

**Agency: Commerce, Community and Economic Development****Grants to Municipalities (AS 37.05.315)****Grant Recipient: Petersburg****Federal Tax ID: 92-6000142****Project Title:****Project Type: Planning and Research**

# Petersburg - Police Department Design, Planning, and Pre-Construction

**State Funding Requested: \$350,000****House District: 2 / A**

One-Time Need

**Brief Project Description:**

Replacement of Police Department building and State Jail building.

**Funding Plan:**

Total Project Cost:	\$6,300,000
Funding Already Secured:	(\$40,000)
FY2013 State Funding Request:	(\$350,000)
Project Deficit:	\$5,910,000

*Funding Details:*

The City has funded an initial assessment of the feasibility of renovation of the existing facilities, and the results indicate that building a new police department and state jail facility is the most cost effective approach for the long-term. The City will provide up to an additional \$40,000 toward design costs.

**Detailed Project Description and Justification:**

The City of Petersburg requests funds for replacement of the police department and state jail buildings. The project consists of completing final approved designs for either a new Police Department and State Jail facilities or reconstruction of existing facility; construction of these structures, and affiliated furnishings and fixtures, associated equipment, and necessary upgrades to the current operating environment to bring the facility into compliance with local, state and federal standards.

The existing facilities have been in use since the 1960s and have exceeded their designed useful life. The current condition of these facilities is poor, with major structural issues with the foundation, interior walls, mechanical, plumbing and electrical systems and interior floors. The City has several possibilities how to improve the Police Department consisting of complete renovation of existing building; adding on to the newly constructed Fire/EMS Hall, or construction of a new stand-alone facility. While a final decision has not been made, the City would prefer to add-on to the existing Fire/EMS facility, enabling joint use of several building assets.

**Project Timeline:**

FY2013-2014

**Entity Responsible for the Ongoing Operation and Maintenance of this Project:**

City of Petersburg

**Grant Recipient Contact Information:**

Name:	Stephen Giesbrecht
Title:	City Manager
Address:	12 South Nordic, PO Box 329 Petersburg, Alaska 99833
Phone Number:	(907)772-4425
Email:	steveg@ci.petersburg.ak.us

Has this project been through a public review process at the local level and is it a community priority?  Yes  No

<i>For use by Co-chair Staff Only:</i>
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Unlevel Threshold 1



