

FEASIBILITY REPORT:

Hightstown Municipal Complex
230 Mercer Street
Hightstown, NJ 08520



Prepared for:
The Borough of Hightstown

Prepared by:
Clarke Caton Hintz
100 Barrack Street
Trenton, NJ 08608

Final June 20th, 2017

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SECTION 1 - EXECUTIVE SUMMARY AND PROCESS

Purpose and Scope of the Feasibility Study

The Borough of Hightstown engaged Clarke Caton Hintz in April of 2017 to assist with a building evaluation of 230 Mercer Street, a programming analysis and a conceptual planning exercise for the Borough's municipal and police departments. Since Hurricane Irene displaced both groups in August of 2011, they have been conducting business in three separate temporary locations. The goal of this study is to suggest options for the co-location of these groups at the 230 Mercer Street site in order to provide the synergy that is required for an efficient and effective operation.



Exterior of existing building from Mercer Street

General Site Information

The 230 Mercer Street property is 1.06 acres. The property fronts Mercer Street and abuts Railroad Avenue at the rear. The property has residences on either side of the property along Mercer Street, and the rear of the property addresses Dawes Park.



Dawes Park

The site contains of a former school building, originally constructed ca. 1900. Today, the building houses a YMCA daycare program. The site also consists of a paved driveway and modest parking lot with a capacity of approximately 15 vehicles. A fenced in lot is located adjacent to the parking area.

General Building Description

The former schoolhouse is a two-story building with a basement. The structure is wood frame with exterior brick walls, bearing on a stone foundation. The Victorian building, totaling 15,160 sf, is in overall good condition. The exterior brick walls require a modest amount of repointing due to weathering. The wood exterior windows should be replaced with modern, energy efficient wood windows. The existing fire escapes can be removed if work progresses beyond a feasibility study. The roof appears to be newer, and in very good



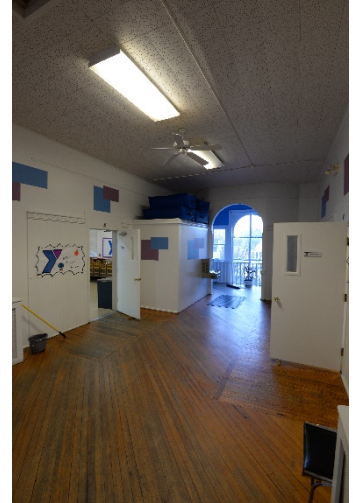
Fenced lot on property

condition. However, it is noted that currently no gutters and downspouts exist and will be required as part of the project. The lack of water rainwater conduction is contributing to the wash-out observed on site.

The interior of the building is in good condition as well, with hardwood floors existing throughout the upper two floors. The configuration remains largely intact from the original schoolhouse layout, with only minor alterations occurring over time. Much of the original historic fabric (wood trim, doors, and wainscoting) remains and can be rehabilitated for the project. The structural system is in solid condition and can support the anticipated loads of the preferred designs. The mechanical, electrical and plumbing systems are beyond their life expectancy and are assumed to be replaced for the purposes of the feasibility study. Refer to the attached reports prepared by our various team members.



Second floor alcove



Second floor corridor

Team Members

The architecture firm of Clarke Caton Hintz, located in Trenton, New Jersey, was responsible for the coordination of the feasibility study, with Mr. John Hatch, FAIA as Partner-in-Charge, Mr. Michael Hanrahan, AIA serving as project manager and Ms. Jacquie Wolverton assisting with programming.

The structural investigation of the building was conducted by Harrison Hamnett Consulting Structural Engineers. The mechanical, electrical, plumbing evaluation was performed by the Princeton Engineering Group. The Roberts Engineering Group assisted with the civil engineering study.

Limitations of the Plan

The feasibility study for the Hightstown Municipal Complex does not provide a detailed history of the Borough of Hightstown or the former school building specifically, located at 230 Mercer Street. An overall history would place the development of the building within that context and may inform any preservation efforts for the structure, depending upon how faithful a restoration the Borough wishes to perform.



Exterior of existing building from rear parking lot

Acknowledgements

Clarke Caton Hintz would like to thank the elected officials and administration of the Borough of Hightstown, the Hightstown Municipal Court and the Hightstown Police Department for their help and support throughout the project. Councilmember “Lee” Stults, Councilmember Steven Misiura and Borough Clerk Debra Sopronyi, with their vast understanding of the Borough and its goals, were particularly helpful.



Exterior of existing building's turrets from Mercer Street

SECTION 2 - PROGRAM NARRATIVE / PROGRAM DOCUMENT

Understanding

To establish a solid basis on which to develop the preferred concept plan, we must fully understand the Borough's and the existing conditions of the site. What are you looking to accomplish? What are the actual needs, as opposed to mere wants that might fall to the wayside given budget and/ or site constraints? What are potential issues at the building and site, including the overall configuration; age and condition of the building systems; structural issues; site access issues, etc.?



Current temporary offices

Interviews

Clarke Caton Hintz met with a representative from each of the following departments: Administration, Clerk, Municipal Court, Construction and Zoning, Tax and the Police Department to discuss their current and future needs. Each representative gave CCH a tour of their department and any other areas that are currently being utilized for storage. CCH was able to see first-hand how inadequate the temporary locations are for these groups to conduct business and to receive the public. These meetings resulted in a programming document that was reviewed with the Borough of Hightstown. The program provides a list of necessary spaces and required size and adjacency requirements as a basis for the conceptual design plans.



Current temporary records



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Administration - Debra Sopronyi for Administrator

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Type of space	Current			Prop. Area	Space Type	Future Growth
	Area	# Req.	Total Area			
Departmental Administrative Space						
Administrator(Full-time)	180 sf	1	180	200	Private Office	0
Subtotal			180 sf	200 sf		
Departmental Storage and Equipment						
4 H lateral files	5 sf	1	5	6		0
4 H lateral files	5 sf	1	5	6	Fireproof	0
Printer	0	1	0	0	Desk top	0
Subtotal			10 sf	12 sf		
Subtotal of spaces:			190 sf	212 sf		

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Construction/Code Enforcement/Planning/Fire/Animal Control/Zoning - George Chin

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Type of space	Current			Prop. Area	Space Type	Future Growth
	Area	# Req.	Total Area			
Departmental Administrative Space						
Construction Official (full-time)	120 sf	1	120	175	Private Office with drafting table	0
Administrative Assistant (full-time)	80 sf	1	80	88	Workstation adjacent to window for transactions	0
Housing Code Enforcement / Animal Control	80 sf	1	80	110	Workstation	0
Fire Official	80 sf	1	80	110	Workstation	0
Plumbing Official	80 sf	1	0	0	Shared with Fire Official	0
Fire Subcode	80 sf	1	0	0	Shared with Fire Official	0
Fire Inspector	80 sf	1	0	0	Shared with Fire Official	0
Reception Area (seats only)	100 sf	1	100	436	Can be shared with other departments	0
Conference Room (6-8 seats)	250 sf	1	250	624	Can be shared with other departments	0
Subtotal			710 sf	1,543 sf		
Departmental Storage and Equipment						
4 H lateral files	200sf	10	200	95	Locked room	0
Printer	0	1	0	0	Desk top	0
Subtotal			200 sf	95 sf		
Subtotal of spaces:			910 sf	1,638 sf		



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Courts and Court Administration Program - Kristie

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Type of space	Current			Prop. Area	Space Type	Future Growth
	Area	# Req.	Total Area			
Departmental Administrative Space						
Court Administrator (full-time)	120 sf	1	120	287	Private Office	0
Deputy Court Administrator (full-time)	80 sf	1	80	178	Workstation	0
Judge's Chambers (Part-time)	200sf	1	200	210	Private Office	0
Court Recorder	0 SF	1	0	0		0
Public Defender	120 sf	1	120	133	Private Office	0
Prosecutor	120sf	1	120	132	Private Office	0
Lobby	1000 sf	1	1000	781	For 40 people	0
Public Restrooms	100 sf	2	200	237	Unisex	0
Court Room	2000sf	1	2000	1,243		0
Courts Private Restroom	65 sf	1	65	34	Judge & CA	0
Subtotal			3,905 sf	3,235 sf		
Departmental Storage and Equipment						
4 H lateral files	100sf	4	100	18	Fireproof and locked room	0
Onsite Records Retention	250 sf	30	250	546		0
Copy/Fax/Print Area	100sf	1	100	0	Township Equipment	0
Video Conferencing	0	1	0	0	Prisoner Interviews	0
Speaker Phone	0	1	0	0		0
State Laptop and Printer	0	1	0	0		0
State Tally Printer	0	1	0	0	Laser Printer	0
Subtotal			450 sf	564 sf		
Subtotal of spaces:			4,355 sf	3,799 sf		



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Municipal Clerk - Debra Sopronyi

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Type of space	Current			Prop. Area	Space Type	Future Growth
	Area	# Req.	Total Area			
Departmental Administrative Space						
Municipal Clerk (Full-time)	120 sf	1	120	110	Private Office	0
Deputy Clerk (full-time)	120 sf	1	120	110	Private Office	0
Assessor (Part-time)	80 sf	1	0	0	Shares Reception Workstation	0
Receptionist (Full-Time)	80 sf	1	80	72	Workstation	0
Reception (Seating for 4)	100 sf	1	0	436	Can be shared with other departments	0
Huddle Room (seating for 4)	120 sf	1	120	111	Shared by department	0
Subtotal			440 sf	839 sf		
Departmental Storage and Equipment						
4 H lateral files	5 sf	1	5	30		0
Storage cabinets	75 sf	3	75	0	Fireproof	0
Copy/Mail room	150 sf	1	150	92	Separate room	0
Subtotal			230 sf	122 sf		
Subtotal of spaces:			670 sf	961 sf		



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Police Department -Chief Frank Gendron

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	Current					Future
Type of space	Area	# Req.	Total Area	Prop. Area	Space Type	Growth
Departmental Administrative Space						
Chief	120 sf	1	120	132	Private Office	0
Sergeant	120 sf	1	120	121	Private Office shared by 2	0
Detective	120 sf	2	240	176	Private Office	0
Patrol	80 sf	3	240	168	Workstation shared by all officers	0
Administrative Assistant	80 sf	1	80	117	Workstation	0
Waiting Area	100 sf	1	100	0		
Kitchenette	100 sf	1	100	150	Centrally located	
Storage	200 sf	1	200			
Conference (seating for 8-12)	400 sf	1	400	247		
IT Room	150 sf	1	150	48		
Subtotal			1,475 sf	1,159 sf		
Departmental Specific Space						
Lobby	150 sf	1	150	186	Some seating with receiving window	0
DVRT/Opioid Counseling	120 sf	1	120	76	Near front area, but not visible	0
Public Unisex Restroom	100 sf	1	100	0		0
Processing Room	300 sf	1	300	311	With restroom and direct access to outside	0
Evidence Room	300 sf	1	300	92		0
Interview Room	120 sf	2	240	188		0
Holding Cell	120 sf	2	240	152		0
Sally Port	1500	1	1000	488	For 2 vehicles	0
Armory	500 sf	1	500	128	Ammo, targets and gun cleaning	0
Locker room	350 sf	2	700	510	Mens/womens	0
Subtotal			1,475 sf	2,131 sf		
Subtotal of spaces:			5,145 sf	3,290 sf		



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Program Meeting April 6, 2017
Tax Department - Monica

Type of space	Current			Prop. Area	Space Type	Future Growth
	Area	# Req.	Total Area			
Departmental Administrative Space						
Tax Collector (Part Time)	80 sf	1	80	110	Workstation adjacent to payment window	0
Deputy Tax Collector / Payroll (full-time)	120 sf	1	120	114	Private Office	0
CFO (Part-time)	120 sf	1	120	110	Private Office	0
Finance Assistant (Full-Time)	80 sf	1	80	110	Workstation	0
Breakroom	300 sf	1	300	410	Can be shared with other departments	0
Conference/Training Room (6-8 seats)	250 sf	1	0	0	Can be shared with other departments	0
Coat Storage	25 sf	1	25	0	Can be shared with other departments	0
Subtotal			975 sf	854 sf		
Departmental Storage and Equipment						
4 H lateral files	50 sf	2	50	30		0
Vault (small)	0	0	0	0	Bolted to desk near payment window	
Copy/fax/printer	50 sf	1	50 sf	92	Within department	0
On Site Records Retention (can stay at current location)	500 sf	100	500	788	Located in basement of Public Works building on shelves	
Subtotal			600 sf	910 sf		
Subtotal of spaces:			1,575 sf	1,764 sf		



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Program Executive Summary

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Departments	Requested / Proposed	
	Requested	Proposed Area (see plans)
Administration	190 sf	212 sf
Construction/Code/Plan/Fire/AC/Zone	910 sf	1,638 sf
Courts and Court Administration	4,355 sf	3,799 sf
Municipal Clerk	670 sf	961 sf
Police Department	5,145 sf	3,290 sf
Tax Department	1,575 sf	1,764 sf
Subtotal with Courts:	12,845 sf	11,664 sf
Area increase for struct., mech. systems, restrms., circ., etc. (35%):	4,496 sf	4,082 sf
Total Program Area:	17,341 sf	15,746 sf

Subtotal without Courts:	8,490 sf	7,865 sf
Area increase for struct., mech. systems, restrms., circ., etc. (35%):	2,972 sf	2,752 sf
Total Program Area:	11,462 sf	10,617 sf

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SECTION 3 – CODE ANALYSIS

Applicable Codes:

- International Building Code, NJ Edition - 2015 (NJAC 5:23-3.14)
- National Standard Plumbing Code - 2015 (NJAC 5:23-3.15)
- National Electrical Code (NFPA 70) - 2014 (NJAC 5:23-3.16)
- ASHRAE 90.1 - 2013 (NJAC 5:23-3.18)
- International Mechanical Code - 2015 (NJAC 5:23-3.20)
- International Fuel Gas Code - 2015 (NJAC 5:23-3.22)
- Rehabilitation Subcode (NJAC 5:23-6)
- ICC/ANSI A117.1-2009 (Chapter 11 of IBC/2015 & NJAC 5:23-7)
- American Society of Mechanical Engineers (ASME) A17.1 Elevator Subcode (NJAC 5:23-12)

Renovations and Addition (Existing Building) Code Analysis

A. Summary

Generally the building is in sound condition and will require only minor modifications to meet the requirements of the International Building Code. The existing building is type IIIB construction, which is rated exterior walls and interior wood construction. The use of the building has changed from a daycare to a business occupancy, but this change has little to no implications on the design requirements. Modifications to satisfy egress requirements are the installation of a second staircase. There are also modifications to satisfy accessibility requirements, which include the installation of an accessible entrance and new elevator in the addition. In order to meet the fire protection requirements a new sprinkler system will be installed throughout the existing building and the addition. The required amount of plumbing fixtures have been provided to satisfy the requirements of the National Standard Plumbing Code.

B. Use and Occupancy Classification

- Existing occupancy classification: Institutional Group I-4, day care facility
- Proposed occupancy classification (mixed use / non-separated):
 - Business Group B, Civic administration
 - Group A-3, Courtrooms
 - Group S-1, Storage (records)

C. Construction Classification

- Existing building construction classification: IIIB
- Proposed renovation and addition construction classification: IIIB

D. Fire Resistance Rating Building Elements

- Type IIIB construction

Building Element	Required Rating
Structural Frame	0 hour
Exterior Bearing Walls	2 hour
Interior Bearing Walls	0 hour
Exterior Non-Bearing Walls	Per Table 602
Interior Non-Bearing Walls	0 hour
Floor Construction	0 hour
Roof Construction	0 hour
Shaft Enclosures	1 Hour
Elevator Machine Rooms	1 hour
Corridors	0 hour

E. Fire Resistance Rating Exterior Walls

- Requirements for exterior wall rating based on separation distance for occupancy A and B (per table 602)
 - $X < 5'$ IIIB construction, occupancy A & B = 1 hour
 - $5' \leq X < 10'$ IIIB construction, occupancy A & B = 1 hour
 - $10' \leq X \leq 30'$ IIIB construction, occupancy A & B = 0 hour
 - $X \geq 30'$ IIIB construction, occupancy A & B = 0 hour
- Requirements for exterior wall rating based on separation distance for occupancy S-1 (per table 602)
 - $X < 5'$ IIIB construction, occupancy S-1 = 2 hour
 - $5' \leq X < 10'$ IIIB construction, occupancy S-1 = 2 hour
 - $10' \leq X \leq 30'$ IIIB construction, occupancy S-1 = 1 hour
 - $X \geq 30'$ IIIB construction, occupancy S-1 = 0 hour
- Based on fire separation distance of the existing structure non-bearing exterior walls are required to be 1 hour rated in accordance with the requirements for an S-1 occupancy where the separation distance is between 10 and 30 feet.

F. Interior Wall and Ceiling Finish Requirements

- Group B, sprinklered
 - Exit enclosures and exit passageways - Class B finishes required
 - Corridors - Class C finishes required
 - Rooms and enclosed spaces - Class C finishes required
- Group A-3, sprinklered
 - Exit enclosures and exit passageways - Class B finishes required
 - Corridors - Class B finishes required
 - Rooms and enclosed spaces - Class C finishes required
- Group S-1, sprinklered
 - Exit enclosures and exit passageways - Class C finishes required
 - Corridors - Class C finishes required
 - Rooms and enclosed spaces - Class C finishes required

G. Height and Area Limitations

- Because the building will be non-separated mixed use the most stringent occupancy classification requirements will apply.
- A-3 occupancy has the most stringent requirements.
- Allowable building height in feet (sprinklered) = 75 feet
- Allowable building height in stories (sprinklered) = 3 stories
- Allowable building area (sprinklered) = 28,500 s.f.

H. Area Modifications

- $Aa = [At + (NS \times If)]$
- Aa = Allowable area (square feet)
- At = Tabular area per story
- NS = Tabular area for a non-sprinklered building
- If = Area increase for frontage

I. Frontage Increase

- $If = [F/P - 0.25] W/30$
- If = Area increase due to frontage
- F = Building perimeter on public way
- P = Perimeter of entire building
- W = Width of public way

J. Existing Height and Area

- Existing building height in feet = 37 feet
- Existing building height in stories = 2 stories
- Existing building area:
 - Basement = 3,900 s.f.
 - First Floor = 4,389 s.f.
 - Second Floor = 4,282 s.f.

K. Proposed Height and Area

- Proposed building height in feet = 37 feet
- proposed building height in stories = 2 stories
- proposed building area:
 - Basement = 5,020 s.f.
 - First Floor = 5,427 s.f.
 - Second Floor = 5,389 s.f.
 - Total = 15,836 s.f.

L. Allowable Area Including Modifications

- Frontage increase:
 - $If = [F/P - 0.25] W/30$
 - $F = 185'$
 - $P = 285'$
 - $W = 30'$
 - $If = [185/285 - 0.25] 1$

- If = .40
- Allowable area:
 - $Aa = \{At + (NS \times If)\}$
 - $At = 28,500$
 - $NS = 9,500$
 - If = .40
 - $Aa = \{28,500 + (9,500 \times .4)\}$
 - $Aa = 32,300$
- Area of proposed building is within acceptable criteria.

M. Automatic Sprinkler System

- An Automatic sprinkler system in accordance with section 903.3.1.1 of the International Building Code, NJ edition - 2015 will be provided throughout the building.

N. Occupant Load

- Total occupant load = 130 occupants

O. Means of Egress

- Egress widths as required per 1005.1 of the International Building Code, NJ edition – 2015.
- Stairways = 0.3" per occupant
- Other egress components = 0.2" per occupant
- Per table 1006.2.1 of the international building code, NJ edition - 2015, the common path of egress for a 'B' & 'S' occupancy shall not exceed 100' when an automatic sprinkler system in accordance with section 903.3.1.1 is provided. For group 'A' occupancies the common path of egress travel shall not exceed 75'.
- Per section 1007.1.1, exception 2, where equipped throughout with an automatic sprinkler system in accordance with 903.3.1.1 the separation distance of exit doors shall not be less than 1/3 of the length of the maximum overall dimension of the area served.
- Per section 1017 of the international building code, NJ edition - 2015, the exit access travel distance for buildings in the 'B' use group equipped with sprinkler systems in accordance with section 903.3.1.1 shall not be more than 300'. The exit access travel distance for 'A' & 'S-1' occupancies with sprinkler systems in accordance with section 903.3.1.1 shall not be more than 250' when equipped with an automatic sprinkler system in accordance with 903.3.1.1
- Per section 1020.4 exception, 2 of the international building code, NJ edition - 2015 the length of dead end corridors shall not exceed 50'-0" for 'B' & "S" occupancies when an automatic sprinkler system in accordance with section 903.3.1.1 is provided.
- Per table 1020.2 minimum corridor width shall be 44 inches unless corridor serves an occupant load of less than 50, the 36 inches minimum.

P. Plumbing Fixture Counts

- Minimum number of required plumbing fixtures are calculated per table 7.21.1, of the National Standard Plumbing Code - 2015.
- Accessible fixtures are provided in each group bathroom per ANSI117.1 2009 requirements and ADA guidelines.
- When the occupant load is based on egress requirements, the number of occupants shall be permitted to be reduced to 2/3's of that for the life safety purposes. The plumbing occupant load

is allowed to be multiplied by 50% to determine the number of persons of each sex to be provided for.

- Occupant load = 130 occupants $130 \times .666 = 87$ occupants = 44 male / 44 female
- Plumbing fixtures required / provided:

Required Fixtures	Water closets	Lavatories	Drinking Fountains	Service Sinks
Male	2	1	1 per 1000	1 per floor
Female	2	1		

Provided Fixtures	Water closets	Lavatories	Drinking Fountains	Service Sinks
Male	4	4	1 per 1000	1 per floor
Female	4	4		

Q. Rehabilitation Subcode

- The buildings use will be changed from 'I-4' to 'B' occupancy. There are no requirements due to hazard classification related to this change of use.

Proposed Police Station (New Building) Code Analysis

A. Summary

The new police building will be considered a separated mixed use occupancy and will be non-combustible construction. Occupancies include 'B' use group for the administrative areas of the police station and 'I-3' use group for areas where persons will be detained. These occupancies are required to be separated by fire rated construction. Because the building is only one story egress and accessibility requirements are minimal. Provisions will be made to handle special requirements related to egress in the area where people be detained. In order to meet the fire protection requirements a new sprinkler system will be installed throughout the new building. The required amount of plumbing fixtures have been provided to satisfy the requirements of the National Standard Plumbing Code.

B. Use and Occupancy Classification

- Proposed occupancy classification (mixed use / separated):
 - Business Group B, Civic administration
 - Institutional Group I-3, holding cells
 - Group U, Private garage (sally port)

C. Construction Classification

- Proposed new building construction classification: IIB

D. Fire Resistance Rating Building Elements

- Type IIB construction

Building Element	Required Rating
Structural Frame	0 hour
Exterior Bearing Walls	0 hour
Interior Bearing Walls	0 hour
Exterior Non-Bearing Walls	Per Table 602
Interior Non-Bearing Walls	0 hour
Floor Construction	0 hour
Roof Construction	0 hour
Corridors	0 hour

- A 1-hour separation is required between all 'I-3' and 'B' occupancies per table 508.4.

E. Fire Resistance Rating Exterior Walls

- Requirements for exterior wall rating based on separation distance for group B and I-3 occupancy (per table 602)
- $X < 5'$ IIB construction, occupancy B & I-3 = 1 hour
- $5' \leq X < 10'$ IIB construction, occupancy B & I-3 = 1 hour
- $10' \leq X \leq 30'$ IIB construction, occupancy B & I-3 = 0 hour
- $X \geq 30'$ IIB construction, occupancy B & I-3 = 0 hour
- Based on fire separation distance of the proposed structure non-bearing exterior walls are not required to be rated.

F. Interior Wall and Ceiling Finish Requirements

- Group B, sprinklered
 - Exit enclosures and exit passageways - Class B finishes required
 - Corridors - Class C finishes required
 - Rooms and enclosed spaces - Class C finishes required
- Group I-3, sprinklered
 - Exit enclosures and exit passageways - Class A finishes required
 - Corridors - Class A finishes required
 - Rooms and enclosed spaces - Class C finishes required
- Group U, no restrictions

G. Height and Area Limitations

- Mixed use separated occupancies shall be individually classified and meet the building area and height requirements per section 508.4.2 and 508.4.3.
- Allowable height and area for B group occupancy:
 - Allowable building height in feet (sprinklered) = 75 feet
 - Allowable building height in stories (sprinklered) = 4 stories
 - Allowable building area (sprinklered) = 76,000 s.f.
- Allowable height and area for I-3 occupancy:
 - Allowable building height in feet (sprinklered) = 75 feet
 - Allowable building height in stories (sprinklered) = 2 stories
 - Allowable building area (sprinklered) = 40,000 s.f.

H. Area Modifications

- $Aa = \{At + (NS \times If)\}$
- Aa = Allowable area (square feet)
- At = Tabular area per story
- NS = Tabular area for a non-sprinklered building
- If = Area increase for frontage

I. Frontage Increase

- $If = [F/P - 0.25] W/30$
- If = Area increase due to frontage
- F = Building perimeter on public way
- P = Perimeter of entire building
- W = Width of public way

J. Proposed Height and Area

- Proposed building height in feet = less than 75 feet, to be determined
- proposed building height in stories = 1 stories
- proposed building area:
 - B use First Floor = 3,977 s.f.
 - I-3 use First Floor = 2,265 s.f.

K. Allowable Area Including Modifications

- Frontage increase:
 - $If = [F/P - 0.25] W/30$
 - $F = 184'$
 - $P = 355'$
 - $W = 30'$
 - $If = [184/355 - 0.25] 1$
 - $If = .27$
- Allowable area B use group:
 - $Aa = \{At + (NS \times If)\}$
 - $At = 92,000$
 - $NS = 23,000$
 - $If = .27$
 - $Aa = \{92,000 + (23,000 \times .27)\}$
 - $Aa = 98,210$
- Allowable area I-3 use group:
 - $Aa = \{At + (NS \times If)\}$
 - $At = 40,000$
 - $NS = 10,000$
 - $If = 0$
 - $Aa = \{40,000 + (10,000 \times 0)\}$
 - $Aa = 40,000$
- In a mixed occupancy building the sum of area ratios must be less than 1 in accordance with International Building Code, NJ edition – 2015 section 508.4.2
 - $3,977/92,000 + 2,265/40,000 = 0.09 \leq 1$

- Area of proposed separated mixed-use building is within acceptable criteria.

L. Automatic Sprinkler System

- An Automatic sprinkler system in accordance with section 903.3.1.1 of the International Building Code, NJ edition - 2015 will be provided throughout the building.

