City and Borough of Sitka

Harrigan Centennial Hall Renewal Facility Assessment

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SECTION 1.0 Assessment Summary

1.0 BRIEF

Harrigan Centennial Hall (HCH) is a 22,634 square civic and convention center built in 1966 and opened in 1967. HCH was built with state and federal grant funding as part of the centennial of the purchase of the Alaska territory from Russia; a deal which was signed in Sitka. The building is organized around a central multipurpose hall featuring a stage backed with windows overlooking Crescent Bay. A low roof area that wraps around the MPR contains meeting rooms, exhibit space, offices and the Sitka Historical Society Museum.

Centennial Hall perches prominently on the central waterfront of the city. The land HCH is built on was created by infilling part of the bay following the 1964 earthquake and tsunami that destroyed portions of the Sitka waterfront. Neighboring Kettelson Library to the west and Crescent Harbor and the Net Shed shelter to the east complete this civic campus.
Centennial Hall functions in many ways as the living room of Sitka. The building is geographically centered on the downtown waterfront. Culturally HCH is central as well. It is the meeting place of the Sitka Assembly and home of the New Archangel Dancers, Sitka Summer Music Festival, Baranof Arts and Crafts Bazaar, the Historical Museum and many other important local groups and events. HCH is also where Sitka welcomes most of her visitors as they arrive from cruise ships anchored just off shore. The building's attractive location and modest size attract small conventions as well which bring off-season business to town.

As a crucial piece of Sitka's civic infrastructure, there are many demands on Centennial Hall. Over the years the programming has outgrown the facility. There is also a general need to modernize the facility as many of its systems are 30-45 years old. The City and Borough of Sitka has initiated a building renewal project to address these needs.

McCool Carlson Green Architects (MCG) was selected to lead the building assessment and renewal design efforts for the building. A concurrent site and landscape renewal project for the Centennial and Crescent Harbor parking lots is underway as a separate scope of work. This report is the culmination of a facility assessment process which included the following steps:

- Obtaining and reviewing existing building record drawings and previous master planning documents.
- 3 day site visit in September 2012 with Structural, Mechanical, Electrical, Acoustics, Audiovisual, Stage Lighting and Hazardous Materials consultants to document the building and confirm as-built conditions.
- Testing for hazardous materials in the existing building.
- Creating an as-built Building Information Model (BIM) from record drawings and site measurements.
- Writing systems narratives to describe existing conditions and deficiencies.
- Making a list of deficiencies identified at the existing building and recommended improvements and reviewing these with the Owner.
- Estimating construction costs for each of the recommended improvements.
- Creating an existing building space program and recommending areas for improvement and additions.
- Organizing the information into this assessment report.

Existing Building Conditions, Deficiencies and Recommendations

The facility assessment process has revealed that Centennial Hall has been well-maintained but many of the building systems and finishes are outdated and at the end of their useful life. As part of this assessment the Design Team created a list of specific facility deficiencies. Each deficiency identified has a corresponding improvement recommendation and this complete list can be found in Section 4.0 of this document. Detailed narratives by each discipline are included in Section 2.0.

1.0 ASSESSMENT SUMMARY

The following is an abbreviated list of the Design Team's findings and renewal recommendations:

- The building envelope is under-insulated for this or any climate and could perform better, using less energy if the walls, windows and roof were retrofitted or rebuilt with more insulation.
- There are a number of code violations that should be corrected including number of exits from certain spaces, appropriate door hardware and code-required number of plumbing fixtures.
- Interior finishes and furniture are worn and outdated. Upgrading these will improve the appearance, function and marketability of the facility for events.
- There are a number of program area deficiencies. This assessment organizes the proposed improvements into 4 tiers. Tier 1 addresses code, maintenance and energy efficiency improvements to the existing building. Tier 2 includes additions for core functional areas like food service, building storage, toilet rooms and entry vestibules. Tier 3 addresses new addition areas for the Historic Museum and visitor services. Tier 4 includes additional area for meeting and stage support.
- Structural systems generally satisfy current code requirements for gravity loads but are deficient for lateral (seismic) loads and snow loads. Recommendations include enhancement of the roof diaphragms, replacement or reinforcement of some girders and upgrades to existing shear walls.
- Sprinkler, Domestic Water and Plumbing distribution piping are in need of replacement or major maintenance.
- The heating and ventilation systems are in need of replacement or major maintenance and should be upgraded to more energy efficient systems. Recommendations include air or seawater source heat pumps.
- Kitchen ventilation equipment and food service equipment is past it's useful life and should be replaced with current, energy-efficient equipment.
- The MPR needs better acoustic separation from adjacent spaces and mechanical systems.
- AV systems in the MPR need major maintenance and sound and light controls should be located in an AV booth within view of the stage.
- Building electrical systems need major maintenance including replacement of branch panels, lighting fixtures and controls, convenience receptacles, fire alarm system and telecommunications system.
- The AV systems throughout the building need to be upgraded to contemporary standards for code and program needs.
- The stage lighting and curtain package need to be upgraded.
- There are asbestos-containing materials in wall joint compound and in some floor and wainscot adhesives. Testing also detected lead paint on the building exterior and on some painted interior floors.

Building improvements will include abatement of all hazardous materials disturbed by the work.

How to Read this Assessment

The purpose of the Facility Assessment is to illuminate for the Design Team and the Owner problems and opportunities inherent in the facility. This document provides a foundation for decision making throughout the design process.

The Facility Assessment is designed to first thoroughly examine the existing building and describe what is found, then to make professional recommendations of ways to improve the facility. The document is organized into sections which read sequentially.

Section 2.0 includes detailed narratives written by each discipline of the Design Team that describe the building systems they specialize in. When read together they paint a comprehensive picture of the physical traits of Centennial Hall today.

Section 3.0 addresses the building program which is how people use the building and how the building supports or does not support the desired activities. This section examines spaces and their uses in several ways:

1. By describing in text what activities the building supports and what the building operators and users like and don't like. This creates the basis for proposing changes in size, location, adjacency and features of various spaces.
2. With detailed room attribute sheets that list what exists and what is preferred for each room in the building.
3. By diagramming spatial relationships: how people move into, out of and through the building; how big spaces are and how they work together to meet various needs.
4. With tables of room areas that group functionally related parts of the building. The area tables list existing areas and proposed areas to provide guidance for allocating space and sizing additions.

Section 4.0 draws from the narratives and program to create a list of deficiencies and recommended improvements. This list is organized by design discipline but many of the recommendations have synergies that connect them. The items in the list form the basis for cost estimating.

Section 5.0 provides a summary of the cost estimating approach and the probable costs for construction of the recommended improvements to Centennial Hall.

Section 6.0 consists of drawings that represent the existing "as-built" condition of Centennial Hall. These drawings do not include any proposed improvements as the Facility Assessment precedes the Concept Design phase of the project.

There are appendices to this document that include:

A. The complete professional cost estimate
B. Asbestos sample test reports
C. Lead sample test reports
D. Public and user comments gathered during planning
E. The Programming report produced by the Foraker Pre-Development Program for the Historical Society Museum

SECTION 2.0 Systems Narratives

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2.0 SYSTEMS NARRATIVES

ARCHITECTURAL NARRATIVE

General Building Description

Harrigan Centennial Hall (HCH) is a 22,634 square foot wood frame building on concrete slab-on-grade built in 1966 and opened in 1967. Several remodels have subdivided the interior of the building, upgraded building systems and made small additions. The original building plan was programmed for use as a small convention center and community center with a central hall featuring a stage backed with windows overlooking Crescent Bay. The land HCH is built on was created by infilling part of the bay following the 1964 earthquake and tsunami that destroyed portions of the Sitka waterfront.

Centennial Hall perches prominently on the central waterfront of the city. The neighboring Kettelson Library to the west and Crescent Harbor and the Net Shed shelter to the east complete this civic campus. Also on the site are an open-sided shelter housing a traditional Tlingit carved log canoe, a shared parking lot on the inland side and a public boat launch on the bay side.

Building Space Program

The original program of Centennial Hall was simple and focused on serving small convention, meeting and exhibition needs. The central multipurpose room was flanked with support spaces; kitchen, toilets, storage and mechanical. The outer wings under the low roof area were simply open exhibit areas with one group of offices on the west.

Over the years, the open exhibit space has been subdivided to accommodate an increasingly complex program which is reflective of the importance of this space and the community's diverse interests and aspirations.

Today Centennial Hall is host to a broad array of tenants, seasonal users, civic, convention and performance events. The facility is indispensable in Sitka because of its unique combination of central location, flexible spaces and local character. HCH acts as the living room for the community and reception hall for visitors. Refer to Section 3.0 of this document for additional information regarding the building program.

Building Envelope

HCH has a thermal and moisture system that reflects the era of its construction and is deficient by current code and design best practices.

Walls

The exterior walls of the building are 2x4 wood frame construction filled with batt insulation. A widened footing around most of the building perimeter supports a 7' high stone masonry base. Above the masonry base is a continuous 2' high band of clerestory windows with intermediate wood posts. This wall construction is significantly under insulated for the climate and does not meet current energy codes. There is no visible evidence of wall failure in terms of moisture infiltration, mold or rot.

Interior partitions consist of wood framing with 5/8" plaster board on each side. The main corridor walls and MPR walls are load-bearing and the MPR walls running N-S have a layer of plywood for shear resistance. As-built drawings do not indicated

any acoustic treatment of partitions such as sound insulation or a second layer of plaster board on 1 side.

Windows

The exterior windows are fixed bronze anodized aluminum frames with insulated glass units. These windows were installed as part of the 1982 renovation to replace the original single-pane glass and appear to be in fair condition. However, at 30 years old they are nearing the end of their expected service life and contemporary insulated glass would provide higher performance and energy savings.

There are several interior lites at HCH; at the office, museum, exhibit room and Rousseau room. Some are wired glass and some have a bronzed tint. These windows provide good transparency from the Concourse to adjacent rooms but they are a hodgepodge of styles and should be reconsidered with a major remodel. Wired glass should be replaced with tempered or laminated safety glass.

Doors

HCH has two pairs of exterior doors at the main entry on the North. The doors are solid wood 9' high by 6' wide pairs. Windows flank these doors but there is no glazing in the doors themselves. There are two other pairs of exterior doors, at the southwest and southeast. The exterior doors are in fair condition but the lack of glazing in the doors creates a safety hazard. The hardware at the front entry includes custom cast bronze pulls, which have cultural and historical significance and should be preserved. The rest of the exterior door hardware needs to be updated with new.

Interior doors include many original 9' high solid wood doors as well as a variety of wood and steel 7' high doors. Much of the door hardware is either in violation of accessibility code or egress code and needs to be replaced. The wood doors are dented and scratched and should be refinished as part of a remodel.

Roof

HCH has two distinct roof areas; a high central roof over the MPR and a low roof that wraps around the MPR on three sides. The high roof is gabled and the ridge slopes down towards the South. The slope is approx. 2" in 12" and water runs to integrated gutters at the eaves then to 2 corner drains. Roof construction consists of 3.5" wood deck, 1" of insulation and built-up asphalt roofing. The overall R-value of this assembly is approximately R-9. The code minimum for this climate zone is R-30 continuous insulation.

The low roof areas are similar in construction to the high but have plywood in place of the T&G wood. Also there is no slope to the structure at the low roof. These areas were re-roofed in 2004 at which time sloped insulation was added create a ½" in 12" slope to the eaves. The roof eaves were modified with a metal drip edge flashing set into the roofing and metal rain gutters. There are also internal roof drains over the entry canopy. The overall R-value of this assembly is approximately R-40 averaged over the thickness of the sloped insulation.

Interior Finishes
(See the room attribute sheets in Section 3.0 for specific room finishes.)

Floors

Existing floor finishes in Centennial Hall include, ceramic tile at the entry and in the toilet rooms, broadloom carpet in the meeting rooms, offices, museum and halls, yellow rubber tile in storage and some meeting rooms, and painted concrete with a carpet border in the MPR. Floor finishes are worn and need replacement. The tile at the entry is not appropriate for a wet climate and walk off rugs must be used to keep the building clean and prevent slip and fall accidents.

Walls

The typical wall treatment in HCH is a vinyl fabric wallcovering over gypsum board with a 4' wood panel wainscot in some areas. Toilet room walls were recently refinished with floor to ceiling ceramic tile. The Concourse and Corridors have vertical wood boards on the MPR side. Inside the MPR there are vertical wood battens over burlap covered acoustic celotex board on the North wall and portions of the east and west walls. The remaining walls are painted gypsum board. Typical wall base is 4" rubber. Carpet base is used in some areas. A 1x8 softwood chair rail is used in portions of the meeting rooms. The color palette of the spaces is typically brown, beige and white.

Ceilings

Ceiling finishes include exposed wood T&G deck in the MPR and Concourse, suspended 2'x4' acoustic ceiling tile and grid in the office, exhibit, museum, meeting rooms and halls and gypsum board ceilings in the toilets, kitchen, boiler and electrical rooms. The T&G wood deck appears to be in pristine condition. The suspended acoustic ceilings are damaged in many places from leaks and wear and tear. (Refer to the reflected ceiling plan drawing in Section 6.0 of this report for specific finish locations.)

Furniture

The furniture in HCH dates mostly from the 1970s and 80s. It is in fair to poor condition and should be upgraded to provide increased flexibility in the meeting spaces and MPR and contemporary cord management capabilities. A complete inventory of the furniture will be conducted as part of the Design Development phase.

Building Code Summary

Referenced codes:

- 2009 International Building Code with local amendments
- 2006 International Energy Conservation Code
- 2003 ANSI A117.1 - Accessible and Usable Buildings and Facilities
- 2009 Uniform Plumbing Code

Chapter 3 – Use and Occupancy

- A-2 – Assembly w/o fixed seats including the consumption of food and beverage
- A-3 – Assembly for museum, lecture hall, exhibit
- B – Business and accessory assembly spaces with fewer than 50 occupants

Chapter 4 – Special Detailed Requirements

- 410 – Stages and Platforms- Platform is a raised area with no overhead hanging curtains, drops, scenery etc. Centennial Hall is classified as a Stage.
- 410.3.7 – Stage Ventilation – Stages over 1000sf require 2 or more automatic roof vents for smoke control.