Wall Separation 1



Ceiling Water Damage 1



Door Jam Separation 1



Ceiling Separation 1



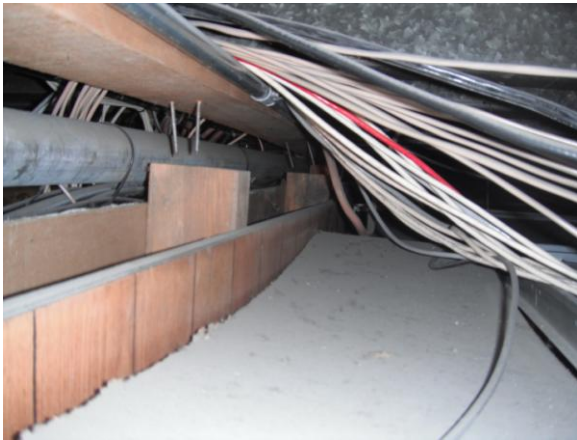
Drainage problems 1



Main Entrance 1



Wall Sheathing Separation 1



Top Plate Separation 1



Top Plate Separation 2



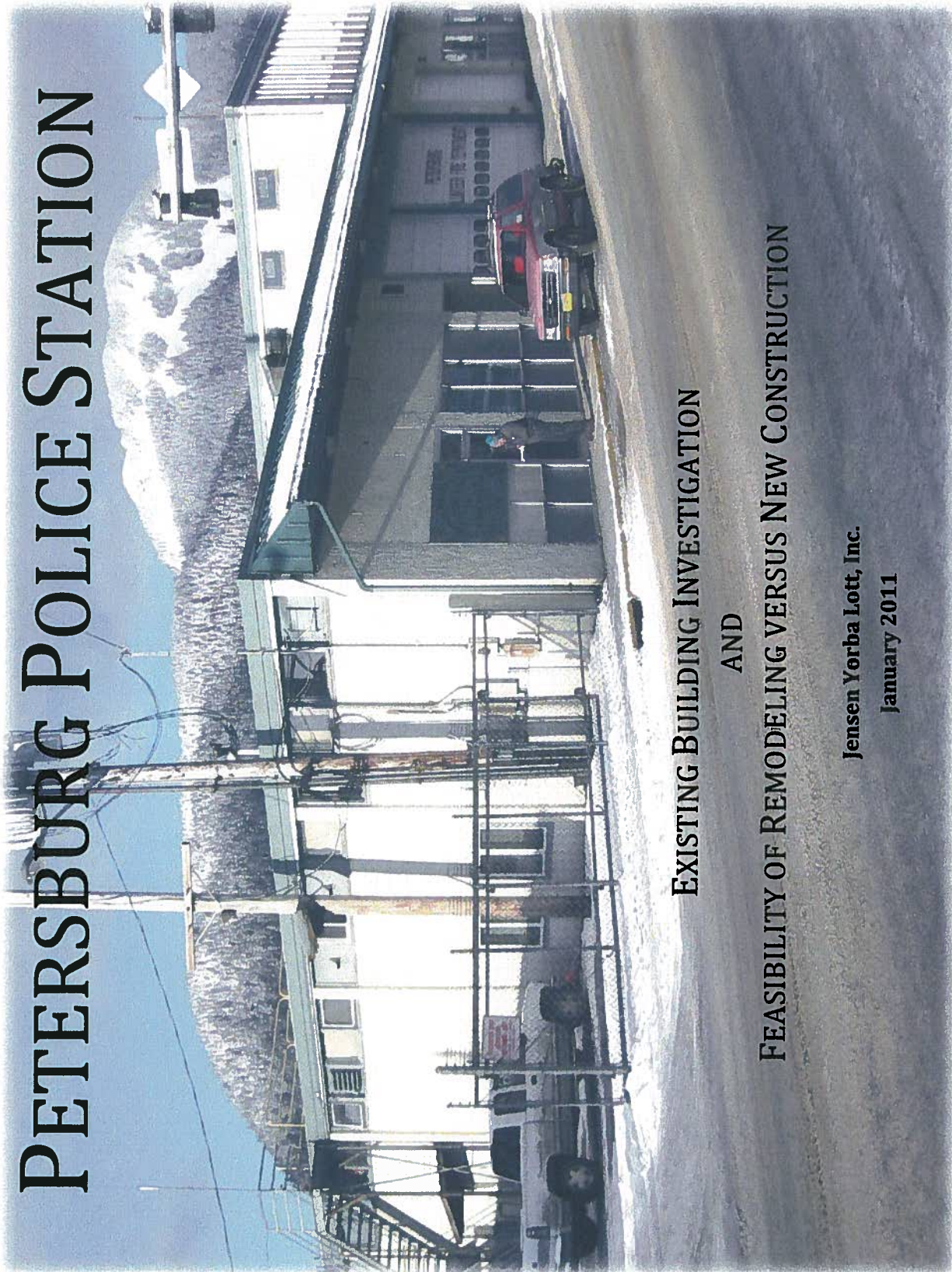
Unlevel Floor 1



Unlevel Floor 2



# PETERSBURG POLICE STATION



EXISTING BUILDING INVESTIGATION  
AND  
FEASIBILITY OF REMODELING VERSUS NEW CONSTRUCTION

Jensen Yorba Lott, Inc.  
January 2011

## PURPOSE

The purpose of the investigation is to determine the structural condition of the portion of the Petersburg Municipal Building currently occupied by the Police and Fire Departments and the City Clerk and Manager to determine if it is feasible to remodel the space for the Police Department once the Fire Department relocates into the new building. The investigation was conducted January 16 and 17, 2012 by Wayne Jensen, architect with Jensen Yorba Lott, Inc., and Chris Gianotti, structural engineer with PND