M. Occupant Load

- Total occupant load = 84 occupants

N. Means of Egress

- Egress widths as required per 1005.1 of the International Building Code, NJ edition – 2015.
- Stairways = 0.3" per occupant
- Other egress components = 0.2" per occupant
- Per table 1006.2.1 of the international building code, NJ edition - 2015, the common path of egress for 'B', 'S', and 'I-3' occupancies shall not exceed 100' when an automatic sprinkler system in accordance with section 903.3.1.1 is provided.
- Per section 1007.1.1, exception 2, where equipped throughout with an automatic sprinkler system in accordance with 903.3.1.1 the separation distance of exit doors shall not be less than 1/3 of the length of the maximum overall dimension of the area served.
- Per section 1017 of the international building code, NJ edition - 2015, the exit access travel distance for buildings in the 'B' use group equipped with sprinkler systems in accordance with section 903.3.1.1 shall not be more than 300'. The exit access travel distance for 'S-I' occupancies with sprinkler systems in accordance with section 903.3.1.1 shall not be more than 250' when equipped with an automatic sprinkler system in accordance with 903.3.1.1. The exit access travel distance for 'I-3' occupancies with sprinkler systems in accordance with section 903.3.1.1 shall not be more than 200' when equipped with an automatic sprinkler system in accordance with 903.3.1.1
- Per section 1020.4 exception, 2 of the international building code, NJ edition - 2015 the length of dead end corridors shall not exceed 50'-0" for 'B', "S", and 'I-3' occupancies when an automatic sprinkler system in accordance with section 903.3.1.1 is provided.
- Per table 1020.2 minimum corridor width shall be 44 inches unless corridor serves an occupant load of less than 50, the 36 inches minimum.

O. Plumbing Fixture Counts

- Minimum number of required plumbing fixtures are calculated per table 7.21.1, of the National Standard Plumbing Code - 2015.
- Accessible fixtures are provided in each group bathroom per ANSI117.1 2009 requirements and ADA guidelines.
- When the occupant load is based on egress requirements, the number of occupants shall be permitted to be reduced to 2/3's of that for the life safety purposes. The plumbing occupant load is allowed to be multiplied by 50% to determine the number of persons of each sex to be provided for.
- Occupant load = 130 occupants $84 \times .666 = 56$ occupants = 28 male / 28 female
- Plumbing fixtures required / provided:

Required Fixtures 'B' Use Group	Water closets	Lavatories	Drinking Fountains	Service Sinks
Male	2	1	1 per 1000	1 per floor
Female	2	1		
Provided Fixtures 'B' Use Group	Water closets	Lavatories	Drinking Fountains	Service Sinks
Male	2	3	1 per 1000	1 per floor
Female	2	3		
Required Fixtures 'I- 3' Use Group	Water closets	Lavatories	Drinking Fountains	
Male	1	1	1 per 1000	
Female	1	1		
Provided Fixtures 'I- 3' Use Group	Water closets	Lavatories	Drinking Fountains	
Male	4	4	1 per 1000	
Female	4	4		

SECTION 4 - STRUCTURAL ASSESSMENT

PREPARED BY HARRISON-HAMNETT, P.C.

Structural Systems:

Introduction

The analysis of the existing building at 230 Mercer Street Hightstown, NJ 08520 is based on the following information:

- A site survey, performed on April 10th, 2017 to identify existing conditions as described in the executive summary.

Existing Conditions

The building is a two story masonry wall bearing structure with a basement. The first floor framing consists of wood joists bearing on the perimeter brick bearing walls and one line of interior masonry bearing walls. The main hall floor framing is also wood joists bearing on the two walls that make the hall space. There is a wood beam supported on steel columns located at mid-span of the first floor joists. This beam is in the basement, and its main purpose was to strengthen the first floor joists. This occurs in four locations. The second floor framing does not have this beam since the four main rooms are open spaces. The roof framing was not accessible during our visit; however, with the steep hip-sloped roof and being consistent with the rest of the framing, it is our opinion that it is also wood frame construction. The basement floor is a concrete slab placed on grade.

Recommendations

First Floor - All The floor framing appears to be in good condition. Some calculations were performed, and it was determined that the first floor framing with the center beam support is adequate to support a live load used for assembly type spaces. This center beam will need to be replaced with most likely a new steel beam and columns to support the proposed assembly type loading conditions.

Second Floor - In its present condition, the second floor framing will not support code required assembly type loads; however, it will support office type usage. If the second floor is proposed to be used for assembly spaced, then the second floor joists will need to be reinforced. One effective solution would be to place a steel beam at mid-span of the joists. This steel beam would most likely need to clear span the space to eliminate columns in the rooms of the first floor. There appears to be sufficient ceiling height in these rooms below for a dropped beam. This would need to occur at any rooms on the second floor that are to be used for assembly type spaces. The second floor hall framing is sufficient as framed.

Roof - As mentioned above, the roof framing was not accessible. The ridge and hip slope of the roof appear to be straight and true. It would be our opinion that the roof framing is structurally adequate to continue to support all anticipated loads as it has in the past. The roofing material appears to be working to protect the building from water infiltration.

Exterior Walls - There is some minor mortar damage in the exterior face of the brick walls. These areas will need to be raked clean and repointed. We would estimate approximately 10 percent of the exterior

wall surface area will need this work. Overall, the exterior brick masonry walls are in good condition with several nice architectural features.

Proposed Egress Stair - It was requested to evaluate the possible removal of the wood floor framing in the front tarots of the building to possibly install an egress stair. This work may be accomplished if deemed appropriate.

Summary - It is our opinion that this building is structurally a good candidate for the proposed usage. The work to reinforce the floors, if deemed necessary, will be fairly straightforward and cost effective. There were no signs of noticeable structural distress identified in the building. We need to note that our work was performed with all the finishes intact on the first and second floors. Our survey work was mostly limited to visual effects. The first floor framing was accessible from the basement level.

SECTION 5 - MEP AND FIRE PROTECTION SYSTEM ASSESSMENT

PREPARED BY PRINCETON ENGINEERING GROUP, LLC

Mechanical, Electrical and Plumbing Systems:

Introduction

The analysis of the existing building at 230 Mercer Street Hightstown, NJ 08520 is based on the following information:

- A site survey, performed on April 10th, 2017 to identify existing conditions as described in the executive summary.

Heating, Ventilation and Air Conditioning

Existing Conditions

Heating - The building is heated by a gas fired steam boiler located in the basement (Fig. H-1). The boiler is a Weil McLain Model 580, 639MBH input, 386MBH steam output. The burner is a Power Flame Model JR-15A-10 (Fig. H-2). The boiler is vented to a masonry chimney (Fig. H-3). Abandoned oil tanks are located in the basement (Fig. H-4).



Fig. H-1- Steam Boiler



Fig. H-2- Boiler burner



Fig. H-3- Boiler flue to chimney



Fig. H-4- Abandoned oil tanks

Piping is distributed via a one-pipe system to radiators in the various spaces. The radiators are generally cast iron sectional type (Fig. H-5), most are in enclosures (Fig. H-6). There is also some electric baseboard heaters.



Fig. H-5- Cast iron radiator



Fig. H-6- Radiator enclosure

Cooling - Mechanical cooling in the building is provided by a number of window cooling units (Fig. H-7). There is no central cooling system in the building.



Fig. H-7- Typical window cooling unit

Ventilation - Ventilation is generally provided by operable doors and windows. There are exhaust fans in the 1st floor bathrooms, but no mechanical exhaust in the 2nd floor bathroom or 1st floor kitchen.

Ceiling paddle fans are installed throughout the building. There are indications of an abandoned vent system in the building; some decorative grillwork is still visible (Fig. H-8) and grilles which may have served for general ventilation are seen in the second floor ceiling.



Fig. H-8- Damaged pipe insulation.

Combustion air for the boiler is provided by an opening in the rear wall of the boiler room and infiltration from other portions of the building.

Condition of System

Heating - The boiler is relatively new and appears to be in serviceable condition. The internal condition of the piping cannot be determined, but there are no obvious signs of imminent failure, though some piping has been replaced.

Some pipe insulation may contain asbestos (Fig. H-9). Insulation has fallen off piping in some locations. Steam heating systems are inherently inefficient and difficult to control. Replacement of the steam heating, including all piping and radiators, by a modern system is recommended.

Cooling - The window air conditioning units appear to be in operable condition. However, window type cooling units are not recommended for this building, as they are noisy, inefficient, block window views and generally provide poor air distribution.

Ventilation - All bathrooms should be provided with mechanical exhaust. The 2nd floor bathroom is not code compliant because the windows are fastened shut. If no mechanical exhaust is provided, windows must be operable.

The lack of a commercial exhaust hood, ductwork and fan does not meet code requirements for exhaust of kitchen appliances in non-residential occupancies.

Recommendations

Existing Building

General - The new HVAC system must be responsive to the widely varying load conditions in the building. The system should be zoned so as to minimize energy use, allowing temperature setback in unoccupied portions of the addition. Zoning will be selected to allow each classroom and major space to be controlled individually. Equipment will be chosen for provision of a high level of comfort as well as efficiency, reliability, ease of maintenance and acceptable noise levels, especially in assembly rooms and the courtroom.

Sustainable design will be emphasized as far as practicable. Non-ozone depleting/low greenhouse gas refrigerants will be specified for cooling systems. Central heating and cooling equipment will be selected for high efficiencies while maintaining reasonable first cost and complexity.

A licensed firm should be retained to test the pipe insulation and remove it if asbestos is present. The oil storage tanks should be drained, cleaned and removed.

Heating - The existing boiler, radiators and steam distribution system will be removed. Heating will be provided by high efficiency gas fired condensing boilers located in the basement mechanical room. Each boiler will be sized for approximately two thirds the total heating load so that failure of one boiler will not require the building to be emptied. The boilers will be provided with primary pumps for constant water flow through the boilers.

Variable flow secondary pumps (one standby) will circulate hot water through the system.

Heating terminal units will be baseboard radiation beneath the windows, hydronic cabinet heaters and hot water heating coils in the fan coil units. Each group of spaces with similar characteristics will have its own thermostat.

Cooling - Cooling would be provided by variable refrigerant flow (VRF) split system units. This will consist of one outdoor condensing unit connected to fan coil units (FCU) serving the first floor and a

second outdoor unit connected to FCUs conditioning the second floor. The building will be served by a combination of ducted, exposed ductless and cassette type units. VRF equipment will be Mitsubishi Citi-Multi or similar, total system cooling capacity approximately 30 tons.

Generally, fancoil units located in the basement will be ducted to floor and wall registers to serve the first floor. Fancoil units located in the attic will be ducted to ceiling registers to serve the second floor.

Ventilation Systems - While many spaces have operable windows for natural ventilation, we recommend that mechanical ventilation be provided in all areas via a demand controlled system. Outside air will be introduced from louvered openings in the attic and basement areaways to ducted FCUs. Energy recovery units will be used to temper ventilation air to the building. Minimum outside air will be mixed with the return air to meet code required air quantities. Exhaust shall be provided for all bathrooms.

Existing ventilation chases will be used where possible. Existing decorative cast grilles will be retained where possible.

Controls - The HVAC system will be provided with a central Building Automation System (BAS). The system will utilize distributed digital controls with electric actuators and digital sensors.

Materials - Ductwork shall be galvanized steel. Condensate drain piping shall be copper or schedule 40 PVC. Heating hot water supply and return piping shall be copper or schedule 40 steel. Steel piping shall be threaded or welded; copper piping shall be soldered (no gasketed fittings allowed). All supply ductwork shall be insulated with blanket insulation. All heating hot water supply and return piping and condensate drain piping shall be insulated with fiberglass insulation. Ductwork 20 feet up and downstream of RTUs and 10 feet downstream of FCUs shall be acoustically lined.

Existing Building

General - The new HVAC system must be responsive to the widely varying load conditions in the building, supply sufficient ventilation for the occupancy and provide acceptable noise levels, especially in assembly rooms. The system should be zoned so as to minimize energy use, allowing temperature setback in unoccupied portions of the building. This is especially important in a building with spaces which are utilized after hours. Equipment should be chosen for reliability and ease of maintenance.

All systems serving areas which are considered to be part of an Emergency Operations Center will be designed with seismic supports. Equipment serving these areas will be seismically qualified. The contractor shall retain a professional engineer to perform seismic support calculations; manufacturer's seismic certification requirements apply.

Heating - Modular, gas-fired hot water boilers with distribution piping, hot water pumps, expansion tank and chemical treatment will be provided. Space heating will be by baseboard radiation, air handling unit hot water coils and variable air volume (VAV) box hot water coils.

Two boilers will be provided for redundancy. The boilers shall be high efficiency gas-fired boilers similar to Weil McLain Ultra. The heating system will be placed on emergency power.

Hot water pumps - end suction, base mounted type; two pumps, one standby. Variable volume flow will be maintained to minimize pump energy consumption.

Mechanical Cooling - Mechanical cooling and ventilation will be provided by packaged roof-top HVAC units. Rooftop units shall be high efficiency, variable volume control and have enthalpy economizer cycle. Cooling for the IT Room will be by a split system cooling unit located in the basement with condenser on the roof.

Spaces will generally be served by fan powered VAV boxes where needed for proper ventilation or for overhead perimeter heating.

The cooling unit serving the dispatch room, IT Room and other critical areas and functions will be supplied with emergency power.

Ventilation Systems - Ventilation will generally be provided by the rooftop cooling units. All bathrooms and locker rooms will be provided with mechanical exhaust at rates prescribed by Code.

Controls - Controls shall be Direct Digital Controls with electric actuators. A head end personal computer will be provided for interface with the HVAC system.

Materials - Ductwork shall be galvanized steel. Condensate drain piping shall be copper or schedule 40 PVC. Heating hot water supply and return piping shall be copper or schedule 40 steel. Steel piping shall be threaded or welded; copper piping shall be soldered (no gasketed fittings allowed). All supply ductwork shall be insulated with blanket insulation. All heating hot water supply and return piping and condensate drain piping shall be insulated with fiberglass insulation. Ductwork 20 feet up and downstream of RTUs and 10 feet downstream of VAV boxes shall be acoustically lined.

Electrical

Existing Conditions

Electric Service - The building is served from a Utility Company pole on the opposite side of Mercer Street. The power cables are routed overhead to the front of the building. The Utility Company meter is located on the front of the building (Fig. E-1). The electrical service equipment is located in the basement. The service cables enter the 150 ampere (A) service panel (Panel 'A') (Fig. E-2). The service voltage is 120/240, single phase. It was adequate for the previous use of the building but will not be adequate for the proposed use.



Fig. E-1- Utility Company Meter



Fig. E-2- Main Service Panel A and Panel B

Distribution - There are three electric panels in the building. The main panel, panel 'A' is fed directly from the Utility Company. This panel has an inspection sticker on it from 1991.

Panel 'A' has a 100A circuit breaker to feed the adjacent, electric panel (Panel 'B') (Fig. E-2). It also has a 60A circuit breaker that feed the second floor panel. (Fig. E-3). Panel 'B' has an inspection sticker on it from 1999. Wiring - The service entry cables, from the Utility Company, are within three feet of an operable window and a violation of the National Electrical Code (Fig. E-4).



Fig. E-3- Second Floor Panel



Fig. E-4- Service Wire Too Close to Window

The majority of the wiring is flexible, metallic, jacketed cable. There is some non-metallic jacketed cable which is not permitted in commercial buildings (Fig. E-5).

The wiring is unsupported and unsecured in many locations which is a violation of the National Electrical Code (Fig. E-6 & 7).

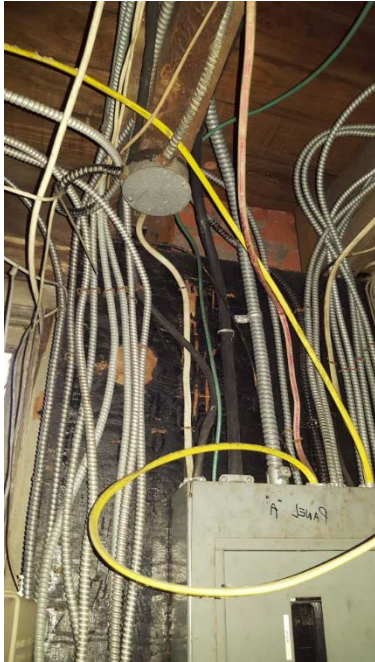


Fig. E-5- Non-metallic Jacketed Wiring Examples



Fig. E-6- Unsecured wiring and conduit.



Fig. E-7- Wiring not secured per the National Electrical Code

Devices - The receptacles are grounded, three prong type receptacles. Extension cords are being used in lieu of permanent receptacles which is a code violation (Fig. E-8).



Fig. E-8- Extension cords used in place of permanent receptacles.

Lighting - The majority of the lighting is fluorescent and appears to be from the 1980's. They contain the older, T12 lamps which are being discontinued by the Department of Energy.

The main fixtures used in the building are 1' x 4', surface mounted fluorescent fixtures. There are also recessed 2' x 4' fluorescent fixtures (Fig. E-9& 10).



Fig. E-9- Typical Fluorescent Lighting Fixtures



Fig. E-10- Recessed Fluorescent Lighting Fixtures

The exit signage is fluorescent (Fig. E-11).

The exterior lighting consists of flood lighting and wall mounted fixtures. (Fig. E-12 & 13).



Fig. E-11- Exit Signage



Fig. E-12- Exterior Wall Mounted Lighting



Fig. E-13- Exterior Wall Mounted Lighting

Emergency Egress Lighting - Limited self-contained, battery powered, lighting units were installed to provide lighting in the event of a power failure.

The area outside of each building exit is required to have emergency lighting. The building does not have this lighting at all exits.

The emergency egress lighting must be maintained and records kept of their maintenance.

Energy Code Compliance - There are no motion or daylight sensors in the building.

Fire Alarm System - The building was protected by a SimplexGrinnell 4006, combination fire alarm panel (Fig. E-14). The panel is located in the lobby. Smoke and heat detection and manual pull stations are provided throughout the building (Fig. E-15). The panel had two telephone lines tied into it that would transmit alarms to the central station for monitoring.



Fig. E-14- Fire Alarm Panel



Fig. E-15- Fire Alarm Pull Station

Condition of System

Electric Service - The service equipment appears in fair condition.

Wiring - The wiring installation is fair condition.

Flexible metallic cable is required to be secured within 12" of panels and junction boxes by the current edition of the National Electrical Code. There are many cables that are not properly secured.

Non-metallic jacketed cable (Romex) has been used in the building. This is not allowed by current code.

Lighting - The fluorescent fixtures are generally from the 1980's with outdated lamps.

Emergency Egress Lighting - The emergency lighting appeared to be in good condition.

Fire Alarm System - The fire alarm system is adequate for the current building usage. There alarm horns and strobes do not meet current code.

Recommendations

Existing Building

Electric Service - The electric service should be upgraded to suit the new use of the building and increase air conditioning loads. Consideration should be given to relocating the electric service underground to remove the code violation and improve the appearance of the building.

Distribution - The electrical panels should be replaced and augmented to accommodate the new usage.

Wiring - All wiring should be replaced

The Romex wiring should be removed and replaced, as the compliance with the National Electrical Code is questionable in concealed locations.

Lighting - Exterior emergency lighting should be augmented to cover the egress paths from the building.

All fluorescent lighting should be replaced.

The exterior lighting should be replaced.

Emergency Egress Lighting - All exit and emergency egress lighting should be replaced or relocated to accommodate the new architectural layout.

Energy Code Compliance - Vacancy sensors are required to be installed to reduce energy usage. Exterior lighting must also be controlled on timeclocks to shut down after hours with the exception of safety lighting.

Fire Alarm System - The system should be replaced in its entirety to suit the new program.

New Building

Electrical Service and Distribution - Provide a new outdoor pad mounted transformer with a secondary voltage of 208/120V. A new utility pole may be required. All HVAC units, mechanical equipment above ½ Horsepower and elevators shall be powered at 208 volts, 3 phase.

Power service metering will be provided in accordance with the utility company requirements.

Separate panel boards shall be provided for lighting and general power.

Emergency Power - An emergency generator shall be provided to serve the emergency lighting, air conditioning for the police command center and miscellaneous loads.

Branch Circuit and wiring criteria - Lighting - On a 1 pole, 20 ampere, 120 volt branch circuit, an average of 1200 watts and a maximum of 1440 watts.

Convenience Receptacles on a 1 pole, 20 ampere, 120 volt branch circuit, an average of 6 receptacles, maximum of 8.

Workstation equipment receptacles -On a 1 pole, 20 ampere, 120 volt, branch circuit, maximum 4 receptacles per circuit.

All motors 1/2 horsepower and larger shall be three phase.

Minimum starter size is NEMA 1 for three phase motors.

Lighting and branch circuit wiring will be installed concealed in hung ceilings and walls in all finished areas. Exposed conduit will be permitted in mechanical areas.

Conduits run exposed in mechanical areas will be intermediate metal conduit (IMC).

Rigid galvanized steel conduit will be used for all conduits exposed to outdoor environment.

Electric metallic tubing with compression or set screw fitting will be used for feeders.

Flexible metallic Cable (MC) will be permitted to the extent allowed by code, except as noted above.

Minimum conduit size will be 3/4".

Surface mounted wiremold or raceway will not be permitted for new work.

Wiring will be copper with type THW or THHN insulation, rated at 600 volts. All terminations, splices and taps will be compression type.

Receptacles:

- General purpose receptacles, 120V.
- Ground fault interrupting duplex (GFI) receptacles will be provided at all locations within six feet of water faucets, sinks, wash fountains, and outside locations, 120V.
- Convenience duplex receptacles will be provided for all maintenance, mechanical, and electrical rooms, 120V.
- Computer and convenience receptacles will be provided in all offices, conference rooms, and reception areas, 120V. Computer receptacles shall be double duplex, non-isolated ground type.

Lighting-All lighting will utilize light emitting diodes (LEDs).

Lighting switches, contactors, motion sensors, etc. provided will meet the current standards and energy requirements.

Grounding - Grounding equipment will be provided per the NEC for each distribution panel, panel board, transformer, motor starters, branch panel boards, wiring system, etc.

A green insulated equipment ground will be provided per the NEC for all feeders and branch circuit homeruns.

All electrical devices will be grounded as provided by the device ground screw as provided by the manufacturer.

Fire Detection and Alarm system - A manual fire alarm system or automatic fire detection system is not required for this building classification.

The fire protection system will involve a microprocessor based, addressable, electronic monitoring system. The system will include, but not limited by, the following parameters.

Fire detection including duct mounted smoke detectors if required.

Alarms including horns and ADA flashing visual strobes.

Fire protection system water flow detection and valve position indicator if required.

Door unlocking devices and magnetic door releasing devices.

Fire alarm control panel, including:

- Fire detection and alarm annunciation and control
- Door unlocking and holding annunciation and controls.
- Air Handling Unit shut down.

Telecommunications - Infrastructure cable tray or raceway systems will be provided for the owner's telecommunication (voice and data), cable television, and security system.

Seismic Requirements - Emergency operations centers are required to remain operational after a disaster. Seismic bracing and proper equipment rating will be required.

Plumbing

Existing Conditions

Domestic Water - The building is currently supplied with domestic water from a 1" domestic service connected to a public water supply (Fig. P-1). The water service enters the building from Mercer Street and enters the building from through the west basement wall. The 1" line feeds through a 1" water meter equipped with a remote readout device. The exterior shut-off valve is located in the apron of the driveway.

Hot water is currently provided by a gas fired, standard efficiency, tank type water heater (Fig. P-2) located in the basement. The water heater is vented through the existing chimney on the east side of the building.

- HWH-1
 - Manufacturer: A.O. Smith
 - Model: ProMax FCG 40 248
 - Serial: GB03-1261166-248
 - Capacity: 40 Gal.
 - Recovery Rate: 38.9 Gal./Hr.
 - Gas Input: 38 MBH
 - Manufacture Date: 02/2003



Fig. P-1-Water Meter and Pressure Reducing Valve



Fig. P-2-Water Heater

The hot and cold water piping typically runs within the basement (Fig. P-3) and rises within walls or through the floor to feed plumbing fixtures on the first and second floors.



Fig. P-3-Water Piping in Basement

The domestic water piping throughout the building consists of copper or brass piping with soldered and threaded fittings. The cold and hot water piping is not insulated. A recirculation system is not used to maintain water temperature.

An active hose bib is located on the east side of the building. Another hose bib is located on the south side of the building. (Fig. P-4, P-5).



Fig. P-4- Hose Bibb (EastWall)



Fig. P-5- Hose Bibb (South Wall)

Sanitary - The building is currently equipped with one sanitary service.

The service is a 4" sanitary service which exits the building through the south basement wall (Fig. P-6), and runs to Mercer Street. An exterior cleanout is located in the landscaping and another in the existing driveway. This system is connected to the public sewer system.



Fig. P-6 – Sanitary Sewer Service Entrance

The plumbing fixtures are individually vented per current code requirements.

Sanitary and vent piping is comprised of multiple piping types. These piping types consist of schedule 40 PVC, ABS, copper DWV, and cast iron (Fig. P-7, P-8).



Fig. P-7 – PVC Sanitary Piping to First Floor



P-8- ABS Piping to First Floor



Fig. P-9- Improperly Abandoned Sanitary Piping



Fig. P-10- Improperly Abandoned Sanitary Piping

Natural Gas - The building currently utilizes natural gas for space heating and domestic hot water. A 1" gas service enters the building in the basement through the south wall of the building (Fig. P-12). The gas meter is located outside above grade (Fig. P-11). The gas main to the meter extends from Mercer Street. The gas piping is comprised of schedule 40 threaded steel.



Fig. P-11- Gas Meter



Fig. P-12 – Interior Gas Service Entrance

Gas service is provided by PSE&G. The existing meter number is: 3227785.

Previously the gas piping entered the building below grade. The former stub-in and shut-off valve has been abandoned in place (Fig. P-13).



Fig. P-13- Abandoned Gas Service Entrance



Fig. P-14 – Typical Toilet

Plumbing Fixtures - Plumbing fixtures are located on the first and second floors. The majority of the plumbing fixtures are light commercial type fixtures.

One of the first floor rooms utilized for daycare has a toilet room with baby bowl toilets (Fig P-15) .and child height lavatory and sink (Fig.P-16).



Fig. P-15- Baby Bowl Toilets



Fig. P-16 – Day Care Lavatory and Sink

A few floor mounted urinals have been disconnected and abandoned in place in the basement (Fig P-21). The bottom of these fixtures has been filled in with concrete.