Chapter 5 – General Building Heights and Areas

- Table 503 - Construction type V-B (non-rated) Group A-2 = 40 feet, 1 stories, 6,000sf
- 504.2 Automatic Sprinkler Increase = +20 feet, +1 story = 60 feet, 2 stories
- 506 Area Modifications
    - Frontage Increase = Entire building has 30'+ clear frontage therefore factor of increase = .75
    - Sprinkler Increase = factor of 3 for buildings with no more than 1 story above grade plane.
- Modified allowable area = {6,000+[6,000x.75]+[6,000x3]}= 28,500sf/ story
- Existing Gross Building Area = 20,051sf
- Allowable additional area = 28,500sf – 20,051sf = 8,449sf on Level 1

Table 508.3.3 – Required Separation of Occupancies
(With automatic sprinkler system)

- A to A = 0
- A to S = 0
- A to B = 1

Chapter 10 – Means of Egress

- **1004 – Occupant Load (Table 1004.1.1)**
    - Assembly w/o fixed seats – Standing space = 5sf/occupant net
    - Assembly, concentrated with chairs = 7sf/occupant net
    - Assembly, un-concentrated with tables and chairs = 15sf/occupant net
    - Business Areas = 100sf/occupant gross

- Locker Rooms (Dressing) = 50sf/occupant gross
- Kitchens, commercial = 200sf/occupant gross

- **1005.1 – Minimum required egress width**
  - .3 inches per occupant served for stairways
  - .2 inches per occupant served for other egress components

- **Table 1015.1 – Spaces with 1 exit**
  - Occupancies A & B = <50 occupants
  - Occupancy S = <30 occupants

- **1018.4 - Dead End Corridor = 20ft maximum for Group A occupancy**

Chapter 29 – Plumbing Systems – (Refer to table below)

International Building Code 2009 Table 2902.1

Room Name	Room #	Occupancy	Area	# Occupants/Sex	Use	Water Closets Male	Water Closets Female	Lavatories Male	Lavatories Female	Drinking Fountain	Service Sink
Baranof	101	A-2	4259	426	Standing Room Event	6	6	2	2	2	1
Museum	123	A-3	1675	84	Museum (net area reduced by 50% by exhibits)	1	1	1	1		
Exhibit (A&B)	119	A-3	1690	121	Meeting with chairs	1	2	1	1	1	
Maksoutoff	118	A-3	1668	119	Meeting with chairs	1	2	1	1		
Davis/Pest/ Rousseau	126, 127, 128	A-3	1042	35	Meeting w/ tables and chairs	0	1	0	0		
TOTALS				784		9	11	5	5	3	1
					Total Code Required	9	11	5	5	3	1
					Existing Fixtures	4	4	2	2	2	1
					Additional Fixtures Needed to Meet Code	**5**	**7**	**3**	**3**	**1**	**0**

Uniform Plumbing Code

Room Name	Room #	Occupancy	Area	# Occupants/Sex	Use	Water Closets Male	Water Closets Female	Lavatories Male	Lavatories Female	Drinking Fountain	Service Sink
				784	Assembly - Convention	8	14	3	3	5	
					Employee Toilets	1	1	1	1		
					Total Code Required	9	15	4	4	5	1
					Existing Fixtures	4	4	2	2	2	1
					Additional Fixtures Needed to Meet Code	**5**	**11**	**2**	**2**	**3**	**0**

Deficiencies and Improvement Recommendations

Based on site visits, as-built drawings and discussions with the facility managers and users, we have identified a list of facility deficiencies. These deficiencies are categorized according to the type of building system i.e. A for Architectural, S for Structural, M for Mechanical, etc. They are sub-categorized by the type of deficiency so a distinction can be made between a code violation, a general maintenance item and a space deficiency that affects the building program.

Each deficiency identified is followed by a corresponding recommendation for improving the facility. All of these deficiencies and recommendations are listed in Section 4.0.

STRUCTURAL NARRATIVE

Introduction

PND Engineers, Inc. completed an on-site structural review of Harrigan Centennial Hall on September 11-12, 2012. The review was part of a masterplanning effort by the City of Sitka and McCool Carlson Green Architects to identify capital improvement projects for the facility.

During our site visit, we compared the existing construction against the available as-built drawings and identified any visible structural deficiencies. Additionally, we have reviewed existing drawings, conducted structural analysis, and completed initial screening and analysis in accordance with ASCE 31, Seismic Evaluation of Existing Buildings.

Geotechnical information was not available for the site. PND Engineers, Inc., has no knowledge of and makes no recommendations for geotechnical or geological conditions at the site.

Structural Criteria

The original building was designed in 1966 and constructed in 1967. Our report assumes that the structure will be upgraded to meet the requirements of the current building code (International Building Code 2009). IBC 2009 structural criteria are used as the baseline throughout our analysis.

The facility is considered an Occupancy Category III facility (public assembly with occupancy greater than 300).

Table 1. Structural Criteria

Pacific High School Structural Criteria	
Governing Building Code	IBC 2009
Snow Loads	
Snow Load Importance Factor, I_s	1.1
Ground Snow Load	50 PSF
Wind Loads	
Basic Wind Speed	120 mph
Wind Importance Factor, I_w	1.15
Exposure Category	D
Seismic Design Loads	
Seismic Importance Factor, I_e	1.25
Mapped Spectral Response Acceleration	S_S=0.97
	S_1=0.50
Site Class	D
Spectral Response Coefficients	S_{DS}=0.72
	S_{D1}=0.50

2.0 STRUCTURAL NARRATIVE

Description of Facilities

Harrigan Centennial Hall was originally built in 1967. It is a single story, wood-framed building with multiple roof levels. The high roofis framed with 4x6 wood plank deck spanning 14'-0" and bearing on 44" deep glue-laminated girders, approximately 80 feet long. The girders bear on glue-laminated columns. Walls are wood framed with 2x4 or 2x6 studs.

Low roof framing consists of plywood deck over 2x10 joists which are supported by multiple ply 2x12 girders. Girders bear on wood or steel posts. Footings are concrete spread footings for columns and posts, and concrete strip footings for walls.

In 1982, a wood framed extension to the southwest corner was added.

Structural posts in the interior of the Maksoutoff Room were removed and replaced by glue-laminated girders that span the width of the room. The timeframe on this modification is unknown.

In 1997, a wood framed extension to the southeast corner was added. Structural posts were removed from the Exhibit Room and replaced by new framing supports including a steel wide flange girder and glue-laminated girders.

Visual Observation

Observation of the structure was conducted by Jesse Gobeli on September 11th and 12th. Generally, the structure has been well maintained and is in good condition.

Structural Discussion

Analysis of the building structure was completed using the loading criteria identified in Table 1.

Gravity Loads (Dead/Live/Snow Loads)

Deficiencies & Recommendations:

S1: The 9" x 43 7/8" glue-laminated girders are overstressed for code required snow loads. These beams were originally designed for 30 psf while the current requirement is a minimum of 40 psf roof snow. Additionally, American Institute of Timber Construction (AITC) Note 26 requires a 25% reduction in rated capacity for beams constructed before 1970. Therefore, these girders are only rated for 22 psf which is about half of the required design value. They should be upgraded for code compliance and life safety of the building.

The glue-lam framing and hemlock plank deck are an important aesthetic aspect of the facility. The glue-lam girders are in good condition, and we anticipate that the owner would like to leave them in place. (Photograph 1). We recommend retrofitting the girders by installing a post-tensioning cable beneath the beam. This would add the needed capacity, without visually obscuring the beams. The steel cable and hardware would be visible from below, but should not detract significantly from the aesthetic.

S2: The low roof framing consists of 2x10 joists. These framing members were originally designed for 30 psf, while the current requirement is 40 psf. Additionally, the original design did not provide capacity for snow drifting adjacent to the high roof because it was not required in the building code at that time. However, snow drifting is a potential source of structural failure, and its consideration is now explicitly required in the building code. The low roof framing should be retrofitted or replaced.

S3: Low roof joists are supported by girders consisting of multiple ply 2x12s. These structural members were also designed for 30 psf. At many locations throughout the low roof areas, multiple large penetrations were cored for installation of sprinkler and chilled water lines. (Photographs 2- 4). In many cases, these penetrations have reduced the capacity of the girders below 30 psf. We recommend that the compromised girders be retrofitted or replaced.

It should be noted that during a remodel project structural posts in the Maksoutoff room and in the gift shop area where removed and replaced by glue-laminated or steel wide flange girders. Although the new girders are adequate to support the roof framing, the resulting layered framing system is somewhat convoluted.

Considering the limited options for retrofitting the existing low roof structure, and the complexity of the existing layered framing system, it would likely be most economical to replace the low roof framing in its entirety. We would recommend replacing the low roof structure with new wood trusses or wood I-joists designed for the current snow load and drift. The new framing could span between the existing interior wall, and the existing low roof exterior wall.

S4: Outside columns at the front entry are untreated wood in contact with concrete pilaster and sidewalk. (Photograph 5) There is a hidden steel dowel which is a potential source of corrosion and rot. These columns should be replaced with an appropriate footing and bracket that eliminates contact between the timber column and the wet surface.

Lateral Loads (Seismic/Wind Loads)

Deficiencies & Recommendations:

S5: Current code requires a shear diaphragm consisting of approved materials. The wood plank deck is not an approved assembly. For this structure, plywood panels would be required. Plywood should be installed with an appropriate nailing pattern to the top of the 4x6 deck during roof replacement.

S6: The building was properly designed for lateral loads at the time. However, design loads have increased and criteria for wood shearwalls have changed since the original construction of the building. As a result, the building is somewhat deficient in lateral resisting shearwalls. During the remodel project, shearwalls throughout the building should be upgraded for the code required loads including an upgraded nailing pattern from plywood to wood studs and installation of steel holddowns and anchor rods to resist overturning at the ends of the walls.

S7: Exterior, low roof perimeter walls have strip windows that break the shear load path between the roof diaphragm and foundation. Some of these strip windows will need to be replaced with rated shear panels to create a complete lateral load path from roof to foundation. (Photograph 6)

1.8 References

Drawings

- Allen McDonald Architects, August 1966. Sitka Centennial Building. S1-S4.
- Everett M. Simpson AIA, June 1982. Centennial Building Renovations.
- R. Fehlberg Architects, 30 September 1997. Harrigan Centennial Building.

1.9 Code References

- American Society of Civil Engineers, ASCE 7-05 Minimum Design Loads for Buildings and Other Structures.
- International Code Council. International Existing Building Code 2009.
- International Code Council. International Building Code 2009.
- American Concrete Institute, ACI 318-08
- American Institute of Steel Construction, Steel Construction Manual, Thirteenth Edition, 2005
- American Society of Civil Engineers, ASCE 31-03 Seismic Evaluation of Existing Buildings

	Photograph 1. 9" x 43 7/8" glue-laminated girders and plank deck in good condition. Retrofit required for current roof snow loading.
	Photograph 2. Showing (4) pipe penetrations in multiple 2x12 girder.

Photograph 3.
Penetrations in multiple ply 2x12 girder.
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Photograph 4.
Large penetration of multiple ply 2x12 girder.

Photograph 5.
Untreated wood columns in contact with sidewalk.
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ELECTRICAL NARRATIVE

Electrical Design Parameters:

The latest adopted version of the following codes and standards, as amended by the City and Borough of Sitka, are currently applicable for this project:

- International Building Code
- International Fire Code
- National Electrical Code
- NFPA 72 National Fire Alarm Code
- Americans with Disabilities Act (ADA)
- National Electrical Safety Code
- TIA/EIA Telecommunications Building Wiring Systems
- IES Lighting Handbook, Tenth Edition
- ASHRAE/IES Standard 90.1

Special attention will be given to the electrical systems and design practices preferred by the City of Sitka. It is understood that the current standards are a "work in progress" that will be continually modified by changing technology and innovative design solutions. Electrical system design for this project will comply with the standards except where it is in the best interest of the project to deviate from the standards to provide systems with better operating characteristics in terms of cost, maintenance or simplicity.

The design parameters listed in this narrative may be considered a working document as well. As the design progresses, the parameters in this document may be revised as a result of changing technology, payback analysis and/or feedback from the Owner.

Power Distribution:

The building was originally fed by a 1,000 amp, 120/208 volt, three-phase, four-wire service that terminated in an old ITE Siemens switchboard in the boiler room. Most of the original branch panels are also located in this room. When the building was expanded 1982, a new 2,000 amp service was installed and terminated at a new MDP in the electrical room across the hall. The service conduits enter the main breaker section of the new MDP, which also has a CT section in the bottom and a meter on the side. The 2nd section of the MDP is for distribution and it includes feeder breakers for all branch panels in the building. The old MDP was turned into a junction box and it appears that the original branch panel feeder conductors were spliced and extended to the new MDP.

The "new" MDP is a Square D "Power-Style" 2-section, 2,000 amp switchboard with ground fault protection (GFP) and it is one of the few pieces of electrical distribution gear in the building that is worth saving. The older ITE Siemens branch panels in the boiler room that are from the original 1967 installation are all at the end of their usable life and should be replaced. Because of all the existing conduits that terminate in these panels, we recommend a one-for-one replacement to re-feed all existing circuits. Any new panels that are added to accommodate new circuits will need to be located in other parts of the building and fed from the new MDP. There is space for three new feeder breakers in the MDP, which should be sufficient for the planned remodel.

Based on local utility records, the peak historical electrical demand for the past 12 months is 94.4 kW (June 2012), which translates into 328 amps (assuming 0.8 power factor). After adding a 25% safety factor as required by the NEC, the existing service still has approximately 80% spare capacity for any planned remodel

or expansion of the building.

As with many older facilities, the quantities and locations of convenience receptacles are inadequate for the current use of the building. Plug strips and extension cords are being used where necessary. The two large open floor areas in the museum and exhibit hall have floor boxes spaced periodically across the floor but most of these outlets are capped.

