

Police Facility Needs Assessment

for the

Town of Essex, Vermont

Prepared by

Wiemann Lamphere Architects

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APPENDIX

Appendix A.

Built-in equipment
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Gun lockers
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One Story Option
Site Plan
Floor Plan
Exterior rendering

Two Story Option
Site Plan
Floor Plan
Exterior Rendering

PREFACE

SCOPE

This document is a program of space requirements for the Essex Police Department. The program elements will include space requirements (grouped by department), adjacency requirements as well as a detail list of functional requirements for the use of each individual space. From this quantitative program, an estimate of probable costs for the building construction will be established. Using appropriate multipliers, a total project cost can be estimated which includes dollar values for permitting, professional fees, inflation, specialized equipment, contingencies and administrative costs to the owner. A graphic representation is provided in both a single story option as well as a two-story option.

PURPOSE

The purpose of this document is to investigate the requirements for the Essex Police Department for the next 40 years and to convey that understanding in a detailed building program and to establish the appropriate lot size requirements for the Town of Essex to acquire property which meets or exceeds the program requirements defined herein. This document serves as a record of the decision-making process and is for agreement and approval by the Essex Police Department, The Essex Select-board and subsequently, the voters in the form of a bond referendum. This program document will inform the future Architectural and Engineering team on the building and site requirements upon which the construction documents should be based.

INFORMATIONAL SOURCES

This information provided herein was developed to confirm the functional requirements and other data provided by the Essex Police Departments and it's staff, primarily that of Chief Nadeau, Captain LaRose and Sergeant Babcock. The plan diagrams, schedule, and cost estimate contained in this document are intended to provide an analysis by which funding and scheduling of the project can be established. The schematic site plan(s) and floor plan(s) included in this study are provided as tools to confirm total square footage requirements and development of the estimate of probable cost. The graphic representation of the building program is to confirm adjacency requirements and to develop dialogue for the spaces and their functional requirements. The plans provided are not to be used as final design for the facility.

This report contains information obtained primarily from multiple work sessions with the client during the months of November, December 2009 and January 2010. Other sources of information provided a background history of the project planning process over many years and was used to complement the final report:

- a) Town of Essex Public Safety Facility Needs Assessment Study by Rebanks Architects, Inc. Dated May 27, 1988.
- b) Existing Facilities Evaluation by Dore and Whittier Architects, Inc dated December 12, 1994.
- c) Proposed Improvements to the Essex Town Offices and Police Station by Dore and Whittier Architects, Inc. dated February 7, 1997
- d) Summary of Municipal Building Size Calculations by Dennis Lutz. Dated October 20, 2000
- e) Conceptual Planning for 81 Main Street, Town of Essex Police Department by Scott and Partners Architects. Dated November 3, 2000
- f) Essex Municipal Offices Final Building Program by Wiemann Lamphere Architects, dated October 2001
- g) Request for Capital Project Review of the Police Department Headquarters by the Essex Police Employees Association, dated January 5, 2009.
- h) Town of Williston Public Safety Committee Preliminary Report dated October 2002.

CONTENTS

This document has five sections:

GOALS describe the client's aspirations for the project.

FACTS cover pertinent data and assumptions that are accepted as given for the project.

CONCEPTS are ideas and directives for implementing the goals which are documented as abstract diagrams.

NEEDS are the feasibility test for the available and required area delivered within the project schedule and budget.

The **APPENDIX** contains additional information which supports this record of the decision-making process.

INTRODUCTION

CLIENT

The Town of Essex Police Department and the subsequent architectural design professional will be the intended end user of this building program document. Its primary function is to serve as a preliminary planning document for the final design of the new Police facility. In the interim, it is to be used by the Essex Select-board in order to establish appropriate site and budgetary requirements for a project of this size, from which a bond referendum will be established and land may be acquired. The Essex Police Department has been the primary decision making body with respect to the building program and planning document.

MISSION

The mission of this programming effort is to identify, clarify, and verify the quantitative, qualitative and functional requirements for the Town of Essex Police Department for at least the next forty years. It is the intent of this program document to plan for a building that can operate efficiently and without modification for a minimum of twenty years, and have room for expansion for an additional twenty to thirty years. The total life cycle of the building is expected to be fifty years with appropriate maintenance.

PROGRAM SUMMARY

During the work sessions with the Essex Police Department, a number of goals, concepts and program requirements (needs) were outlined. These goals, concepts and needs play an important role in influencing the program requirements and functional layout of the facility.

The study will include the building requirements necessary for the Essex Police Department to function effectively and efficiently for the next 20 years. Expectations are for the department to reach a total size of between 45 and 50 persons within twenty years based on current community size and projected growth rates. The building program will provide a quantitative analysis which will be used in the acquisition of property in Essex or Essex Junction.

GOALS

The following are the project goals that emerged during the programming work sessions. These goals established a direction for the programming and planning process.

FUNCTION Function goals imply “what’s going to happen in the building”. They concern activities, relationship of spaces, and people—their number and characteristics.

“...To provide a SECURE ENVIRONMENT for people and property.”

“...To use FACILITIES as an INTERFACE to the COMMUNITY.”