Toilets are all floor mounted tank type toilets, approximately 1.6 gallons per flush (Fig. P-14).

Most lavatories are a combination of countertop mounted and wall mounted fixtures (Figs. P-17, P-18). All lavatories utilize manually operated faucets.



Fig. P-17- Countertop Lavatories



Fig. P-18 – Service Sink and Wall Mounted Sink

One electric water cooler is located on the second floor (Fig. P-19).

One service sink is located on the second floor (Fig. P-18).

A kitchenette with sink and electric stove is located on the first floor (Fig P-20).



Fig. P-19- Electric Water Cooler



Fig. P-20- Kitchenette



Fig. P-21- Abandoned Urinals

Storm Drainage - The building utilizes a gutter and downspout system to collect rainwater and discharge to grade (Fig. P-22, P-23). Gutters are typically located above the existing entry ways. However, the majority of the roof is no longer provided with gutters (Fig. P-22, P-24). Allowing the rainwater to run off the edges of the roof and drop to grade around the perimeter of the building.

The building is not equipped with a sump pump.



Fig. P-22- Gutters and Downspouts at Rear Entrance, The Remaining Roof Area Missing Gutters and Downspouts



Fig. P-23- Gutters and Downspout at Front Entrance



Fig. P-24- Location Where Downspout Appears to Have Been Removed

Fire Protection - The building is not equipped with a fire suppression system.

Condition of System

Water - Backflow prevention is not provided at the domestic water service entrance.

The distribution piping is in fair condition.

The water heater is approximately 14 years old, in fair condition, but at the end of its expected service life. The water heater was not provided with an expansion tank.

Sanitary - The interior sanitary piping system appears to be in good condition.

The original sanitary service was located below the basement floor and has been abandoned in place. At locations where piping has been disconnected and re-routed, the underground piping is not typically properly capped (Fig. P-9, P-10).

Natural Gas - The natural gas piping within the building appears to be in good condition.

Currently the natural gas system supplies the steam boiler and the domestic water heater. The gas pressure appears to be a low pressure between 4-7 inches water column, as is typical for this type of building.

Plumbing Fixtures - The plumbing fixtures are in fair condition and meet the required minimum water efficiency requirements. The lavatory indicated to be ADA use is not provided with water piping insulation or covers to protect the user.

Storm Drainage - The roof drainage system appears to be minimal and in poor condition.

The basement shows signs of prior flooding and water infiltration.

Recommendations

Existing Building

Water - Per current code requirements the existing water service is undersized for the proposed building renovations. It is recommended that the service be increased to a 2" water service to allow for the use of flush valve toilet fixtures. If the use of tank type toilets is preferred, the water service could be provided at 1-1/2".

The existing cold and hot water distribution piping will need to be replaced to accommodate the proposed renovations. All new piping should be Type L copper with soldered or threaded fittings. Insulate all water piping to meet current energy code requirements.

double check backflow preventer should be provided at the service entrance. The make-up water connection to the hydronic heating system shall be provided with a reduced pressure zone type backflow preventer.

The water heater should be replaced with new and adequately sized to meet the requirements of the facility. The water heater should also be provided with an appropriately sized expansion tank. A new hot water recirculation loop and pump shall be provided. A mixing valve may be required to code compliant distribution temperatures, while storing water at a higher temperature to avoid the growth of contaminants in the storage tank or piping.

Sanitary Drainage - An interior video inspection of the underground sanitary piping should be performed to determine if there are any breaks or obstructions.

The size and capacity of the existing sanitary system is adequate for the proposed renovations. However, the entire system within the building will need to be replaced to serve the new locations of plumbing fixtures.

The proposed plumbing fixtures for the basement level will require the installation of a drain pump or sewage ejector if the existing sanitary service is to be re-used.

It is recommended that the new piping should be Schedule 40 Hubless Cast Iron with CISPI shielded couplings. This system provides much better sound attenuation and is less susceptible to damage. As an alternative, Schedule 40 Solid Core PVC with solvent weld fittings may be considered. This system will transmit more noise but is generally lighter and easier to assemble. However there are code limitations to using PVC, it is not permitted to be located in a return air plenum.

Natural Gas - The gas piping system will need to be evaluated to confirm adequate capacity based on changes to the heating system. It is anticipated that the water heater will be relocated, so new branch piping will be required to the new unit.

Gas piping shall be Schedule 40 steel with threaded or welded fittings.

Plumbing Fixtures - All new plumbing fixtures shall be provided throughout the building.

It is recommended that the new toilets should be 1.28 gallon per flush, sensor operated flush valve fixtures. These may be hard wired or battery operated. The toilets may also be wall mounted or floor mounted as the construction of the new toilet rooms allow.

Public lavatories are required to be provided with self-closing faucets. The new faucets should be 0.5 gallon per minute sensor operated fixtures. These may be hard wired or battery operated. They shall also be provided with a tempering valve or temperature limiting device.

ADA accessible plumbing fixtures should be provided with protective covers to prevent injury.

A service sink shall be provided on each floor to comply with plumbing code. It is recommended that a floor mounted sink be provided at each location for ease of use with a mop bucket.

In a Business occupancy one drinking fountain is required for every 100 occupants. At a minimum one drinking fountain or electric water cooler should be provided on the first floor. The actual occupant load of the building will need to be determined to decide if a second drinking fountain is required. However, for convenience a drinking fountain on the second floor would also be recommended.

Floor drains will be required to be provided in the public toilet rooms and boiler room. It is recommended that these drains are provided with automatic trap primers.

Storm Drainage - It is recommended that the existing roof drainage system be replaced and expanded.

A drainage system and/or sump pump should be provided for the basement.

A sump pump with oil minder controls shall be provided for the elevator pit.

Fire Protection - In general a Business occupancy is not typically required to be provided with a fire suppression system. However, there are some conditions within the proposed building that will require a fire suppressions system to be provided.

In both proposed options the basement level appears to meet the classification of a windowless story greater than 3,000 square feet but less than 10,000 square feet. Therefore this level will require fire suppression.

Option "C" locates the court room on the second floor. This space is an A-3 assembly occupancy. Based on current code requirements, fire suppression is required when this space is located on a floor other than a level of exit discharge.

It is required for the building layout of Option "C" to be provided with a full fire suppression system.

As noted above, in Option "D" the basement is a windowless story. However, the court room is located on the exit level of discharge. A fire suppression system is not required for the first and second floors. At a minimum a partial fire suppression system is required for the basement. However, it is recommended that a full fire suppression system be provided for the entire building.

A full fire suppression system for the building will require a 4" to 6" fire service to be extended from the water supply system. A hydrant flow test will be required to determine the available water flow and pressure.

Fire sprinkler piping shall be Schedule 40 steel with grooved or threaded fittings.

New Building

Water - A new 2" domestic water service will be required to adequately serve the proposed building. A double check backflow preventer should be provided at the service entrance.

The make-up water connection to the hydronic heating system shall be provided with a reduced pressure zone type backflow preventer.

All new piping should be Type L copper with soldered or threaded fittings. Insulate all water piping to meet current energy code requirements.

A high efficiency gas fired water heater shall be provided for domestic hot water. A mixing valve may be required to code compliant distribution temperatures, while storing water at a higher temperature to avoid the growth of contaminants in the storage tank or piping.

Sanitary Drainage - A minimum of a 4" sanitary service will be required to adequately serve the proposed building. It is recommended that the new piping should be Schedule 40 Hubless Cast Iron with CISPI shielded couplings. This system provides much better sound attenuation and is less susceptible to damage. As an alternative, Schedule 40 Solid Core PVC with solvent weld fittings may be considered. This system will transmit more noise but is generally lighter and easier to assemble.

The proposed location of the building is at a lower elevation than the existing building. The site utilities will need to be investigated to determine the location and invert of the existing sanitary sewer system to determine if a sewage ejector or pump station may be required. If services are available, a connection at Morrison or Railroad Avenues may be better than Mercer Street.

Natural Gas - A new gas service adequately sized to support the space heating and domestic hot water requirements shall be provided.

Gas piping shall be Schedule 40 steel with threaded or welded fittings.

Plumbing Fixtures - All new plumbing fixtures shall be provided throughout the building.

It is recommended that the new toilets should be 1.28 gallon per flush, sensor operated flush valve fixtures. These may be hard wired or battery operated. The toilets may also be wall mounted or floor mounted as the construction of the new toilet rooms allow.

Public lavatories are required to be provided with self-closing faucets. The new faucets should be 0.5 gallon per minute sensor operated fixtures. These may be hard wired or battery operated. They shall also be provided with a tempering valve or temperature limiting device.

ADA accessible plumbing fixtures should be provided with protective covers to prevent injury.

A service sink shall be provided to comply with plumbing code. It is recommended that a floor mounted sink be provided for ease of use with a mop bucket.

A drinking fountain or electric water cooler is required per the plumbing code.

Floor drains will be required to be provided in the locker rooms and boiler room. It is recommended that these drains are provided with automatic trap primers.

The Holding Cells should be provided with Penal Fixtures appropriate to the building.

Storm Drainage - A roof drainage system should be provided. This could be a combination of roof drains and interior leaders or exterior gutters. If interior leaders are provided, the piping should be Schedule 40 Hubless Cast Iron with CISPI shielded couplings.

Fire Protection - As a single story business occupancy, the building is not required to be provided with a fire suppression system. If a fire suppression system is desired, a minimum of a 4" fire service would be required. A hydrant flow test will be required to determine the available water flow and pressure.

Fire sprinkler piping shall be Schedule 40 steel with grooved or threaded fittings.

SECTION 6 - SITE AND CIVIL NOTES

PREPARED BY ROBERTS ENGINEERING GROUP, LLC

Site and Civil Notes:

Introduction

The analysis of the existing building at 230 Mercer Street Hightstown, NJ 08520 is based on the following information:

- A site survey, performed on April 10th, 2017 to identify existing conditions as described in the executive summary.

Proposed Site Concept Narrative

In general, the concept includes one new building, approximately 2,000 SY of new pavement (6" DGA, 4" base, 2" surface), 1,500 LF concrete curb, 125 SY concrete sidewalk, pavement striping as shown, 2 new reinforced concrete driveway aprons, 20 SY bituminous trail, and one detention basin.

Proposed Site Concept Specifics

A total of 46 parking spaces are provided. Of the 45, 16 are reserved for police parking only. I have not yet been able to confirm with the Police Department how many spaces they require.

Two driveways at Mercer Street. Each driveway provides one-way access.

One trash enclosure on the northeasterly Mercer Street Driveway

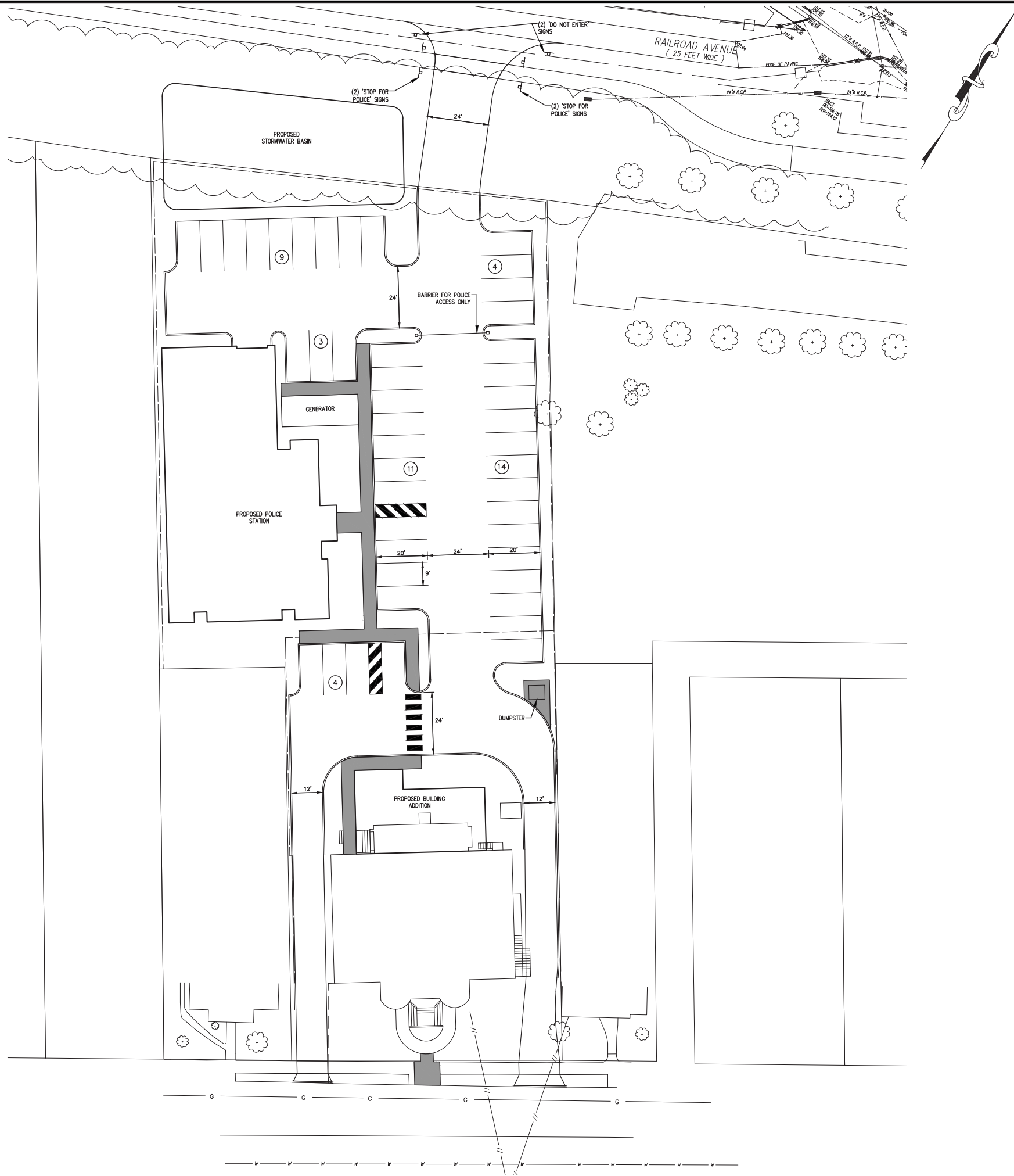
One emergency generator on the north end of the proposed police station. Due to NJDEP noise limitations it appears that the only other feasible location for the generator would be on the roof of the new building. The generator would be approximately 10,000 lbs.

Although not shown on the plan, bollards would be required on both Mercer Street driveways near the existing building. The bollards would be placed in lieu of curb along the existing building.

A detention basin is shown at the rear of the property. It extends beyond the property line and into the old Railroad Right-Of-Way. This area is owned and maintained by the Borough. Trees would have to be removed in order to accommodate the proposed basin. Basin overflow can be connected to an existing storm sewer along the Railroad Right-Of-Way to the rear.

Barriers (stationary gate) on the greenways trail at the rear of the site where the new police driveway crosses. The greenway will also have to be replaced with bituminous pavement as the existing cross section is not sufficient for vehicular use.

Signage and gates allowing only police access to the rear parking lot and driveway onto Railroad Avenue.



LEGEND

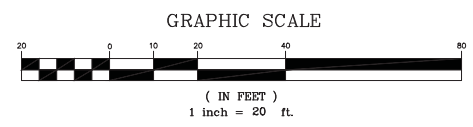
EXISTING

- EXISTING STREET ROW LINE
- EXISTING CONCRETE CURB
- EXISTING CONTOURS
- EXISTING SPOT ELEVATION
- EXISTING TREE
- EXISTING DRAINAGE PIPE
- EXISTING UTILITY POLE
- EXISTING PARKING LOT LIGHT
- EXISTING INLETS
- EXISTING WATER SERVICE
- EXISTING GAS SERVICE
- EXISTING OVERHEAD WIRES
- EXISTING FENCE
- EXISTING MANHOLE
- EXISTING WATER VALVE
- EXISTING GAS VALVE
- EXISTING STREET LIGHT

PROPOSED

- PROPOSED INLET PROTECTION
- PROPOSED DRAINAGE PIPE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BIT. DRIVEWAY REPAIR
- PROPOSED PAVEMENT BASE REPAIR
- PROPOSED TOPSOIL, FERTILIZER, SEED, AND MULCH
- PROPOSED TREE REMOVAL
- PROPOSED ELEVATION
- PROPOSED INLET
- PROPOSED INLET GRATE REPLACEMENT
- PROPOSED MANHOLE

- GENERAL NOTES:**
1. THIS PLAN REFLECTS EXISTING SITE CONDITIONS AS THE RESULT OF AERIAL PHOTOS, TAX MAPS, AND LIMITED SITE INVESTIGATION PERFORMED BY ROBERTS ENGINEERING GROUP, LLC.
 2. RIGHT-OF-WAY AND PROPERTY LINE INFORMATION ARE APPROXIMATE AND ARE BASED UPON TAX MAP INFORMATION AND LIMITED FIELD SURVEYING.
 3. THIS PLAN IS NOT INTENDED TO GUARANTEE OWNERSHIP. DOCUMENTS OF RECORD WHICH MAY HAVE BEEN REVIEWED AND CONSIDERED AS PART OF THIS PLAN OF SURVEY ARE NOTED HEREON AND HAVE BEEN OBTAINED BY ROBERTS ENGINEERING GROUP, LLC. THERE MAY EXIST OTHER DOCUMENTS OF RECORD WHICH WOULD AFFECT THIS PLAN.
 4. ONLY COPIES OF THE ORIGINAL OF THIS PLAN CLEARLY MARKED WITH THE ENGINEER'S EMBOSSED SEAL SHALL BE CONSIDERED A VALID COPY.
 5. BLOCK AND LOT NUMBERS AS SHOWN HEREON ARE BASED UPON THE TAX MAPS OF THE BOROUGH OF HIGHTSTOWN, MERCER COUNTY, NEW JERSEY.
 6. THIS PLAN IS SUBJECT TO ANY EASEMENTS OR AGREEMENTS, WHICH MAY OR MAY NOT BE OF THE PUBLIC RECORD AND DISCLOSED AT THE TIME OF AN ABSTRACT OF TITLE OR TITLE SEARCH, WHICH MAY BE LOCATED BELOW THE SURFACE OF THE LANDS AND NOT VISIBLE AT THE TIME OF SURVEY. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED UPON ABOVE GROUND STRUCTURES VISIBLE AT THE TIME OF THE FIELD SURVEY AND RECORD OR AS-BUILT DRAWINGS PROVIDED TO ROBERTS ENGINEERING GROUP, LLC.
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 8. ALL BUILDINGS, SURFACE AND SUBSURFACE IMPROVEMENTS, ON OR ADJACENT TO THE SITE ARE NOT NECESSARILY SHOWN.
 9. HORIZONTAL AND VERTICAL DATUMS ARE ASSUMED.



NO.	DATE	REVISIONS	BY	CHECKED

CONCEPTUAL SITE PLAN

SITE EVALUATION FOR BOROUGH HALL

Block-60 , Lot-17

BOROUGH OF HIGHTSTOWN, MERCER COUNTY, NEW JERSEY

Roberts
ENGINEERING GROUP LLC
New Jersey
www.RobertsEngineeringGroup.com

CARMELA ROBERTS, P.E.

LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LIC. No. 34419

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SCALE: 1"=20'
DWG. No. SC1
SHEET No. 1 OF 1

SECTION 7 - DESIGN PROCESS AND PHOTOS / PREFERRED CONCEPT PLANS

Conceptual Design Process

Exploring

Once the program was finalized, Clarke Caton Hintz prepared a series of concept options to test out various strategies for site. Each concept organized and renovated the existing building for municipal offices as well as community space. The Police Department was always envisioned as a stand alone structure. The Municipal Court was designed differently in each option, either as part of the police station, an addition to the rear of the existing building or included within the existing building.

Having consulted with our engineering partners, we were able to establish the appropriate location for larger capacity rooms based on the existing structural loading capacities as well as determine the appropriate location for building infrastructure and utilities. In each concept option, the site was also studied to create on site public parking, dedicated parking for police vehicles and enhanced vehicular circulation and access to Railroad Avenue. A summary of the concept options are as follows. These can be found in Appendix B.

Concept A: Renovate existing building for municipal offices, stand-alone building for police and courts, parking lot for 33 vehicles, no dedicated parking for police vehicles, access to Railroad Avenue

Concept B: Renovate existing building for municipal offices with proposed addition for municipal court, stand-alone police building, parking lot for 40 vehicles inclusive of dedicated lot for 9 police vehicles, access to Railroad Avenue

Concept C: Renovated existing building for municipal offices and courts (second floor) with addition for accessibility, stand-alone police building, parking lot for 40 vehicles inclusive of dedicated lot for 8 police vehicles

Concept D: Renovated existing building for municipal offices and courts (first floor) with addition for accessibility, stand-alone police building, parking lot for 40 vehicles inclusive of dedicated lot for 8 police vehicles

Preferred Concept Design

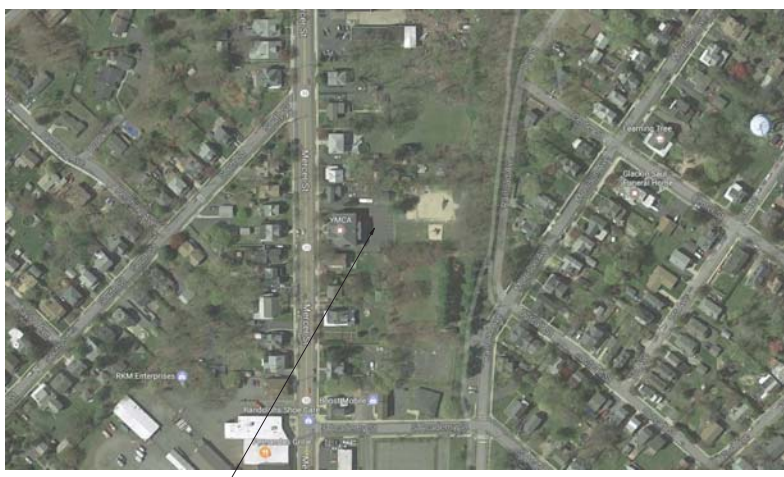
Clarke Caton Hintz met with representatives of the Borough of Hightstown on two separate occasions to evaluate the various concept options. Based upon the feedback we received, it was decided that Concept D was the preferred design. The refined plans, attached, form the basis of the conceptual level cost estimate.

The preferred concept option renovates the existing building for reuse as municipal offices and the municipal court. A small addition will be added to address accessibility through the use of a new stair and elevator. In addition, new accessible restrooms will be constructed. These plans can be found on the following page.

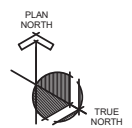
MUNICIPAL BUILDING COMPLEX THE BOROUGH OF HIGHTSTOWN NEW JERSEY

HIGHTSTOWN, NEW JERSEY

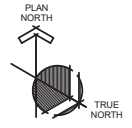
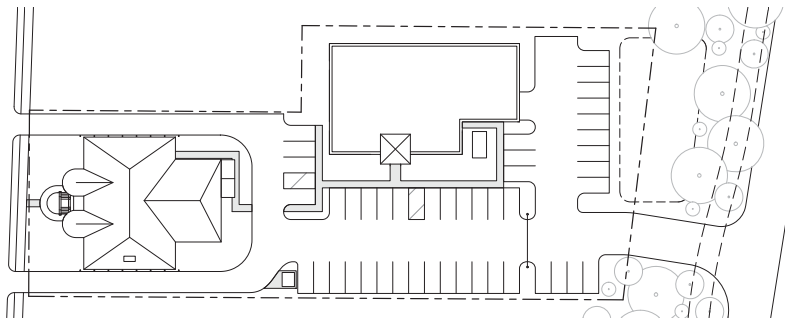
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SITE



AERIAL PLAN
SCALE: NTS



SITE PLAN
SCALE: 1" = 40'-0"



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(609) 243-9287 F

CIVIL ENGINEER
ROBERTS ENGINEERING GROUP, LLC
1670 Whitehorse Hamilton Square Rd.
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Clarke Caton Hintz

Architecture
Planning
Landscape Architecture



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HIGHTSTOWN MUNICIPAL
BUILDING COMPLEXHIGHTSTOWN
BOROUGH

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SITE PLAN

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A-100

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(609) 596-1143 F

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SITE PLAN

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Architecture
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EXISTING BUILDING -
BASEMENT FLOOR
PLAN

DRAWING NO.:

A-101

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HIGHTSTOWN
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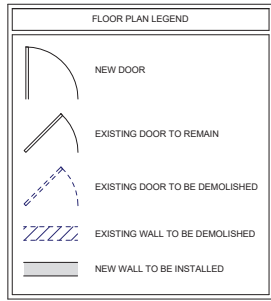
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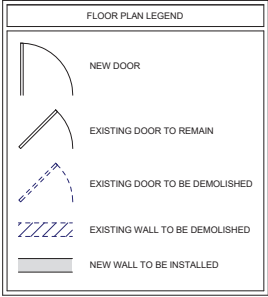
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BOROUGH

CCH PROJECT NO: 1976

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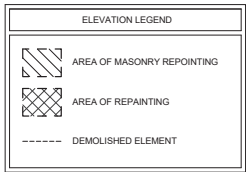


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(609) 243-9287 F

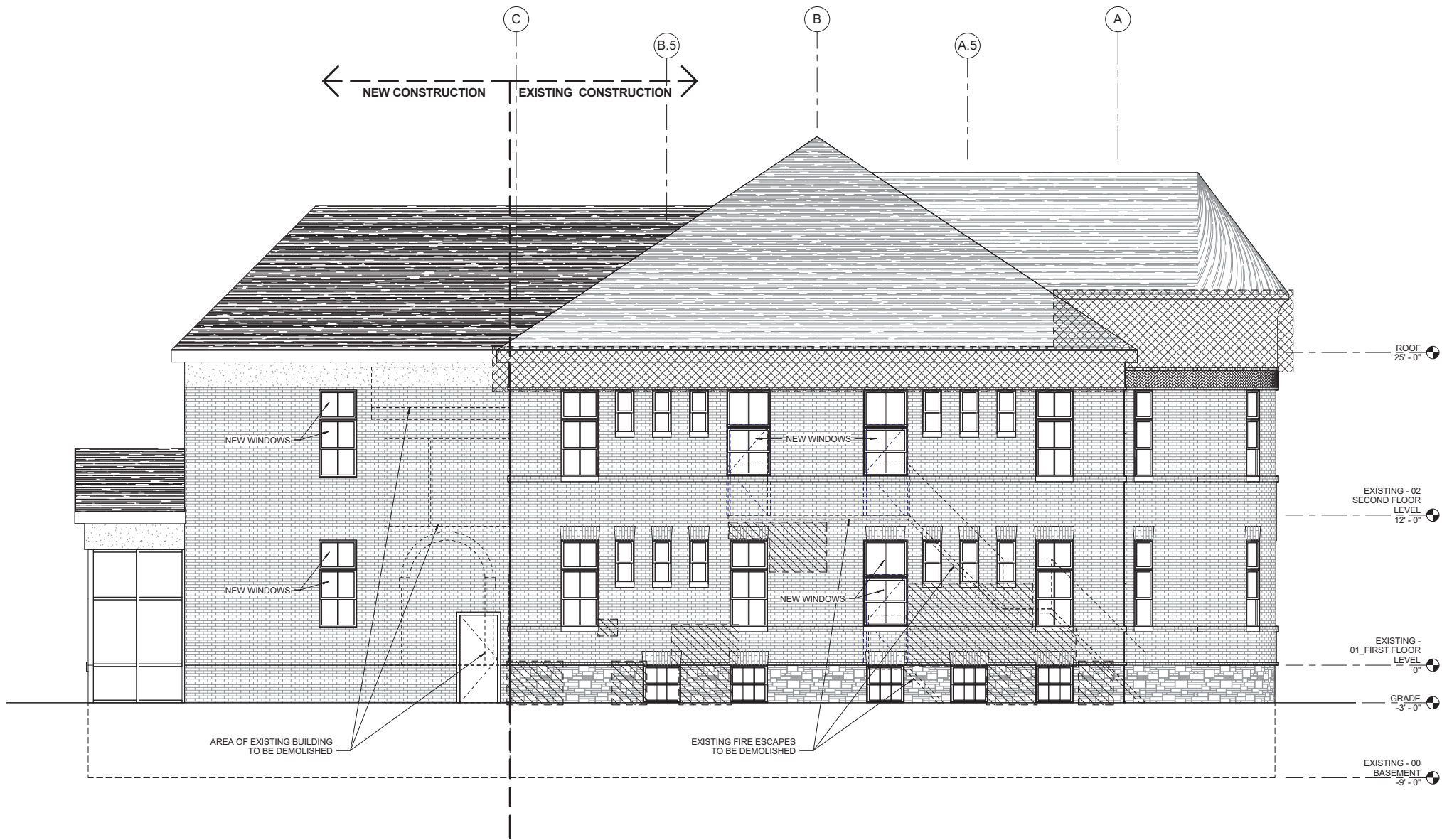
[illegible]HIGHTSTOWN
BOROUGH

SHEET TITLE:
EXISTING BUILDING -
NORTH ELEVATION

A-201



1 NORTH ELEVATION
1/4" = 1'-0"



ELEVATION LEGEND	
	AREA OF MASONRY REPOINTING
	AREA OF REPAINTING
	DEMOLISHED ELEMENT

1 WEST ELEVATION
1/8" = 1'-0"

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Clarke Caton Hintz
Architecture
Planning
Landscape Architecture

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HIGHTSTOWN MUNICIPAL
BUILDING COMPLEX

HIGHTSTOWN
BOROUGH

DATE: 05/15/17
SCALE:
DRAWN BY: DZ & BN
CHECKED BY: MH

SHEET TITLE:
EXISTING BUILDING -
WEST ELEVATION

DRAWING NO.:

A-204

CCH PROJECT NO: 1976

FEASIBILITY REPORT - NOT FOR CONSTRUCTION

SECTION 8 – COST ESTIMATE

Summary

The total anticipated project cost for the new Borough of Hightstown Municipal Complex, inclusive of soft cost, but exclusive of land acquisition costs, is \$7,642,000. Refer to the cost estimate on the following pages for an itemized breakdown of the projected costs.