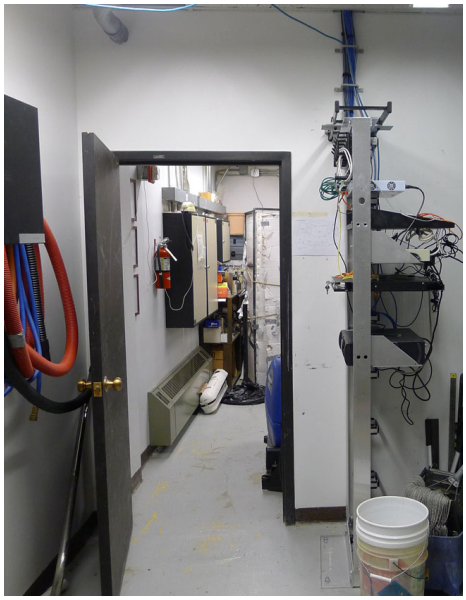
Lighting/Emergency Lighting System:

The existing interior lighting consists mostly of original incandescent and T12 fluorescent fixtures from 1967, as well as a few newer T8 fixtures that have been installed at selected locations. Most of the offices, east and west corridors, museum, exhibit hall, and other areas surrounding the multipurpose room (MPR) have recessed 2x4 lensed T12 fluorescent fixtures. The main east-west concourse at the back of the MPR is lit with incandescent pendant fixtures (each with two 120W PAR lamps) that are original to the building, and could be considered historically significant. The same pendant fixtures are used in the MPR, along with 300W surface incandescent and 400W metal halide fixtures on the ceiling. The pendant and surface incandescent fixtures are connected to the facility dimming system, which is located in the west fan room. The metal halide lights are mainly used for events where higher ambient lighting levels are required, such as bake sales, trade shows, etc. The fan rooms, boiler room, and a few of the storage rooms still have the original incandescent fixtures with 150-300W lamps. For energy saving reasons alone, we recommend that all fluorescent fixtures be demolished and replaced with new LED or T8 fluorescent fixtures. The same is true for the 400W metal halide fixtures in the MPR.

It has yet to be decided what will be done with the historical pendant fixtures. In the MPR, they are used as house lights and are capable of being smoothly dimmed down to very low levels. Although LED fixtures have seen great improvements in technology, they have yet to achieve comparably smooth dimming as required for this application. Therefore, we recommend that the pendant fixtures either remain as-is, or be replaced with newer incandescent fixtures.

The exterior canopy, main entry vestibule and lobby all have surface-mounted high pressure sodium (HPS) fixtures. It appears that the original intent was to provide continuity from the outside lights into the lobby but the result is a poorly-lit space with a yellow-orange hue. HPS fixtures should never be used in interior spaces like this and they should be replaced.

The building-mounted exterior lighting consists of surface-mounted HPS fixtures, identical to what is installed at the entrance canopy and lobby. Recessed HPS downlights are installed in the canopy outside the Maksoutoff Room. As with the interior lights, all of the exterior building-mounted lights should be replaced with new LED fixtures. In addition to the energy saving benefits, new LED fixtures will provide a white light that will better accent the building facade.



Parking lot lighting is provided by pole-mounted HPS fixtures. All site work, including possible replacement of these fixtures, is being provided as part of a separate contract and is beyond the scope of this project.

Existing emergency lighting is provided by wall-mounted emergency lights at selected locations throughout the facility. The coverage does not meet the IBC egress requirements of 1 foot-candle (fc) along the path of egress. In general, exit signs appear to be correctly located where installed but a few more signs will be needed to meet IBC requirements. New exterior egress lighting will be required at all exits

All new lighting will meet current Illuminating Engineering Society (IES) lighting standards per the IES Lighting Handbook. In addition, all spaces will be designed with Lighting Unit Power Densities in accordance with ASHRAE/IES Standard 90.1. Fluorescent light fixtures will have a combination of T5, T5HO, and T8 lamps and they will use programmed-start electronic ballasts. LED fixtures will be used around the building exterior and in other areas where appropriate.

Fluorescent T5HO lensed troffers will be installed in the MPR. Fluorescent T8 lensed troffers will be installed in the kitchen and other utility spaces. Lighting in storage rooms will consist of surface-mounted fluorescent T8 fixtures with wraparound lenses. Fluorescent T8 strip fixtures with wireguards will be installed in all mechanical spaces.

New emergency egress lighting will include a combination of self-contained emergency lights and emergency battery ballasts installed in fluorescent fixtures. The emergency lighting system will provide an average of 1 foot-candle along egress pathways in the event of a power outage. Exit lighting will consist of energy efficient, LED type, exit signs mounted above doors and in exit pathways.

Energy Conservation:

In accordance with the requirements of ASHRAE 90.1, all lights in and around the building will have some form of automatic control to turn the lights off when the spaces are unoccupied. The exceptions to this are the incandescent fixtures in the MPR, which are connected to the theatrical dimming system. Interior lighting control will be accomplished using occupancy sensors, multi-level switching and manual switching. Lighting in east and west corridors will be controlled by occupancy sensors and will drop to 50% output when the corridors are unoccupied. In rooms or spaces with significant daylight contribution (e.g. east-west concourse), daylight sensors will be used to adjust the fixture output based on ambient light levels. Exterior lights will be controlled by a contactor and photocell.

Fire Alarm System:

The existing fire alarm system consists of a Pyrotronics System3 conventional fire alarm panel. The existing system does not have ADA-compliant horns and strobes. All of the pull stations are mounted at +53" above finished floor instead of the maximum allowable height of +48". The entire system, including all field devices and wiring, should be replaced. A few existing areas will require additional horn/strobes to provide code-compliant visual and audible signaling. New devices will also be installed in all remodeled or expanded areas.

Telecommunications:

The existing telecom system consists of a 2-post open frame rack that is mounted adjacent to the MDP. All horizontal cables are plenum-rated Cat 5e and terminated on Cat 5e patch panels. The building outside network connection comes from City Hall via a wireless microwave link to an antenna on the roof. From the antenna, cables are routed down to the Cisco router and network switch in the rack. All active equipment in the rack is connected to a 2kVA UPS that is mounted on the opposite wall. Although the system components are in relatively good condition, the rack location is inadequate (due to the proximity to the MDP) and there are not nearly enough telecom jacks in the building. Therefore, we recommend that the entire telecom system be replaced, and that the new rack be located in a separate room with dedicated cooling or exhaust. The new telecom system will meet Category 6 requirements.

In addition to the wireless connection to City Hall, there are what appear to be two 900 MHz wireless antennas under the upper roof overhang on the north side of the building, with cables run exposed across the roof and then into the building. It is unclear what these antennas are for but the cables are not rated for outdoor use. At a minimum, the existing cabling should be removed and new cables should be run in conduit

to these antennas. However, someone at the facility first needs to determine whether the antennas are actually still in use.

Security/CCTV:

The existing security system in the building consists of door contacts and motion sensors, none of which have functioned for the past few years. The existing system will be completely removed. According to Chris Wilber at Public Works, no new security or CCTV system will be required in the remodeled building.

MECHANICAL NARRATIVE

Mechanical Overview:

The site was visited on September 11th and September 12th, 2012 to review the existing mechanical systems for the facility. The building was inspected for conformance with the following adopted codes and standards:

- International Mechanical Code
- International Fuel Gas Code
- Uniform Plumbing Code
- International Building Code
- International Fire Code
- NFPA 13: Standard for the Installation of Sprinkler Systems
- SMACNA – Sheet metal design standards
- National Electrical Code
- Americans with Disabilities Act (ADA)
- ASHRAE Standard 62.1: Ventilation for Acceptable Indoor Air Quality

The mechanical systems in the facility varied in age and condition. The building was constructed in 1966. Some of the mechanical systems remain from the original construction. There have been numerous mechanical renovation projects at the building. In 1978 new plumbing and heating piping was installed to replace abandoned under floor piping; during the 1982 building renovation new water service, sprinkler system, mechanical equipment, piping and ductwork were installed; in 1999 a mechanical upgrade project installed new fan coil units, boilers, heating pumps and chiller; in 2009 a new fuel tank was installed; and in 2011 the toilet rooms were remodeled complete with new plumbing fixtures. The following is a summary of our observations of the condition of the existing mechanical systems in the facility.

Fire Protection:

The existing sprinkler system for the building is a dry system. The sprinkler system covers the entire building, including exterior combustible canopies and above ceiling areas with combustible construction. The sprinkler system was added during the 1982 building renovation. A 6" water service line connected to the city water system was installed as part of the 1982 project. The line enters the building in Storage/Mechanical room 130, where the dry sprinkler riser and domestic water service are located. The sprinkler piping in the building was a combination of galvanized, steel with groove lock fittings and threadable thinwall piping. It was reported that they have had issues with the piping leaking on the sprinkler system due to failure of piping. In some areas the piping was routed through structural beams. Threadable thinwall

piping systems are difficult to retrofit. During building renovation the dry sprinkler system should be replaced with wet sprinkler system that complies with current NFPA 13 requirements. A smaller dry system would still be required to protect exterior combustible canopies, but it would only be utilized in those locations.

Plumbing:

Domestic water service is provided to the building from the city water utility. The 6" water service main line enters the building in the Storage/Mechanical room 130. A 2" branch line off the main serves domestic water requirements for the building. The domestic water service is not metered by the utility. The domestic water service does not have a double check backflow preventer that is required by current building codes. The only backflow prevention is a single check valve. A pressure reducing valve is installed to limit water pressure; there is no expansion tank or pressure relief valve installed after the pressure reducing valve. A double check backflow preventer and pressure relief valve should be installed to comply with current codes.

The 2" domestic cold water line was routed from the riser to a 1-1/2" domestic cold water line in the boiler room. The plumbing distribution piping from the 1-1/2" line in the boiler room to the building is from the 1978 piping project where under floor plumbing piping was replaced with above floor. Typical domestic water piping systems have a lifetime of 30 to 40 years and the distribution piping in the building is approximately 34 years old. The piping should be replaced during any major renovation as the piping is nearing the end of its expected useful life.

The sanitary sewer system is a gravity drainage system connected to the city utility. The main 4" waste line exits the building on the southwest side of the building. Sanitary sewer piping throughout the building is assumed to be cast-iron piping. The condition of the piping is difficult to determine as the piping is in the concrete slab or concealed in walls. There were no reported issues with the sanitary sewer system. Cast Iron piping has a long lifetime; the sanitary sewer system should be inspected with camera to verify the condition. If piping is not failing internally, under slab piping should be suitable for re-use.

The vitreous china plumbing fixtures in the main restrooms are in good condition. The main restrooms were recently remodeled. The drinking fountains and kitchen equipment was in fair condition and varied in age. Plumbing fixtures have an expected life of 30 years. The restroom plumbing fixtures can be re-used as part of a renovation. The drinking fountains and kitchen equipment should be upgraded during a kitchen renovation.

Domestic hot water is provided to the building by two hydronic hot water generators and an electric water heater. The hot water generators are located in the west fan room and they provide domestic hot water to the restrooms in the building. The hot water generators were in fair condition. The electric hot water heater is located in the east fan room. The electric hot water heater provides domestic hot water to the kitchen equipment. The water heaters were approximately 10 years old. Typical water heater life expectancy is 10 to 20 years, the water heaters should be scheduled for replacement as part of a renovation project.

Storm drainage for the building includes sheet flow to gutters and roof drains that drain to the site. Overflow drainage is by sheet flow, separate overflow drains are not installed. We recommend installation of secondary drains as part of the roof renovation.

The fuel tank serving the building is a 1,000 gallon above grade UL-142 double wall tank. The tank was

installed in 2009 and is in good condition. The fuel piping from the tank to the boiler room is in good condition, the piping was installed in 2009 with the tank. Each boiler is equipped with a tigerloop de-aerator; no fuel return lines are installed. If a fuel oil heating system is maintained at the building, the fuel tank could be re-used as it is in good condition.

Heating:

The existing heating system consists of two cast iron oil fired boilers. The boilers are Weil McClain 488 boilers, installed in the 1999 mechanical systems upgrade project. The boilers are in fair condition. The boilers are piped in a primary/secondary configuration. Each boiler has a boiler circulation pump to provide continuous flow through the boiler when it is operating. There are multiple building circulation pumps serving the heating equipment and hot water generators. The boiler system piping includes an air separator on the common supply, a bladder style expansion tank and water make-up connection. The hydronic accessories were installed in the 1999 renovation and are in fair condition. The pumps vary in age. Some were installed in the 1999 renovation and some were older. The pumps were in poor to fair condition. The water make-up connection included a backflow preventer. The heating system utilizes water; no glycol is utilized for the heating system piping.

The boiler room piping was installed during the 1999 renovation. The remaining hydronic piping for the building was installed during the 1978 and 1982 projects. Typical hydronic piping life expectancy is 40 years. The piping system is approximately 30 to 34 years old and should be scheduled for replacement.

Heating for the building is provide by fan coil units, convectors, cabinet unit heaters and heating coils in the air handling units. The fan coil units were installed in 1999 and provide heating to the perimeter rooms. The convectors and cabinet unit heaters appear to be from the 1982 building renovation. Two of the air handling unit coils were from 1982 renovation, the other two air handling unit coils appear to be from original construction. The equipment was in fair condition for its age.

The heating system in the building was in fair to good condition. There were signs of minor leaks at some of the pumps and balance valves. Overall the system appeared to be functioning as originally designed. The heating system installed utilizes boilers that are approximately 81 percent efficient.

Ventilation:

Ventilation for the building is provided by four air handling units (AHU's) located in two fan rooms, one on the east side and one on the west side of the building. The air handling units are constant volume units. Two AHU's, UV-3 and 4 serve the Baranof room; one the east side and one the west side. These AHU's are constant volume units equipped with forward curve fan, mixing boxes, filters, heating coils and cooling coils. The remaining areas of the building are served by the other AHU's, UV-1 and 2. These AHU's are constant volume units equipped with forward curve fan, mixing boxes, filters, and heating coils.

AHU's UV-1 and 2 provide ventilation to the east and west side of the building by discharging air to the ceiling plenum. The air in the ceiling plenum is then circulated to the occupied areas by the fan coil units. The fan coil units' return is open to the ceiling plenum. The supply is ducted to ceiling mounted diffusers. The fan coil units are equipped with heating and cooling coils to provide temperature control to the respective zones. Four return fans provide return and relief air for the building. The return fans are located in the east and west fan rooms. The return air ductwork is all under slab, with floor grilles around the perimeter and return air grilles on the stage of the Baranof room.