“...To enhance QUALITY AND COMMUNICATION with OUTREACH programs.”

“...To integrate TECHNOLOGY into the DEPARTMENTS”.

“...To improve INTERDEPARTMENTAL ADJACENCIES AND COMMUNICATION.”

“... To provide SERVICES for Essex”.

“... To provide PHYSICAL AND VISUAL ACCESSIBILITY for the users and the public.”

“...Improve ACCESS to RECORDS and services.”

“...To provide for OPERATIONAL AND LONG-TERM STORAGE requirements for each department”.

“...To provide FLEXIBILITY and EXPANDABILITY in the building complex”.

FORM Form goals that relate to the site, the physical environment (psychological, too) and the quality of space and construction. Form is what you will see and feel. It’s the “what is there now” and “what will be there”.

“... To provide ADEQUATE AND ACCESSIBLE PARKING for the visitors and occupants.”

“...To provide a FOCAL POINT for the Police Department within the community.”

“...To provide an ENVIRONMENT AND FACILITIES that are VERNACULAR to the area/region.”

“...To provide FLEXIBLE SPACE.”

"...To provide CLEAR ORIENTATION for people VISITING the building."

"...To provide PLEASANT AND FUNCTIONAL interior spaces."

"...To provide an aesthetically pleasing building and site that REFLECT QUALITY AND PROFESSIONALISM."

"... To provide low-maintenance LANDSCAPING to ENHANCE the SITE APPEARANCE."

ECONOMY Economy goals concern the initial budget and quality of construction, but also may include consideration of operating and life cycle costs.

"...To use DURABLE MATERIALS which maintain their APPEARANCE and require SIMPLE, LOW maintenance."

"...To DESIGN and CONSTRUCT to a MODERATE BUDGET."

"...All new CONSTRUCTION will have FUNDS IDENTIFIED for development, maintenance and operating costs."

"...To be as ENERGY EFFICIENT as possible within the established BUDGET."

"...To be as ECOLOGICALLY RESPONSIBLE as possible within the BUDGET."

TIME Time goals have three classifications..past, present, and future.. which deal with the influences of history, the inevitability of changes from the present and projections into the future.

"...To provide for program SPACE for the next 20 YEARS with GROWTH POTENTIAL for an additional 20 YEARS."

FACTS

The following are the project facts which will be used for the basis of design. These facts create a certain set of parameters for the programming and planning process.

ACRONYMS

S.R.O. - School Resource Officer
B.C.I. - Bureau of Criminal Investigation
V.C.I.C. - Vermont Crime Information Center
I.T. - Information Technology
P.W. - Public Works
P.C. - Planning Commission
G.I.S. - Geographic Information System
S.O.P. - Standard Operating Procedure
O.S.H.A. - Occupational Health and Safety Administration
E.O.C. - Emergency Operation Center

CODE ANALYSIS

Vermont Fire Safety and Building code, 2006

Reference made to:

International Building Code (IBC), 2006

NFPA 101, LIFE SAFETY CODE, 2006

NFPA 1, UNIFORM FIRE CODE, 2006

Other applicable codes:

NFPA 13, Standard for Installation of Sprinkler Systems, 2002

NFPA 30, Flammable and Combustible Liquids, 2003

NFPA 90A, Standard for the installation of HVAC equipment

International Plumbing Code, with Vermont Rules, 2003

NFPA 70, N.E.C. National Electrical Code

A.D.A. Accessibility Guidelines for Buildings & Facilities

Guidelines for Energy Efficient Commercial Construction, 2005.

AREA PARAMETERS

Projected Efficiency $\frac{\text{NET s.f.}}{\text{GROSS s.f.}} = 75\% \text{ efficiency (police station)}$

COST INDEX - QUALITY LEVELS vs. UNIT COSTS

POLICE STATION (NEW)

Economical \$195.00 /s.f

Moderate \$210.00 /s.f (use this number in space calculations)

Excellent \$240.00 / s.f.

CONCEPTS - GENERAL

The following are the project concepts which are to be used during the design process to facilitate ideas and directives for implementing the goals which were documented. These concepts establish a qualitative level of design for the programming and planning process.

Consider OPTIONS

Option #1 – Police Department – One Story on a new GENERIC site.

Option #2 - Police Department – Two story on a new GENERIC site.

Consider CONSOLIDATING the Essex PD, Bureau of Criminal Investigations, evidence processing, tactical van storage and found property onto one site for ease of logistics and communication.

Consider basement level for storage of long-term files in two story option.

Consider adequate space for Police Department for anticipated growth.

Consider SECURITY REQUIREMENTS

Free access to lobby during normal business hours. (Access to vestibule 24/7 with call box)

Restricted after hours

Restricted with Key access (for employees)

Secure card key (FOB) or code in some areas

Consider Large public MEETING ROOM with all amenities

Carpet, A/V screen, marker-board, speakerphone, intercom, coffee bar w/ sink
separate HVAC zone, storage, recording and videotaping capabilities, holds 60 people.

Consider a fully SPRINKLERED building as an example for public safety.

Consider regular VEHICLE maintenance to take place on-site.