Value Engineering

In addition, we have developed the following value engineering items identifying potential cost savings:

- | | |
|---|-----------|
| 1. Reduce Police Station footprint to 5,000 SF: | \$278,000 |
| 2. Single lane access drive to Railroad Avenue: | \$5,000 |
| 3. Do not repave Railroad Avenue: | \$267,000 |
| 4. Do not fit-out Court offices: | \$56,000 |
| 5. Eliminate bollards: | \$16,000 |
| 6. Eliminate vehicular gate: | \$7,000 |

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

ESTIMATE SUMMARY

CODE	DESCRIPTION				COST
	Phase 1 - Renovation	10,260	SF	\$152	\$1,560,000
	Phase 1 - Addition	3,000	SF	\$492	\$1,477,000
	Phase 2 - Police Station	6,080	SF	\$442	\$2,690,000
	Phase 3 - Renovation	6,730	SF	\$74	\$498,000
	Phase 4 - Exterior Envelope				\$347,000
	Site				\$1,070,000
	Total				\$7,642,000

Notes

Costs are current for Spring 2017; escalation is not included
Hazardous Materials Removal/Remediation is not included
Rock Excavation is not included
Dewatering not included
Pricing assumes Competitive Bid; Minimum 3 Bidders
Loose Furniture is not included
See Transmittal For Basis of Estimate & Additional Conditions

VE ITEMS

1.	Reduce Police Station Footprint	1	LS		See Tab Below
2.	Access Drive as One Way ILO 2 Ways	1	LS	Deduct	\$5,000
3.	No Repaving @ Railroad Ave	1	LS	Deduct	\$267,000
4.	No Fitout @ Court Offices	1	LS	Deduct	\$56,000
5.	No Bollards	1	LS	Deduct	\$16,000
6.	No Vehicular Swing Gate	1	LS	Deduct	\$7,000

N.B. VE Items Include Markup

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

Phase 1 - Renovation
ESTIMATE SUMMARY

CODE	DESCRIPTION	10,260	SF	COST
A	Interior Fitout & Finishes		\$23	\$234,960
B	Sprinklers & Plumbing		\$10	\$106,980
C	HVAC		\$51	\$521,730
D	Electrical		\$19	\$198,180
	Subtotal			\$1,061,850
	General Conditions / O. H. & P.	15.0%		\$159,150
	Bond	1.0%		\$12,000
	Contingency	15.0%		\$185,000
	Subtotal		\$138	\$1,418,000
	Architects & Engineering Fees *	10.0%		\$142,000
	Total Project		\$152	\$1,560,000

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
A	Interior Fitout & Finishes				
A1	<u>Demolition</u>				0
A2	Temporary Protection Allowance	1	LS	2,500.00	2,500
A3	Exterior Stair Addition - Roofing/Floors/Framing/Etc.	1	LS	20,000.00	20,000
A4	- Foundations/Footings/SOG	1	LS	3,600.00	3,600
A5	Exterior Stairs & Landings	1	LS	2,500.00	2,500
A6	Roofing - Asphalt Shingles & Flashing	1	LS	-	Existing To Remain
A7	Interior Partitions	200	LF	15.00	3,000
A8	Interior Doors & Frames	10	EA	200.00	2,000
A9	Finishes - Flooring Throughout/VCT/Carpet/CT/Etc	3,530	SF	1.00	3,530
A10	- Ceilings/DW/ACT	3,530	SF	1.00	3,530
A11	Wall Opening @ New Door/Reframe	2	EA	500.00	1,000
A12	Misc Removals - Assume Minor/Allowance	1	LS	2,500.00	2,500
A13	<u>New Construction</u>				0
A14	Structural - Per Narrative				0
A15	- Install New Steel Beams/Columns/Not Sized/Allow	1	LS	25,000.00	25,000
A16	- Floor Framing/Wd Joists	1	LS	-	Existing To Remain
A17	- Roof Framing	1	LS	-	Existing To Remain
A18	New Interior Stair - Wd Treads/Risers/Framing/Railings	25	R	750.00	18,750
A19	Partitions - DW/Mtl Stud/10' H Avg	170	LF	120.00	20,400
A20	- DW Infills	4	EA	525.00	2,100
A21	Doors/Hdw/Fr - Single	6	EA	1,500.00	9,000
A22	Transaction Windows	1	EA	1,500.00	1,500
A23	<u>Finishes</u>				0
A24	Flooring - Resilient/Carpet	3,530	SF	5.00	17,650
A25	- Stair Treads/Rubber	25	EA	100.00	2,500
A26	Base - Wd @ Courtroom	150	LF	15.00	2,250
A27	- Rubber	600	LF	4.00	2,400
A28	Walls - Ptd	10,000	SF	1.25	12,500
A29	Ceiling - DW	3,530	SF	10.00	35,300
A30	<u>Millwork</u> - Raised Dais @ Courtroom/12" H	210	SF	25.00	5,250
A31	- Wd Chair Rail & Wainscot @ Courtroom/36" H	420	SF	50.00	21,000
A32	- Courtroom Benches/20'L	4	EA	3,000.00	12,000
A33	<u>Specialties</u>				0
A34	- FEC/2 Per Floor	6	EA	450.00	2,700
A35	- Signage/Allowance	1	LS	500.00	500
A36					0
A37					0
A38					0
A39					0
A40					0
A41					0
A42					0
A43					0
A44					0
A45					0
A46					0
	Subtotal				234,960

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
B	Sprinklers & Plumbing				
B1	<u>Sprinklers</u>				0
B2	Fire Service Entrance - Trenching/Piping/DI/4"	1	LS	-	w/Site Utilities
B3	- BFP/DCDA/4"	1	EA	5,000.00	5,000
B4	Fire Pump/Jockey Pump - Assume Not Required	1	LS	-	NIC
B5	Wet Pipe System - Piping/Heads	10,260	SF	5.00	51,300
B6	- Alarm Check Valve/Pre-trimmed/4"	1	EA	3,500.00	3,500
B7	- Floor Control Valve Assembly/Assume 1 Per FL	3	EA	2,500.00	7,500
B8	- Testing Allowance/Hydrostatic/Main Drain/Etc	1	LS	1,500.00	1,500
B9	<u>Plumbing</u>				0
B10	Demolition - Plumbing Fixtures & Assoc Branch Piping	12	EA	300.00	3,600
B11	- DW/Sanitary/Vent Risers & Laterals/Throughout	10,260	SF	0.50	5,130
B12	- HW Heater/Circulation Pump	1	LS	1,000.00	1,000
B13	DW Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
B14	- BFP/DCDA/2"	1	EA	2,500.00	2,500
B15	- Water Meter/Assume Turbine 2"	1	EA	1,500.00	1,500
B16	Sanitary Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
B17	Gas Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
B18	- Pressure Regulator & Meter	1	LS	-	By Utility
B19	Water Heater - Gas/Not Sized/Allowance	1	EA	10,000.00	10,000
B20	- Expansion Tank/Bladder Type/Not Sized/Allowance	1	EA	1,500.00	1,500
B21	- Circulator Pump	1	EA	1,500.00	1,500
B22	- Thermostatic Mixing Valve/Master Mixer	1	EA	2,500.00	2,500
B23	Fixtures - WC/Auto Flush Valve	1	EA	1,250.00	1,250
B24	- Lavs/Free Standing/Metering Faucet	1	EA	800.00	800
B25	- Rough-in	2	EA	450.00	900
B25	Piping/Insul/Valves - Allowance Per Fixture	2	EA	3,000.00	6,000
	Subtotal				106,980
C	HVAC				
C1	Demolition - Boilers/Radiators/Misc Equip	10,260	SF	2.00	20,520
C2	- Steam & Hydronic Piping Throughout	10,260	SF	1.50	15,390
C3	Heating Equip - Boilers/Pumps/Etc/Not Sized/Allow	10,260	SF	10.00	102,600
C4	- Hydronic Piping/Insul/HWS&R	10,260	SF	3.00	30,780
C5	- Fin Tube Radiation @ Perimeter Walls	370	LF	100.00	37,000
C6	VRF System - No Details/Allowance	10,260	SF	10.00	102,600
C7	Cabinet Unit Heaters @ Vestibule & Stairwells	1	LS	5,000.00	5,000
C8	Ductwork/Insul - Sheet Metal/Galv/Allow .75 LB per SF	7,700	LB	15.00	115,500
C9	GRD	10,260	SF	1.00	10,260
C10	Testing & Balancing	10,260	SF	0.50	5,130
C11	Controls - Building Automation System/DDC/Allow	10,260	SF	7.50	76,950
C12	Commissioning	1	LS	-	NIC
C13					
C14					
	Subtotal				521,730

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 2017

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
D	Electrical				
D1	Service Entrance - Primary Transformer/Pad Mtd	1	LS	-	w/Site Utilities
D2	- Current Transformer & Meter	1	LS	-	By Utility
D3	Demolition - Dist. Panels/Wiring/Lighting/Throughout	3,530	SF	1.50	5,300
D4	New MDP - Not Sized/Assume 600A/208-120V/3ø/4W	1	EA	30,000.00	30,000
D5	Panelboards - Power & Lighting/Assume 100A	6	EA	5,000.00	30,000
D6	- MCC	1	EA	7,500.00	7,500
D7	Feeders - Allowance per Panel	7	EA	1,500.00	10,500
D8	Wiring & Receptacles	3,530	SF	5.00	17,650
D9	Grounding/Lightning Protection	3,530	SF	0.50	1,770
D10	Mechanical Equip Connections - Feeders/Conduit	10,260	SF	1.00	10,260
D11	- VFDs/Safety Switches/Etc	1	LS	-	Included
D12	Emergency System - Generator	1	LS	-	w/Police Bldg
D13	Lighting - Interior/Troffers/Downlights/Etc./LED	3,530	SF	10.00	35,300
D14	- Exterior Bldg Mtd w/ Photocell Controls/Allowance	1	LS	5,000.00	5,000
D15	Lighting Controls - Switches/OS/Daylighting/Etc	3,530	SF	1.00	3,530
D16	<u>Special Systems</u>				0
D17	Fire Alarm - FACP/Devices/Wiring/Conduit/Complete	10,260	SF	3.00	30,780
D18	Tele/Data - Head End Equip/Servers/Computers/Etc	1	LS	-	By Owner
D19	- Wireless Access Points/Allowance	3,530	SF	1.00	3,530
D20	- Conduits/Boxes/Outlets	3,530	SF	2.00	7,060
D21	- F.O. Cabling	1	LS	-	By Owner
D22	Security System	1	LS	-	NIC
D23	PA System	1	LS	-	NIC
D24					0
D25					0
D26					0
D27					0
D28					0
D29					0
D30					0
D31					0
D32					0
D33					0
D34					0
D35					0
D36					0
D37					0
D38					0
D39					0
D40					0
D41					0
D42					0
D43					0
D44					0
D45					0
D46					0
	Subtotal				198,180

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

Phase 1 - Addition
ESTIMATE SUMMARY

CODE	DESCRIPTION	3,000	SF	COST
A	Foundations & Framing		\$68	\$203,140
B	Exterior Envelope		\$64	\$191,380
C	Interior Fitout & Finishes		\$99	\$297,500
D	Sprinklers & Plumbing		\$35	\$103,850
E	HVAC		\$42	\$124,750
F	Electrical		\$28	\$84,500
	Subtotal			\$1,005,120
	General Conditions / O. H. & P.	15.0%		\$150,880
	Bond	1.0%		\$12,000
	Contingency	15.0%		\$175,000
	Subtotal		\$448	\$1,343,000
	Architects & Engineering Fees *	10.0%		\$134,000
	Total Project		\$492	\$1,477,000

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
A	Foundations & Framing				
A1	Earthwork - Site Clearing & Grading	1	LS	-	w/Site
A2	- Contaminated Soil Removal	1	LS	-	NIC
A3	- Excavate @ Basement/6'	120	CY	40.00	4,800
A4	- Excavate @ Footings	165	LF	15.00	2,480
A5	- Excavate @ Elevator Pit/Assume 5'	15	CY	40.00	600
A6	Footings - Conc/Strip @ Bsmt/24"x12"	80	LF	40.00	3,200
A7	Footings - Conc/Strip 1st Floor/24"x12"	85	LF	40.00	3,400
A8	- Basement Walls/Conc/12"/6'H	390	SF	40.00	15,600
A9	- WP Membrane	390	SF	10.00	3,900
A10	- Foundation Walls/CMU	180	SF	20.00	3,600
A11	Piers/Grade Beams/Underpinning - Not Shown	1	LS	-	NIC
A12	Slab-on-Grade 5" w/Gravel Base & VB	1,190	SF	8.00	9,520
A13	- Under Slab Waterproofing	1	LS	-	NIC
A14	Elevator Pit - Conc & WP	1	LS	12,000.00	12,000
A15	Foundation Drainage	120	LF	15.00	1,800
A16	Perimeter Insulation @ Foundation Wall	720	SF	2.00	1,440
A17	Roof Framing - Roof Deck/Assume Plwd ¾"	1,270	SF	4.00	5,080
A18	- Structural Steel/Beams/Girders 10 LB/SF	6	TN	5,000.00	30,000
A19	- Fireproofing	1	LS	-	NIC
A20	Elevated Floor - Conc/Metal Deck/Composite	1,800	SF	15.00	27,000
A21	- Structural Steel/Assume 14 LB/SF	10	TN	5,000.00	50,000
A22	Stairs & Railings - Fire Stairs/Conc/Mtl Pan/4"W	36	R	750.00	27,000
A23	Lobby Stairs & Railings - Decorative/7"W	9	R	1,000.00	9,000
A24					0
A25					0
	Subtotal				203,140
B	Exterior Envelope				
B1	Roofing - Asphalt Shingle/Insul/Flashing/Match Exg	1,420	SF	12.50	17,750
B2	- Gutters/Match Exg	50	LF	20.00	1,000
B3	- Downspouts/Alum	56	LF	15.00	840
B4	Exterior Wall - Brick Veneer	2,080	SF	35.00	72,800
B5	- Stucco/Metal Lath/3-Coat System	310	SF	27.50	8,530
B6	- Backup Wall/Metal Stud/Insulation/Sheathing/VB	2,200	SF	15.00	33,000
B7	Aluminum Storefront	360	SF	85.00	30,610
B8	Windows - 3'x3'-6"/Match Historic	6	EA	2,000.00	12,000
B9	Exterior Doors - Main Entry/Glazed/Double	1	PR	5,500.00	5,500
B10	- Fire Door/HM Rated/Single	1	EA	1,750.00	1,750
B11	- Automatic Operator	1	LS	-	NIC
B12	- Panic Exit Device/Per Leaf	3	EA	1,200.00	3,600
B13	Caulking & Sealants	3,000	SF	0.50	1,500
B14	Exterior Signage - Allowance	1	LS	2,500.00	2,500
B15					0
	Subtotal				191,380

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
C	Interior Fitout & Finishes				
C1	Partitions - DW/Mtl Stud/SAB	2,400	SF	12.00	28,800
C2	- DW Furring @ Perimeter	3,500	SF	4.00	14,000
C3	Elevator Shaft - CMU/8"	1,060	SF	17.50	18,550
C4	- DW Furring	650	SF	4.00	2,600
C5	Doors/Hdw/Fr - Single	9	EA	1,500.00	13,500
C6	- Double	2	PR	3,000.00	6,000
C7	- JC	2	EA	1,200.00	2,400
C8	<u>Finishes</u>				0
C9	Flooring - Walk-off Mat @ Vestibule/Recessed	50	SF	40.00	2,000
C10	- Porcelain Tile @ Entry Lobby/Vest	530	SF	20.00	10,600
C11	- Ceramic Tile @ Toilets	600	SF	15.00	9,000
C12	- Resilient	740	SF	5.00	3,700
C13	- Stair Treads & Risers/Rubber	36	EA	100.00	3,600
C14	Base - Rubber	700	LF	4.00	2,800
C15	- CT @ Toilets	220	LF	15.00	3,300
C16	Ceilings - DW/Ptd	2,200	SF	10.00	22,000
C17	Walls - Ptd/Typ	6,000	SF	1.25	7,500
C18	- CT Wainscot @ Toilet Rooms/48"	880	SF	15.00	13,200
C19	<u>Specialties</u>				0
C20	Specialties - Toilet Partitions	6	EA	1,250.00	7,500
C21	- Misc Toilet Rm Accessories/Per Room Allowance	4	EA	1,500.00	6,000
C22	- Janitor's Closet Accessories	2	EA	300.00	600
C23	FEC - 1 Per Floor	3	EA	450.00	1,350
C24	Signage - Allowance	1	LS	500.00	500
C25	Window Treatments - Shades/Blinds	1	LS	-	NIC
C26	<u>Millwork</u> - Toilet Room Vanities/Solid Surface/8' L	4	EA	2,000.00	8,000
C27	- Reception Desk/Not Shown	1	LS	-	NIC
C28	<u>Equipment</u>				0
C29	Elevator - Hydraulic Holeless/MRL Type/3-Stop	1	EA	100,000.00	100,000
C30	- 2 Openings/Premium	1	LS	5,000.00	5,000
C31	- Cab Finishes/Allowance	1	LS	5,000.00	5,000
C32					0
C33					0
C34					0
C35					0
C36					0
C37					0
C38					0
C39					0
C40					0
C41					0
C42					0
C43					0
C44					0
C45					0
C46					0
	Subtotal				297,500

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
D	Sprinklers & Plumbing				
D1	<u>Sprinklers</u>				0
D2	Fire Service Entrance - Trenching/Piping/DI/4"	1	LS	-	w/Site Utilities
D3	- Fire Pump/Jockey Pump/Assume Not Required	1	LS	-	NIC
D4	- BFP	1	EA	-	w/Renovation
D5	Wet Pipe System - Piping/Heads	3,000	SF	4.00	12,000
D6	- Floor Control Valve	1	LS	-	w/Renovation
D7	- Fire Dept Connection	1	EA	1,500.00	1,500
D8	- Testing Allowance/Hydrostatic/Main Drain/Etc	1	LS	1,500.00	1,500
D9	- Dry/Preaction System	1	LS	-	NIC
D10	<u>Plumbing</u>				0
D11	Plumbing - DW/San Service/BFP/Etc.	1	LS	-	w/Renovation
D12	Equipment - Water Heater/Circulator Pump/TMV	1	LS	-	w/Renovation
D13	- Elevator Sump Pump	1	EA	5,000.00	5,000
D14	- Sewage Ejector Pump & Accessories/Simplex	1	EA	3,500.00	3,500
D15	Fixtures - WC/Wall Mtd/Sensor Operator	6	EA	1,250.00	7,500
D16	- Urinal/Sensor Operator	2	EA	1,000.00	2,000
D17	- Lavs/Undermount/Metering Faucet	4	EA	600.00	2,400
D18	- Service Sink	2	EA	1,000.00	2,000
D19	- EWC	2	EA	2,500.00	5,000
D20	- Rough-in	16	EA	450.00	7,200
D21	Piping/Insul/Valves - Allowance Per Fixture	16	EA	3,000.00	48,000
D22	Floor Drains w/Trap Primer	5	EA	750.00	3,750
D23	Hose Bibs/Wall Hydrants - Allowance	1	LS	2,500.00	2,500
D24					
D25					0
	Subtotal				103,850
E	HVAC				
E1	Heating Equip - Boilers/Pumps/Etc/Not Sized/Allow	3,000	SF	5.00	15,000
E2	- Hydronic Piping/Insul/HWS&R	3,000	SF	3.00	9,000
E3	VRF System - Allowance	3,000	SF	10.00	30,000
E4	Cabinet Unit Heaters @ Vestibule & Stairwells	1	LS	5,000.00	5,000
E5	Toilet Room Exhaust Fans - Roof Mtd/Allowance	1	LS	5,000.00	5,000
E6	Ductwork/Insul - Sheet Metal/Galv/Allow .75 LB per SF	2,250	LB	15.00	33,750
E7	GRD	3,000	SF	1.00	3,000
E8	Testing & Balancing	3,000	SF	0.50	1,500
E9	Controls - Building Automation System/DDC/Allow	3,000	SF	7.50	22,500
E10	Commissioning	1	LS	-	NIC
E11					0
E12					0
E13					0
E14					0
E15					0
	Subtotal				124,750

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
F	Electrical				
F1	Service Entrance - Primary Transformer/Pad Mtd	1	LS	-	w/Site Utilities
F2	- Current Transformer & Meter	1	LS	-	By Utility
F3	MDP	1	EA	-	w/Renovations
F4	Panelboards - Power & Lighting/Assume 100A	2	EA	5,000.00	10,000
F5	Feeders - Allowance per Panel	2	EA	1,500.00	3,000
F6	Wiring & Receptacles	3,000	SF	4.50	13,500
F7	Grounding/Lightning Protection	3,000	SF	0.50	1,500
F8	Mechanical Equip Connections - Feeders/Conduit	3,000	SF	1.00	3,000
F9	- VFDs/Safety Switches/Etc	1	LS	-	Included
F10	Emergency System - Generator	1	LS	-	w/Police Bldg
F11	Lighting - Interior/Troffers/Downlights/Etc./LED	3,000	SF	10.00	30,000
F12	- Exterior Bldg Mtd w/ Photocell Controls/Allowance	1	LS	2,500.00	2,500
F13	Lighting Controls - Switches/OS/Daylighting/Etc	3,000	SF	1.00	3,000
F14	<u>Special Systems</u>				0
F15	Fire Alarm - FACP/Devices/Wiring/Conduit/Complete	3,000	SF	3.00	9,000
F16	Tele/Data - Head End Equip/Servers/Computers/Etc	1	LS	-	By Owner
F17	- Wireless Access Points/Allowance	3,000	SF	1.00	3,000
F18	- Conduits/Boxes/Outlets	3,000	SF	2.00	6,000
F19	- F.O. Cabling	1	LS	-	By Owner
F20	Security System	1	LS	-	NIC
F20	PA System	1	LS	-	NIC
F20					0
F20					0
F20					0
F20					0
F20					0
F20					0
H2					0
H3					0
H4					0
H5					0
H6					0
H7					0
H8					0
H9					0
H10					0
H11					0
H12					0
H13					0
H14					0
H15					0
H16					0
H17					0
H18					0
H19					0
H20					0
	Subtotal				84,500

Project: Hightstown Municipal Bldg Complex
Number: 17054E1R2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

Phase 2 - Police Station
ESTIMATE SUMMARY

CODE	DESCRIPTION	6,080	SF	COST
A	Foundations & Framing			\$295,660
B	Exterior Envelope			\$408,120
C	Interior Fitout & Finishes			\$389,400
D	Sprinklers & Plumbing			\$167,260
E	HVAC			\$293,800
F	Electrical			\$276,160
	Subtotal			\$1,830,400
	General Conditions / O. H. & P.	15.0%		\$274,600
	Bond	1.0%		\$21,000
	Contingency	15.0%		\$319,000
	Subtotal		\$402	\$2,445,000
	Architects & Engineering Fees *	10.0%		\$245,000
	Total Project		\$442	\$2,690,000