The kitchen has three hoods, a Type 1 for the cooking line, a Type 2 hood at the dishwasher and an unused hood located above a beverage center. The type 1 hood is ducted to a roof mounted exhaust fan. The ductwork is routed through the fan room, it is not in a shaft. The duct is insulated, but not with a UL listed insulation product for Grease Duct. Current mechanical codes require a shaft, UL listed grease duct or grease duct with UL listed insulation. The exhaust fan on the roof is not UL 762 listed as required by current codes. The type 2 hood above the dishwasher is ducted to a roof mounted exhaust fan.

The ventilation systems are not designed to current ASHRAE or IMC ventilation requirements. The ceiling space utilized as a supply air plenum does not meet code requirements for use as a plenum. The air handling units have exceeded their useful life expectancy of 30 years and are in need of upgrades.

Air Conditioning:

The air conditioning system consists of an air cooled chiller, cooling coils in the air handling units and fan coils. The chiller is a Trane 60-ton packaged air cooled chiller installed during the 1999 mechanical systems upgrade project. The chiller appeared to be in fair condition. There were issues reported with one phase of the power in the building when the chiller was operating.

The chiller pumps are located in the Storage/Mechanical room 130. The pumps are base mounted centrifugal pumps installed in 1982 renovation project. The pumps circulated a glycol solution from the chiller to the cooling coils in the building. The chilled water piping is copper and is in fair condition. The air separator and piping at the pumps was installed in the 1982 renovation project. The chilled water distribution piping from the mechanical room to the fan coil units and air handling units was installed during the 1999 renovation. The pumps are in fair condition but have met their useful life expectancy of 30 years and should be scheduled for replacement. The cooling system utilizes a propylene glycol solution.

Cooling for the building is provide by cooling coils in the fan coil units and cooling coils in the AHU's UV-3 and UV-4. The fan coil units and cooling coils in the AHU's were installed in 1999. The equipment was in fair

condition for the age.

The piping to the chiller and fan coil units was installed during the 1999 renovation. Tdhere were no issues reported with the piping.

Controls:

The controls systems used in the building are a Honeywell direct digital control (DDC) system installed during the 1999 mechanical upgrade project. All the mechanical systems, except the cabinet unit heaters and convectors, are controlled by the DDC system. The direct digital control system components appear to be in fair condition. The operator workstation was functional, with system graphics for all equipment controlled. The system is accessible remotely with a modem, but there was not an internet connection to the system. The system appears to be functioning well, but should be modernized as part of any renovation project. The DDC systems are computer based and the software becomes outdated if not upgraded on a regular basis. The existing systems should be updated to and internet-based system utilizing the latest version of operating software. This will insure system operability and allow for future upgrade capabilities.

LEVEL 1 ENERGY AUDIT

Prepared by WSP

Introduction

As part of a Condition Assessment, WSP Flack + Kurtz conducted an ASHRAE Level I energy audit of Harrigan Centennial Hall in Sitka, Alaska. The purpose of the energy audit was to identify energy conservation opportunities and to produce the following report. The overarching reason for conducting the audit was to support decision-making regarding the scope of future design modifications and additions to the building, in particular as it relates to managing building operating costs.

The Level I energy audit was completed by WSP Flack + Kurtz, acting as a sub-consultant on the McCool Carlson Green (MCG) project team. As part of the audit, the building's energy costs and efficiencies were analyzed using energy bills and by conducting a brief on-site survey of the building. Low-cost/no-cost measures to save energy were identified. A list of potential capital improvements that merit further consideration was created based on findings of the MCG condition assessment team.

The objective of this report is to document findings of the Level 1 Energy Audit. The report includes the following:

1. Analysis of current energy usage based on a review of monthly gas and electric utility data provided the project team by the City and Borough of Sitka, and identification of any obvious irregularities.
2. Evaluation of the Energy Use Intensity (EUI) for the building.
3. Identification of any special problems or needs related to energy usage identified during the walkthrough survey conducted in the building, including possible revisions to operation and maintenance (O&M) procedures.
4. Preliminary energy use breakdown by major energy uses.
5. List of low-cost/no-cost O&M opportunities to save energy.
6. List of potential capital improvements that, if made, would reduce energy use.
7. Relative ranking of potential cost and savings of opportunities identified.

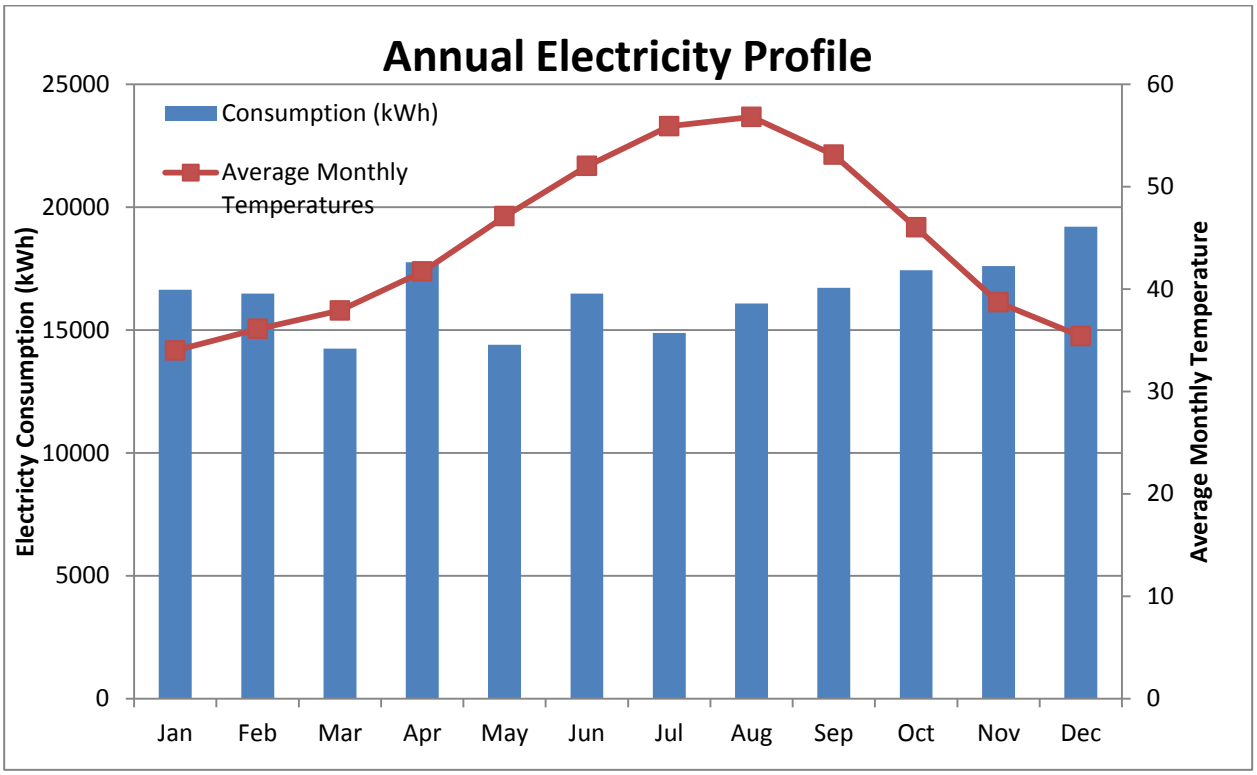
2.0 ENERGY AUDIT NARRATIVE

1.0 Utility Analysis and EUI

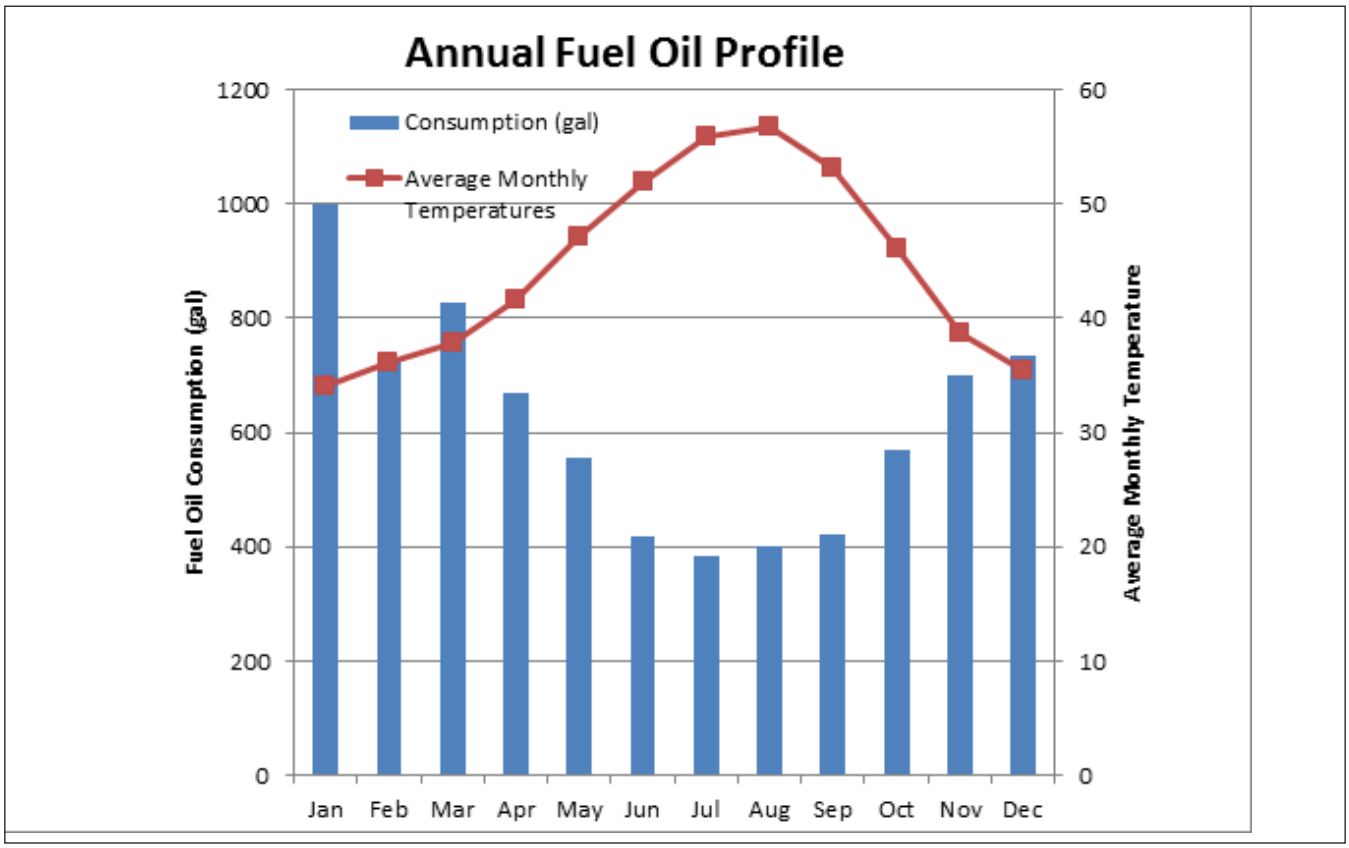
A utility analysis was conducted on fuel oil and electricity consumption for the building. The following summarizes the utility analysis findings.
Table 1 and the accompanying two charts show fuel oil and electrical utility consumption based on the summary utility billing information received from Grosvenor. The annual usage shown in the charts is for the time period from October 2011 – December 2012. For the most part, no specific irregularities are observable in the comparison of monthly electrical consumption. Except for March electrical usage, there is slight trend for increased electrical consumption in the non-summer season, which could be an indication of an increased use of artificial lighting during times of year with shorter days.

Table 1 ***Annual Utility Consumption (October 2011 – September 2012)***

	Usage	Cost	Average
Electricity	197,920 kWh	$ 20,311	$ 0.103 /kWh
Fuel Oil	7,405 gallons	$ 26,406	$3.57/gal



The monthly heating and electric energy (in gallons of fuel oil, interpolated from fuel purchase history) charted below also does not show any substantive irregularities. As expected, more fuel oil is used in the winter, or colder months, while less energy is used in the summer months with a gradual decrease or increase during the spring and fall seasons, respectively.



Converting annual electricity and fuel oil into equivalent energy units, in this case thousands of Btus (kBtu) and dividing by the total floor area of the building (20,124 square feet) yields an Energy Use Intensity (EUI) of 84.2 kBtu/sq.ft.

The Environmental Protection Agency (EPA) Energy Star provides median EUI values for different building types. These are based on national averages derived from the 2003 Commercial Building Energy Consumption Survey database. These often are used as a reference in assessing how energy efficient a building is against the similar buildings in the U.S. In the case of HCH, the occupancy and uses, while similar in type to reference buildings found in the CBECS database, likely vary significantly by degree. As an example, the amount of energy used by the kitchen can vary dramatically depending on sheer amount of usage (meals served), and there is no usage metric included in CBECS for cooking to enable normalization for this energy using component. And, it is known that a large number of meals are served at HCH. Another challenge in making a comparison with CBECS is that no building type in the database has the wide diversity of uses that HCH has. Finally, by comparing against a single median value we are not accounting for climate zone, which of course can create variations in heating and cooling energy usage components.

With those caveats, under the "Public Assembly" category, the reference median EUI for a "social/meeting" building type is 43, an "entertainment/culture" building type EUI = 46, and a recreation building type EUI = 39.

2.0 Energy Desegregation Analysis

The building currently utilizes one main electrical meter and no sub-meters. There are also data on fuel oil purchases, as provided above. Since there is not enough information available to analyze where the energy is being distributed in the building, only a rough estimate could be developed.

As a starting point the Department of Energy (DOE) published the Buildings Energy Data Book was referenced. This is a program that looks at similar buildings in similar regions which can be used to establish an estimate on where in a building energy is being consumed. The following is what the Buildings Energy Data Book produced when a place-of-assembly building type in heating dominated climate zone like Sitka was entered into the program:

End-Use	Billion Total Btu	Thousand Btu/ Square Foot
Heating	46,639	56.99
Cooling	3,233	3.95
Ventilation	10,795	13.19
Water Heating	1,018	1.24
Lighting	4,996	6.11
Cooking	977	1.19
Refrigeration	1,807	2.21
Office Equipment	120	0.15
Computer Use	288	0.35
Miscellaneous	4,407	5.39

Using survey data collected (equipment size, lighting power density in spaces, anecdotal usage trends from staff) during the site visit the values above were assessed relative to our understanding of HCH operations. Heating, cooling and ventilation end use EUI values likely are in reasonable alignment with the national data. Water heating for domestic use, cooking and refrigeration seem low given our understanding of the amount of use of the commercial kitchen at HCH, though this was not quantified specifically but rather based on anecdotal reports. Lighting energy at HCH is also expected to be somewhat higher, though there is a band of uncertainty given operation of lights is manual. For purposes of the Level 1 audit, the miscellaneous category above was folded into lighting, cooking and water heating and, pump energy was assumed to be included under ventilation (so, distribution of HVAC), and the numbers calibrated to match actual and total EUI for HCH reported above, to arrive at the values below. A Level 2 energy audit would build on and refine values for existing energy usage to support calculations needed to determine energy cost savings for energy conserving measures identified as most promising.