## HISTORY

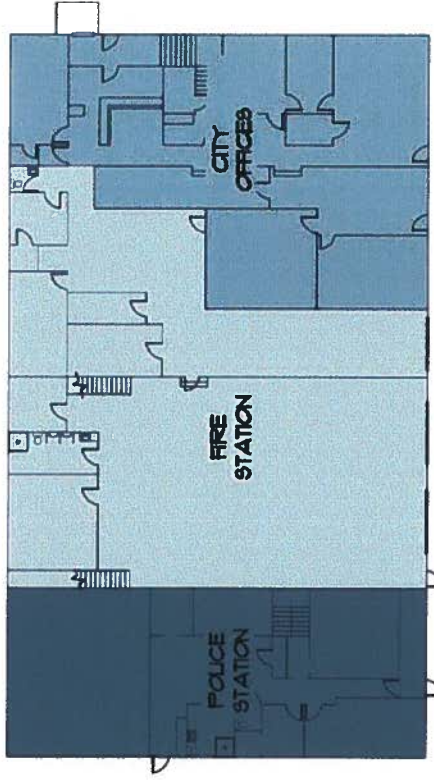
The Municipal Building was designed in 1958. The building is located on west side of Nordic Drive near the intersection with Haugen Drive. The building is 137' by 79' with a 65' by 79' second floor on the north end of the building. The gross area of the ground floor is 10,823 square feet and the gross area of the second floor is 5,135 square feet. Structurally the building is divided into 4 bays across the 79' width of the building. The northern bay is 25' wide with a gross area of 1,975 square feet, the second bay is 40' wide with a gross area of 3,160 square feet, the third bay is 43' wide with a gross area of 4,397 square feet and the fourth or southern bay is 29' wide with a gross area of 2,291 square feet. The ground floor of the 4 bays generally aligns with the elevation of the street. The northern bay is at elevation 28.00 according to the original drawings. The second bay is 1'-6" lower and the third and fourth bays are each 1'-0" lower than the adjacent bay, resulting in a 3'-6" difference in floor level from the north to the south ends of the building.

Engineers, Inc. The investigation included an inspection of the existing building and review of drawings of the original building and renovations. In addition the Functional Space Program and Project Cost Model prepared in 2002 (revised in 2006) was reviewed to determine the space needed for the Police Department. The report will evaluate the feasibility of remodeling versus construction of a new facility.

Originally the northern bay on the ground floor was occupied by City offices, the next bay to the south was occupied by the Fire Department and the 2 remaining bays were used for equipment storage. The second floor housed the Council Chambers and the Library. Currently the city offices occupy the northern bay and a portion of the next bay to the south. The Fire Department occupies the remainder of the second bay, the third bay and a second floor mezzanine that was constructed within the west end of the third bay. The Police Department occupies the southern bay and a second floor that was constructed with wood framing within this bay. A central boiler room located at the west end of the second bay supplies the entire building. The second floor still contains the council chambers and the library. However, a new library is being planned and is scheduled for completion in 2013. This move will vacate approximately 2,500 square feet of space.



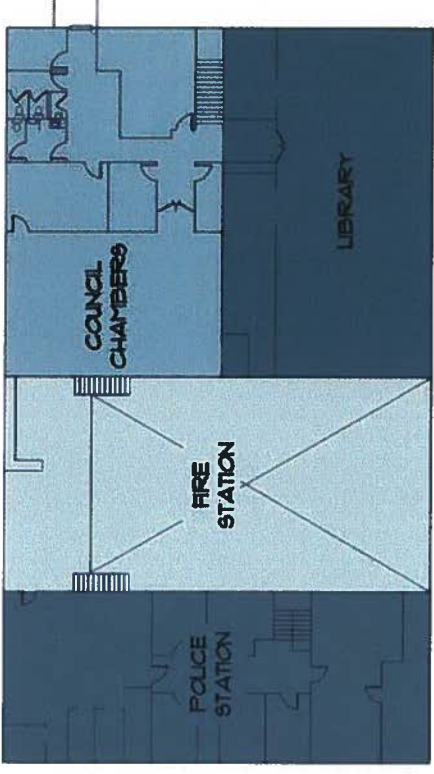
## CONSTRUCTION



**EXISTING MUNICIPAL BUILDING PLAN - FIRST FLOOR**

The geology of the site consists of varying depths of muskeg up to 10 feet deep over blue clay. The foundation of the Municipal Building consists of driven wood piles supporting concrete grade beams and pile caps. The ground floor is a concrete slab on grade placed over gravel fill on top of the underlying muskeg.