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
A	Foundations & Framing				
A1	Earthwork - Site Clearing & Grading	1	LS	-	w/Site
A2	- Contaminated Soil Removal	1	LS	-	NIC
A3	- Fine Grading @ Footprint	6,080	SF	0.50	3,040
A4	- Excavate @ Footprint/12" D	225	CY	40.00	9,000
A5	- Excavate @ Footings	370	LF	15.00	5,550
A6	Footings - Conc/Strip/24"x12"	370	LF	40.00	14,800
A7	- Foundation Walls/CMU/12"/2'H	740	SF	20.00	14,800
A8	Slab-on-Grade 5" w/Gravel Base & VB	5,590	SF	8.00	44,720
A9	- Sally Port/Assume 8"	490	SF	12.00	5,880
A10	- Under Slab Waterproofing	1	LS	-	NIC
A11	Foundation Drainage	370	LF	15.00	5,550
A12	Perimeter Insulation @ Foundation Wall	1,480	SF	2.00	2,960
A13	Roof Framing - Metal Deck/Open/22 GA	6,080	SF	4.50	27,360
A14	- Structural Steel/Beams/Girders 10 LB/SF	30	TN	5,000.00	152,000
A15	- Fireproofing	1	LS	-	NIC
A16	- Misc Metals	1	LS	2,500.00	2,500
A17	Dunnage @ RTU - Allowance	1	LS	7,500.00	7,500
A18	Dunnage @ Emergency Generator	1	LS	-	NIC
A19					0
A20					0
	Subtotal				295,660
B	Exterior Envelope				
B1	Roofing - Flat Roof/BUR & Flashing	5,940	SF	15.00	89,100
B2	- Insulation/Tapered/4" Avg	5,940	SF	5.00	29,700
B3	- Standing Seam @ Entry Vestibule/Alum	150	SF	40.00	6,000
B4	- Parapet Wall @ Flat/Assume Brick/CMU	370	LF	100.00	37,000
B5	- Roof Hatch & Ladder	1	LS	3,500.00	3,500
B6	- Roof Drains & Piping	1	LS	-	w/Plumbing
B7	- Gutters & Downspouts @ Standing Seam	70	LF	25.00	1,750
B8	Exterior Walls - Brick Veneer/Assume 10' H Typ	3,400	SF	35.00	119,000
B9	- Backup/6" Metal Stud/Insul/Sheathing/VB	1,650	SF	15.00	24,750
B10	- Backup/8" CMU/Insul/Sheathing/VB	1,750	SF	22.50	39,380
B11	Exterior Doors/Hdw/Frames - Vestibule/Glazed Dbl	2	PR	5,500.00	11,000
B12	- Glazed Single	2	EA	3,000.00	6,000
B13	- HM Single	2	EA	1,750.00	3,500
B14	- Automatic Operators	1	LS	-	NIC
B15	- Sally Port O/H Steel Sectional/Motorized	1	EA	10,000.00	10,000
B16	Windows - Not shown/Assume Punched/Alum/3'x5'	14	EA	1,200.00	16,800
B17	- Storefront	60	SF	85.00	5,100
B18	Caulking & Sealants	6,080	SF	0.50	3,040
B19	Signage - Allowance	1	LS	2,500.00	2,500
B20					0
	Subtotal				408,120

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
C	Interior Fitout & Finishes				
C1	Partitions - CMU/8"/10'H	400	LF	175.00	70,000
C2	- DW/Mtl Stud/SAB/10'H	340	LF	120.00	40,800
C3	- DW Furring @ Exterior Wall	3,700	SF	4.00	14,800
C4	Interior Storefront @ Vestibule	120	SF	65.00	7,800
C5	Door/Hdw/Fr - Wd/Single	12	EA	1,250.00	15,000
C6	- HM/Single	15	EA	1,400.00	21,000
C7	- Holding/Detention Rooms/High Security	2	EA	3,500.00	7,000
C8	- Armory/Solid Metal	1	EA	4,000.00	4,000
C9	- Storefront Single @ Lobby	1	EA	2,500.00	2,500
C10	<u>Finishes</u>				0
C11	Flooring - Resilient/Typ/50%	3,040	SF	4.50	13,680
C12	- Sealed Conc/25%	1,520	SF	1.50	2,280
C13	- Carpet Tile/25%	170	SY	50.00	8,500
C14	Base - Rubber	1,850	LF	4.00	7,400
C15	Ceilings - DW/Ptd/Typ	3,000	SF	10.00	30,000
C16	- ACT	2,000	SF	5.00	10,000
C17	- PC Conc Panels @ Holding Cells & Armory	280	SF	25.00	7,000
C18	- Exposed/Ptd @ Mech/Storage/Sally Port	800	SF	1.50	1,200
C19	Walls/Ptd	18,500	SF	1.25	23,130
C20	<u>Millwork Specialties & Equipment</u>				0
C21	<u>Millwork</u>				0
C22	Reception Desk	20	LF	650.00	13,000
C23	Locker Room Vanities - Assume Solid Surface/8'L	2	EA	2,000.00	4,000
C24	Base Cabinets & Counter @ Break Rm	7	LF	350.00	2,450
C25	- O/H Cabinets	10	LF	200.00	2,000
C26	Misc Millwork - Assume Minor/Allowance	6,080	SF	1.00	6,080
C27	<u>Specialties</u>				0
C28	Toilet Accessories - Locker Rooms/Allowance Per Rm	2	EA	2,500.00	5,000
C29	- Toilet Room	1	EA	500.00	500
C30	Misc Specialties - FEC	2	EA	450.00	900
C31	- Gear Lockers	28	EA	500.00	14,000
C32	- Gun Lockers	2	EA	1,500.00	3,000
C33	- Metal Interview Tables/Bolted	2	EA	1,000.00	2,000
C34	- Stainless Steel Processing Table	1	EA	1,500.00	1,500
C35	- Chemical Storage Cabinet w/Exhaust Hood	1	EA	2,500.00	2,500
C36	- Evidence Lockers	1	EA	7,500.00	7,500
C37	- Evidence Lockers/Pass Thru	1	EA	10,000.00	10,000
C38	- Signage	1	LS	2,500.00	2,500
C39	Armory - Weapons Storage Racks/Allowance	1	LS	10,000.00	10,000
C40	- Misc Metal Shelving/Allowance	1	LS	2,500.00	2,500
C41	Window Treatments - Shades Blinds/Manual	250	SF	7.50	1,880
C42	Equipment - Breakroom Refrig/MW/Etc/Allowance	1	LS	2,000.00	2,000
C43	- Live Scan Fingerprint Scanner System/Allowance	1	LS	10,000.00	10,000
C44	- Computers/Printers/Misc Peripheral Equip/Etc	1	LS	-	By Owner
C45					0
C46					0
	Subtotal				389,400

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
D	Sprinklers & Plumbing				
D1	<u>Sprinklers</u>				0
D2	Fire Service Entrance - Trenching/Piping/DI/4"	1	LS	-	w/Site Utilities
D3	- BFP/DCDA/4"	1	EA	5,000.00	5,000
D4	Fire Pump/Jockey Pump - Assume Not Required	1	LS	-	NIC
D5	Wet Pipe System - Piping/Heads	6,080	SF	4.00	24,320
D6	- Alarm Check Valve/Pre-trimmed/4"	1	EA	3,500.00	3,500
D7	- Fire Dept Connection	1	EA	1,500.00	1,500
D8	- Testing Allowance/Hydrostatic/Main Drain/Etc	1	LS	1,500.00	1,500
D9	Dry Pipe/Pre-action/Clean Agent Systems	1	LS	-	NIC
D10	<u>Plumbing</u>				0
D11	DW Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
D12	- BFP/DCDA/2"	1	EA	2,500.00	2,500
D13	- Water Meter/Assume Turbine 2"	1	EA	1,500.00	1,500
D14	Sanitary Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
D15	Gas Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
D16	- Pressure Regulator & Meter	1	LS	-	By Utility
D17	Water Heater - Gas/Not Sized/Allowance	1	EA	10,000.00	10,000
D18	- Circulator Pump	1	EA	1,500.00	1,500
D19	- Thermostatic Mixing Valve/Master Mixer	1	EA	2,500.00	2,500
D20	Fixtures - WC/Wall Mtd/Sensor Operator	4	EA	1,250.00	5,000
D21	- Urinal/Sensor Operator	1	EA	1,000.00	1,000
D22	- Lavs/Undermount/Metering Faucet	6	EA	600.00	3,600
D23	- Lavs/Free Standing/Metering Faucet	1	EA	800.00	800
D24	- Service Sink	1	EA	1,000.00	1,000
D25	- EWC	1	EA	2,500.00	2,500
D26	- Kitchen Sink/SS/Single Bowl	1	EA	1,000.00	1,000
D27	- Showers w/Acrylic Surround/36"x36"	2	EA	2,500.00	5,000
D28	- Prison Grade Fixtures/Combination Toilet/Lav	2	EA	2,500.00	5,000
D29	- Rough-in	19	EA	450.00	8,550
D30	Piping/Insul/Valves - Allowance Per Fixture	19	EA	3,000.00	57,000
D31	Floor Drains w/Trap Primer	3	EA	750.00	2,250
D32	Hose Bibs/Wall Hydrants - Allowance	1	LS	2,500.00	2,500
D33	Roof Drainage - Roof/Overflow Drains/Piping/Allow	6,080	SF	3.00	18,240
D34					0
D35					0
D36					0
D37					0
D38					0
D39					0
D40					0
D41					0
D42					0
D43					0
D44					0
D45					0
D46					0
	Subtotal				167,260

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
E	HVAC				
E1	Primary Heating & Cooling Equip - Boilers/AHU/RTU	6,080	SF	20.00	121,600
E2	Heating - Boilers/Gas-Fired	1	LS	-	w/ Allowance
E3	- HW Pumps	1	LS	-	w/ Allowance
E4	- Baseboard Radiation	1	LS	-	w/ Allowance
E5	- AHU/Not Sized	1	LS	-	w/ Allowance
E6	- VAVs w /HW Reheat Coils	1	LS	-	w/ Allowance
E7	Cooling - Packaged RTU/Not Sized	1	LS	-	w/ Allowance
E8	- IT Room/Split System/1 TN	1	EA	5,000.00	5,000
E9	- Condensing Unit/Roof Mtd	1	EA	-	Incl
E10	- Refrigerant Lines	1	LS	-	Incl
E11	Exhaust Fans - Lockers/Toilets/Misc/Allowance	6,080	SF	1.00	6,080
E12	Ductwork - Sheet Metal/Galv/Allow 1 LB per SF	6,080	LB	15.00	91,200
E13	Hydronic Piping/Insul - HW/S&R @ VAVs/Allowance	6,080	SF	2.50	15,200
E14	GRD	6,080	SF	1.00	6,080
E15	Testing & Balancing	6,080	SF	0.50	3,040
E16	Controls - Building Automation System/DDC/Allow	6,080	SF	7.50	45,600
E17	Commissioning	1	LS	-	NIC
E18					0
	Subtotal				293,800
F	Electrical				
F1	Service Entrance - Primary Transformer/Pad Mtd	1	LS	-	w/Site Utilities
F2	- Current Transformer & Meter	1	LS	-	By Utility
F3	MDP - Not Sized/Assume 400A/208-120V/3Ø/4W	1	EA	20,000.00	20,000
F4	Panelboards - Power & Lighting/Assume 100A	2	EA	5,000.00	10,000
F5	- MCC/Assume 200A	1	EA	7,500.00	7,500
F6	Feeders - Allowance per Panel	3	EA	1,500.00	4,500
F7	Wiring & Receptacles	6,080	SF	7.50	45,600
F8	Grounding/Lightning Protection	6,080	SF	0.50	3,040
F9	Mechanical Equip Connections - Feeders/Conduit	6,080	SF	2.00	12,160
F10	- VFDs/Safety Switches/Etc	1	LS	-	Included
F11	Emergency System - Generator/Pad Mtd/Not Sized	1	LS	50,000.00	50,000
F12	- Acoustic Enclosure/Allowance	1	EA	10,000.00	10,000
F13	- Misc Accessories/Sub-base Fuel Tank/ATS/Etc	1	LS	-	Included
F14	Lighting - Interior/Troffers/Downlights/Etc./LED	6,080	SF	10.00	60,800
F15	- Exterior Bldg Mtd w/ Photocell Controls/Allowance	1	LS	10,000.00	10,000
F16	Lighting Controls - Switches/OS/Daylighting/Etc	6,080	SF	1.00	6,080
F17	<u>Special Systems</u>				0
F18	Fire Alarm - FACP/Devices/Wiring/Conduit/Complete	6,080	SF	3.00	18,240
F19	Tele/Data - Head End Equip/Servers/Computers/Etc	1	LS	-	By Owner
F20	- Wireless Access Points/Allowance	6,080	SF	1.00	6,080
F21	- Conduits/Boxes/Outlets	6,080	SF	2.00	12,160
F22	- F.O. Cabling	1	LS	-	By Owner
F23	Security System	1	LS	-	NIC
F24	PA System	1	LS	-	NIC
	Subtotal				276,160

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

Phase 3 - Renovation
ESTIMATE SUMMARY

CODE	DESCRIPTION	6,730	SF	COST
A	Interior Fitout & Finishes			\$24
B	MEP			\$26
	Subtotal			\$339,100
	General Conditions / O. H. & P.	15.0%		\$50,900
	Bond	1.0%		\$4,000
	Contingency	15.0%		\$59,000
	Subtotal			\$67
	Architects & Engineering Fees *	10.0%		\$45,000
	Total Project			\$74
				\$498,000

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
A	Interior Fitout & Finishes				
A1	<u>Demolition</u>				
A2	Interior Partitions	120	LF	15.00	1,800
A3	Interior Doors & Frames	5	EA	200.00	1,000
A4	Finishes - Flooring Throughout/VCT/Carpet/CT/Etc	6,730	SF	1.00	6,730
A5	- Ceilings/DW/ACT	6,730	SF	1.00	6,730
A6	Wall Opening @ New Door/Reframe	3	EA	500.00	1,500
A7	Misc Removals - Assume Minor/Allowance	1	LS	2,500.00	2,500
A8	<u>New Construction</u>				0
A9	Partitions - DW/Mtl Stud/10' H Avg	200	LF	120.00	24,000
A10	- DW Infills	7	EA	525.00	3,680
A11	Doors/Hdw/Fr - Single	18	EA	1,500.00	27,000
A12	Transaction Windows	2	EA	1,500.00	3,000
A13	<u>Finishes</u>				0
A14	Flooring - Carpet/Resilient/Allowance	6,730	SF	5.00	33,650
A15	Base - Rubber/Typ	1,500	LF	4.00	6,000
A16	Walls - Ptd	12,000	SF	1.25	15,000
A17	Ceiling - DW/40%	2,690	SF	10.00	26,900
A18	- ACT/60%	4,040	SF	5.00	20,200
A19	<u>Specialties</u>				
A20	FEC - 2 Per Floor	6	EA	450.00	2,700
A21	Signage - Allowance	1	LS	500.00	500
A22					0
A23					0
A24					0
A25					0
A26					0
A27					0
A28					0
A29					0
A30					0
A31					0
A32					0
A33					0
A34					0
A35					0
A36					0
A37					0
A38					0
A39					0
A40					0
A41					0
A42					0
A43					0
A44					0
A45					0
A46					0
	Subtotal				162,630

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
B	MEP				
B1	<u>Fire Suppression</u>				0
B2	Sprinklers - Wet Pipe System	1	LS	-	w/Phase 1
B3	Fire Service Entrance - Trenching/Piping/DI/4"	1	LS	-	w/Site Utilities
B4	- BFP/DCDA/4"	1	EA	5,000.00	5,000
B5	Fire Pump/Jockey Pump - Assume Not Required	1	LS	-	NIC
B6	<u>Plumbing</u>				0
B7	Fixtures - Kitchen Sink @ Break Room/SS	1	EA	1,000.00	1,000
B8	- Rough-in	1	EA	450.00	450
B9	Piping/Insul/Valves - Allowance Per Fixture	1	EA	3,000.00	3,000
B10	Basement Sump Pump/Drainage System - No Details	1	LS	5,000.00	5,000
B11	<u>HVAC</u>	1	LS	-	w/Phase 1
B12	<u>Electrical</u>				0
B13	Service Entrance - Primary Transformer/Pad Mtd	1	LS	-	w/Site Utilities
B14	- Current Transformer & Meter	1	LS	-	By Utility
B15	Demolition - Dist. Panels/Wiring/Lighting/Throughout	1	LS	-	w/Phase 1
B16	New MDP - Not Sized/Assume 600A/208-120V/3ø/4W	1	LS	-	w/Phase 1
B17	Panelboards - Power & Lighting/Assume 100A	1	LS	-	w/Phase 1
B18	- MCC	1	LS	-	w/Phase 1
B19	Feeders - Allowance per Panel	1	LS	-	w/Phase 1
B20	Wiring & Receptacles	6,730	SF	5.00	33,650
B21	Grounding/Lightning Protection	6,730	SF	0.50	3,370
B22	Mechanical Equip Connections - Feeders/Conduit	1	LS	-	w/Phase 1
B23	- VFDs/Safety Switches/Etc	1	LS	-	w/Phase 1
B24	Emergency System - Generator	1	LS	-	w/Police Bldg
B25	Lighting - Interior/Troffers/Downlights/Etc./LED	6,730	SF	10.00	67,300
B26	- Exterior Bldg Mtd w/ Photocell Controls/Allowance	1	LS	-	w/Phase 1
B27	Lighting Controls - Switches/OS/Daylighting/Etc	6,730	SF	1.00	6,730
B28	<u>Special Systems</u>				0
B29	Fire Alarm - FACP/Devices/Wiring/Conduit/Complete	10,260	SF	3.00	30,780
B30	Tele/Data - Head End Equip/Servers/Computers/Etc	1	LS	-	By Owner
B31	- Wireless Access Points/Allowance	6,730	SF	1.00	6,730
B32	- Conduits/Boxes/Outlets	6,730	SF	2.00	13,460
B33	- F.O. Cabling	1	LS	-	By Owner
B34	Security System	1	LS	-	NIC
B35	PA System	1	LS	-	NIC
B36					0
B37					0
B38					0
B39					0
B40					0
B41					0
B42					0
B43					0
B44					0
B45					0
B46					0
	Subtotal				176,470

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

Phase 4 - Exterior Envelope
ESTIMATE SUMMARY

CODE	DESCRIPTION				COST
A	Exterior Envelope				
A1	Demolition				
A2	Temporary Protection Allowance	1	LS	5,000.00	5,000
A3	Exterior Stair Addition - Roofing/Floors/Framing/Etc.	1	LS	20,000.00	20,000
A4	- Foundations/Footings/SOG	1	LS	3,600.00	3,600
A5	Exterior Stairs & Landings	1	LS	2,500.00	2,500
A6	Roofing - Asphalt Shingles & Flashing	1	LS	-	Existing To Remain
A7	Exterior Doors & Frames	2	EA	200.00	400
A8	Bulkhead Doors	1	PR	200.00	200
A9	Windows	58	EA	150.00	8,700
A10	Fire Escapes @ East/West Elevations/Patch Wall	2	EA	3,000.00	6,000
A11	Misc Removals - Assume Minor/Allowance	1	LS	2,500.00	2,500
A12	New Construction				
A13	Scaffolding - Access/Allowance	1	LS	20,000.00	20,000
A14	Roofing - Asphalt Shingle/Insul/Flashing/Etc	1	LS	-	Existing To Remain
A15	- Yankee Gutter/Wd/Copper Lining/Blocking/No Detail	160	LF	40.00	6,400
A16	- Downspouts/Copper	112	LF	30.00	3,360
A17	Exterior Wall - Clean/Powerwash Existing Brick/Entirely	3,760	SF	1.50	5,640
A18	- Clean/Fieldstone Base/By Hand	500	SF	5.00	2,500
A19	- Repoint Brick/Selected Areas	700	SF	20.00	14,000
A20	- Infill @ Removed Bulkhead Doors	1	LS	1,500.00	1,500
A21	- Brick Replacement/Allowance	10	EA	250.00	2,500
A22	- Prep/Repaint Fascia/Cornice	154	LF	25.00	3,850
A23	- Prep/Repaint Tower Cornice	360	SF	10.00	3,600
A24	- Prep/Repaint Wd Trim @ South Elevation	20	SF	25.00	500
A25	Clean & Repoint Brick Chimney	1	LS	5,000.00	5,000
A26	- New Step Flashing/Counter Flashing/Copper	1	LS	1,500.00	1,500
A27	Install New Windows/Match Historic - 3'x6'-6"	30	EA	2,000.00	60,000
A28	- 3'x3'	17	EA	1,125.00	19,130
A29	- 1'-6"x3'	30	EA	600.00	18,000
A30	- 1'-6"x7'	8	EA	1,300.00	10,400
A31	- 1'-6"x3-6"	2	EA	660.00	1,320
A32	New Exterior Entry Door Assembly - Decorative	1	EA	7,500.00	7,500
A33	- Power Operator	1	LS	-	NIC
Subtotal					\$235,600
General Conditions / O. H. & P.		15.0%			\$35,400
Bond		1.0%			\$3,000
Contingency		15.0%			\$41,000
Subtotal					\$315,000
Architects & Engineering Fees *		10.0%			\$32,000
Total Project					\$347,000

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

Site
ESTIMATE SUMMARY

CODE	DESCRIPTION	35,000	SF	COST
A	Site Development			\$434,280
B	Site Utilities			\$294,500
	Subtotal			\$728,780
	General Conditions / O. H. & P.		15.0%	\$109,220
	Bond		1.0%	\$8,000
	Contingency		15.0%	\$127,000
	Subtotal			\$973,000
	Architects & Engineering Fees *		10.0%	\$97,000
	Total Project			\$1,070,000

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
A	Site Development				
A1	Erosion & Sediment Control - Allowance	1	LS	10,000.00	10,000
A2	Temporary Construction Fence/6'H	1,000	LF	12.50	12,500
A3	Site Clearing/Preparation - No Details Allowance	35,000	SF	0.50	17,500
A4	Demolition - Remove Exg Asphalt Paving	6,800	SF	1.00	6,800
A5	- Misc Removals/Assume Minor/Allowance	1	LS	2,500.00	2,500
A6	Earthwork - Rough Grading/Allowance	35,000	SF	0.15	5,250
A7	- Fine Grading @ Parking	14,000	SF	0.25	3,500
A8	<u>Hardscape</u> - Asphalt Paving - Existing Entry Drives	4,000	SF	-	Existing To Remain
A9	- New Parking & Drives	2,000	SY	40.00	80,000
A10	Concrete Sidewalks - Assume 4" Typ	910	SF	7.50	6,830
A11	Conc Curbs	1,500	LF	25.00	37,500
A12	Bollards - Steel Pipe & Conc/Fixed/Assume @ 4' OC	16	EA	750.00	12,000
A13	Vehicular Swing Gate - No Details/Allowance	1	EA	5,000.00	5,000
A14	Parking Space Striping - White Stripe/18' L	38	EA	20.00	760
A15	- HC Parking/Painted Symbol/Striping/Signage/Etc	4	EA	500.00	2,000
A16	- Painted Arrows	7	EA	100.00	700
A17	Misc Signage - Parking/Stop/Directional/Etc	1	LS	1,500.00	1,500
A18	Dumpster Enclosure - Concrete Pad/Assume 6"	170	SF	12.00	2,040
A19	- Fencing/Gates/No Details/Allowance	1	LS	5,000.00	5,000
A20	Emergency Generator Enclosure - Conc Pad/8"	120	SF	15.00	1,800
A21	- Fencing/Gates/No Details/Allowance	1	LS	10,000.00	10,000
A22	Repave Railroad Ave - Allowance*	1	LS	200,000.00	200,000
A23	<u>Landscaping</u> - New Topsoil/6" @ Lawn Areas	140	CY	50.00	7,000
A24	- New Lawns/Seeding/Sodding/Scope Unclear	820	SY	5.00	4,100
A25	- Trees/Shrubs/Perennials/Groundcover/Etc.	1	LS	-	NIC
A26	Irrigation System	1	LS	-	NIC
A27	Site Amenities - Benches/Trash Receptacles/Etc	1	LS	-	By Owner
A28					0
A29					0
A30					0
A31					0
A32					0
A33					0
A34					0
A35					0
A36					0
A37					0
A38					0
A39					0
A40					0
A41					0
A42					0
A43					0
A44					0
A45					0
A46					0
	Subtotal				434,280

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 2017

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
B	Site Utilities				
B1	Utility Relocations - Gas/Water/San/Elec/Tele/Data	1	LS	-	NIC
B2	<u>Renovation & Addition</u>				0
B3	Fire Service Entrance - Trenching/Piping/DI/4"	40	LF	75.00	3,000
B4	- Wet Tap Connection @ Main/Mercer St	1	LS	3,500.00	3,500
B5	DW Service - Trenching/Piping/Copper/Plastic Ctd/2"	40	LF	50.00	2,000
B6	- Wet Tap Connection @ Main/Mercer St	1	LS	2,000.00	2,000
B7	Sanitary Service - Trenching/Piping/Cast Iron/4"	40	LF	70.00	2,800
B8	- Connection @ Sanitary Main/Mercer St	1	LS	5,000.00	5,000
B9	Gas Service - Trenching/Piping/Steel/Sch 40/2"	40	LF	60.00	2,400
B10	- Connection @ Utility Line	1	LS	-	By Utility
B11	Electrical - Transformer/Pad Mtd/15KV/480/277V/3Ø	1	EA	25,000.00	25,000
B12	- 15KV Service/Conc Encased Ductbank	40	LF	150.00	6,000
B13	- Excavate/Backfill Trench	40	LF	20.00	800
B14	Road Repairs & Repaving	1	LS	-	By Owner
B15	Site Lighting - Pole Mtd/Wiring/Controls/Etc	1	LS	20,000.00	20,000
B16	Tele/Data Service - UG Conduit/Cabling/Allowance	40	LF	50.00	2,000
B17	<u>New Police Bldg</u>				0
B18	Fire Service - Trenching/Piping/DI/4"	180	LF	75.00	13,500
B19	- Wet Tap Connection @ Main/Mercer St	1	LS	3,500.00	3,500
B20	DW Service - Trenching/Piping/Copper/Plastic Ctd/2"	180	LF	50.00	9,000
B21	- Wet Tap Connection @ Main/Mercer St	1	LS	2,000.00	2,000
B22	Sanitary Service - Trenching/Piping/Cast Iron/4"	180	LF	70.00	12,600
B23	- Connection @ Sanitary Main/Mercer St	1	LS	5,000.00	5,000
B24	Gas Service - Trenching/Piping/Steel/Sch 40/2"	180	LF	60.00	10,800
B25	- Connection @ Utility Line	1	LS	-	By Utility
B26	Electrical - Transformer/Pad Mtd/15KV/480/277V/3Ø	1	EA	25,000.00	25,000
B27	- 15KV Service/Conc Encased Ductbank	180	LF	150.00	27,000
B28	- Excavate/Backfill Trench	180	LF	20.00	3,600
B29	Road Repairs & Repaving @ Mercer St.	1	LS	-	By Owner
B30	Site Lighting - Pole Mtd/Wiring/Controls/Etc	1	LS	20,000.00	20,000
B31	Tele/Data Service - UG Conduit/Cabling/Allowance	180	LF	50.00	9,000
B32	<u>Site Drainage</u>				0
B33	Catch Basins/Piping/Not Shown/Allow	1	LS	25,000.00	25,000
B34	SW Detention Basin - Excav/Piping/Structures/Etc	1,800	SF	30.00	54,000
B35					0
B36					0
B37					0
B38					0
B39					0
B40					0
B41					0
B42					0
B43					0
B44					0
B45					0
B46					0
	Subtotal				294,500