Results are as follows:

Heating	1,003,771	kBtu	58.5%	of Total
DHW	23,358	kBtu	1.4%	
Lighting	232,571	kBtu	13.6%	
Office Equipment Computer Use	23,427	kBtu	1.4%	
Refrigeration	59,652		3.5%	
Cooking	124,575	kBtu	7.3%	
Ventilation Pumps	231,417	kBtu	13.5%	
Cooling	17474.56	kBtu	1.0%	
Total:	1,716,245	kBtu	100.0%	

As would be expected given the Sitka climate, the heating energy dominates. It appears that much of the opportunity for energy savings relates to either/both finding ways to reduce uncontrolled air infiltration, managing ventilation rates, and improving the thermal properties of the building envelope by adding insulation or improving the glazing systems.

Lighting constitutes 13.6% of the energy consumed. Typically we'd expect this to be a higher percentage, but given the high heating and cooking loads, it appears appropriate. The audit found there to be a lack of any lighting controls and relatively high lighting levels (aka lighting power densities, or LPDs) in many spaces due to the high number of fixtures although in many cases more efficient T8 fluorescent lamps are being used, part of an energy performance contract in 1999 completed by Honeywell. However, aside from occupancy sensors in the main restrooms, there are no lighting controls other than wall switches.

Cooking is all electric in HCH, and our understanding is that the kitchen has high usage year round to accommodate events. The HCH MPR and other meeting rooms support small and large community functions and a lot of meals are cooked on the premises to support these. While somewhat speculative, an assumption the cooking makes up over 7% of the annual energy use may be low. Use of newer, Energy Star appliances as part of future improvements in the kitchen space will improve energy efficiency. In addition, the operation of kitchen Type 1 grease exhaust and Type 2 dishwasher exhaust fans could be made more efficient using the latest technologies, including (potentially) variable flow hoods.

Fans and pump operation are substantial energy using equipment at HCH. As part of mechanical upgrades switching to variable flow operation of these based on real time building and space heating and cooling demand will greatly reduce the energy use category.

Domestic hot water is primarily used by the commercial kitchen. The estimate above may be low given no information on the total amount of meals served was available. There are opportunities to reduce domestic hot water energy consumption through the use of updated dishwashing equipment in the kitchen. On-demand electric water heaters to reduce stand-by losses and enable switching from fuel oil to electricity are a possibility, but given domestic hot water usage probably spikes depending on kitchen use may not be practical, depending on whether the existing electrical service has spare capacity.

Office Equipment and computer use or electric "plug" loads are an occupant-driven energy category and includes vending machines. These loads have been separated from electrical use for cooking, and consequently are expected to be a small contributor to the overall energy use in the building. Still, there are ways to encourage reduction in plug loads, such as:

1. Providing switched outlets to help ensure that equipment is fully off, reducing off-hour parasitic usage.
2. Investing in power strips with occupancy sensors for the offices.
3. Developing building guidelines for migrating to more energy efficient equipment over time, including selecting "best of show" Energy Star appliances and office equipment. Also include a guideline on PC power management.
4. Vending machines rated by Energy Star include occupancy sensors to turn off/down lights when nobody is present and also reduce cooling energy on refrigerated units.
5. Chiller operation in Sitka's mild climate is assumed to be a minor energy end use and so is a small component out of the total.

3.0 Energy Saving Opportunities

This section provides a list of identified energy saving opportunities. These are based on findings of the site walk-through, a review of condition assessment findings, and the subsequent utility data analysis.
As a special note, HCH staff indicated that the Honeywell control system was performing well and results in essentially no complaints from patrons or visitors with regards to thermal comfort or poor air quality. Careful use of this system to establish appropriate space temperature setpoints for heating and cooling, and setback schedules during unoccupied periods, is typically the greatest low/no cost savings opportunity. But, this appears to be well managed at HCH today. Though our survey was not comprehensive, overall operation of the HVAC systems is good and systems appear well maintained, such that things appear to be working as efficiently as can be expected given the age and type of systems.

Our list of energy savings opportunities is below. Note that where measures were identified in the MCG conditions assessment "Deficiency and Recommendations" list, these are identified in parentheses alongside each measure.

- Add arctic vestibules at two south entrances and main entrance doorway to reduce heat losses from infiltration (A5, A7).
- Improve insulation in walls (A2) and high roof (A1) to reduce thermal envelope heat losses, reducing amount of heating required.
- Replace large clerestory window under the highbrow roof with better performing glazing (A3). These currently provide a path for significant heat loss.
- Provide push button openers for one pair of inner and outer doors on the main entry to avoid the need to prop doors open, allowing significant infiltration (A6)
- Upgrade remaining spaces with older T12 lighting fixtures with T8 or LED (E3). As part of the renovation project we would further recommend improvements to the overall lighting design of meeting spaces to reduce lighting power density from over 1.0 Watts per square foot to a target of 0.8 Watts per square foot.
- Exterior lighting – replace building mounted High Pressure Sodium (HPS) lighting fixtures with LED (E5)
- Implement an interior lighting upgrade in MPR. This would include replacement of metal halide ambient lighting fixtures with LED or T5HO fixtures (E4). Replace lobby and entry HPS fixtures with LED or T8 fixtures.
- Provide occupancy sensors for lighting control in meeting spaces and to reduce lighting levels in corridors (E7).
- Provide daylight sensors and reconfigure lighting control zones to enable reduction in lighting levels in spaces where appropriate.

- Replace indirect domestic hot water heaters with electric on-demand water heaters and/or integrated with HVAC heat pump strategies if used (below). This is a potential fuel-switching opportunity to reduce fuel oil dependence.
- As a water efficiency strategy, replace existing restroom fixtures with low flow products now available in the market, including pint flow urinals, 1.26 GPF toilets, 0.5 GPM lavs.
- As part of a renovation/expansion of the commercial kitchen choose Energy Star rated kitchen appliances. For cooking these can include steamers, fryers, convection ovens, electric griddles, combination ovens, holding cabinets, broilers and ranges. Reach-in refrigeration and ice makers are also available with Energy Star ratings. Switching to high-efficiency pre-rinse spray valves will reduce both water and energy use, as will upgrading to an Energy Star dishwasher.
- As part of a kitchen renovation install a demand-based exhaust control on the grease hood. This technology uses sensors to monitor cooking and varies the exhaust fan speed to match actual ventilation needs. Demand ventilation controls likely will reduce exhaust system fan energy costs by anywhere from 30 to 50 percent, and dramatically reduce heating energy needed to warm-up exhaust "make-up" air.
- HVAC upgrades are planned as part of the renovation/expansion of HCH and a recent study has looked at the feasibility of incorporating heat pump technologies. From the previous studies and our walk of the site we see the options to be as follows:

  - **Option 1:** Retain conventional non-heat pump technologies but improve to industry standard systems as part of upgrade. This would entail:
    - Upgrading the existing constant volume supply and return fan systems serving the MPR to variable air volume (VAV) control to take advantage of the dynamic loads in the different spaces.
    - Replacing air handling units used to provide fresh air to perimeter fan coils with Energy Recovery Ventilators (ERVs).
    - Upgrade the gas fired boilers used for heating hot water to high efficiency gas fired condensing boilers. In conjunction with this, the indirect domestic hot water heater would need to be separated from this system (i.e., by switching to electric domestic hot water heaters).
    - Reconfigure hydronic cooling and heating water loops for "variable primary pumping" to reduce pumping energy use.
    - Replace existing air-cooled chiller with higher efficiency current technology
    - Update digital controls, and provide enhanced energy management capabilities, including advanced metering of major loads.

  - **Option 2:** Install a groundwater well heat pump system connected via a titantium heat exchanger located indoors to water-to-water central heat pumps. These would distribute heating water to HVAC systems that are otherwise very similar to those listed under Option 1. As an alternate to this, a sea-water heat exchanger directly submerged in the bay could be used that may simplify permitting relative to a groundwater system. The seawater is likely cold enough that it could be a direct source of cooling without need for a heat pump during summer.

  - **Option 3:** Install a variable refrigerant flow (VRF) air source heat pump system with refrigerant-based distribution system to VRF fan coils (M4, M7).

3.1 Potential Costs and Savings

A detailed analysis of potential energy savings associated with energy conservation measures identified above is beyond the scope of a Level I energy audit. Nonetheless, the table below ranks energy saving opportunities qualitatively from a cost/saving perspective using low/medium/high rankings. Strategies highlighted are likely to have simple paybacks based on energy cost savings of less than 5 years.

Note that many of these strategies will be quite attractive when considered as incremental costs associated with needed capital renewal work and the coming renovation/addition to HCH. As an example, if renovation of meeting spaces to update and renew the interiors of these spaces is planned as part of the redesign program, and this includes replacing lighting, then the incremental cost to upgrade to more efficient lighting fixtures and controls is what should be considered when assessing the merit of the better lighting solution, not the total cost for the lighting replacement.

Energy Conservation Measure	Relative Cost (Low/Medium/High)	Relative Energy Saving Potential (Low/Medium/High)
Building Envelope		
Add Arctic Vestibules	Medium	Medium
Improve Insulation in Walls and High Roof	High	High
Replace Clerestory Windows	Medium	Medium
Provide push button door openers at main entrance	Medium	Low
Lighting Strategies		
Upgrade T12 fixtures to T8	Low	Low
Power strips with occupancy sensors in office	Low	Low
Provide occupancy sensors in meeting rooms, offices, corridors, and back-of-house spaces	Low	Medium
Daylight sensors and re-zoning of lighting as part of HCH redesign of overall lighting system	Low (incremental)	Low
Domestic Hot Water Heaters		
Replace with electric resistance	Low/Medium	Low
Replace with indirect water heaters fed by heat pumps with electric resistance boost/back-up	Low (incremental)	Low
Kitchen Strategies		
Provide Energy Star rated appliances in new kitchen (per above)	Low (incremental)	High
Provide demand-based ventilation in new kitchen	Low (ncremental)	High
HVAC		
Option 1 (as part of Capital Renewal)	Low	Medium
Option 2	High (incremental to Option 1)	High
Option 3	Medium (incremental to Option 1)	High
Office Equipment		
Provide “switched” outlets in office spaces	Low	Low
Install powerstrips with occupancy sensors in office spaces	Low	Low
Migrate to Energy Star equipment as upgrades are made	Low	Low
Replace vending machines with Energy Star	Low	Low

ACOUSTICS AND AUDIO-VISUAL SYSTEMS NARRATIVE

The Harrigan Centennial Hall is a Convention and Visitors' Center located on the waterfront in Sitka, Alaska. This multiuse facility includes a visitors' center, heritage museum, exhibit space, gift shop, three small meeting rooms, a divisible meeting room that also acts as the assembly chamber for the local city assembly and a flat-floor auditorium space with a built-in stage. This report will provide the current state of the facility with respect to acoustics and audiovisual systems and corresponding recommendations for upgrades.

Existing Conditions: Centennial Hall Auditorium

The auditorium is a multi-use gathering space that seats from 350-700 people depending on room setup. There is a performance stage with a main curtain that creates the proscenium opening. The back wall of the stage consists of windows looking out onto the waterfront. The stage and auditorium is utilized for performances from dance to music. Music performance can range from un-amplified chamber music to national touring artists. Amplified musical acts must bring in a sound system as the built-in system is not adequate for these types of acts. The venue also does not have a qualified sound operator/technician and therefore a sound engineer must accompany the rented sound system for amplified musical acts. The space is also used for meetings and flat-floor convention events, like the community Christmas Bazaar. When the auditorium is not being used for events, the space is open for visitors to enjoy the view.

Acoustics
Measurements were conducted of the reverberation time and background noise levels of the auditorium.

Reverberation time is defined as the time in seconds for sound to decay 60 dB in a room after the source of the sound has ceased. The measured reverberation time in the auditorium was 1.2 seconds at 500 Hz. The room was unoccupied during the measurements but empty seats were arranged in rows, occupying approximately half of the floor area.

Measured reverberation times in the auditorium are documented in *Figure 1*.

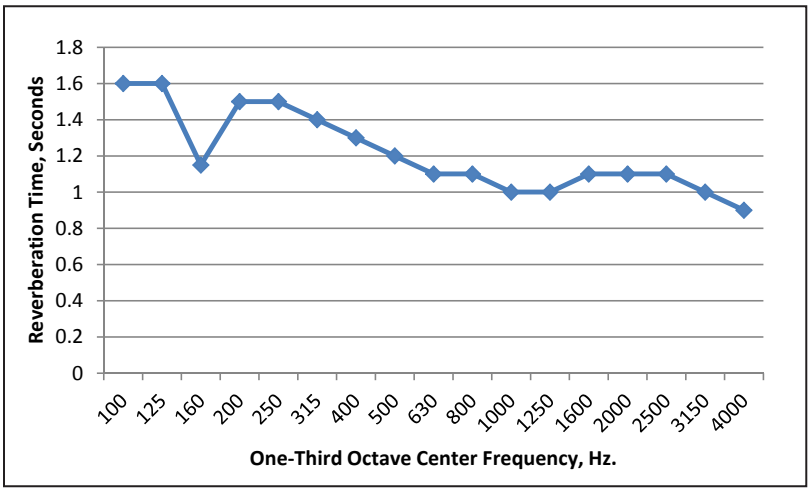


Figure 1: Measured Reverberation Times in Centennial Hall Auditorium

Qualitatively, the room exhibited a moderate room response which is appropriate for the multi-use aspects of the room. It is important that the room not be too lively or dead, acoustically. If it were much more lively, the room would work well for unamplified classical music but poorly for amplified faster tempo music or speech. If it were much less lively, the room would work well for speech but would be too dry for unamplified music.