Consider separated VEHICULAR and PEDESTRIAN access to building.

Consider public access separated from POLICE PARKING entrance

Consider PERIMETER OFFICES with CENTRAL STORAGE and support spaces.

Consider STAFF LOUNGE with kitchenette and outdoor space.

Consider higher quality FINISHES within public areas & practical MATERIALS in support spaces.

Consider CENTRAL SERVER room with backup and central printer.

Consider NATURAL LIGHT in all occupied areas.

Consider JANITOR SPACE with shelves and mops sink.

Consider EVENING ACCESS to public areas w/ offices closed.

Consider ACOUSTICAL separation from other offices.

Consider SHOWER STALLS w/ lockers for employees.

Consider PUBLIC ADDRESS system throughout building.

Consider corner GUARDS to protect finishes.

Consider high DURABILITY finishes in the corridors.

Consider Fiber optic NATURAL LIGHTING at interior spaces.

Sustainable Design Possibilities for Essex Police Department

Rain-water harvesting system: collection of rainwater from the new roof rain leaders for use in non-potable uses including sewage conveyance

Low-Flow Water Fixtures: Utilize low-flow urinals and dual flush toilets. Sinks and lavatories will have low flow aerators installed and showers will have 2.5 gallons per minute flow rates.

No Irrigation for Landscaping: The landscaping, shrubs and ground cover proposed are native to the area and require little or no irrigation throughout their life (with the exception of the initial planting season).

Building thermal Envelope: Increased thermal envelope which exceeds commercial building energy standards to reduce the loss of conditioned air.

Night –Flushing: Controls can be installed which monitor indoor and outdoor temperature and relative humidity. These controls can operate clerestory windows to open up when appropriate to cool the building naturally (by stack ventilation) in the summer months.

Reflective Roof Surface: The roofing material used can have a high Solar reflective Index (SRI) The reflectivity of the roof will reduce the amount of heat gain developed inside the building during the summer months.

LOW Volatile Organic Compounds (VOC) Content of Materials: Products and materials are to be specified which contain low levels of Volatile Organic Compounds (VOC's) Materials with high VOC content off-gas harmful chemicals and reduce the indoor air quality. Products included are carpets, tiles, paints, adhesives (glues) and sealants.

High Efficiency Equipment: The boilers and heating system will be upgraded to more energy efficient systems (See Energy Star Ratings).

High Efficiency Lighting and Sensing: Highly efficient light fixtures can be used to reduce the watts per square foot required to light a space. Occupancy sensors will switch the lights on when a person enters the space and will deactivate the lights after a pre-determined time is reached.

Solar Photo-Voltaics: Roofs shall be designed with an extra dead load capacity to accommodate the subsequent installation of a photo-voltaic system on the roof, depending on the solar access to the site.

Vegetative roofs: The roof can be designed to accommodate a vegetated roof assembly.

CONCEPTS – 1.00 COMMUNITY / PUBLIC AREA

1.01 – Vestibule

80 SF

Amenities to include:

Recessed walk-off mat to collect dust/dirt/snow.
Self-actuating HC doors.
Fire alarm panel.
Knox box for key storage
Electronic locks on interior doors (controlled by dispatch and programmable)
Phone with direct line to dispatch. (contact info if dispatch is closed)
Slots for information / forms and literature accessed from dispatch.
Security Lighting 24/7/365
Durable wall finishes

Adjacency Requirements:

Public Entry into building to be Near to HC parking
Leads directly into lobby (1.02)

1.02 – Public Lobby

530 SF

Amenities to include:

Accessible during evening hours by reservation of space with dispatch
Decorative materials with high durability
Higher volume space
Lighting for exhibition of local art
Impact resistant drywall in all lobby areas and corridors
Marmoleum or tile floors
Display cabinet
Announcement Board

Adjacency Requirements:

At vestibule entry (1.01)
Access directly to Multi-Function space (1.03)
Direct Connection to Dispatch (2.01)
Direct Access to Interview Room (3.03)

1.03 – Multi-Function, Community Room / Meeting space:

1, 050 SF (1,030 SF space, 20 SF Coat storage)

Amenities to include:

Data for E.O.C. Command center
Accessible during evening hours for public use (by reservation)
Kitchenette / Coffee bar / serving area
Sound system (P.A.)

AV Panel to connect laptop/DVD/other media to video system
Overhead equipment and screens (manual or motorized)
Tack-able surfaces for pinup presentations
Marker-board presentation surface.
Acoustical material for sound, carpet tile etc.
Serves as back-up EOC – prefer walker duct in floor if cost effective.
Built-in coat rack

Adjacency Requirements:

Directly accessible from Public Lobby (1.02)
Access to Bathrooms (through lobby space) (1.04)

1.04 – Public Toilets

200 SF (90 SF Men's room, 90 SF Women's Room, 20 SF Wetwall)

Amenities to include:

Men's Room:

1 H.C. Water closet, 1 Urinal Fixture
1 H.C. Lavatory

Women's Room:

1 H.C. Water closet, 1 standard W.C.
1 H.C. Lavatory

High efficiency fixtures

Ceramic Tile Floors and wainscot

Exhaust through heat recovery unit

Washroom Accessories: Mirror, T.P. Dispenser, P.T. dispenser/disposal, grab bars, soap dispenser etc

Adjacency Requirements:

Directly Accessible from Public Lobby (1.02) with no sightlines into rooms.
Adjacent to Community Room (1.03)

1.05 – Storage

180 SF

Amenities to include:

Wide access for large items (double doors)

Adjacency Requirements:

Adjacent to, and access from inside the Multi-Function Community room (1.03)

CONCEPTS – 2.00 COMMUNICATIONS / DISPATCH

2.01 – Dispatch / Reception

350 SF (2 cubicle stations)

Amenities to include:

Bullet resistant window from outside
Bullet resistant wall assembly facing lobby / outside (1.02)
Bullet resistant glass with talk/pass thru & package drop from lobby (1.02)
Built-in Desk and/or cubicles. (2 Sets)
Heavy power and data requirements below desk.
Direct / Indirect lighting with additional task lighting.
Anti-static flooring.
Video Monitoring equipment
Dispatch Equipment
Computer station
Package exchange thru into lobby (secure)

Adjacency Requirements:

Adjacent to Kitchenette (2.03)
Adjacent to Records (2.04)
Adjacent to Staff Toilet (2.05)
Adjacent to Shift Supervisor (2.02)

2.02 – Shift Supervisors Office

230 SF

Amenities to include:

3 to 4 desks / chairs
Visibility into squad room through borrowed light.
Power / Data.
Door with ½ Lite providing visibility into dispatch

Adjacency Requirements:

Adjacent to dispatch (2.01)
Visibility into squad room (4.08)

2.03 – Kitchenette

50 SF

Amenities to include:

Cabinets – 8 LF.
Under cabinet lighting
Small Sink
Solid surface countertop material.
Coffee maker
Microwave
Small Refrigerator

Water resistant flooring

Adjacency Requirements:

Part of larger dispatch area (2.01)

2.04 – Records Storage

300 SF

Amenities to include:

High Density Rolling Filing System (optional) – Heavy floor loading requirements.

Desk and chair

Adjacency Requirements:

Within Audible range of dispatch radio (2.01)

Close to Lobby & pass thru window from dispatch.

2.05 – Staff Bathroom

60 SF

Amenities to include:

1 H.C. Water closet – low flow

1 Lavatory w/ motion sensor faucets

Ceramic Tile floors and wainscot

Exhaust thru heat recovery unit

Washroom Accessories: Mirror, T.P. Dispenser, P.T. dispenser/disposal, grab bars, soap dispenser etc

Adjacency Requirements:

Directly Accessible from Dispatch (2.01).

CONCEPTS – 3.00 CRIME PREVENTION / YOUTH SERVICES

3.01 – Youth Resources Room / Youth Services Officer

180 SF

Amenities to include:

Flexible power / data throughout.
Typical office use & finish level
Direct / indirect pendant lighting
Glass window into lobby

Adjacency Requirements:

Adjacent to public lobby (1.02)

3.02 – Project Northland / S.R.O.

135 SF

Amenities to include:

Typical office use & finish level
Direct / Indirect lighting
Door with half-lite

Adjacency Requirements:

Adjacent to Public Lobby (1.02)

3.03 – Witness / Victim Interview Room(s)

150 SF

Amenities to include:

6 Person Table / Chairs
Solid Doors (sound gasketed)
Acoustically separated.
One door from public lobby, one door into police operations area. (secure)
Motion sensor video and audio directly to dispatch. Audio is "off" by default.

Adjacency Requirements:

Directly off of main public lobby (1.02)
Distant from Processing (6.04), and holding (6.02-6.03)

CONCEPTS – 4.00 POLICE OPERATIONS

4.01 – Chief's Office

250 SF

Amenities to include:

To be located along an exterior wall with windows
Executive Desk / Chair
Guest Chairs w/ small conference table
Carpet tile
Chair rail
Power / Data
Closet or place for uniform storage

Adjacency Requirements:

Directly accessible from Administrative Secretary (4.04)
Within administrative suite

4.02 – Captains Office

200 SF

Amenities to include:

To be located along an exterior wall with windows
Executive Desk / Chair
Guest Chairs
Carpet Tile
Chair Rail
Power / Data
Closet or place for uniform storage

Adjacency Requirements:

Directly accessible from Administrative Secretary (4.04)
Within administrative suite

4.03 – Conference Room

360 SF

Amenities to include:

Table to seat 10-12 people w/ Chairs
Audio & Visual connection panels in table and in wall for podium
Overhead Equipment and screens (manual or motorized)
Tack-able Pin-up space
Marker board space
Natural Light and direct / indirect pendant lighting.
Carpet Tile w/ wood base
Chair rail

Adjacency Requirements:

Central to all offices
Monitored by administrative secretary

4.04 – Administrative Secretary

80 SF

Amenities to include:

Cubical Workstation
Power / Data
General office lighting w/ natural light

Adjacency Requirements:

Direct access to Chief / Captain(4.01 / 4.02)
Direct access to conference room (4.03)
Line of sight to waiting area. (4.05)