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

Phase 2 - Police Station
ESTIMATE SUMMARY

CODE	DESCRIPTION	5,500	SF	COST
A	Foundations & Framing			\$269,540
B	Exterior Envelope			\$304,350
C	Interior Fitout & Finishes			\$378,160
D	Sprinklers & Plumbing			\$163,200
E	HVAC			\$266,250
F	Electrical			\$260,500
	Subtotal			\$1,642,000
	General Conditions / O. H. & P.	15.0%		\$246,000
	Bond	1.0%		\$19,000
	Contingency	15.0%		\$286,000
	Subtotal		\$399	\$2,193,000
	Architects & Engineering Fees *	10.0%		\$219,000
	Total Project			\$2,412,000

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
A	Foundations & Framing				
A1	Earthwork - Site Clearing & Grading	1	LS	-	w/Site
A2	- Contaminated Soil Removal	1	LS	-	NIC
A3	- Fine Grading @ Footprint	5,500	SF	0.50	2,750
A4	- Excavate @ Footprint/12" D	200	CY	40.00	8,000
A5	- Excavate @ Footings	365	LF	15.00	5,480
A6	Footings - Conc/Strip/24"x12"	365	LF	40.00	14,600
A7	- Foundation Walls/CMU/12"/2'H	730	SF	20.00	14,600
A8	Slab-on-Grade 5" w/Gravel Base & VB	5,010	SF	8.00	40,080
A9	- Sally Port/Assume 8"	490	SF	12.00	5,880
A10	- Under Slab Waterproofing	1	LS	-	NIC
A11	Foundation Drainage	365	LF	15.00	5,480
A12	Perimeter Insulation @ Foundation Wall	1,460	SF	2.00	2,920
A13	Roof Framing - Metal Deck/Open/22 GA	5,500	SF	4.50	24,750
A14	- Structural Steel/Beams/Girders 10 LB/SF	28	TN	5,000.00	137,500
A15	- Fireproofing	1	LS	-	NIC
A16	- Misc Metals	1	LS	2,500.00	2,500
A17	Dunnage @ RTU - Allowance	1	LS	5,000.00	5,000
A18	Dunnage @ Emergency Generator/On Grade	1	LS	-	NIC
A19					0
A20					0
	Subtotal				269,540
B	Exterior Envelope				
B1	Roofing - Flat Roof/BUR & Flashing	5,360	SF	15.00	80,400
B2	- Insulation/Tapered/4" Avg	5,360	SF	5.00	26,800
B3	- Standing Seam @ Entry Vestibule/Alum	150	SF	40.00	6,000
B4	- Parapet Wall @ Flat/Assume Brick/CMU	365	LF	100.00	36,500
B5	- Roof Hatch & Ladder	1	LS	3,500.00	3,500
B6	- Roof Drains & Piping	1	LS	-	w/Plumbing
B7	- Gutters & Downspouts @ Standing Seam	70	LF	25.00	1,750
B8	Exterior Walls - Fiber Cement/Assume 10' H Typ	3,200	SF	12.50	40,000
B9	- Backup/6" Metal Stud/Insul/Sheathing/VB	2,700	SF	15.00	40,500
B10	- Backup/8" CMU/Insul/Sheathing/VB	500	SF	22.50	11,250
B11	Exterior Doors/Hdw/Frames - Vestibule/Glazed Dbl	2	PR	5,500.00	11,000
B12	- Glazed Single	2	EA	3,000.00	6,000
B13	- HM Single	2	EA	1,750.00	3,500
B14	- Automatic Operators	1	LS	-	NIC
B15	- Sally Port O/H Steel Sectional/Motorized	1	EA	10,000.00	10,000
B16	Windows - Not shown/Assume Punched/Alum/3'x5'	14	EA	1,200.00	16,800
B17	- Storefront @ Lobby	60	SF	85.00	5,100
B18	Caulking & Sealants	5,500	SF	0.50	2,750
B19	Signage - Allowance	1	LS	2,500.00	2,500
B20					0
	Subtotal				304,350

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
C	Interior Fitout & Finishes				
C1	Partitions - CMU/8"/10'H	400	LF	175.00	70,000
C2	- DW/Mtl Stud/SAB/10'H	340	LF	120.00	40,800
C3	- DW Furring @ Exterior Wall	3,300	SF	4.00	13,200
C4	Interior Storefront @ Vestibule	120	SF	65.00	7,800
C5	Door/Hdw/Fr - Wd/Single	12	EA	1,250.00	15,000
C6	- HM/Single	15	EA	1,400.00	21,000
C7	- Holding/Detention Rooms/High Security	2	EA	3,500.00	7,000
C8	- Armory/Solid Metal	1	EA	4,000.00	4,000
C9	- Storefront Single @ Lobby	1	EA	2,500.00	2,500
C10	<u>Finishes</u>				0
C11	Flooring - Resilient/Typ/50%	2,750	SF	4.50	12,380
C12	- Sealed Conc/25%	1,380	SF	1.50	2,070
C13	- Carpet Tile/25%	150	SY	50.00	7,500
C14	Base - Rubber	1,850	LF	4.00	7,400
C15	Ceilings - DW/Ptd/Typ	2,400	SF	10.00	24,000
C16	- ACT	2,000	SF	5.00	10,000
C17	- PC Conc Panels @ Holding Cells & Armory	280	SF	25.00	7,000
C18	- Exposed/Ptd @ Mech/Storage/Sally Port	850	SF	1.50	1,280
C19	Walls/Ptd	18,000	SF	1.25	22,500
C20	<u>Millwork Specialties & Equipment</u>				0
C21	<u>Millwork</u>				0
C22	Reception Desk	20	LF	650.00	13,000
C23	Locker Room Vanities - Assume Solid Surface/8'L	2	EA	2,000.00	4,000
C24	Base Cabinets & Counter @ Break Rm	7	LF	350.00	2,450
C25	- O/H Cabinets	10	LF	200.00	2,000
C26	Misc Millwork - Assume Minor/Allowance	5,500	SF	1.00	5,500
C27	<u>Specialties</u>				0
C28	Toilet Accessories - Locker Rooms/Allowance Per Rm	2	EA	2,500.00	5,000
C29	- Toilet Room	1	EA	500.00	500
C30	Misc Specialties - FEC	2	EA	450.00	900
C31	- Gear Lockers	28	EA	500.00	14,000
C32	- Gun Lockers	2	EA	1,500.00	3,000
C33	- Metal Interview Tables/Bolted	2	EA	1,000.00	2,000
C34	- Stainless Steel Processing Table	1	EA	1,500.00	1,500
C35	- Chemical Storage Cabinet w/Exhaust Hood	1	EA	2,500.00	2,500
C36	- Evidence Lockers	1	EA	7,500.00	7,500
C37	- Evidence Lockers/Pass Thru	1	EA	10,000.00	10,000
C38	- Signage	1	LS	2,500.00	2,500
C39	Armory - Weapons Storage Racks/Allowance	1	LS	10,000.00	10,000
C40	- Misc Metal Shelving/Allowance	1	LS	2,500.00	2,500
C41	Window Treatments - Shades Blinds/Manual	250	SF	7.50	1,880
C42	Equipment - Breakroom Refrig/MW/Etc/Allowance	1	LS	2,000.00	2,000
C43	- Live Scan Fingerprint Scanner System/Allowance	1	LS	10,000.00	10,000
C44	- Computers/Printers/Misc Peripheral Equip/Etc	1	LS	-	By Owner
C45					0
C46					0
	Subtotal				378,160

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
D	Sprinklers & Plumbing				
D1	<u>Sprinklers</u>				0
D2	Fire Service Entrance - Trenching/Piping/DI/4"	1	LS	-	w/Site Utilities
D3	- BFP/DCDA/4"	1	EA	5,000.00	5,000
D4	Fire Pump/Jockey Pump - Assume Not Required	1	LS	-	NIC
D5	Wet Pipe System - Piping/Heads	5,500	SF	4.00	22,000
D6	- Alarm Check Valve/Pre-trimmed/4"	1	EA	3,500.00	3,500
D7	- Fire Dept Connection	1	EA	1,500.00	1,500
D8	- Testing Allowance/Hydrostatic/Main Drain/Etc	1	LS	1,500.00	1,500
D9	Dry Pipe/Pre-action/Clean Agent Systems	1	LS	-	NIC
D10	<u>Plumbing</u>				0
D11	DW Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
D12	- BFP/DCDA/2"	1	EA	2,500.00	2,500
D13	- Water Meter/Assume Turbine 2"	1	EA	1,500.00	1,500
D14	Sanitary Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
D15	Gas Service Entrance - Piping & Connections	1	LS	-	w/Site Utilities
D16	- Pressure Regulator & Meter	1	LS	-	By Utility
D17	Water Heater - Gas/Not Sized/Allowance	1	EA	10,000.00	10,000
D18	- Circulator Pump	1	EA	1,500.00	1,500
D19	- Thermostatic Mixing Valve/Master Mixer	1	EA	2,500.00	2,500
D20	Fixtures - WC/Wall Mtd/Sensor Operator	4	EA	1,250.00	5,000
D21	- Urinal/Sensor Operator	1	EA	1,000.00	1,000
D22	- Lavs/Undermount/Metering Faucet	6	EA	600.00	3,600
D23	- Lavs/Free Standing/Metering Faucet	1	EA	800.00	800
D24	- Service Sink	1	EA	1,000.00	1,000
D25	- EWC	1	EA	2,500.00	2,500
D26	- Kitchen Sink/SS/Single Bowl	1	EA	1,000.00	1,000
D27	- Showers w/Acrylic Surround/36"x36"	2	EA	2,500.00	5,000
D28	- Prison Grade Fixtures/Combination Toilet/Lav	2	EA	2,500.00	5,000
D29	- Rough-in	19	EA	450.00	8,550
D30	Piping/Insul/Valves - Allowance Per Fixture	19	EA	3,000.00	57,000
D31	Floor Drains w/Trap Primer	3	EA	750.00	2,250
D32	Hose Bibs/Wall Hydrants - Allowance	1	LS	2,500.00	2,500
D33	Roof Drainage - Roof/Overflow Drains/Piping/Allow	5,500	SF	3.00	16,500
D34					0
D35					0
D36					0
D37					0
D38					0
D39					0
D40					0
D41					0
D42					0
D43					0
D44					0
D45					0
D46					0
	Subtotal				163,200

ESTIMATE

Proj: Hightstown Municipal Bldg Complex
 Date: May 8, 2017/Revised May 17/May 18, 20

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
E	HVAC				
E1	Primary Heating & Cooling Equip - Boilers/AHU/RTU	5,500	SF	20.00	110,000
E2	Heating - Boilers/Gas-Fired	1	LS	-	w/ Allowance
E3	- HW Pumps	1	LS	-	w/ Allowance
E4	- Baseboard Radiation	1	LS	-	w/ Allowance
E5	- AHU/Not Sized	1	LS	-	w/ Allowance
E6	- VAVs w /HW Reheat Coils	1	LS	-	w/ Allowance
E7	Cooling - Packaged RTU/Not Sized	1	LS	-	w/ Allowance
E8	- IT Room/Split System/1 TN	1	EA	5,000.00	5,000
E9	- Condensing Unit/Roof Mtd	1	EA	-	Incl
E10	- Refrigerant Lines	1	LS	-	Incl
E11	Exhaust Fans - Lockers/Toilets/Misc/Allowance	5,500	SF	1.00	5,500
E12	Ductwork - Sheet Metal/Galv/Allow 1 LB per SF	5,500	LB	15.00	82,500
E13	Hydronic Piping/Insul - HW/S&R @ VAVs/Allowance	5,500	SF	2.50	13,750
E14	GRD	5,500	SF	1.00	5,500
E15	Testing & Balancing	5,500	SF	0.50	2,750
E16	Controls - Building Automation System/DDC/Allow	5,500	SF	7.50	41,250
E17	Commissioning	1	LS	-	NIC
E18					0
	Subtotal				266,250
F	Electrical				
F1	Service Entrance - Primary Transformer/Pad Mtd	1	LS	-	w/Site Utilities
F2	- Current Transformer & Meter	1	LS	-	By Utility
F3	MDP - Not Sized/Assume 400A/208-120V/3Ø/4W	1	EA	20,000.00	20,000
F4	Panelboards - Power & Lighting/Assume 100A	2	EA	5,000.00	10,000
F5	- MCC/Assume 200A	1	EA	7,500.00	7,500
F6	Feeders - Allowance per Panel	3	EA	1,500.00	4,500
F7	Wiring & Receptacles	5,500	SF	7.50	41,250
F8	Grounding/Lightning Protection	5,500	SF	0.50	2,750
F9	Mechanical Equip Connections - Feeders/Conduit	5,500	SF	2.00	11,000
F10	- VFDs/Safety Switches/Etc	1	LS	-	Included
F11	Emergency System - Generator/Pad Mtd/Not Sized	1	LS	50,000.00	50,000
F12	- Acoustic Enclosure/Allowance	1	EA	10,000.00	10,000
F13	- Misc Accessories/Sub-base Fuel Tank/ATS/Etc	1	LS	-	Included
F14	Lighting - Interior/Troffers/Downlights/Etc./LED	5,500	SF	10.00	55,000
F15	- Exterior Bldg Mtd w/ Photocell Controls/Allowance	1	LS	10,000.00	10,000
F16	Lighting Controls - Switches/OS/Daylighting/Etc	5,500	SF	1.00	5,500
F17	<u>Special Systems</u>				0
F18	Fire Alarm - FACP/Devices/Wiring/Conduit/Complete	5,500	SF	3.00	16,500
F19	Tele/Data - Head End Equip/Servers/Computers/Etc	1	LS	-	By Owner
F20	- Wireless Access Points/Allowance	5,500	SF	1.00	5,500
F21	- Conduits/Boxes/Outlets	5,500	SF	2.00	11,000
F22	- F.O. Cabling	1	LS	-	By Owner
F23	Security System	1	LS	-	NIC
F24	PA System	1	LS	-	NIC
	Subtotal				260,500

Project: Hightstown Municipal Bldg Complex
Number: 17054E2
Client: Clarke Caton Hintz
Date: May 8, 2017/Revised May 17/May 18, 2017
Phase: Concept

BECKER & FRONDORF
 Construction Cost Consulting • Project Management

AREA SUMMARY

Floor	New Police Bldg	Renov Office	Addition	Subtotal (Per Floor)
Basement		3,200	600	3,800
1st Floor	6,080	3,530	1,270	10,880
2nd Floor		3,530	1,130	4,660
3rd Floor				0
4th Floor				0
Penthouse				0
Total	6,080	10,260	3,000	19,340 0
Check Sum				19,340

SECTION 9 – PHASING PLAN

Summary

Should funding for the entire project not be available all at once, the following phasing plan was identified with representatives of the Borough of Hightstown.

Phasing Plan

Phase 1

- Build the addition to the existing building, renovate the first floor and replace/repair existing gutters and downspouts (\$3,037,000).

Phase 2

- Build new Police Station (\$2,690,000).

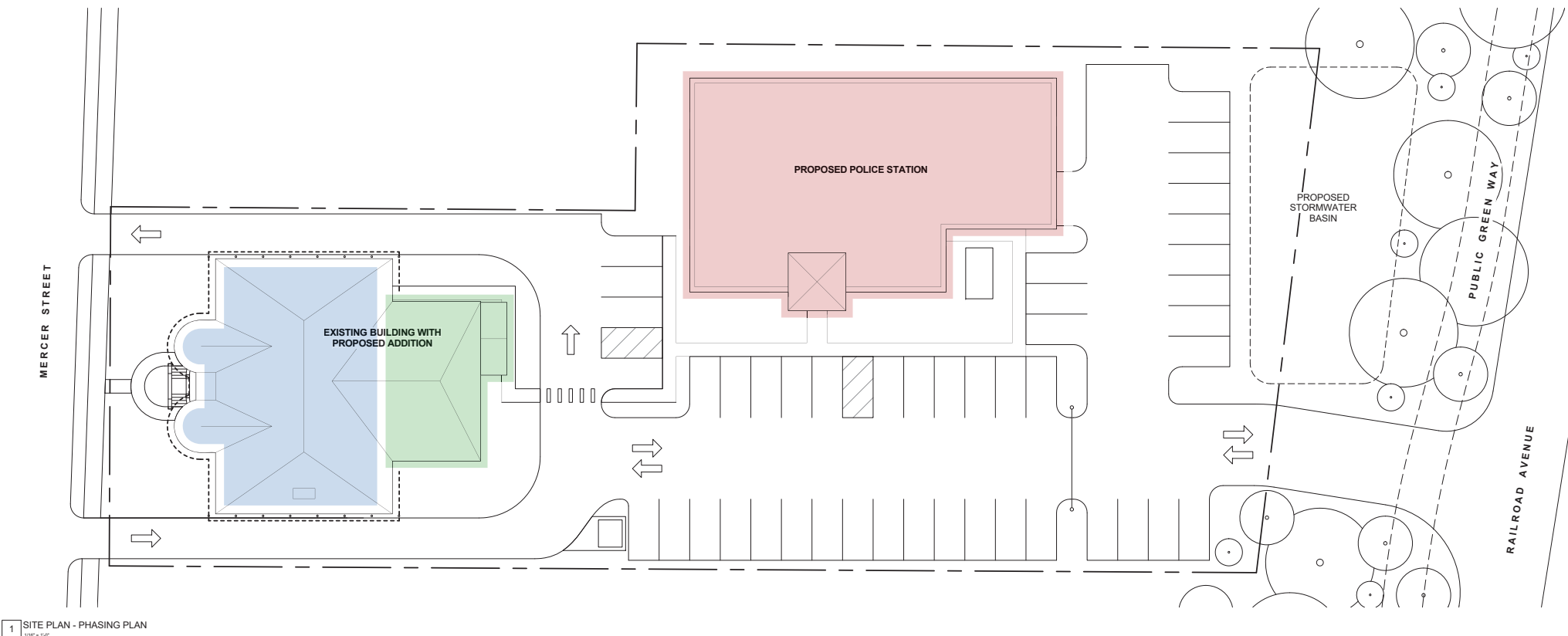
Phase 3

- Renovate basement and second floor of existing building (\$498,000).

Phase 4

- Repair envelope of existing building - i.e., replace windows, masonry repair, paint, etc. (\$347,000).

Please note the costs provided are in Spring 2017 dollars. Depending upon the timing of future phases, escalation and inflation will need to be addressed.



CCH PROJECT NO: 1976

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APPENDIX A: PROGRAM FEEDBACK

See Following Page

Clarke Caton Hintz
 Architecture
 Planning
 Landscape Architecture

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 Emeriti
 John Clarke, FAIA
 Carl Hintz, AICP, ASLA

The Borough of Hightstown Space Analysis Questionnaire

A. OVERVIEW AND GOALS

1. Location, Department & Floor:
 ADMINISTRATOR, 1ST FL
2. What is the role of the department with the municipality?
 ADMINISTRATION
3. Who does the department report to? List any adjacency requirements to other departments and indicate critical vs. preferred:
 ADJACENT TO CLERK

B. ORGANIZATIONAL OVERVIEW

1. Does your department have particular office hours?
 8:30AM - 4:30PM
2. Do you have an organizational chart? If yes, please provide.
 NO
3. Does your department have outside visitors? If yes, who and how often?
 YES - PERIODICALLY

C. DEPARTMENTAL PERSONNEL INFORMATION

1. Please list titles, levels and quantities, including growth, as noted on the chart below. Please include part time and temporary employees.

Employee Title/Level	Present (2017)	Year 2020	Year 2022	Year 2024
ADMINISTRATOR	P.O.			
↓ maybe combined w/ clerk, but still need a P.O.				
No need to be up front; but near clerk & reception				

Clarke Caton Hintz

2. What are the adjacency requirements within the department?

D. DEPARTMENTAL SPATIAL REQUIREMENTS AND SHARED AMENITIES

1. Describe any special storage requirements for particular employees:

1-FIRE PROOF LATERAL
1-4 DRAWER CABINET

2. What are the department's filing and storage needs and are there any unique items specific to this department (e.g. vaults/storage, etc.)?

3. Is there a need for a reception area? If yes, does it require a receptionist, seating, display areas and coat storage? How many seats for visitors?

~~YES~~ 2 SEATS • Within Office

4. Does this department have a dedicated conference room? Does it need one? If so, how many people should it seat, is there any specific AV requirements and/or presentation needs?

Within Office YES - 8 SMALL MTE TABLE w/ 4 ADD'L CHAIRS IN OFFICE

5. How many copy machines, printers and fax machines does the department have and where should they be located?

1 PRINTER

6. Are there any other special spaces required (e.g. multi-use room, seminar room, lounge, dedicated storage rooms, dressing rooms, showers, etc.)?

NO

7. Does this department currently utilize a Central file and/or storage location not located within the department? If so, is it traditional filing, high density storage or records retention

NO

E. EXTERIOR ACCESS

1. Does the space require direct access to the exterior (or is access via a corridor acceptable)?

NO

2. Does the space require a loading dock or other special exterior features?

NO



George.

Clarke Caton Hintz
Architecture
Planning
Landscape Architecture

The Borough of Hightstown Space Analysis Questionnaire

100 Barrack Street
Trenton NJ 08608
clarkecatonhintz.com
Tel: 609 883 8383
Fax: 609 883 4044

A. OVERVIEW AND GOALS

1. Location, Department & Floor:

CONSTRUCTION / CODE ENFORCEMENT / PLANNING / FIRE / ANIMAL CONTROL ZONING

2. What is the role of the department with the municipality?

SERVE THE RESIDENCE

3. Who does the department report to? List any adjacency requirements to other departments and indicate critical vs. preferred:

ADMINISTRATOR. TAX COLLECTOR + CLERK

B. ORGANIZATIONAL OVERVIEW

1. Does your department have particular office hours?

8:30 - 4:30 - I'M USUALLY HERE LATER

lunchtime is very busy.

2. Do you have an organizational chart? If yes, please provide.

3. Does your department have outside visitors? If yes, who and how often?

YES, ALL THE TIME

Seating for 4 for waiting.

C. DEPARTMENTAL PERSONNEL INFORMATION

1. Please list titles, levels and quantities, including growth, as noted on the chart below. Please include part time and temporary employees.

Philip Caton, FAICP
John Hatch, FAIA
George Hibbs, AIA
Brian Slaugh, AICP
Michael Sullivan, AICP

Emeriti

John Clarke, FAIA
Carl Hintz, AICP, ASLA

TO SHARE
A DESK

Employee Title/Level	Present (2017)	Year 2020	Year 2022	Year 2024
PT GEORGE CHIN, CO ZONING PO		Telephone Computer		
PT SANDY BELAN, ADM. ASST, PLANNING SEC	WRK. ADJ. to window	Shared Printer		
PT DAVE BELL - HOUSING, CODE ENF, ANIMAL CONT.	WS!	Shared Copier Shared FAX		
CHAD REED - FIRE OFFICIAL	computer			
RICH SUCH - ELECT. INSPECT				
JOE GRAZIANO - PLUMBING INSP.				
JIM YATES - FIRE SUBCODE				
ROB WEBER - FIRE INSP.				

2. What are the adjacency requirements within the department?

ADMIN. ASSIST CLOSE TO EVERYONE

other depts.
Tax/ Clerk.
(manager)

D. DEPARTMENTAL SPATIAL REQUIREMENTS AND SHARED AMENITIES

1. Describe any special storage requirements for particular employees:

4H →

CONSTRUCTION - 2 1/2 NEED AT LEAST 3 FIRE - 1
PLANNING - 1 " " " 2 ANIMAL CONTROL - 1
HOUSING - 1 1/2 " " " 2 3

GARAGE
2 DEED 4

2. What are the department's filing and storage needs and are there any unique items specific to this department (e.g. vaults/storage, etc.)?

2 file cabinets
3H

need to keep money need window, but not in sight.

3. Is there a need for a reception area? If yes, does it require a receptionist, seating, display areas and coat storage? How many seats for visitors?

4 SEATS FOR PEOPLE WAITING

4. Does this department have a dedicated conference room? Does it need one? If so, how many people should it seat, is there any specific AV requirements and/or presentation needs?

NO. COULD USE ACCESS TO CONFERENCE ROOM (can be shared)

min. of 6 occupants

5. How many copy machines, printers and fax machines does the department have and where should they be located?

1 COPY, USES FINANCE FAX AND CLERK'S COPY
PRINTER

6. Are there any other special spaces required (e.g. multi-use room, seminar room, lounge, dedicated storage rooms, dressing rooms, showers, etc.)?

CO. NEEDS TO BE AWAY FROM SEPARATE ROOM TO GET WORK DONE. PLAN DESK OR DRAFTING TABLE

↑ PRIVATE OFFICE

7. Does this department currently utilize a Central file and/or storage location not located within the department? If so, is it traditional filing, high density storage or records retention

GARAGE - TRADITIONAL FILING

E. EXTERIOR ACCESS

1. Does the space require direct access to the exterior (or is access via a corridor acceptable)? BE NICE TO HAVE - WE GO IN & OUT MANY TIMES FOR INSPECTIONS

front entrance for residents
Back door for inspectors.