The present room response is a good balance between these two extremes. There is little acoustical

absorption in the room. The ceiling and floor are hard (wood and concrete, respectively) and the walls, other than the rear wall, are also hard (GWB). Most of the rear wall is burlap over ½" Celotex, which is basically a mineral fiber board, similar to the construction of acoustic tile but without the perforations. The Celotex is backed by GWB. Although the sidewalls have a similar treatment, the Celetex is omitted from the sidewall, voiding any significant acoustical absorption. The remaining acoustical absorption is provided by the stage curtains.

The primary concern regarding acoustics in the auditorium is the background noise produced by the HVAC system. The room is served by two systems, each one located in an attic just outside each side of the room. The equipment is only a few feet from the auditorium wall. Noise created by the fan and noise created by the velocity of the air, travel down the ductwork and out the supply diffusers located high on each side wall.

There are several pieces of mechanical equipment in each mechanical attic. Each piece of equipment was operated by itself in order to measure the noise it created in the auditorium.

Background noise levels produced by the HVAC system were measured at approximately 45 dBA in the room. An A-weighted sound level, abbreviated dBA, applies a frequency weighting to a sound's spectrum and sums the frequency content to create a single number that represents the human ear's sensitivity to sound.

The breakdown of sound level versus octave band of frequency is given in Figure 2. Ideally, HVAC noise would be virtually inaudible in the room, which would be equivalent to a background noise level of 20 to 25 dBA. The existing 45 dBA is four times as loud as 25 dBA.

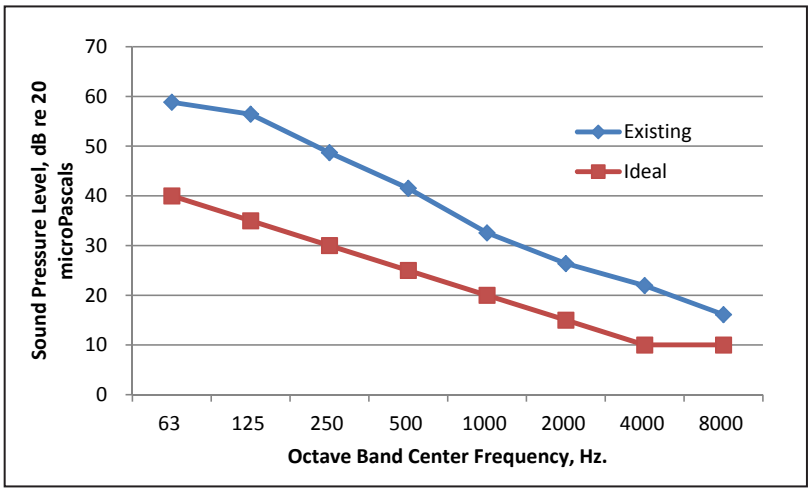


Figure 2: Measured Background Noise Levels in Centennial Hall Auditorium

Various pieces of equipment in and around the auditorium were turned off to determine how each of them contributed to the total noise levels. *Table 1* documents the results of this exercise.

Condition	Measured Sound Pressure level, dBA
All HVAC on, HID lights off (common performance mode)	44
HVAC serving auditorium off	39
Kitchen equipment off, too	38
All other equipment in attic house left off, too	32
All other equipment in attic house right off, too	32
All equipment and lights off	31

Table 1: Auditorium Background Noise with Various Equipment Operating

All of the equipment in the attics next to the auditorium plus the kitchen equipment contribute in a significant way to the background noise in the auditorium. The only equipment still operating at the conclusion of the above test were wall mounted in-line pumps. They likely contributed to the remaining background noise in the auditorium.

A quieter background level will allow performers to be much more easily heard on stage. Whereas a microphone needs to be used now for almost all spoken announcements, if the room were much quieter, announcements could be made with the natural voice. Quieter background levels will improve the dynamic range of the room which would be a significant benefit to musical performances.

AV Systems

The sound system consists of two main speakers flown over stage center. These speakers were not manufactured to be hung, nor is their coverage pattern appropriate for the space and therefore the response of the system is not consistent throughout the listening area. These speakers are well beyond their useful lifecycle and replacement parts are difficult to obtain. Two newer portable monitor speakers are available for use on stage.

Connectivity to the system is obtained through six microphone input connectors installed on the front lip of the stage, facing the audience, as well as two speaker connectors for monitor speaker connections. Additional connectivity to/from the system beyond this must utilize portable cabling, running on the floor between needed locations.

The sound system equipment rack and mixing console are located in a room off-stage-right and the operator cannot see, nor hear, the stage or audience.

There is a 140” x 140” manual pull-down projection screen hung mid-stage. This screen has two horizontal seams in the projection surface. The manual nature of the screen causes a technician to walk out to the center of the stage, and with the aid of a stick with a hook on the end of it, raise or lower the screen. While this is not an issue before or after an event, if a screen move is required during an event, the result is not very elegant. The projector used for the screen is portable and when in use is located in the audience area on a rolling cart.

Existing Conditions: Maksoutoff Room - Divisible Meeting Room

This is a divisible meeting room that consists of an approximately 28’ wide by 37’ long section and a 28’ wide by 19’ long section separated by a standard manual operable wall. The acoustic tile ceiling is approximately 8’-10” high, with wood beams protruding down to 6”-8” below the ceiling tiles running the width of the room every 12’.

Acoustics

The acoustics of the meeting room are generally acceptable as-is. The room is carpeted and has an acoustic tile ceiling so it is highly damped, acoustically. This is an ideal environment for speech.

Background noise levels in the room are within the range normally recommended for a meeting room.

AV Systems

The larger of the two spaces has ceiling speakers installed into the ceiling tiles four speakers wide by four rows long. These speakers are separated into four zones, one zone per row. There are no ceiling speakers in the smaller space (above the assembly chamber area). There is a four output press feed connection plate in the larger room that is fed from a similar panel in the smaller room. Both panels consist of four XLR-female

connectors in a 2-gang plate.

The assembly chamber is a typical setup in the smaller section facing the larger section with the room divider open. This consists of multiple portable tables that, when combined, create a U-shaped head-table. On these tables are gooseneck-style microphones with weighted bases that include an integrated on/off switch. There is a 24-space equipment rack located near the room divider, at one end of the table that houses the audio equipment for the room. Its location allows one of the participants at the table to have access to the front panel controls of the audio equipment during the meeting. See attached inventory for the equipment located in and on this equipment rack.

For audio teleconferencing, there is a Polycom conferencing phone located at the end of the table near the equipment rack. When in use, a gooseneck microphone is placed near the speaker on the phone to reinforce the sound coming from the phone. There are two "headphone" style speakers, rubber-banded to the microphone input areas of the Polycom for sound from the sound systems to be broadcast to the teleconferencing participants who have "called" in.

In the corner of the room is an 8'x8' portable projection screen.

For televising Assembly proceedings, a portable video system is brought in and the captured video is transmitted to the local CATV carrier's head-end via an analog cable modulator, which also distributes the signal to a television in the room.

Existing Conditions: Small Meeting Rooms

There are three small meeting rooms that vary in size from 6 person to 15 person.

Acoustics

The interior room response of each meeting room is fine but all of the rooms were noisy. It sounded as though the HVAC system was pushing too much air through the supply air diffusers in each room, creating noise levels in the mid to upper 40's dBA. There rooms would normally be designed to noise levels between 35 to 40 dBA.

AV Systems

These rooms have a speaker mounted on the wall that is a remnant of a now defunct paging system. The room closest to the back stage door of the auditorium has a volume control on the wall and a ceiling speaker that allowed the room to be used as a dressing room. Audio from the show on stage was heard through the room's ceiling speaker. This system is no longer functioning.

Other Areas

The Exhibit area, Museum, Gift Shop, Reception, lobby and hallways exhibit acceptable acoustical environments and do not have any AV.

Recommendations: Centennial Hall Auditorium

Acoustics

1. Maintain the existing room response. If surfaces in the room are changed, they should be replaced with materials with similar acoustic qualities.
2. Add vestibules to the doors leading to the lobby, to increase the acoustical separation between the lobby and the auditorium. Inner doors of the vestibule should be equipped with push/pull hardware only, without latches, to avoid the noise of latching systems when people arrive late to a performance.
3. Mechanical equipment serving the room needs to be modified or replaced to reduce the noise it creates in the auditorium. A design goal of RC 20 (25 dBA) should be assigned to the room. RC stands for Room Criteria and is defined within handbooks issued by the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).

   a. It is difficult to locate mechanical systems so close to a sensitive room and create a quiet environment. Consequently, the ideal case would be to relocate the equipment further from the room.

   b. All HVAC equipment located anywhere near the auditorium should be isolated form direct contact with the structure via spring isolators. Most pieces of equipment have internally isolated fans, but if the equipment remains close to the room, the equipment cabinets should also be isolated with neoprene waffle pads.

   c. There needs to be sufficient distance between the equipment and the auditorium to allow the noise created by the equipment to diminish. Duct silencers could be placed in the ductwork to reduce the noise levels. Even duct silencers need lengths of straight duct (typically a minimum of 12 feet) to avoid excessive energy loss in the system.
4. Duct velocities near the auditorium need to be slow to avoid turbulence generated noise. For an RC of 20, do not exceed 325 feet per minute (fpm). Velocities can gradually increase as the ductwork moves away from the diffusers, at a rate of 100 fpm at each duct junction. This is considerably slower than typically used for ductwork guidelines for non-performance areas.
5. Return air ductwork velocities can be 75 fpm higher than the corresponding supply ductwork geometry. For example, the air velocity in the duct just prior to the RA diffuser can be 400 fpm and the duct velocity in the ductwork downstream of the closest junction can be 500 fpm.
6. Volume dampers should be avoided if possible in the supply ductwork. With slow moving air and all the diffusers serving the same room, some projects conclude that the need for volume dampers is diminished. If they exist, they need to be located at least two equivalent duct diameters from the closest upstream junction and four duct diameters upstream of the supply diffuser.
7. All supply and return ductwork within 30 feet of supply or return diffusers or grilles should be lined with acoustical duct lining.
8. Video projection equipment should be located in a projection room to avoid creating excess noise in the auditorium from cooling fans.

AV Systems

1. The auditorium should have a new speaker system installed with a coverage pattern appropriate for the space, eliminating hot spots and dead spots and allowing even coverage throughout the room.

2. Floor boxes should be installed into the stage to allow flexible setup of the stage while managing

cabling for a trip-hazard free environment.

3. A mix position should be established in the rear of the room, with the associated cabling, to allow for operation of the sound system from within the space.

4. The sound system head-end needs to be upgraded to include a digital signal processing system (DSP) to allow for automated use of the room for smaller events and push-button convenience to control automated functions as well as change the system over into an operator controlled system.

5. The standard (4:3) manual video projection screen should be replaced with a widescreen (16:10) motorized video projection screen with remote control locations both backstage and at the newly established mix position.

6. Permanently installing a high-definition video projector should also be explored.

7. An assistive listening system should be installed to bring the room up to the current ADA code.

8. The mixing console, monitor speakers, wireless microphones and wired microphones can be re-used, but the rest of the AV system should be replaced.

Recommendations: Maksoutoff Room - Divisible Meeting Room

Acoustics

1. If the room is modified, the modified room should have an acoustically absorptive ceiling, similar to acoustic tile.

2. A carpeted floor is helpful to reduce the noise from footfalls or people shuffling their feet.

3. If the room changes locations, walls surrounding the room need to be no less than STC 45 to a corridor, STC 55 to surrounding office space and STC 60 to spaces that might have their own AV systems. It is best to buffer this room with surrounding non-sensitive rooms as exists in the present building.

4. HVAC systems serving this room should be designed to produce a maximum noise level of RC 25.

5. Do not locate mechanical equipment such as VAV boxes over this room. Fans serving the room should not be located within 25 feet of the room.

6. Duct air velocities should not exceed 400 fpm within 10 feet of supply diffusers or 475 feet within 10 feet of return registers. Velocities can increase at a rate of 100 fpm at each duct junction further removed from the diffusers or grilles.

7. All supply and return ductwork within 20 feet of supply or return diffusers or grilles should be lined with acoustical duct lining.

AV Systems

1. The audio system in the room needs to be updated to be based around a digital signal processor (DSP)

capable of handling the number of microphones needed for Assembly meetings. This DSP should also include the ability to create audio teleconferences using a standard POTS line.

2. Floor boxes should be installed to allow flexible setup of the room while managing cabling to have a trip-hazard free environment.

3. The existing ceiling speakers should be updated and ceiling speakers should be installed into the section of the room that doesn't currently have speakers.

4. A permanently installed video projection system with a built-in widescreen motorized video projection screen and high-definition video projector should be installed to allow for presentations. This video system should include the ability to support video teleconferencing as well as video capture to allow for broadcasting of Assembly meetings without the need for portable equipment to be set up and removed for each of the meetings.

5. An assistive listening system should be installed to bring the room and the Assembly meetings up to the current ADA code.

6. The wireless and wired microphones can be re-used, but the rest of the AV system should be replaced.

Recommendations: Small Meeting Rooms

Acoustics

1. Room should have an acoustically absorptive ceiling, similar to acoustic tile.

2. A carpeted floor is helpful but not mandatory.

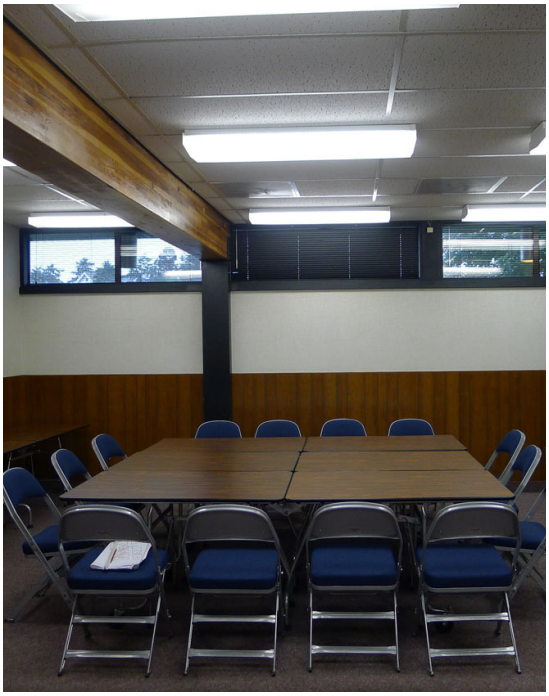
3. Walls surrounding the room need to be no less than STC 45 to a corridor, STC 55 to surrounding office space and STC 55 to spaces that might have their own AV systems.