The northern and western portions of the building have the least thickness of muskeg and the concrete slabs appear to be relatively level. The slabs in the remainder of the building have settled significantly, as much as 6 or 7 inches, as the muskeg has compacted over time. This settlement has created serious problems in the 3 southern bays of the building. In the second bay from the north the slab settled approximately 6" in the east half of the bay. The slab was cut and expanding foam was injected under



**EXISTING MUNICIPAL BUILDING PLAN - SECOND FLOOR**

it to raise it to the original elevations. This solution proved to be temporary as the slab has continued to settle.

The slab in the third bay from the north currently housing Fire Department apparatus had settled at least 6 inches by 2001. Approximately three fourth of the slab was removed and a structural concrete slab supported by driven steel pipe piles was installed, which appears to be working successfully.

The slab in the southern bay, occupied by the Police Station has settled approximately 7 inches near the center of the bay. This has caused the interior walls and the second floor to settle causing problems with mechanical and electrical systems as well as the use of the space. In the office of the Chief of Police the floor slopes over 6 inches causing desk chairs to roll down the slope.



The superstructure consists of perimeter concrete bearing walls and columns for the first floor for the south, west and most of the east side. The north side and a portion of the east side are framed with steel columns and beams and aluminum curtain wall. The second floor above the two northern bays consists of steel beams and joists with a plywood deck. The exterior walls of the second floor are framed with steel columns and beams and aluminum curtain wall. The roofs are constructed with steel beams and steel T-decking. The interior structure consists of a combination of concrete bearing/shear walls and steel columns and beams and wood stud bearing/shear walls.

The concrete exterior walls are in good condition and appear to be plumb and level indicating that the foundations supporting them are sound. However, there is little or no insulation on the walls so they contribute to significant heat loss. The aluminum curtain wall and the other windows and doors are in poor to fair condition and are also contributors to significant heat loss. The roofing on the entire building was recently replaced with a well insulated membrane system which should have at least a 20 year life expectancy.

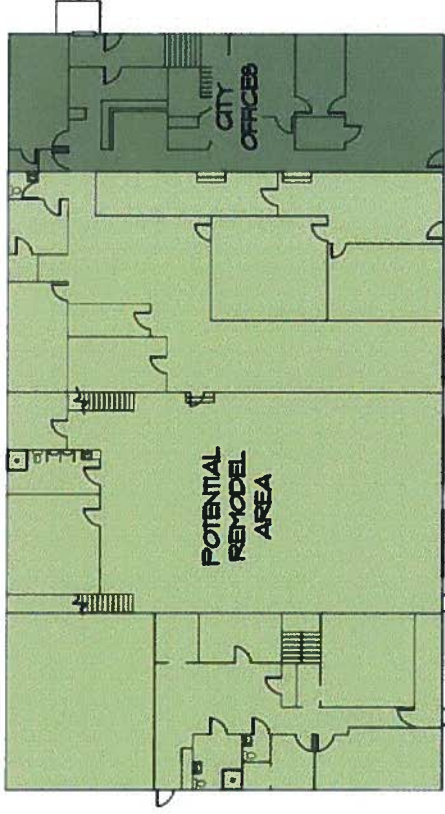
Sometime after the building was constructed a wood framed mezzanine was added at the west end of the Fire Department. Also when the southern bay was converted to the Police Station a wood frame second floor was constructed. The space between the concrete slab and the underside of the roof structure in the southern two bays did not allow for a normal ceiling height on either floor. The ceilings in most of the Police Station are approximately 7'-6" high.

In summary the exterior envelope and the building structure appears to be sound, however, reinforcement to meet current building codes for lateral forces should be anticipated in any remodel. A Police Station is listed as an essential facility which means that it should



continue to operate after a disaster. Additionally the current code states that a building that contains multiple occupancies the structure is to be assigned to the highest occupancy category which means that the entire building should be brought up to current structural codes not just the area being considered for a remodeled Police Station.