2. Does the space require a loading dock or other special exterior features?

NO

Kristi

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Planning
Landscape Architecture

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Fax: 609 883 4044

The Borough of Hightstown -- Municipal Court Space Analysis Questionnaire

A. OVERVIEW AND GOALS

1. Location, Department & Floor: 1117 Route 130, Robbinsville NJ
(shabby 1 story modular unit w/ Robbinsville Twp Court)
2. What is the role of the department with the municipality? Handle all traffic & criminal charges issued within the jurisdiction of Hightstown - from issuance to final disposition.
3. Who does the department report to? List any adjacency requirements to other departments and indicate critical vs. preferred:
Administration and Mercer County Mun. Division.

B. ORGANIZATIONAL OVERVIEW

1. Does your department have particular office hours? M-F 8:30a - 4:30p
(night court 2nd & 4th Wednesday each month @ 6pm)
2. Do you have an organizational chart? If yes, please provide. No.
3. Does your department have outside visitors? If yes, who and how often? Yes - Daily -
defendants (family), police, attorneys, prisoners, etc.

C. DEPARTMENTAL PERSONNEL INFORMATION

1. Please list titles, levels and quantities, including growth, as noted on the chart below. Please include part time and temporary employees.

Philip Caton, FAICP
John Hatch, FAIA
George Hibbs, AIA
Brian Slauch, AICP
Michael Sullivan, AICP

Emeriti
John Clarke, FAIA
Carl Hintz, AICP, ASLA

Employee Title/Level	Present (2017)	Year 2020	Year 2022	Year 2024
# Court Admin (D)	PO Night	1		
# Deputy Ct Admin (D)	WS	1		
PT Judge (C)	PO	1		
PT Court Recorder (C)		1		
PT Public Defender (C)	Sm. PO	1		
PT Prosecutor (C)	Sm. PO	1		

at office 4 times per month

Page 1 of 2

Court requires

① Video Conferencing

(prisoner interviews)

② Speaker phone

① - Daily
② - Court sessions only

③ Printer

④ State Laptop

2. What are the adjacency requirements within the department?

Police Department

D. DEPARTMENTAL SPATIAL REQUIREMENTS AND SHARED AMENITIES

1. Describe any special storage requirements for particular employees: *N/A*

2. What are the department's filing and storage needs and are there any unique items specific to this department (e.g. vaults/storage, etc.)? *Currently 4 large and 2 small file cabinets - will need separate locked areas to store boxes of old documents.*
3. Is there a need for a reception area? If yes, does it require a receptionist, seating, display areas and coat storage? How many seats for visitors? *Will need waiting area for defendants during court sessions. No receptionist.*
4. Does this department have a dedicated conference room? Does it need one? If so, how many people should it seat, is there any specific AV requirements and/or presentation needs? *No.*
5. How many copy machines, printers and fax machines does the department have and where should they be located? *Copier, 1 fax, 1 printer*
6. Are there any other special spaces required (e.g. multi-use room, seminar room, lounge, dedicated storage rooms, dressing rooms, showers, etc.)? *State equip - Tally Printer (table top) Laser printer. Court Room, Prosecutor Office + Public Defender Office.*
7. Does this department currently utilize a Central file and/or storage location not located within the department? If so, is it traditional filing, high density storage or records retention *Currently filing in a pod due to lack of space in shared facility.*

E. EXTERIOR ACCESS

1. Does the space require direct access to the exterior (or is access via a corridor acceptable)?

Direct Access.

2. Does the space require a loading dock or other special exterior features? *No.*



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Planning
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Philip Caton, FAICP
John Hatch, FAIA
George Hibbs, AIA
Brian Slaugh, AICP
Michael Sullivan, AICP

Emeriti
John Clarke, FAIA
Carl Hintz, AICP, ASLA

The Borough of Hightstown Space Analysis Questionnaire

~~ADMIN.~~
Deb.

A. OVERVIEW AND GOALS

1. Location, Department & Floor:
MUNICIPAL CLERK, 1ST FLOOR
2. What is the role of the department with the municipality?
SECY TO GOVERNING BODY, LICENSING,
REGISTRAR/VITAL STATISTICS, RECORDS...
3. Who does the department report to? List any adjacency requirements to other departments and indicate critical vs. preferred:
ADMINISTRATION
RECEPTION - CRITICAL

B. ORGANIZATIONAL OVERVIEW

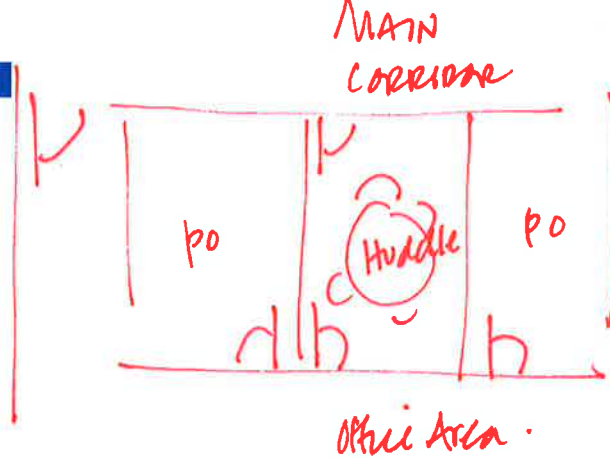
1. Does your department have particular office hours?
8:30AM - 4:30PM
2. Do you have an organizational chart? If yes, please provide.
NO
3. Does your department have outside visitors? If yes, who and how often?
YES, REGULARLY

C. DEPARTMENTAL PERSONNEL INFORMATION

1. Please list titles, levels and quantities, including growth, as noted on the chart below. Please include part time and temporary employees.

Employee Title/Level	Present (2017)	Year 2020	Year 2022	Year 2024
MUNICIPAL CLERK PO	1	Phone		
DEPUTY CLERK PO	1	Printer		
RECEPTION	1	Computer		
ASSESSOR	1	Phone / Computer		
5-7 Wednesday Saturday.				
SHARE w/ RECEPTIONIST				
files in the Annex of the 3 to 4				

Scoping for 4



2. What are the adjacency requirements within the department?

ADJACENT TO ADMINISTRATOR + RECEPTION

D. DEPARTMENTAL SPATIAL REQUIREMENTS AND SHARED AMENITIES

1. Describe any special storage requirements for particular employees:

FIRE PROOF CABINETS - REGISTRAR
CONFIDENTIAL FILES - CLERK

2. What are the department's filing and storage needs and are there any unique items specific to this department (e.g. vaults/storage, etc.)?

3. Is there a need for a reception area? If yes, does it require a receptionist, seating, display areas and coat storage? How many seats for visitors?

YES + 4 SEATS FOR VISITORS

4. Does this department have a dedicated conference room? Does it need one? If so, how many people should it seat, is there any specific AV requirements and/or presentation needs?

NO, NOT NEEDED

5. How many copy machines, printers and fax machines does the department have and where should they be located?

COPY - 1; FAX - 1; MAIL - 1
ALL NEAR RECEPTIONIST (COMMON ROOM)
PRINTERS - 2 (NEAR EMPLOYEE)

6. Are there any other special spaces required (e.g. multi-use room, seminar room, lounge, dedicated storage rooms, dressing rooms, showers, etc.)?

N/A

7. Does this department currently utilize a Central file and/or storage location not located within the department? If so, is it traditional filing, high density storage or records retention

ALL 3

E. EXTERIOR ACCESS

1. Does the space require direct access to the exterior (or is access via a corridor acceptable)?

NO

2. Does the space require a loading dock or other special exterior features?

NO

COMMON AREA NEEDS
HIGHTSTOWN BOROIUGH

1 Large Meeting Room – Council, Planning Board, and Court Sessions

Proper security measures to meet the needs for proper Council/Court security

Dias with seating for 12

Public Seating

~~Audio/Visual projector (ceiling mounted)~~ ^{IDEAL} and 2 screens (Mounted TV Monitors)

1 Medium Meeting/Multi-Purpose Room – Various Boards & Committees/Activities

Head Table with seating for 8 (can be broken down for full room use for other purposes)

Public Seating (can be broken down for full room use for other purposes)

~~Audio/Visual projector (ceiling mounted)~~ ^{IDEAL} and 1 screen (Mounted TV Monitor)

Training too.

1 Lunch Room

Small table and chairs that seats 4

Kitchenette (small stove/refrigerator/microwave/sink)

Wall Mounted TV



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Chief - Asst

**The Borough of Hightstown
Space Analysis Questionnaire**

A. OVERVIEW AND GOALS

1. Location, Department & Floor:

2. What is the role of the department with the municipality?

Police Department

3. Who does the department report to? List any adjacency requirements to other departments and indicate critical vs. preferred:

Borough administrator

B. ORGANIZATIONAL OVERVIEW

1. Does your department have particular office hours?

24/7

2. Do you have an organizational chart? If yes, please provide.

3. Does your department have outside visitors? If yes, who and how often?

Yes. Plus holding of prisoners, Interview of victims + witnesses,

C. DEPARTMENTAL PERSONNEL INFORMATION

1. Please list titles, levels and quantities, including growth, as noted on the chart below. Please include part time and temporary employees.

Philip Caton, FAICP
John Hatch, FAIA
George Hibbs, AIA
Brian Slaugh, AICP
Michael Sullivan, AICP

Emeriti
John Clarke, FAIA
Carl Hintz, AICP, ASLA

Employee Title/Level	Present (2017)	Year 2020	Year 2022	Year 2024

● ● ■ Speak with Dept of Corrections
+ Juvenile Justice about building
requirements.
Title 34 for Processing Process.

Clarke Caton Hintz

2. What are the adjacency requirements within the department?

D. DEPARTMENTAL SPATIAL REQUIREMENTS AND SHARED AMENITIES

1. Describe any special storage requirements for particular employees:
Locker room, Evidence Storage, Firearm + Ammo storage.
2. What are the department's filing and storage needs and are there any unique items specific to this department (e.g. vaults/storage, etc.)?
Large amount of records.
3. Is there a need for a reception area? If yes, does it require a receptionist, seating, display areas and coat storage? How many seats for visitors?
yes up to 6
4. Does this department have a dedicated conference room? Does it need one? If so, how many people should it seat, is there any specific AV requirements and/or presentation needs?
yes, 8 to 12
5. How many copy machines, printers and fax machines does the department have and where should they be located?
It will depend on lay out of building.
6. Are there any other special spaces required (e.g. multi-use room, seminar room, lounge, dedicated storage rooms, dressing rooms, showers, etc.)?
Locker room, Interview room, Juvenile room, Processing room, Evidence room, Armory, Traffic + Flares
7. Does this department currently utilize a Central file and/or storage location not located within the department? If so, is it traditional filing, high density storage or records retention
Bicycle's

E. EXTERIOR ACCESS

1. Does the space require direct access to the exterior (or is access via a corridor acceptable)?
yes
2. Does the space require a loading dock or other special exterior features?
Sally Port.

Clarke Caton Hintz

2. What are the adjacency requirements within the department?

D. DEPARTMENTAL SPATIAL REQUIREMENTS AND SHARED AMENITIES

1. Describe any special storage requirements for particular employees:
2. What are the department's filing and storage needs and are there any unique items specific to this department (e.g. vaults/storage, etc.)?
3. Is there a need for a reception area? If yes, does it require a receptionist, seating, display areas and coat storage? How many seats for visitors?
4. Does this department have a dedicated conference room? Does it need one? If so, how many people should it seat, is there any specific AV requirements and/or presentation needs?
5. How many copy machines, printers and fax machines does the department have and where should they be located?
6. Are there any other special spaces required (e.g. multi-use room, seminar room, lounge, dedicated storage rooms, dressing rooms, showers, etc.)?
7. Does this department currently utilize a Central file and/or storage location not located within the department? If so, is it traditional filing, high density storage or records retention

E. EXTERIOR ACCESS

1. Does the space require direct access to the exterior (or is access via a corridor acceptable)?
2. Does the space require a loading dock or other special exterior features?

Monica

Clarke Caton Hintz
Architecture
Planning
Landscape Architecture

The Borough of Hightstown
Space Analysis Questionnaire

A. OVERVIEW AND GOALS

1. Location, Department & Floor:

Tax Dept.

2. What is the role of the department with the municipality?

Collection of Taxes & utility

3. Who does the department report to? List any adjacency requirements to other departments and indicate critical vs. preferred:

Finance

B. ORGANIZATIONAL OVERVIEW

1. Does your department have particular office hours?

8:30 - 4:30 Monday - Friday

2. Do you have an organizational chart? If yes, please provide.

3. Does your department have outside visitors? If yes, who and how often?

Yes, Residence

C. DEPARTMENTAL PERSONNEL INFORMATION

1. Please list titles, levels and quantities, including growth, as noted on the chart below. Please include part time and temporary employees.

Philip Caton, FAICP
John Hatch, FAIA
George Hibbs, AIA
Brian Slaugh, AICP
Michael Sullivan, AICP

Emeriti
John Clarke, FAIA
Carl Hintz, AICP, ASLA

Employee Title/Level	Present (2017)	Year 2020	Year 2022	Year 2024
PT Tax Collector Friday WS	✓ 1			
PT Deputy Tax Collector WS	✓ 1			
PT CFO - Thursday all day 1 day @ night	1			
Payroll, WS	0			

Finance
(Janice)? Workstation
Private Offices
CFO - George
Tax Collector - Monica

2. What are the adjacency requirements within the department?

payment window & Bulletin board
front end

D. DEPARTMENTAL SPATIAL REQUIREMENTS AND SHARED AMENITIES

1. Describe any special storage requirements for particular employees:

2 x Cabinets & vault (sm. bolted to floor & desk)
lateral 4H

2. What are the department's filing and storage needs and are there any unique items specific to this department (e.g. vaults/storage, etc.)?

3. Is there a need for a reception area? If yes, does it require a receptionist, seating, display areas and coat storage? How many seats for visitors?

Breakroom - for lunch.

4. Does this department have a dedicated conference room? Does it need one? If so, how many people should it seat, is there any specific AV requirements and/or presentation needs?

Shared conference room.

Tax meeting 7-8 people.

5. How many copy machines, printers and fax machines does the department have and where should they be located?

one of each with in reach

6. Are there any other special spaces required (e.g. multi-use room, seminar room, lounge, dedicated storage rooms, dressing rooms, showers, etc.)?

Software education - vendor shows how to use software
TRAINING - 4-8.

7. Does this department currently utilize a Central file and/or storage location not located within the department? If so, is it traditional filing, high density storage or records retention

Central file in basement

1 yr. on site

Can destroy after Audit.

E. EXTERIOR ACCESS

1. Does the space require direct access to the exterior (or is access via a corridor acceptable)?

access via a corridor is acceptable.

Don't want to be first point of contact

2. Does the space require a loading dock or other special exterior features?

NO

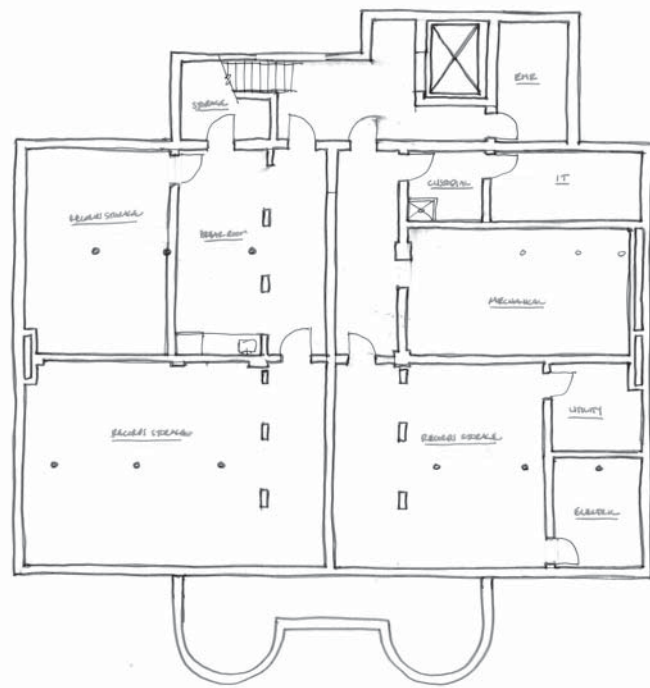
wild stay here.
150 Bank St.
VS.
Records Retention
TAX
100 boxes
PAYROLL

Can be
one in
the same
flexible
form.

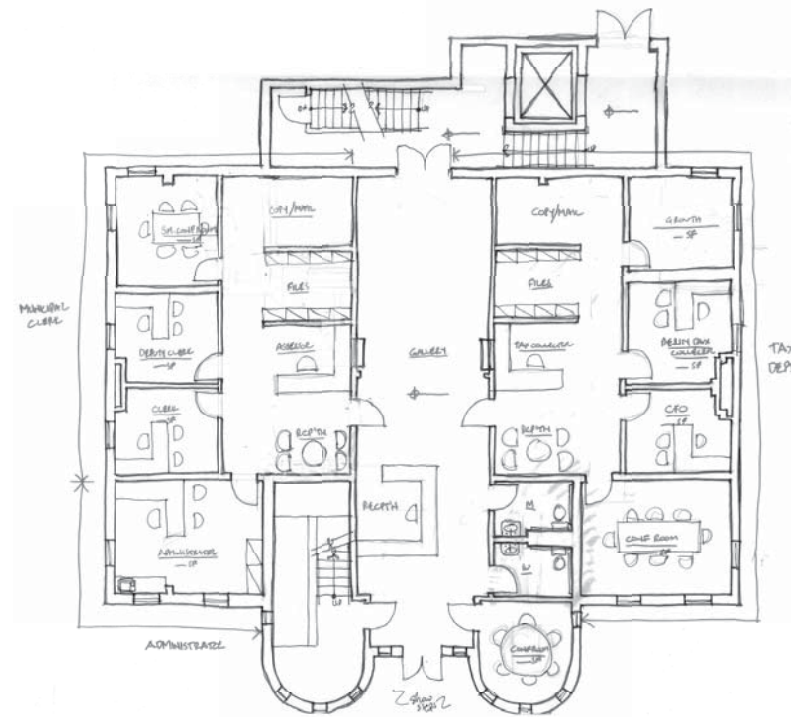
w/
projector
on
flat screen.

APPENDIX B: DESIGN CONCEPTS

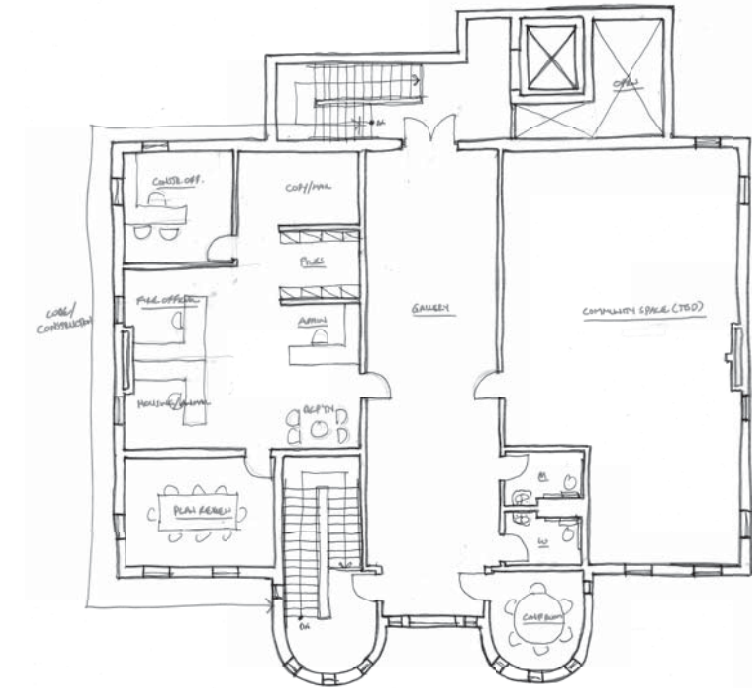
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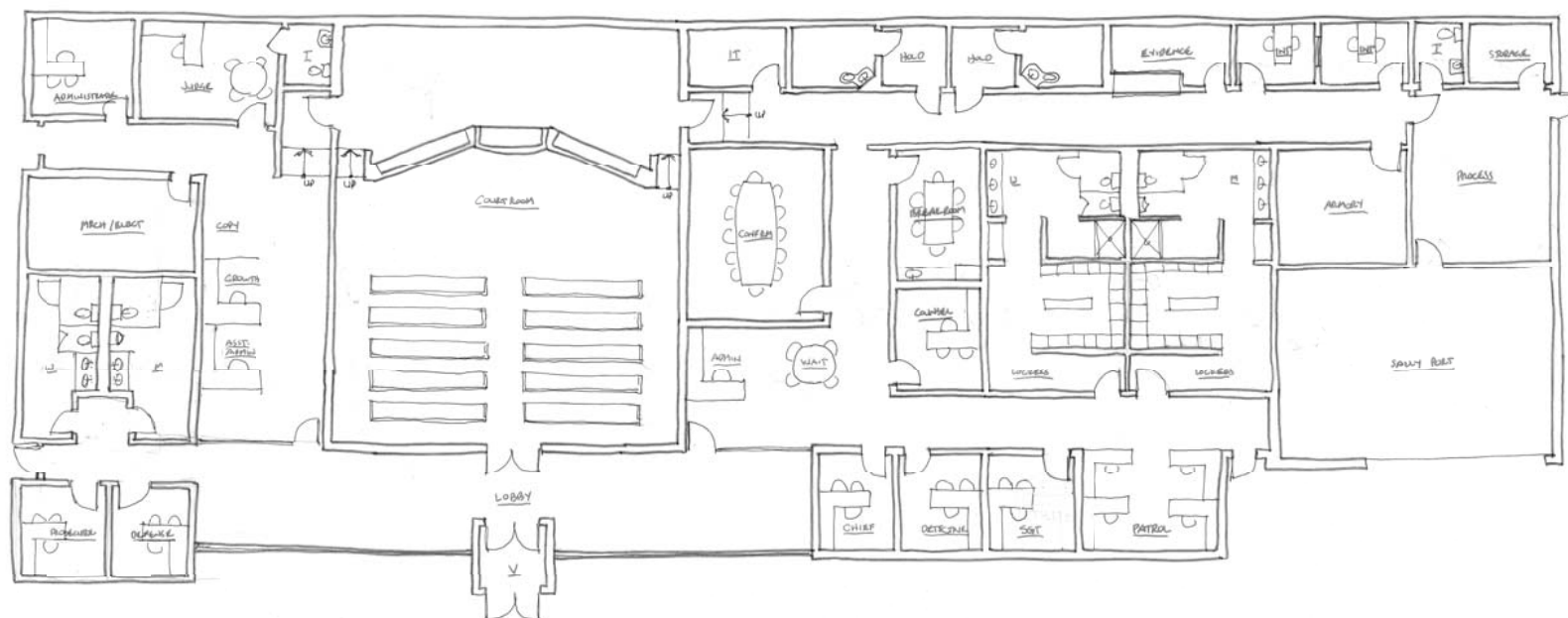
EXISTING BUILDING - BASEMENT FLOOR PLAN
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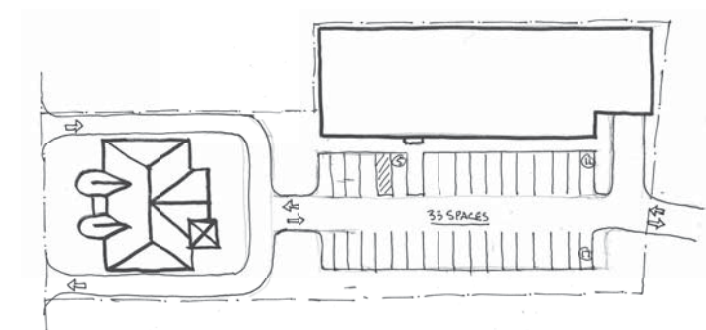
EXISTING BUILDING - FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



EXISTING BUILDING - SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"



PROPOSED NEW BUILDING - FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



PROPOSED SITE PLAN
SCALE: 1" = 40'-0"