4.05 – Waiting Area / Admin Suite Area

200 SF

Amenities to include:

Open to corridor
Comfortable chairs
General Lighting

Adjacency Requirements:

Line of sight from Administrative secretary. (4.04)
Direct access to Conference Room(4.03)

4.06 – Copy / Work Room / Recycling Area

125 SF

Amenities to include:

Multi-function Copier/Fax/Scanner/Printer
Lay-off Table
Power / Data
Exhaust Ventilation
Recycling area with bins

Adjacency Requirements:

Adjacent to Records Dispatch / Reception (2.01)
Near Patrol Workstations, Offices (4.08)

4.07 – Staff / Officers Toilets

160 SF (2 @ 80 SF Each 1 Men & 1 Women)

Amenities to include:

1 H.C. Water closet
1 Lavatory w/ motion sensor faucets
Ceramic tile floors and wainscot
Exhaust air thru heat recovery unit
Washroom Accessories: Mirror, T.P. Dispenser, P.T. dispenser/disposal, grab bars, soap dispenser etc

Adjacency Requirements:

Near Police Operations with no sightlines into toilet rooms.

4.08 – Squad Room

520 SF (20 Workstations)

Amenities to include:

4' Wide workstations built-in
General Direct / Indirect Lighting with task lighting @ desk
Tackboard / Markerboard surfaces
Chairs for each
Cubbies for Duty Bag – 16"x24" – one per each patrol-person (50 Total in corridor)

Adjacency Requirements:

Cubbies should be located along common path between Squad Room and exit closest to squad cars.

4.09 – Supply Storage

100 SF

Amenities to include:

Shelf for tickets and supplies

Adjacency Requirements:

Within Police Operations (4.04)

4.10 – Training Room:

700 SF Amenities to include:

Sound system (P.A.)
AV Panel to connect laptop/DVD/other media to video system
Overhead equipment and screens (manual or motorized)
Tack-able surfaces for pinup presentations / Marker board
Acoustical material for sound
Storage
General office lighting / natural light w/ window treatments.
Kitchenette / coffee bar / serving area

Adjacency Requirements:

Near to Bathrooms (8.01 / 8.02)

4.11 – Report Room

130 SF

Amenities to include:

Counter and shelving each side of "galley"
Lots of power and data above counter height
Radio charging station

Adjacency Requirements:

Near Squad Room (4.08)

4.12 – Uniform Storage

100 SF

Amenities to include:

Coat Rod & Shelf both sides of room

CONCEPTS – 5.00 DETECTIVES DIVISION

5.01 – Detectives Supervisor’s Office

140 SF

Amenities to include:

Desk / Chair

Carpet Tile

Power / Data

Wireless video to cars that pull in (near sally-port / rear entrance)

Natural light / general office light

Adjacency Requirements:

Adjacent to the Detectives

5.02 – Detectives’ Offices

400 SF (4 Individual rooms @ 100 SF)

Amenities to include:

Desk / Chair

Carpet Tile

Power / Data

Adjacency Requirements:

Adjacent to Detective’s Lobby (5.04)

5.03 – Detective’s Interview Room

125 SF

Amenities to include:

Table / Chairs

Solid Doors w/ sound gaskets

Acoustically insulated

Motion sensor video and audio directly to dispatch. Audio is “off” by default.

Adjacency Requirements:

Directly off of Detective’s Lobby (5.04)

5.04 – Detective’s Lobby

330 SF

Amenities to include:

Chairs

Administrative Assistant desk (future)

Power / data

General office lighting

5.05 – Detectives' Storage / Observation

90 SF

Amenities to include:

Camera storage and A/V equipment for detectives.

One-way mirror into interview room.

CONCEPTS – 6.00 PROCESSING AND DETENTION

6.01 – Suspect Interview Room

100 SF

Amenities to include:

Stainless steel tables and chairs (bolted to floor)
Secure Lock from outside
H.M. Door with small windows – heavy gauge steel
CCTV monitoring

Adjacency Requirements:

Adjacent to Processing (6.04)
Adjacent to Suspect Processing / Sallyport (7.03)

6.02 – Juvenile Holding Cell

80 SF

Amenities to include:

S.S. Toilet/Lav H.C. Vandal Resistant fixtures.
Heavy Duty Steel doors on electric strikes AND keyed dead-bolt. Small 12"x12" window (lexan).
No pass-thru for water / food.
Water / Flush control in processing area for each cell.
Vandal resistant Light fixtures
Flexible use by Adults/Juveniles
Masonry or Cast-in-Place construction
Sound Isolation from adjacent cells
Durable, no maintenance concrete floors.
Camera triggered by motion sensors.
Stainless Steel sheet ceiling (or other secure method)

Adjacency Requirements:

Adjacent or Near to Processing (6.04)
Audible / Visual separation from suspect holding cells (6.03)

6.03 – Suspect Individual Holding Cells

255 SF (3 Cells @ 85 SF)

Amenities to include:

S.S. Toilet/Lav Vandal Resistant fixtures. (H.C. fixtures for one unit)
Heavy Duty Steel doors on electric strikes AND keyed dead-bolt. Small 12"x12" window (lexan).
No pass-thru for water / food.
Water / Flush control in processing area for each cell.
Vandal resistant Light fixtures
Flexible use by Adults/Juveniles
Masonry or Cast-in-Place construction
Sound Isolation from adjacent cells

Durable, no maintenance concrete floors.
Camera triggered by motion sensors.
Stainless Steel sheet ceiling (or other secure method)

Adjacency Requirements:

Adjacent or Near to Processing (6.04)
Separate from Juvenile holding (6.02)

6.04 – Suspect Processing Area

630 SF

Amenities to include:

Room for fingerprinting, Photo, I.D., Eye-wash, Breath testing and equipment
12' Long countertop with storage below.
Shower / eyewash emergency station
Durable, no maintenance concrete floors
Floor drains (outside of cells)
"Push to Exit" button (big red) – signals dispatch
Camera on motion detection.
Everything bolted in place
"Background" grey for picture taking – 9 ½' from camera
FOBS not acceptable – must have codes to exit processing area.
CMU walls – painted.

Adjacency Requirements:

Adjacent to Sally Port (7.03)
Direct access to outside

6.05 - Janitors Closet

25 SF

Amenities to include:

Mop sink
Mop holder
Hose to reach all cells for cleaning

CONCEPTS – 7.00 POLICE EVIDENCE AND RECORDS

7.01 – Vehicle Processing Sallyport

450 SF

Amenities to include:

Exterior touch pad control (pole mounted on driver side) for access to garage
Metal security cage area for large / bulk item evidence storage
To be used for evidence processing of large or bulk items
Common Items (Some could be shared between the bays via an adjacent secure room):
CO Monitoring
Should be able to fit large vehicles (10' high door minimum)
Secure Weapon storage
Eye washing station
Industrial Light Fixtures
Floor Drains
CMU walls preferred

Adjacency Requirements:

Adjacent to Evidence (7.06)

7.02 – Wash / Light Maintenance

640 SF

Amenities to include:

Common Items (Some could be shared between the bays via an adjacent secure room):
Hot and Cold water supply
CMU walls preferred
Exhaust system with CO Monitoring for vehicle exhaust
Trench Drains and Oil/ Water separator
Adequate storage for tires and maintenance items

7.03 – Suspect Processing Sallyport

675 SF

Amenities to include:

CO Monitoring
Drive Thru if feasible on site
Used to securely receive suspects
Should be large enough to fit an ambulance inside
Secure Weapon storage
Eye washing station
Vandal resistant Light Fixtures
Floor Drains
CMU walls preferred

Adjacency Requirements:

Directly adjacent to suspect processing area (6.04)

7.04 – Tactical Unit Sallyport

570 SF Amenities to include:

- CO Monitoring
- Drive Thru if feasible on site
- Should be large enough to fit an ambulance inside
- Secure Weapon storage
- Industrial Light Fixtures
- Concrete floor
- Storage for Riot Gear
- Floor Drain
- CMU walls preferred
- OH Door and man-door to secure parking area

Adjacency Requirements:

Access from secure parking area

7.05 – Vault / Armory

200 SF (Room to be divided into 100 SF area for storage and 100 SF area for weapon cleaning by floor to ceiling security cage)

Amenities to include:

- Key / Card Access into weapons cleaning area
- Secondary Security Key / Card access into Armory
- Securable pass-thru from armory into weapons cleaning area
- Concrete Floor
- Acoustical Separation
- Exhaust Air / Make-up air individual to this room.
- Small sink with base and wall cabinets for cleaning supplies.

Adjacency Requirements:

- Near Patrol Officers work area / squad room (4.08)
- Far from Suspect Processing / Holding (6.02, 6.03, 6.04)

7.06 – Evidence

200 SF

Amenities to include:

- Concrete Floors
- SECURE Evidence lockers on corridor wall – drop-off ONLY on corridor side.
- Ventilated.
- Sink and countertop – lab grade.
- Floor drains
- Relocated bodily fluids drying cabinet
- Refrigerator

Adjacency Requirements:

- Adjacent to Evidence Storage (7.07)
- Directly accessible to corridor (pass-thru cabinet)

7.07 – Evidence Storage

380 SF

Amenities to include:

Concrete Floors
Ventilated

Adjacency Requirements:

Access from Evidence (7.06) Only

7.08 – Found Property

230 SF

Amenities to include:

Shelving / Racking
Industrial lighting
Floor drain
Concrete floor

Adjacency Requirements:

OH door and man-door to outside parking
Accessible from Wash / Maintenance Bay (7.02)

7.09 – Linen Exchange

85 SF

Amenities to include:

Coat Rod & Shelf

Adjacency Requirements:

Door directly to vestibule

7.10 – Motorcycle / Traffic Safety

230 SF

Amenities to include:

OH door and man-door to outside parking
Floor Drain
Concrete Floor
Could potentially be used for overflow Found Property (7.08)

CONCEPTS – 8.00 STAFF LOCKERS

8.01 – Male Locker Room

900 SF

Amenities to include:

Lockers for 45 people. (25 current)
Lockers to be 24" wide w/ footgear drawer - vented.
Ceramic Tile Floor and Walls
Benches
2 Water closets – 1 H.C., 3 Urinals
Lavatories
2 Individual Showers – (1 H.C.)
W.C. / Shower Partitions
Heat Recovery Ventilation

Adjacency Requirements:

Near Fitness Room (8.04)

8.02 – Female Locker Room

450 SF

Amenities to include:

Lockers for 10 people (5 current)
Ceramic Tile Floor and Walls
Benches
2 Water closets – 1 H.C.
Lavatories
2 Individual Showers – 1 H.C.
W.C. / Shower Partitions
Heat Recovery Ventilation

Adjacency Requirements:

Near Fitness Room (8.04)

8.03 – Staff Break Room

250 SF

Amenities to include:

Couches / Arm chairs / End tables
Decorative finishes
Daylighting and sconce lighting
Water-resistant flooring (Marmoleum)

Adjacency Requirements:

No specific requirements – near patrol officers area.

8.04 – Fitness Room

500 SF

Amenities to include:

Exercise Equipment
Natural Daylight
Impact Resistant Flooring (Rubber)
Acoustical Separation
Materials of high durability and easily cleaned
Audio/Visual Entertainment, Radio / TV
220 v outlets for some equipment
Storage cabinet

Adjacency Requirements:

Adjacent to Male Locker Room (8.01)
Adjacent to Female Locker Room (8.02)

CONCEPTS – 9.00 MECHANICAL AND SUPPORT SPACES

9.01 – Mechanical Room

260 SF

Amenities to include:

Concrete floors w/ floor drains
Housekeeping pads for equipment
Acoustical separation

Adjacency Requirements:

Direct vent to outside

9.02 – Janitor's Closet

50 SF

Amenities to include:

Floor mop sink & fixtures
Mop hanging rack
Storage shelving for supplies (cleaners, soap, toilet paper, paper towels)
Ceramic tile floors and wainscot
Exhaust through heat recovery unit

Adjacency Requirements:

Centrally Located
Near Public Toilets (1.04) or Locker Rooms (8.01 / 8.02)

9.03 – Computer Equipment Room

50 SF

Amenities to include:

Shelf for two computer stations
Heavy Power / Data requirements
Plywood walls throughout.
Indirect Lighting
Static Free Flooring
Exhaust Ventilation w/ make-up air
Video Recording equipment
Video Playback systems
Monitors
U.P.S. and surge systems
Extra Data Jacks

Adjacency Requirements:

9.04 – I.T. Office

Amenities to include:

Carpet tile
Power / data
General Lighting

Adjacency Requirements:

Directly adjacent to computer equipment room

9.05 – Radio Equipment

Adjacency Requirements:

Existing self-contained unit to be relocated
Near to water sprinkler entrance for grounding
Ground the radio tower to the water line

Adjacency Requirements:

Outdoors

9.06 – Radio Tower

Adjacency Requirements:

Adjacent to Radio Equipment (9.05)
Outdoors

9.07 – Emergency generator

Amenities to include:

L.P. Gas

Adjacency Requirements:

Adjacent to mechanical room (9.01)
Outdoors near sally-ports.

9.08 – Dumpster location

Amenities to include:

Regular dumpster
Co-mingled recycling

NEEDS

Needs quantify project requirements identified in the preceding three sections. The project requirements are described in terms of area, budget, and time.

AREA requirements are presented in several forms as the space requirements summary, the available area versus required area analysis, and the detailed space requirements.

A preliminary BUDGET ANALYSIS establishes the total project BUDGET using the project data and time requirements as a basis for estimating.

A project delivery schedule describes project TIME requirements by establishing critical bond sale dates.

Although the area, budget and schedule contained in this section were determined through careful analysis and review, they are nonetheless approximate, and may change during the design phases.

ASSUMPTIONS FOR COST ESTIMATE

1. Assume all utilities, water, sewer, gas and electrical service are all available on site, in the required capacities, at normal anticipated costs for extension and connection.
2. Assume that all on-site paving will be of bituminous asphalt, and site landscaping will be generous.
3. Assume that all site lighting will be from light standards throughout the parking area. Some additional lighting may be at the building entrances.
4. Assume that no vehicle fuel tank and pumps will be provided on site.
5. Assume that the bearing capacity of the soil will not require any special foundation requirements such as mat footings, bearing piles or pre-loading of the building site.

BUDGET ANALYSIS

- A. Building Cost: Includes all cost of construction within five feet of the building line, all items required by codes (fire extinguisher cabinets & drinking fountains). Interior signage and graphics.
- B. Fixed Equipment: Includes all equipment items which may be installed before completion of the building and which are a part of the construction contract, such as lockers, kitchen cabinets, general storage shelving and special sinks.
- C. Site Development: Includes all work required which lies within the site boundary and five feet from the edge of the building; i.e., grading and fill, drives and parking, utilities, landscaping, walks, lighting, and building signage.
- D. Local and State permitting Fees as required by law
- E. Total Construction: This represents the total budget for construction, usually the contract documents base bid.
- F. Site Acquisition and/or Demolition: Money budgeted for purchasing the project site and/or demolition of existing structures.
- G. Movable Equipment: New furniture, portable equipment.
- H. Installation/moving costs: Any existing furniture or equipment relocation, temporary storage, and moving company costs.
- I. Professional Fees: Cost of architectural, engineering and other consultant services (civil, structural, mechanical, electrical, landscape, security, telecommunications).
- J. Contingency: A percentage of the total construction cost is included to serve as a planning contingency, bidding contingency and construction reserve (change orders).
- K. Administrative Costs: Items the Owner is responsible for during the planning process; i.e., legal fees, site survey, soil testing, insurance, material testing.
- L. Total Budget: This represents the total budget required to occupy the new facility and/or renovated areas.