4. HVAC systems serving this room should be designed to produce a maximum noise level of RC 30.

5. Do not locate mechanical equipment such as VAV boxes over the rooms. Fans serving the room should not be located within 25 feet of the rooms.

6. Duct air velocities should not exceed 475 fpm within 10 feet of supply diffusers or 550 feet within 10 feet of return registers. Velocities can increase at a rate of 100 fpm at each duct junction further removed from the diffusers or grilles.

7. All supply and return ductwork within 10 feet of supply or return diffusers or grilles should be lined with acoustical duct lining.



AV Systems

1. Audiovisual capabilities should be installed in these rooms, allowing them to become more sought after meeting spaces.

2. Floor boxes should be installed to allow flexible setup of the

room while managing cabling for a trip-hazard free environment.

3. Large Flat Screen displays with built-in speaker systems should be installed with input connectivity at the floor box and the wall. These screens would allow for the display of cable-TV and presentation content as well as possibly being used as overflow space for the Assembly or other meetings.

4. Connecting the Auditorium AV system to these rooms would allow them to become backstage dressing/ Green rooms or overflow space.

5. The largest of the three rooms should have ceiling speakers installed as well as an assistive listening system to bring the room up to the current ADA code.

Recommendations: Other Areas

AV Systems

Exhibit area, Museum, Gift Shop, Reception, lobby, restrooms and hallways should have ceiling speakers added to them for building wide and zoned paging and possible background music applications.

Recommendations: Overall

AV Systems

While the spaces are not in bad shape, the existing AV systems are old and are in need of updating. Careful choices in system designs will allow for maximum flexibility in the space while minimizing setup/tear-down time. Ease-of-use and simple maintenance should be at the center of the design for the AV systems.

STAGE LIGHTING NARRATIVE

This report outlines the existing Centennial Hall stage and auditorium (house) lighting and dimming control system, stage rigging and draperies. The report also includes recommendations for upgrades.

Existing Conditions: Centennial Hall Auditorium

The auditorium is a multi-use gathering space that seats from 350-700 people depending on room setup. There is a performance stage with a main curtain and main valance that creates the frame of the proscenium opening. The back wall of the stage consists of windows looking out onto the waterfront. The stage and auditorium is utilized for performances from dance to music. Music performance can range from chamber music to national touring artists. The space is also used for meetings, weddings, funerals and flat-floor convention events, like the community Christmas Bazaar. At one time the Banff Film Festival was held there. When the auditorium is not being used for events, the space is open for visitors to enjoy the view.

Existing Conditions: Stage and House Lighting, Dimming and Control System

- The stage lighting, dimming and control system is manufactured by Colortran (now a division of Leviton) and was installed in 1999 by Pacific Northwest Theatre Association (PNTA) of Seattle, WA.
- The stage lighting control console is a Colortran "Innovator 48/96" Control Console. This control console still functions and the auditorium staff reports no issues or problems at this time.
- For auditorium "house" lighting control, this is also manufactured by Colortran, using the "Remembrance" architectural control system. This system is still functioning. Staff would like to have a system that has multiple preset lighting looks which conform to the different uses of the auditorium.
- There are only three Stage lighting positions; two lighting pipes (called stage electrics) located directly over the front half of the stage and a front of house lighting pipe. Staff complaints have been the lack of another front of house lighting position located mid-auditorium to handle productions when the stage floor is extended 8 feet into the auditorium and the back half of the stage is not lit due to the lack of stage lighting hanging positions.
- Located in an upper storage area on the stage left side of the stage, the Colortran Dimmer Racks (two "I" Series racks containing 48 dimmers each for a total of 96 dimmers) are in good condition. (Exact quantities of stage dimmers and house lighting dimming circuits to be verified). Any spare parts for either dimmer rack were not found.
- Existing stage lights appear to be in good condition and appear to be maintained. However, some stage lights with long throw lenses are being used over the stage which are inappropriate locations for such fixtures.
- All stage lighting circuits and stage lighting instruments have twist-lock style plugs and receptacles. If additional stage lighting instruments are needed for larger productions, staff will have to rent additional fixtures and adaptors since rental houses typically use a grounded stage pin plug.

Existing Conditions: Stage Rigging and Drapery System

- All stage rigging is dead-hung from the tongue and groove wood ceiling via threaded rods and recessed

anchors. Draperies (stage curtains) consist of a Main Valance, House curtain, downstage legs, mid-stage traveler curtain, mid-stage border, rear blue traveler curtain and rear black-out traveler curtain. All were supplied and installed by Stagecraft Industries from Portland, OR.

- Staff reports the Main Valance and House Curtain were replaced roughly 10 years ago by Stagecraft Industries.
- The back sides of the mid-stage traveler, downstage legs, mid-stage border and both rear traveler curtains are sun bleached due to exposure to the sun from the rear window. Exposure to the sun is causing the curtains to deteriorate faster than normal.
- We find the main valance hangs too low, thus creating a small proscenium opening.
- The main house curtain, when opened, stacks roughly 5 feet on both sides of the stage, creating a smaller audience viewpoint of the stage which creates a smaller width stage. Based on how the portable seats were set up on the day of our site visit, this creates sightline issues for an audience member sitting in the extreme far house left and house right seats.
- It is assumed that all curtains are in need of being retreated with flame-proofing chemicals.
- All dead-hung pipe battens for stage lighting positions appear to be a combination of a galvanized, thin gauge pipe and standard 1-1/2" diameter water pipe. Closer inspection of the threaded support rods, pipe clamps and ceiling anchors reveal that the hardware used is not rated to support any additional loads to the pipe battens. The hanging support hardware currently will only support the existing stage lighting loads. The hardware will not support additional loads of stage lighting instruments or other miscellaneous equipment that are hung off of the pipe battens.

Recommendations: Stage and House Lighting Dimming/Control System.

- The dimming system is 13 years old. Based on our observations, we estimate the existing stage and house dimming/control system has roughly 7 to 10 years of use before the system will begin needing repair or replacement of worn parts. We know that Colortran is currently manufacturing replacement parts and providing technical service repairs for this dimming system. We have two options for consideration. These options are:
    - Option No. SD-1: Should budget be an issue, we would recommend the existing dimming system, stage lighting, plug-in boxes and stage lighting connector strips be retained. The Owner would need to purchase replacement parts (consisting of spare control modules and dimmer modules) to allow for any future equipment failure or malfunction. Keeping a spare control and dimmer module would allow the show production to continue and the malfunctioning part could be shipped to the nearest theatrical dealer for repair. The Owner will probably need to replace the existing dimming and control system 7 to 10 years from now. If Option No. SD-1 is of interest, we would also recommend adding two more stage electrics over the upstage areas and another front of house position to allow for additional stage lights to provided the missing lighting coverage. With the addition of the new stage electrics and front of house position, a new dimmer pack (wall mounted) will be needed to provide dimming to these new circuits. Or it may be possible to have repeating circuits on the new stage electrics and new front of house position.
    - Option No. SD-2: Demo all the existing dimmer racks and all stage distribution (stage lighting plug-in boxes and stage lighting connector strips) and replace with all new. This would include two new stage lighting connector strips for the upstage areas and the addition of a new front of house lighting pipe. A new dimming/control system, if maintained, will last 15 to 20 years. All receptacles for circuit boxes and connector strips would be specified with grounded stage pin plugs.
- The stage lighting control console is also 13 years old. As with the dimming system, the control console has around 3 to 5 years of use before repairs or malfunctions could happen. The stage lighting control console is basically a high speed computer and as with all computers, the electronics and CPU are

constantly evolving with bigger hard drives, faster CPU's, etc. Since Colortran is still manufacturing and servicing this control console at this time, we have two options for the Owner's consideration.

These options are:

- Option No. SC-1: If Option No. SD-1 under the Stage and House Lighting Dimming is exercised due to budget, we would recommend reusing the existing stage lighting control console and house lighting control stations. If such repairs are needed, we would recommend that the Owner rents a similar or exact model of console control while the existing control console is out for repairs. Should reusing the existing console not be desired by the staff, we would recommend purchasing a new control console and keeping the existing console as a back-up board. The existing house lighting stations would remain as a cost saving measure.
- Option No. SC-2: Whether Option No. SD-1 or No. SD-2 under the Stage and House Lighting Dimming System is selected, we would recommend replacing the existing stage lighting control console with a new control console. This would include replacing all the house lighting stations with either LCD touchscreens or four scene preset push-button stations.

- We highly recommend adding one more front of house stage lighting position in the mid-auditorium area to provide additional stage lighting positions for productions that require the stage to be extended out into the auditorium as well as to provide stage lighting for a fashion show runway aisle. This front of house lighting position would be roughly ten feet to 15 feet behind the existing front of house stage lighting position. Additional dimming circuits would be needed as described in Options No. SD-1 and SD-2.
- Staff has complained that the upstage center stage area is poorly lit (dark) due to the lack of stage lighting hanging positions. We recommend the addition of two more stage lighting hanging positions over the back half of the stage to help provide a smooth and continuous wash of light. Additional dimming circuits would be needed as described in Options No. SD-1 and SD-2.
- The auditorium "house" lighting control system is the same age as the stage control console and dimming system (13 years old). We would recommend keeping this if budget (see Option No. SD-1) is a concern. However, if the Owner would like to have more flexibility to control the auditorium house lights with multiple lighting looks, we would recommend replacing the existing control stations with new auditorium house light stations that offer multiple lighting scenes via a LCD touchscreen or multiple preset push-buttons (see Option SC-2). If the existing dimming system was not being replaced as described Option No. SD-1 but the desire is to replace all house light control stations, the purchase of an additional architectural control center is needed to accept the new multiple preset push-buttons and/or LCD touchscreens.
- All of the existing stage lights can be reused. However, some of the stage lights are long throw instruments and are currently being used over the stage. These fixtures are meant to be hung from the existing front of house pipe. New stage lighting fixtures with a short throw beam spread will be needed to provide better stage lighting coverage over the stage and to fill in the dead zone in the center upstage area. If Option No. SD-2 is selected by the Owner, grounded stage pin plugs would be specified to replace all existing fixtures with the twist-lock style plug.

Recommendations: Stage Rigging and Drapery System.

- It is our recommendation to replace all stage rigging and curtains with new equipment (curtain traveler tracks, floor blocks, hanging hardware) and curtains. We also propose to raise the bottom of the valance and other borders to be higher which will allow for a taller proscenium opening.
- Since the existing main house curtain, when opened, stacks on the either side of the stage which impedes the audience viewpoint of the stage. We recommend that the stage right and left wing walls are removed which would allow the main house curtain and all masking drapes to be relocated into the side wing space. This would create better sightlines; make the stage wider and create a wing space

usable by the performers. Industry standards typically have all curtains stacking offstage in the side wing spaces.

- It is our opinion that the existing stage lighting pipe battens (combination of thin gauge galvanized and black water pipe) are suspended with under-rated mounting hardware. Our recommendation is to replace the existing pipe battens with all new 1.5" I.D., Schedule 40 pipe batten and new, load rated hanging hardware (pipe clamps, threaded rod and/or heavy duty chain) attached to P-1000 Unistrut running from downstage to upstage on 8 to 10 foot centers. The Unistrut would be anchored into the tongue and groove ceiling using a method as approved by the structural engineer.
- We also recommend installing additional masking drapes (borders and legs) and new stage lighting positions over the stage and front of house. The additional masking drapes will mask the wing space (if the wing walls are removed) from the audience while the addition of stage lighting positions over and in front of the stage will provide better stage lighting coverage of the performers.

FOOD SERVICE NARRATIVE

The kitchen at Centennial Hall is fairly old and has a number of pieces of outdated equipment as well as a layout that does not have a very efficient flow pattern. (See drawing A301 in Section 6.0 of this document).

The space is long and narrow which creates limitations in the equipment layout. One case in point is the location of the cooking line. The cooking line is at the end of the short dimension of a space that has doors on both long perpendicular walls. Because of its location, it is separated from the refrigerators and freezers not allowing ease of getting product that needs to be cooked. There are no worktables near the line which doesn't allow any place to land hot pans coming from the ovens or a place for the cooks to stage the food being cooked. Instead of a worktable, the cooks are using small mobile carts for workspace.

The equipment is older, outdated technology and there are important equipment items missing. The kitchen lacks a food prep sink. The 3 compartment sink by code is for washing pots and pans and should not be used for food prep. The cooking equipment appears to be at the end of its life and is electric which uses a lot of energy. The hood above the cooking equipment is an older style unit that draws 40-50% more air than newer technology hoods do. The refrigerator appears to be old enough to lack EPA compliant refrigerants for its operation. The 3 compartment sink lacks a landing area for soiled wares. The dishmachine is not an energy efficient unit and lacks the ability to run more than one sheet pan at a time through it.

In general, simply replacing the existing equipment with newer technology equipment would yield a 50-60% reduction in energy usage.

HAZARDOUS MATERIALS NARRATIVE

Prepared by White Environmental Consultants, Inc.

ASBESTOS AND LEAD CONTAINING PAINT INSPECTION REPORT

Contents

1. Scope of Work
2. Inspection Findings
   2.1 Asbestos Containing Materials (ACM)
   2.2 lead Containing Paint (LCP)
3. Compliance Recommendations - Asbestos
4. Compliance Recommendations – Lead
5. Limitations

Appendices

Appendix A: Bulk Asbestos Analytical Report / Field Collection Forms
Appendix B: Lead Sample Results / Field Collection Forms
Appendix C: Drawings / Sample Locations

1. Scope of Work

From September 10-12, 2012, White Environmental Consultants Inc. (WEC) performed an asbestos and lead-containing paint survey of the Harrigan Centennial Hall located in Sitka, Alaska.

The purpose of this survey is to provide our client, McCool Carson Green (MCG) , with professional guidance from which they may fulfill all relevant environmental and worker health and safety obligations through compliance with applicable Environmental Protection Agency (EPA), Alaska Department of Environmental Conservation (ADEC), and the Federal Occupational Safety and Health Administration (OSHA) and the Alaska's Department of Occupational Safety and Health (AKOSH) regulations during renovation construction activities at the aforementioned civic center.