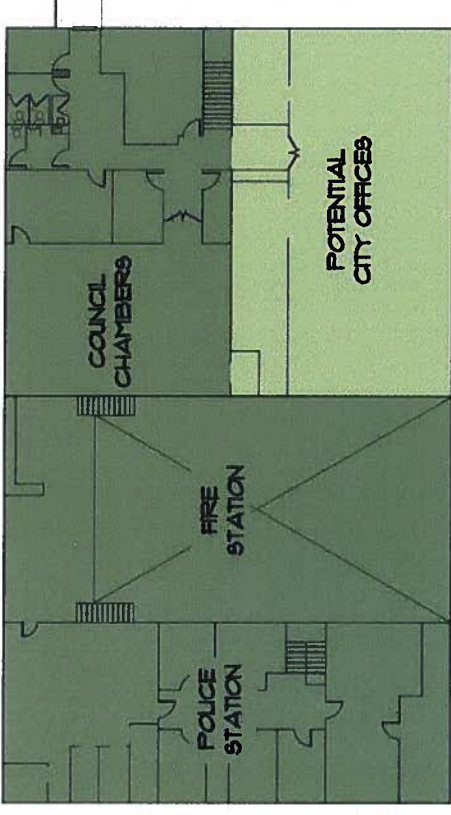
# EVALUATION



**POTENTIAL MUNICIPAL BUILDING PLAN - FIRST FLOOR**

The areas that are available for consideration for a remodeled Police Station are the 3 southern bays consisting of a 112' by 79' space with a gross area of 8,848 square feet which includes the existing boiler room that serves the entire building and the current location of the office of the city manager and city clerk.

The area currently occupied by the Police Department has serious construction related issues and can only be remodeled by demolishing the interior construction including the concrete floor slab. The settling of the floor slab has caused irreparable damage to the interior walls and second floor as well as the mechanical and electrical systems serving the area. In addition a remodel of this area will be limited to a single story since there is insufficient room between the ground floor slab and the underside of the roof structure for a two level space and have adequate interstitial space



**EXISTING MUNICIPAL BUILDING PLAN - SECOND FLOOR**

for distribution of heating, ventilation and electrical system required to serve two levels.

The area currently occupied by the Fire Department has a stable floor slab, but the west end of the bay which contains the department offices, support spaces and the second level mezzanine would need to be removed in a remodel.

The bay currently occupied by an ambulance and the previously mentioned city offices has a concrete floor slab that is failing. A remodel of this area would require demolition of all the interior construction and replacement of the slab. The existing boiler system located in this area would need to be replaced as it dates from the original construction and has far exceeded its useful life.



Other considerations related to remodeling the Municipal Building for the Police Department include the 3 different floor levels within the space available, the restrictions imposed by the existing bearing walls and columns, the structural upgrade of the entire existing building and the relocation of the Police department during remodeling.

The different floor levels and the locations of the existing structure will affect how the space can be arranged and it could mean that the efficiency of the plan would be compromised. Trying to accommodate different floor levels within the space means a series of ramps which take more space and affect the arrangement

## SPACE PROGRAM

The Functional Space Program that was developed in 2002 and revised in 2006 for including the Police Department with the Fire Department and other agencies was reviewed and updated for a stand-alone Police Station. The updated program indicates that an

of rooms. For instance if the floor levels are maintained with 2 feet difference between areas each ramp will need to be 24' long.

Likewise bearing and shear walls and columns cannot be moved and penetrations through the walls are limited. Upgrading the entire existing building to the level of current codes for an essential building will be both costly and disruptive.

