineer

Maryland Department of General Services, Barrack C Cumberland New Barrack and Garage, Cumberland, MD
BKM provided MEP design services for a new police barrack and garage serving MD DGS in Cumberland, MD. Barrack C has several space types including normal business occupancy, 24-hour occupied spaces, bunk rooms, communication equipment rooms, jail cells, property evidence storage rooms, and maintenance garages. A split system dedicated outdoor air system (DOAS) provides ventilation to each space. A separate ventilation system conditions and ventilates the evidence storage room in accordance with the International Association for Property and Evidence standards. // Role: Project Manager/ Lead Mechanical Engineer, Cost: $13 M, Size: 20,000 SF

US Army Corp of Engineers - Baltimore District, Pack and Crate Facility, Hanover, MD
BKM provided MEP design services for this warehouse renovation and secure area addition. The secure area consists of a 5,000 SF, 2-story building contained within the pack and crate warehouse space. The HVAC design includes five warehouse door air curtains, a 12-ton variable volume DX rooftop air handling unit, two communications rooms served by 5-ton DX computer room units with a house air backup cooling system, and typical secure area protection measures. // Role: Lead Mechanical Engineer, Cost: Est. $2.8 M, Size: 5,000 SF

US Navy, Naval Air Station, Patuxent River Building 2360 HVAC Upgrade, Patuxent River, MD
BKM provided MEP design services to upgrade building controls and replace four rooftop air handlers at Building 2360, Propulsion System Evaluation Facility, at the Patuxent Naval Air Station. Building 2360 is a single story, 81,000 gross-square-foot structure comprised of a laboratories and offices. // Role: Lead Mechanical Engineer, Cost: $5 M, Size: 81,000 SF

US General Services Administration, Social Security Administration National Computer Center Building, Air Handler Replacement, Woodlawn, MD
Served as Project Engineer for air handler replacement and repair efforts in the National Computing Center Building. Tasks included extensive survey of existing air handlers and associated ductwork/piping, equipment selection and layout, development of control sequences, construction cost estimating, and coordination of equipment access pathways for initial installation and future maintenance of equipment within the basement mechanical rooms. He was also responsible for development of extensive construction phasing. *project completed with a previous firm