Hightstown Municipal Complex

Option A

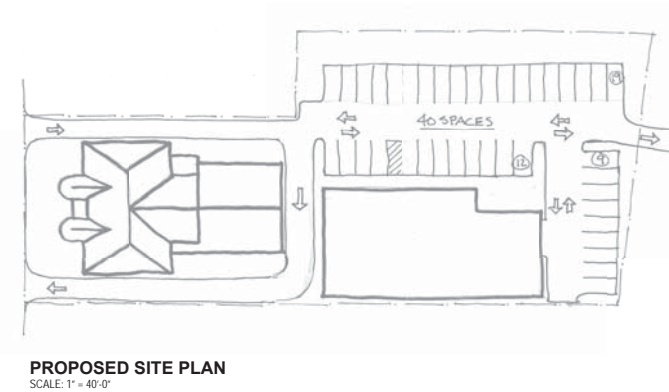
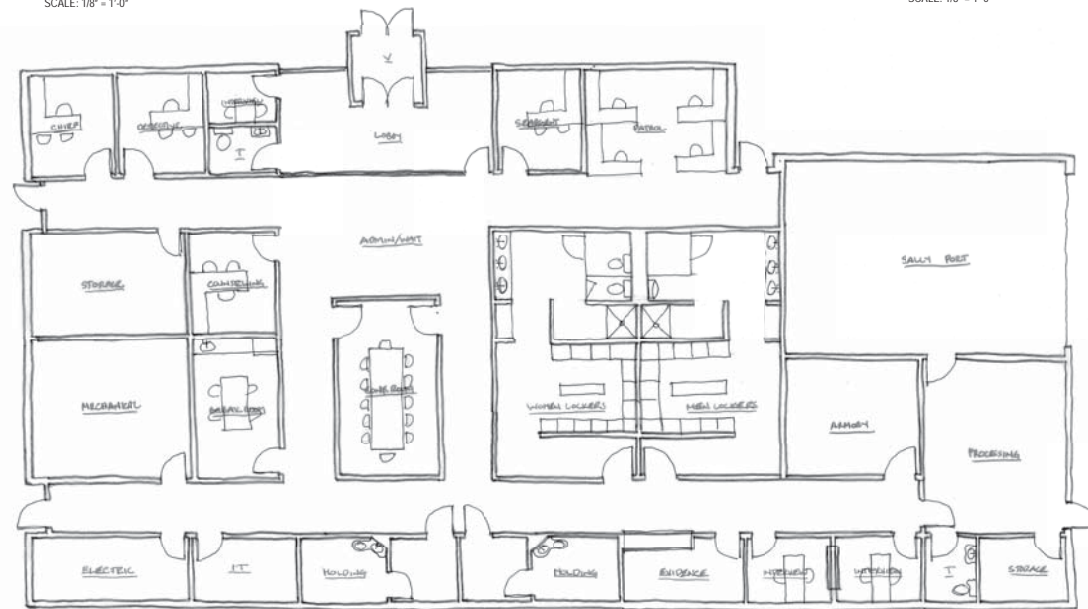
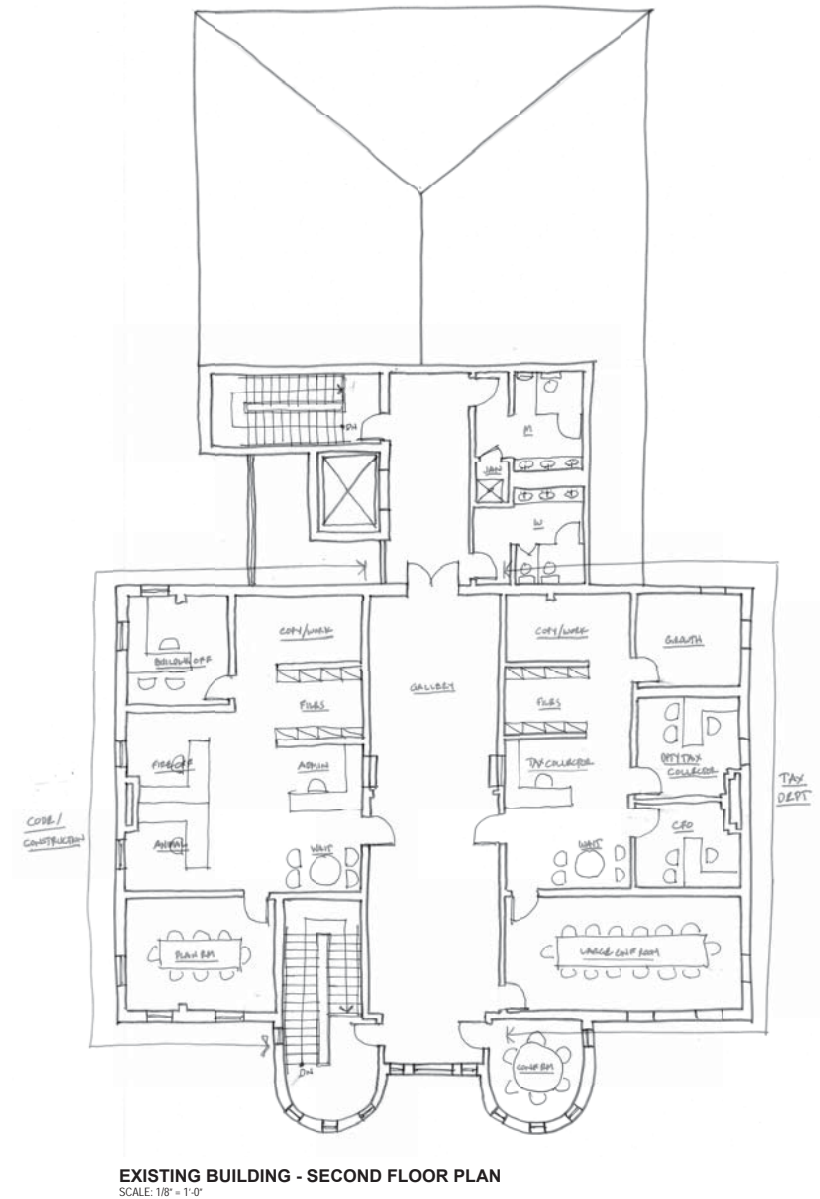
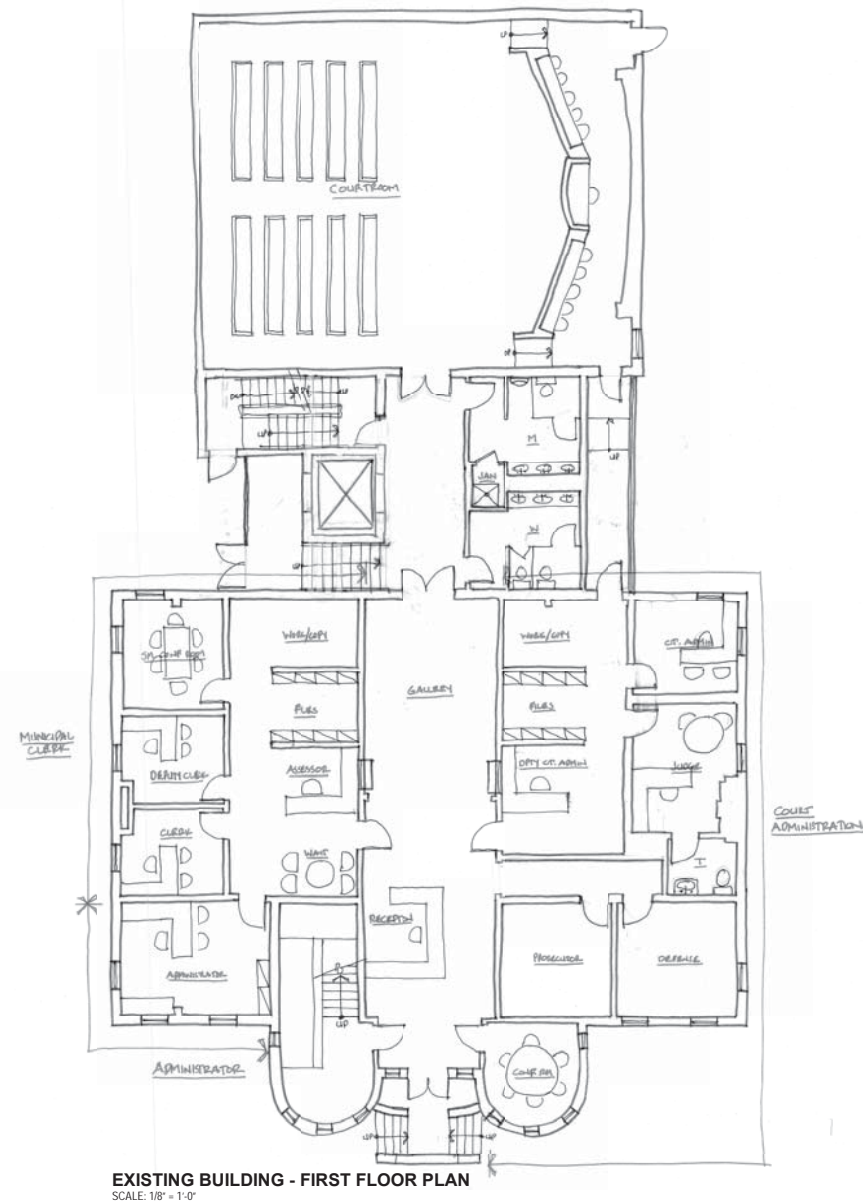
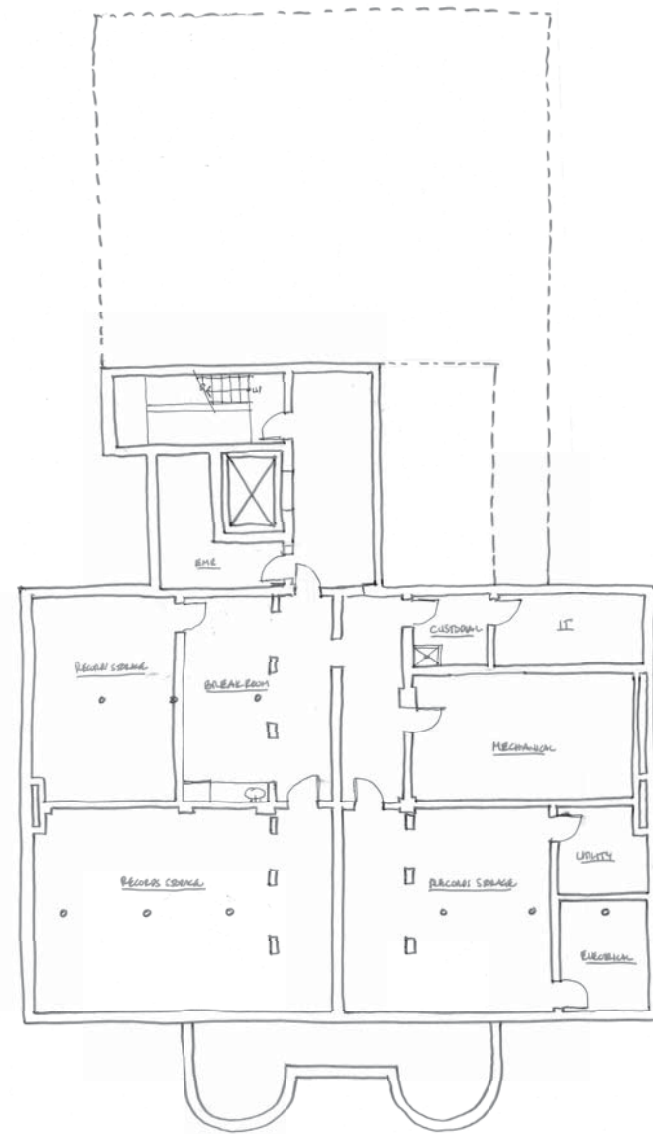
Option A

Clarke Caton Hintz

Architects

Planners

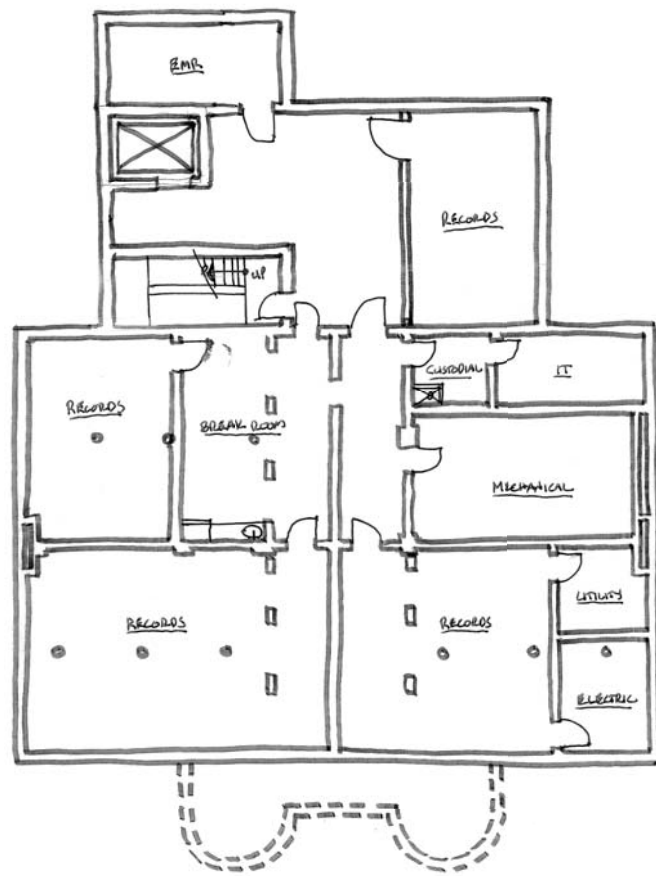
Landscape Architects



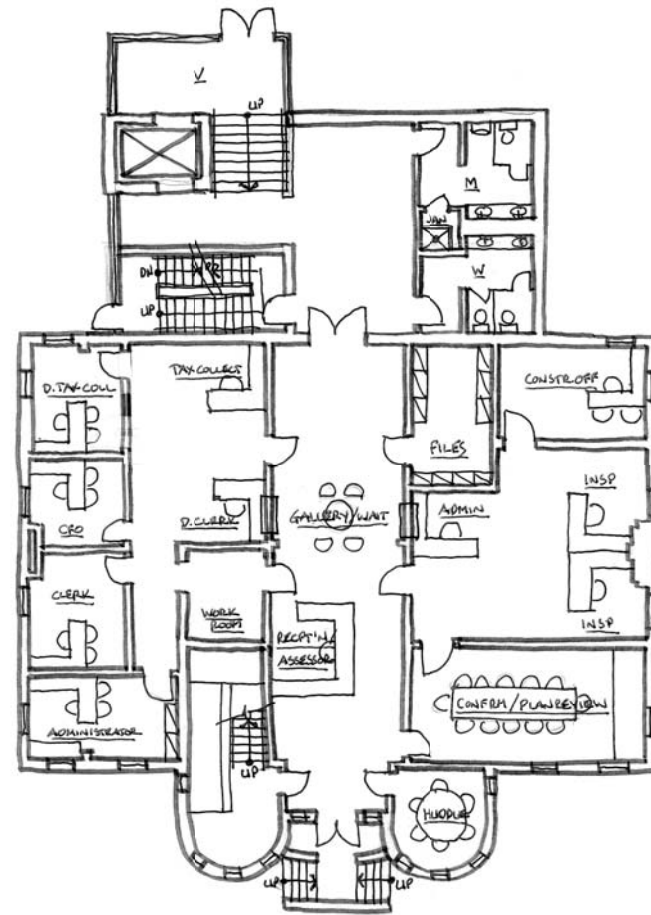
Hightstown Municipal Complex

Option B

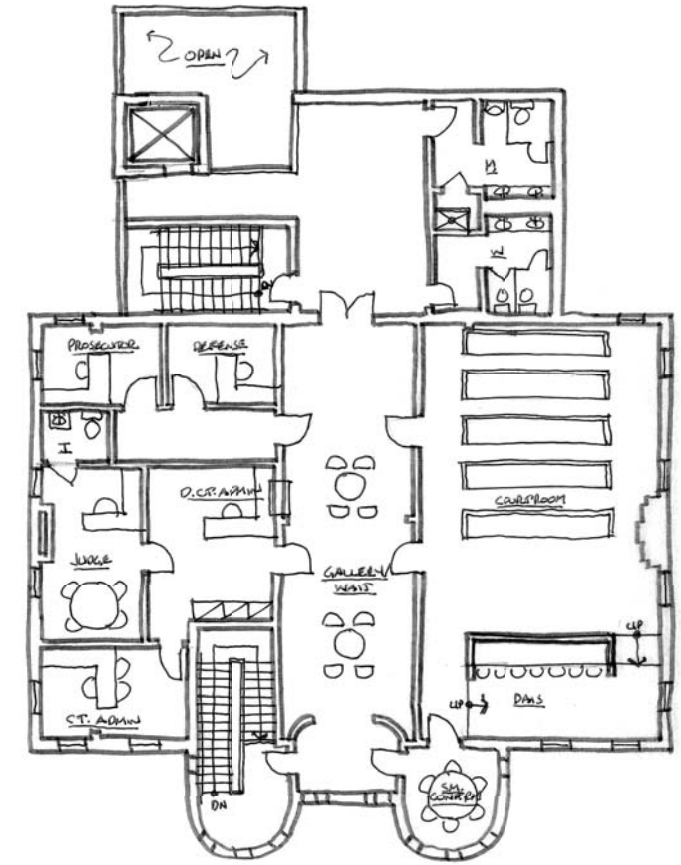




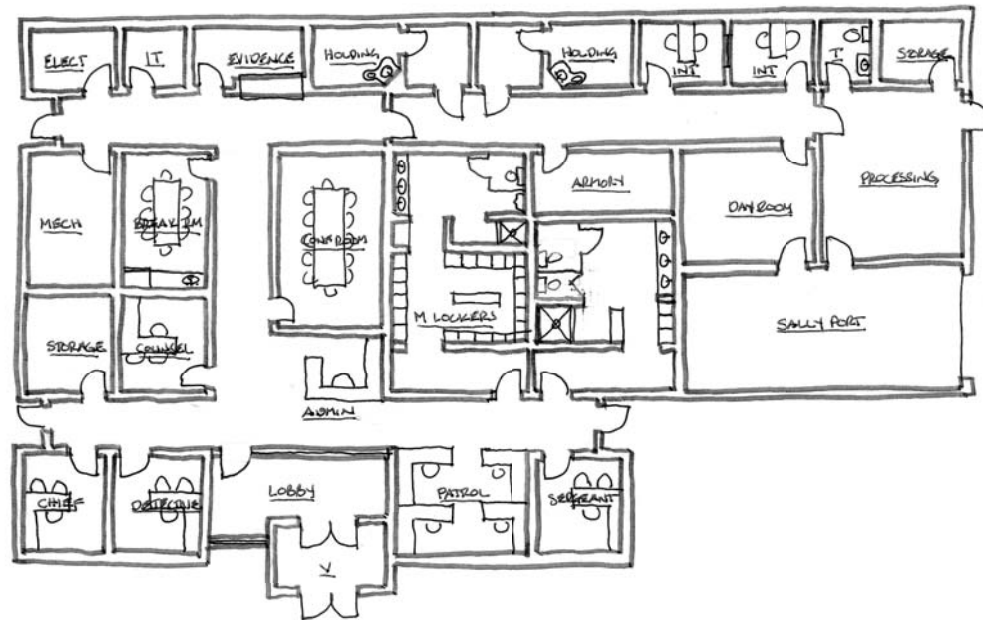
EXISTING BUILDING - BASEMENT FLOOR PLAN
SCALE: 1/8" = 1'-0"



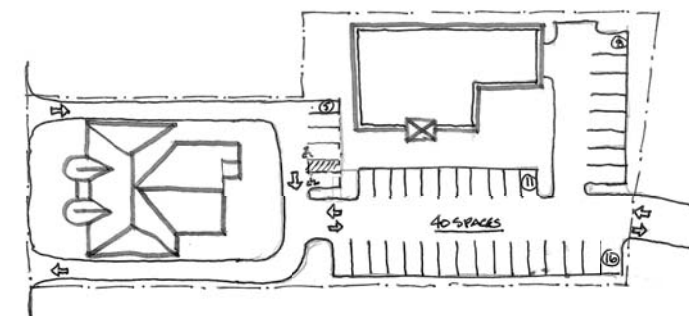
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SCALE: 1/8" = 1'-0"



EXISTING BUILDING - SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

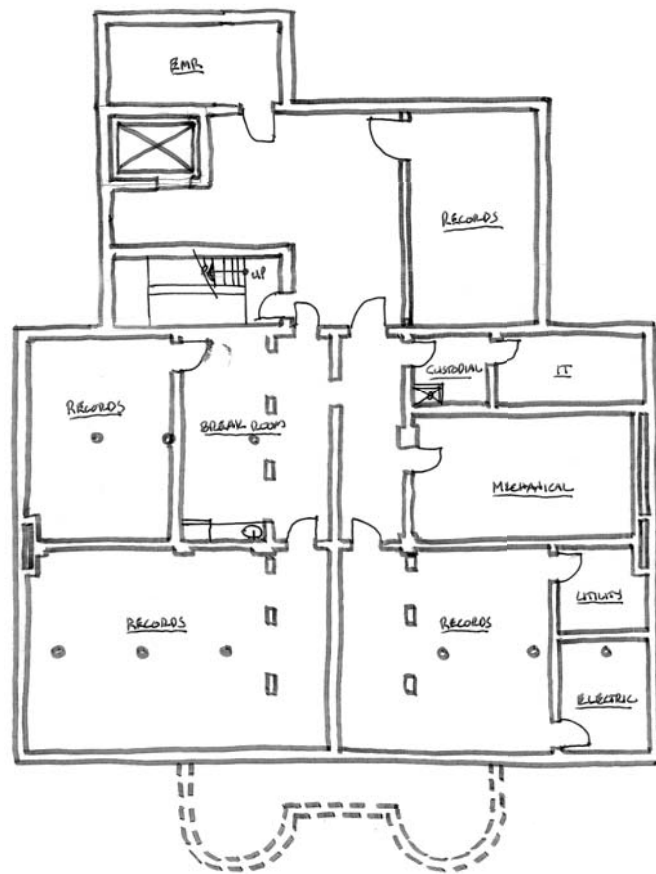


PROPOSED NEW BUILDING - FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

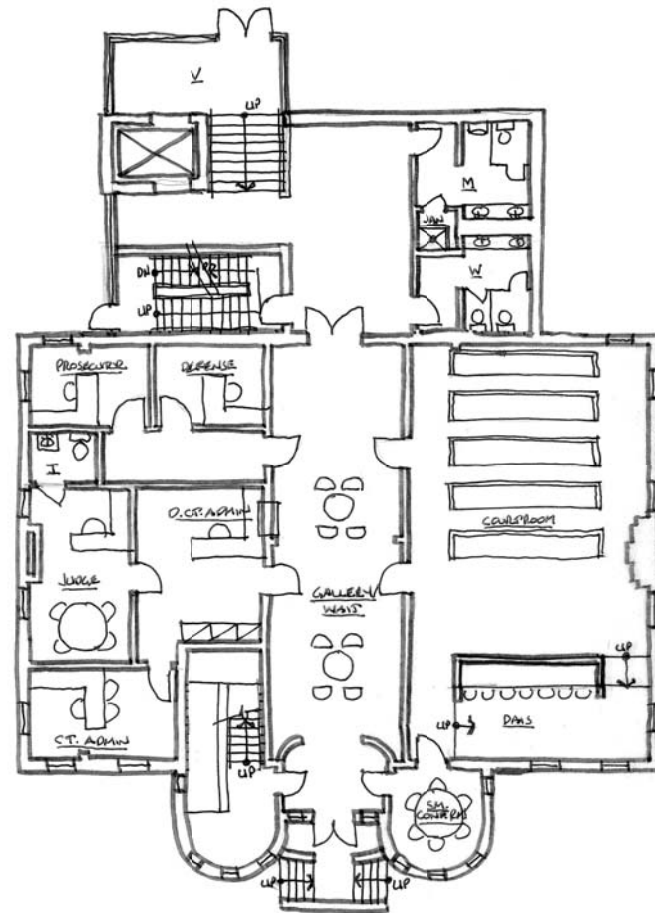


PROPOSED SITE PLAN
SCALE: 1" = 40'-0"

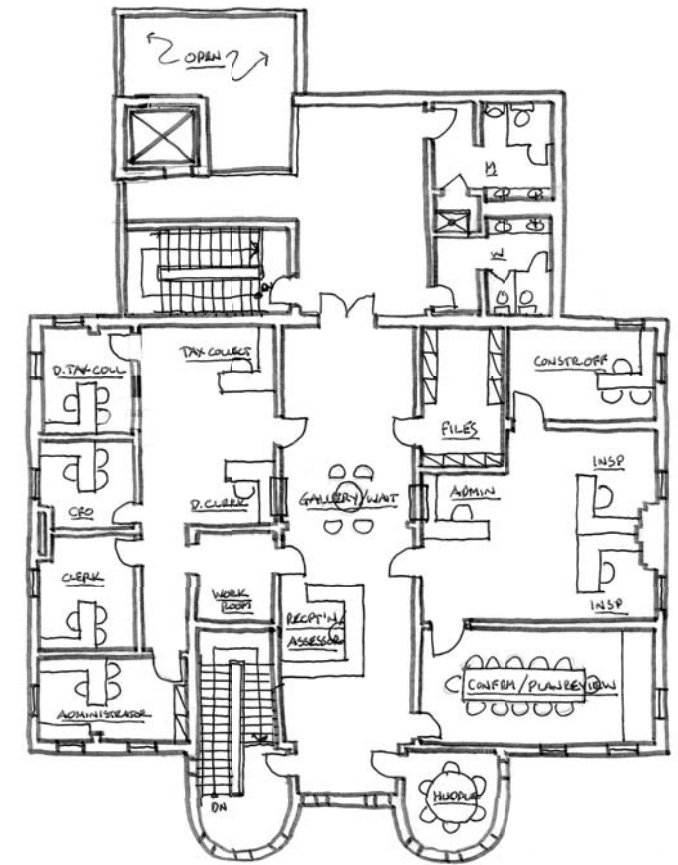




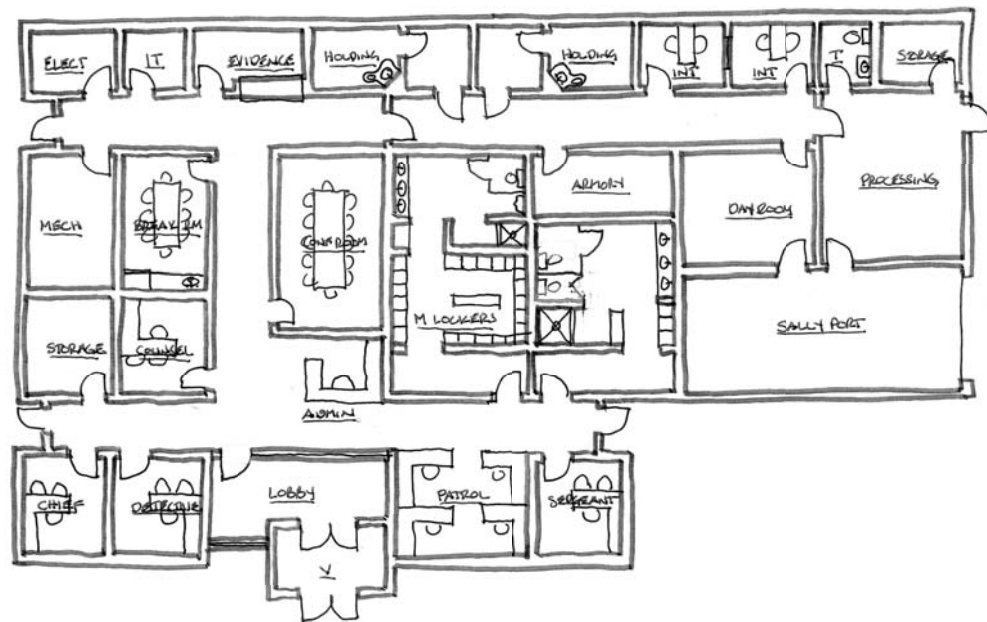
EXISTING BUILDING - BASEMENT FLOOR PLAN
SCALE: 1/8" = 1'-0"



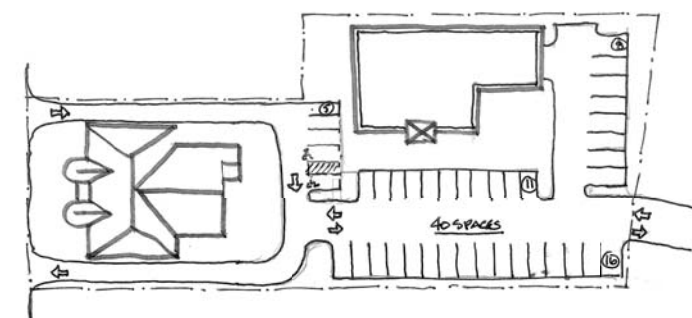
EXISTING BUILDING - FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



EXISTING BUILDING - SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"



PROPOSED NEW BUILDING - FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



PROPOSED SITE PLAN
SCALE: 1" = 40'-0"