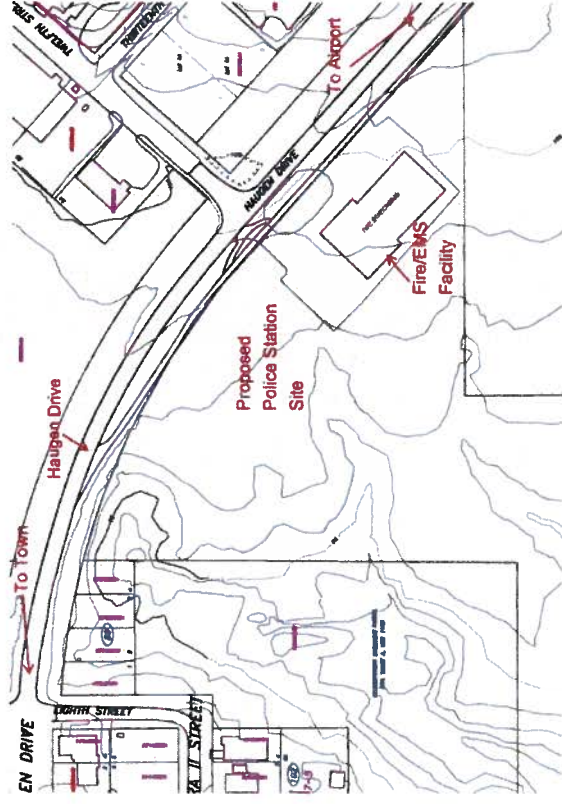
Due to the extent of a remodel the Police Department will not be able to occupy the space and temporary space will need to be created for the department including the jail. This will be difficult to accomplish, disruptive to the operation of the department and will be costly.

area of approximately 10,750 square feet is needed for the Police Department. Since there is only about 8,850 square feet available within the Municipal Building there is insufficient space to accommodate the program.

## RECOMMENDATIONS

Due to the numerous problems associated with remodeling the existing building for the Police Department we recommend constructing a new facility instead of remodeling. The City owns land adjacent to the new Fire EMS/Facility on Haugen Drive and there are opportunities for sharing space and gaining efficiency by co-locating on the same property.

The attached Functional Space Program and Project Cost Model provides a list of the anticipated spaces within the proposed building and the associated projection of the total cost of the project. The total building area is estimated at approximately 10,750 square feet and the total cost is projected to be \$6,340,000. Since approximately \$1,100,000 is remaining from the recent construction of the Fire/EMS Facility the net amount needed for the project is \$5,240,000.





**FUNCTIONAL SPACE PROGRAM and PROJECT COST MODEL  
PETERSBURG POLICE STATION - NEW BUILDING  
City of Petersburg Alaska**

<b>NEW BUILDING PROGRAM</b>	<b>No.</b>	<b>Net Area</b>	<b>Total Net Area</b>	<b>Eff. Factor</b>	<b>Total Gross Area</b>	<b>Comment</b>
<b>ADMINISTRATION</b>						
Public Entry	1	70 sf	70 sf			
Public Waiting	1	100 sf	100 sf			
Public Restrooms	2	50 sf	100 sf			
Chief of Police	1	200 sf	200 sf			
Chief Clerk	1	120 sf	120 sf			
Conference Room	1	325 sf	325 sf			
Work/Supply Room	1	120 sf	120 sf			
<b>Total</b>			1,035 sf	1.30	1,346 sf	16 people Office supplies, machines and consumables
<b>DEPARTMENT PERSONNEL</b>						
Captain's Office	1	120 sf	120 sf			
Seargent's Office	1	120 sf	120 sf			
Drug Investigation	1	120 sf	120 sf			
Spare Office	1	120 sf	120 sf			
Interview Room	2	100 sf	200 sf			
Squad Room	1	500 sf	500 sf			Workstations for 3-6 officers Shared with Fire Department in adjacent building Potential Addition if funds allow
Training Room		50 sf	0 sf			Potential Addition if funds allow
Locker Rooms		50 sf	0 sf			Potential Addition if funds allow
Showers		50 sf	0 sf			
Toilets	2	50 sf	100 sf			
Evidence Room	1	400 sf	400 sf			Exhaust Uniforms
Quartermaster Supply	1	80 sf	80 sf			
Parking Attendant	1	80 sf	80 sf			
Armory	1	60 sf	60 sf			Secure work room for arms maintenance/repair Secure storage for arms
Arms Room		80 sf	0 sf			
Janitor	1	50 sf	50 sf			
<b>Total</b>			1,950 sf	1.40	2,730 sf	
<b>RECORDS/COMMUNICATIONS</b>						
Dispatch/Radio Console	1	500 sf	500 sf			
DMV Staff Counter	1	80 sf	80 sf			
DMV Public Counter	1	80 sf	80 sf			
Dispatcher Toilet	1	50 sf	50 sf			
Dispatcher Breakroom	1	100 sf	100 sf			
Records	1	200 sf	200 sf			
Booking Counter	1	80 sf	80 sf			
<b>Total</b>			1,090 sf	1.30	1,417 sf	