APPENDIX A

Built-in equipment

Personal Storage Locker
Evidence Storage Lockers
Gun lockers
Evidence Drying Cabinet
Ammunition Locker
Stainless Steel Lav/Toilet Combination
Audio visual system
Prelco bullet resistant glass.

APPENDIX B

Public Works	Public Works Director - Dennis Lutz
Police	Chief of Police – Leo Nadeau Captain, Brad Larose Sergeant, Douglas Babcock

Option #1: Single-Story Police Department

Option #1 is proposing the construction of a new Essex Police Department Building on an unknown site. The purpose of this exercise is to determine more clearly what characteristics the land must have to facilitate the needs of the police department. These characteristics will then be used as a basis, in order to assess the viability of possible acquisitions by the Town of Essex.

Option #1 assumes that the entire building will be slab on grade. The use of elevator and multiple egress stairs is not required. If the topography of the land and the configuration of the building changes to accommodate a basement level, additional stairs and access will be required and are not reflected in this option.

For the purpose of this option the required gross square footage of the facility will be determined base on the user's needs. From that "net" number we can establish what the buildings overall size (gross) and this number will be used to determine the required size of the building as well as the appropriate number of parking spaces which will be required. Given the location of the site is unknown at this time, we can not establish what district the building may be located in. For the purpose of setting a baseline, we will assume the building is to be located in a "Mixed Commercial Use District" as outlined in section 615 of the zoning regulations. This "assumption" assumes setback requirements of 20' in the front yard and 10 feet in each of the side and rear yards. This will give us a total coverage requirement for the facility.

With these coverage numbers determined we can then arrive at the minimum lot size required once the coverage percentage has been factored in. The coverage number will vary depending on what specific location is looked at and how that land is zoned.

Strengths: Interdepartmental adjacencies are optimized to the fullest.

Weaknesses: A site would need to be relatively flat to provide access to all sides.

The site should be relatively square to provide the most efficient layout for building and parking requirements. A linear lot would require significant plan changes.

Circulation would be required around the entire building.

This will require a slightly larger plot of land.

It may be more difficult to add onto in the future.

Concepts:

Police Department space required:	17,965 s.f. (gross)
Building coverage:	17,965 s.f. (gross)
Parking spaces required: 63 (75 shown)	
Approximate parking coverage required: (assume 400 SF per space including drive lane)	32,800 s.f.
Total coverage:	50,800 s.f.
Land coverage requirement (assume 65%)	
Total land required: (depending on district)	77,220 s.f.
Acreage required: (minimum)	1.8 acres
Total construction budget required for Option #1	\$3.8 million
Total project budget for Option #1	\$5.43 million

Option #2: 2-Story Police Department

Option #2 is proposing the construction of a new Town Police Department Building on an unknown site. The purpose of this exercise is to determine more clearly what characteristics the land must have to facilitate the needs of the police department. These characteristics will then be used as a basis, in order to assess the viability of possible acquisitions.

Option #2 assumes that approximately 2/3 of the building will have a second floor. There is also an option to have a basement for additional long-term storage space. The basement space is not calculated into the total project cost but can be assumed to be approximately \$65 per SF assuming that there are soils appropriate for basement conditions. This option assumes that the vehicular portions are single story.

For the purpose of this option the required gross square footage of the facility will be determined based on the user's needs. From that number we can then determine the exact number of parking spaces which will be required. This will give us a total coverage requirement for the facility. With these coverage numbers determined we can then arrive at the minimum lot size required once the coverage percentage has been factored in. The coverage number will vary depending on what specific location is looked at and how that land is zoned.

Strengths: The site may be slightly smaller

The basement would allow some cost-effective expansion space.

This option may allow a more sloped site to be an option.

Weaknesses: The possible basement square footage is under-utilized (near-term)

Interdepartmental adjacencies are NOT optimized.

The cost will likely be slightly higher as a result of vertical circulation requirements.

Total building height may be an issue in some zoning districts.

Concepts:

Police Department space required:	19,800 s.f. (gross)
Building Lot Coverage:	12,665 s.f. (gross)
Parking spaces required: 69 total spaces Approximate parking coverage required:	34,000 s.f.
Total coverage:	46,665 s.f.
Land coverage requirement (assume 65% max.)	
Total land required:	71,800 s.f.
Acreage required: (minimum – square lot is most efficient)	1.65 acres
Total construction budget required for Option #2	\$4.1 million
Total project budget for Option #2	\$5.97 million