NEW BUILDING PROGRAM (cont.)	No.	Net Area	Total Net Area	Eff. Factor	Total Gross Area	Comment
<b>PRISONERS &amp; JAIL FACILITIES</b>						
Garage Sally Port		700 sf	0 sf			
Garage		480 sf	0 sf			Not included in cost possible Additive Alternate
Booking Sally Port		120 sf	0 sf			Not included in cost possible Additive Alternate
Prisoner Change Room	1	120 sf	120 sf			Potential Addition if funds allow
Prisoner Property	1	100 sf	100 sf			Toilet, Shower, Lavatory and Secure Lockers
Jail Clothing Closet	1	30 sf	30 sf			
Laundry/Jail Supplies	1	80 sf	80 sf			
Janitor	1	50 sf	50 sf			
Holding Cell	1	180 sf	180 sf			
Single Occ. Male Cells	5	70 sf	350 sf			
Male Day Room	1	280 sf	280 sf			
Male Shower/Toilet Room	1	70 sf	70 sf			Adjacent to Day Room
Single Occ. Female Cells	3	70 sf	210 sf			
Female Day Room	1	240 sf	240 sf			
Female Shower/Toilet Room	1	70 sf	70 sf			Adjacent to Day Room
Emergency Juvenile Holding	1	70 sf	70 sf			
Segregation Cell	1	130 sf	130 sf			
Medical/Mental Health Cell	1	130 sf	130 sf			
Non-Contact Visitation	2	100 sf	200 sf			
Outdoor Recreation Area		900 sf	0 sf			Not included in cost possible Additive Alternate
<b>Total</b>			2,310 sf	1.50	3,465 sf	
<b>SUBTOTAL</b>						
					8,958 SF	
<b>BUILDING SERVICES</b>						
Building Circulation, walls, etc.	10%		896 sf			
Mechanical/Electrical	10%		896 sf			
<b>Total</b>			1,792 sf	1.00	1,792 sf	
<b>New Building Space Program Total</b>					<b>10,749 sf</b>	

NEW BUILDING PROGRAM (cont.)	No.	Net Area	Total Net Area	Eff. Factor	Total Gross Area	Comment
<b>PRISONERS &amp; JAIL FACILITIES</b> Garage Sally Port Garage Booking Sally Port Prisoner Change Room Prisoner Property Jail Clothing Closet Laundry/Jail Supplies Janitor Holding Cell Single Occ. Male Cells Male Day Room Male Shower/Toilet Room Single Occ. Female Cells Female Day Room Female Shower/Toilet Room Emergency Juvenile Holding Segregation Cell Medical/Mental Health Cell Non-Contact Visitation Outdoor Recreation Area Total	700 sf 480 sf 120 sf 120 sf 100 sf 30 sf 80 sf 50 sf 180 sf 70 sf 280 sf 70 sf 70 sf 130 sf 130 sf 100 sf 900 sf Total	0 sf 0 sf 0 sf 120 sf 100 sf 30 sf 80 sf 50 sf 180 sf 350 sf 280 sf 70 sf 210 sf 240 sf 70 sf 70 sf 130 sf 130 sf 200 sf 0 sf 2,310 sf	1.50	3,465 sf	Not included in cost possible Additive Alternate Not included in cost possible Additive Alternate Potential Addition if funds allow Toilet, Shower, Lavatory and Secure Lockers  Adjacent to Day Room  Adjacent to Day Room  Not included in cost possible Additive Alternate	
SUBTOTAL				8,790 SF		
<b>BUILDING SERVICES</b> Building Circulation, walls, etc. Mechanical/Electrical Total	10% 10% Total	879 sf 879 sf 1,758 sf	1.00	1,758 sf		
<b>New Building Space Program Total</b>					<b>10,547 sf</b>	

**FUNCTIONAL SPACE PROGRAM and PROJECT COST MODEL  
PETERSBURG POLICE STATION - NEW BUILDING  
City of Petersburg Alaska**

SUMMARY - NEW BUILDING OPTION	AREA	QTY	UNIT COST	SUBTOTAL	TOTAL
<b>POLICE DEPARTMENT</b>					
ADMINISTRATION	1,346	sf	\$200 /sf	\$269,100	
DEPARTMENT PERSONNEL	2,562	sf	\$220 /sf	\$563,640	
RECORDS/ COMMUNICATIONS	1,417	sf	\$275 /sf	\$389,675	
PRISONERS & JAIL FACILITIES	3,465	sf	\$350 /sf	\$1,212,750	
BUILDING SERVICES	1,758	sf	\$200 /sf	\$351,580	
<b>Building Construction Subtotal</b>	<b>10,547</b>	<b>sf</b>			<b>\$2,786,745</b>
<b>SITE PREPARATION and IMPROVEMENTS</b>					
SITE EXCAVATION and DISPOSAL		30,000	cy /cy	\$300,000	
SITE FILLING		50,000	cy /cy	\$750,000	
CARPOT FOR POLICE VEHICLES		2,000	sf /sf	\$200,000	
LANDSCAPING		1	ls /sf	\$30,000	
FENCING		500	lf /lf	\$40,000	
SITE LIGHTING		10	lts /ea	\$75,000	
<b>Total</b>				<b>\$1,395,000</b>	
<b>UTILITIES</b>					
WATER SERVICE		1	ls /sf	\$25,000	
SEWER SERVICE		1	ls /sf	\$25,000	
STORM SEWER SERVICE		1	ls /sf	\$20,000	
POWER SERVICE		1	ls /sf	\$40,000	
COMMUNICATIONS SERVICES		1	ls /sf	\$20,000	
FUEL SYSTEM		1	ls /sf	\$20,000	
<b>Total</b>				<b>\$150,000</b>	
<b>PARKING AND CIRCULATION</b>					
POLICE DEPARTMENT PARKING	1 space/	400	sf of building area		
Area of Parking spaces at	200	sf/space		\$42,190	
SITE CIRCULATION	1	times parking		\$42,190	
<b>Total</b>				<b>\$84,379</b>	
<b>Site Development Subtotal</b>					<b>\$1,629,379</b>

**FUNCTIONAL SPACE PROGRAM and PROJECT COST MODEL  
PETERSBURG POLICE STATION - NEW BUILDING  
City of Petersburg Alaska**

<b>SUMMARY - NEW BUILDING OPTION (continued)</b>	<b>QTY</b>	<b>UNIT COST</b>	<b>SUBTOTAL</b>	<b>TOTAL</b>
Total Estimated Construction Cost (2012 dollars) Escalation 2012-2014	2 yr	3.0% /yr	\$264,967	\$4,416,124
<b>Total Estimated Construction Cost - New Building (2014 dollars)</b>				<b>\$4,681,092</b>
<b>PROJECT COSTS</b>				
Surveying and Geotechnical Investigation, Concept Design		1.0%	\$46,811	
Design and Expenses		10.0%	\$468,109	
Inspection and Testing		5.0%	\$234,055	
Administrative, Permits and Legal Costs		3.0%	\$140,433	
Furnishings		5.0%	\$234,055	
Contingencies		10.0%	\$468,109	
<b>Total</b>				<b>\$1,591,571</b>
<b>Total Estimated Project Cost - New Building (Rounded)</b>				<b>\$6,270,000</b>
<b>Remaining funds from Fire/EMS Facility appropriation to be used for Site Preparation</b>				<b>-\$1,100,000</b>
<b>Funding Request</b>				<b>\$5,170,000</b>