The interior and exterior of the building were inspected and/or sampled for asbestos containing materials (ACM) and suspected lead-containing paint (LCP) to determine specific renovation and disposal activities required if these materials are present.

WEC collected 73 samples consisting of 85 layers of suspected asbestos containing materials (ACM). Suspect materials identified and sampled include:

a. Insulation
b. Thermal Systems Insulation
c. Fire Door Insulation
d. Boiler Flange Gasket
e. Boiler Rope Gasket
f. Flange Valve Gasket
g. Boiler Insulation
h. Wall Paper Adhesive
i. Cove Base Mastic

j. Leveling Compound
k. Acoustic Ceiling Tiles
l. HVAC Seam Sealant
m. Wall Texture
n. Ceiling Texture
o. Skim Coating
p. Wallboard
q. Carpet Mastic
r. Joint Compound
s. Vinyl Floor Tiles
t. Floor Mastics
u. Wainscot Adhesive
v. Roofing Mastics
w. Roofing Materials
x. Window Glaze

The materials listed are an inventory of suspect ACM found throughout Harrigan Centennial Hall; sample results by material will be addressed in the findings section of the report.

WEC collected 11 samples of suspect lead containing paints from various locations throughout Harrigan Centennial Hall. The purpose of the paint sampling was to characterize suspect paints to determine the need, if any, of lead compliance measures during the renovation and construction activities. Analysis was performed by flame atomic absorption spectroscopy EPA Method SW846-7420.

2. Inspection Findings

2.1 Asbestos Containing Materials (ACM)

WEC collected 73 samples consisting of 85 layers of suspected asbestos containing materials (ACM) from the structure. A summary of the materials found containing asbestos is shown below along with the percentage of asbestos contained in the product.

SAMPLE ID#	MATERIAL	LOCATION	ASBESTOS CONTENT
016	Joint Compound	Maksoutoff Room	5%
024	Joint Compound	Above Stage Right in HVAC Room	5%
027	Joint Compound	Vestibule 116	5%
031	Carpet Mastic	Multi Purpose Room	5%
032	Carpet Mastic	Multi Purpose Room	5%
046	Joint Compound	Museum 123 East Wall	5%
060	Joint Compound	Boiler Room	5%
061	Joint Compound	Storage 106	5%
062	Joint Compound	Storage 106	5%
067	Joint Compound	Davis Room	5%
068	Wainscot Mastic	Davis Room	12%

2.2 Lead Containing Paint (LCP)

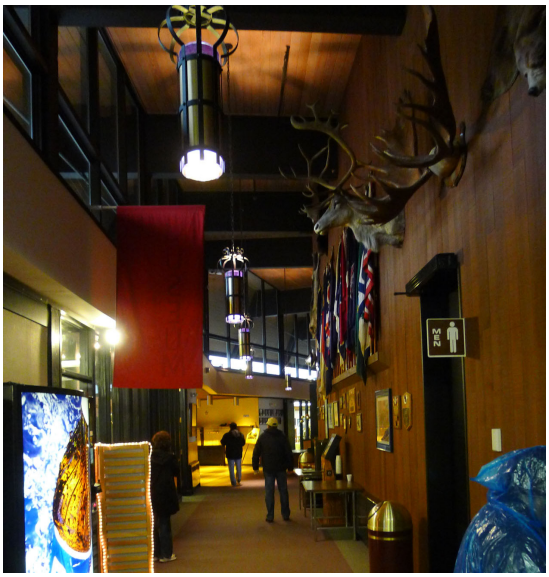
WEC personnel collected 11 paint samples of suspected lead-based and or lead-containing paint from representative locations throughout the interior and exterior of Harrigan Centennial Hall. Samples were analyzed by EPA Method SW846 – 7420. Of the samples collected, 3 had lead content above the level of detection (see attached report). Paints were collected from the walls, floors, and other structural items. Based on these results OSHA lead compliance measures need to be implemented for the disturbance of lead containing paints related to any renovation and disturbance of paint in the following areas; boiler room floor, Museum room 124 floor and exterior paints.

SAMPLE ID#	MATERIAL	LOCATION	Lead Content PPM
P-003	Paint Chips	Exterior Paint	560
P-006	Paint Chips	Museum Shop Room 124 Floor	92
P-008	Paint Chips	Boiler Room Floor	1,600

3. Compliance Recommendations - Asbestos

Joint Compound:
Sixteen samples of joint compound were taken from finished wall systems randomly throughout the structure. Of these samples, eight were found to contain asbestos in quantities greater than one percent. Wall systems with asbestos containing joint compound were found in good condition throughout the structure at the areas inspected at the time of inspection. Joint compound in wall systems is considered to be a non-friable Category I asbestos containing material by the Environmental Protection Agency, and subject to Class II removal procedures as described by the Occupational Safety and Health Administration (OSHA) in 29 CFR.1910.1011. Due to the randomness of test results and knowledge of past remodels, all finished wall systems in the structure should be assumed to contain asbestos. Any disturbance of gypsum wallboard (in relation to the proposed renovation) with joint compound throughout the building should only be performed by state of Alaska certified asbestos abatement personnel.

Carpet Mastic:
Fourteen samples of either carpet or other flooring mastic were collected at representative locations throughout the structure. Of these samples two were found to contain asbestos in quantities greater than one percent. The positive carpet/floor mastic was found under carpeting in the main multipurpose room. Carpet mastic is considered to be a non-friable Category I asbestos containing material by the Environmental Protection Agency, and subject to Class II removal procedures as described by the Occupational Safety and Health Administration (OSHA) in 29 CFR.1910.1011. The material was in good condition at the time of inspection. Any work that disturbs the material should only be done by properly trained personnel.



Wainscot Mastic:
Three samples of wainscot adhesive were collected from

representative locations within the structure. Upon laboratory analysis one was found to contain asbestos in quantities greater than one percent. The positive sample was located in the Davis meeting room.Wainscot mastic is considered a Category I non-friable asbestos containing material by the Environmental Protection Agency and subject to Class II removal procedures as described by the Occupational Safety and Health Administration (OSHA) in 29 CFR.1910.1011. The material was in good condition at the time of inspection. Any work that disturbs the material should only be done by properly trained personnel.

Regulatory Authority
Code of Federal Regulations EPA 40 CFR Part 61 Subpart M (NESHAP), §61.145 Standard for demolition and renovation requires the removal of all Regulated Asbestos-Containing Materials (RACM) from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal. Regulated asbestos containing material (RACM) is defined as (a) friable asbestos material, (b) Category 1 non-friable ACM that has become friable, (c) Category I non-friable ACM that will or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

EPA 40 CFR 61 Subpart M National Emission Standard for Asbestos requires the removal of regulated asbestos containing materials prior to the renovation or demolition of a building.

OSHA 29 CFR 1926.1101 requires specific worker training and removal methods for all asbestos disturbances in renovation and demolition procedures.

Only trained maintenance personnel or certified independent contractors should be allowed to perform disturbance activities on known asbestos containing materials. A two hour asbestos awareness class should be required for all personnel, vendors and contractors that will be working in or around installed asbestos containing materials.

For operations and maintenance work a minimum 16 hour course is recommended. This training provides an overview of asbestos hazards and gives the ability to recognize maintenance and repair work where ACM or PACM may be disturbed and requires training that includes information regarding asbestos and its various uses and forms; the health effects associated with asbestos exposure; the location of ACM and PACM identified throughout each building in which the employee works; recognition of damage, deterioration, and delamination of ACM and PACM; information on respiratory protection; information from 40 CFR 763.91, 40 CFR 763.92, 40 CFR 763.93; and the Hazard Communication standard. This training must include hands-on training for work practices, control measures, and protective equipment.

The EPA requires that all regulated asbestos containing materials be removed from a structure prior to its demolition. The EPA standard also requires that no visible emissions are created from asbestos containing building material disturbance, removal and transportation. The EPA and OSHA have requirements that must be met if asbestos containing materials are disturbed by renovation or maintenance activities. Renovation or maintenance activities that disturb known asbestos containing materials will only be done by properly trained personnel in accordance with all applicable federal, state and local regulations.

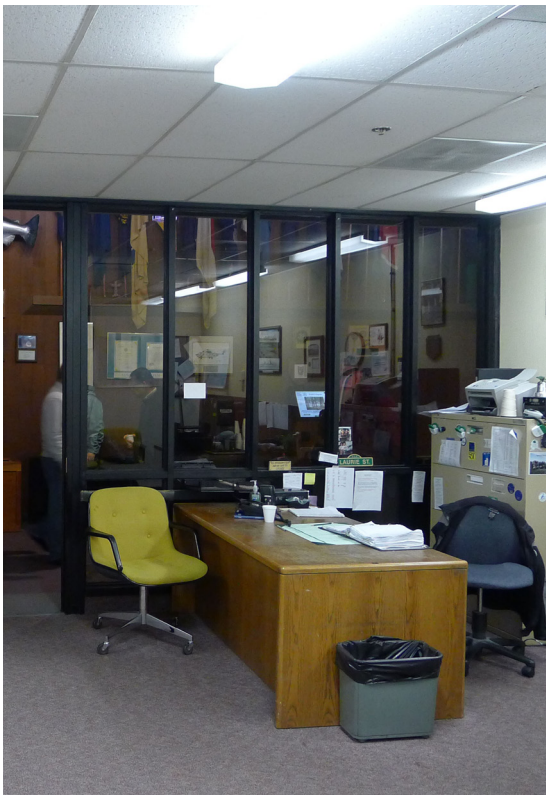
Always test building materials before disturbing the material in any way. Disturbance is defined as any activity that could disrupt the material's matrix that secures asbestos fibers within the material. Disturbance includes, but is not limited to, sanding, cutting, screwing, and nailing into the substrate.

4. Compliance Recommendations – Lead

Of 11 paint samples collected throughout the interior and exterior of the building, 3 were found to have

detectable levels of lead present. During the course of the visual inspection and sample collection, WEC observed that the interior and exterior painted surfaces were in good condition at the time of inspection. Areas that lead containing paints were found were the boiler room floor, museum shop 124 floor and the paint on the exterior of the structure.
As part of EPA's ongoing efforts to protect children from lead poisoning, the Agency announced new standards to identify dangerous levels of lead in paint, dust and soil. These new national standards are more protective than previous EPA guidelines and will, for the first time, provide home owners, school and playground administrators, childcare providers and others with standards to protect children from hazards posed by lead, including children in federally-owned housing.

Under these new standards, federal agencies, including Housing and Urban Development, as well as state, local and tribal governments will have new uniform benchmarks on which to base remedial actions taken to safeguard children and the public from the dangers of lead. These standards will also apply to other Federal lead provisions, such as EPA's real estate disclosure requirements presently in place for people selling or renting a home or apartment. These hazard standards will also serve as general guidance for other EPA programs engaged in toxic waste cleanups. In addition, these standards will provide landlords, parents, and childcare providers with specific levels on which to make informed decisions regarding lead found in their homes, yards, or play areas.



Health problems from exposure to lead can include profound developmental and neurological impairment in children. Lead poisoning has been linked to mental retardation, poor academic performance and juvenile delinquency. Nearly one million children in America today have dangerously elevated levels of lead in their blood. Because of the potential dangers, any exposure to deteriorated lead-based paint presents a hazard.

Under the new standards, lead is considered a hazard when equal to or exceeding: 40 micrograms of lead in dust per square foot on floors; 250 micrograms of lead in dust per square foot on interior window sills and 400 parts per million (ppm) of lead in bare soil in children's play areas or 1200 ppm average for bare soil in the rest of the yard.

Identifying lead hazards through these standards will allow inspectors and risk assessors to assist property owners in deciding how to address problems which may include lead paint abatement, covering or removing soil or professional cleaning of lead dust.

Common renovation activities like sanding, cutting, and demolition can create hazardous lead dust and chips by disturbing lead-based paint, which can be harmful to adults and children. To protect against this risk, on April 22, 2008, EPA issued a rule requiring the use of safe lead work practices and other actions aimed at preventing lead poisoning. Under the rule, beginning April 22, 2010, contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities, and schools built before 1978 must be certified and must follow specific work practices to prevent lead contamination.EPA requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, child care facilities and schools be certified by EPA and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. Individuals can become certified renovators by taking an eight-hour training course from an EPA-approved training provider.

Contractors must use lead-safe work practices and follow these three simple procedures:

1. Contain the work area.
2. Minimize dust.
3. Clean up thoroughly.

The rule affects paid renovators who work in pre-1978 housing and child-occupied facilities, including:

1. Renovation contractors
2. Maintenance workers in multi-family housing
3. Painters and other specialty trades.

Under the rule, child-occupied facilities are defined as residential, public or commercial buildings where children under age six are present on a regular basis. The requirements apply to renovation, repair or painting activities. The rule generally does not apply to minor maintenance or repair activities where less than six square feet of lead-based paint is disturbed in a room or where less then 20 square feet of lead-based paint is disturbed on the exterior, but this does not include window replacement, demolition, or prohibited practices.

The HUD/EPA term "lead-based paint" addresses the layers of paint on an applicable surface having lead equal to or greater than 1.0 mg/cm2 or 5,000 parts per million. The EPA does not indicate any safe levels of lead on painted components of a waste stream and requires a Toxicity Characteristic Leachate Procedure (TCLP) test to be performed on the waste stream to determine disposal requirements.

The OSHA Lead-in-Construction standard (29 CFR 1926.62) applies to all construction work where an employee may be occupationally exposed to any detectable level of lead, including demolition or salvage of structures where lead or materials containing lead are present. Based on these results OSHA lead compliance measures need to be implemented for the disturbance of lead containing paints related to any renovation or demolition.

OSHA 29 CFR 1926.62 "Lead in Construction" has specific requirements when working in the presence of lead.

1. Employee training
2. Employee exposure assessments
3. Lead compliance plan

5. Limitations

WEC performed an NESHAP-compliant inspection at the Harrigan Centennial Hall civic center located in Sitka, Alaska. The inspection was limited to all accessible areas interior and exterior at the time of inspection. Other suspect materials discovered during renovation or demolition not covered in this survey should be assumed to contain asbestos and treated as such until further sampling shows materials do not contain asbestos.

Non-destructive testing was performed; asbestos-containing materials may exist in areas not accessible at the time of inspection.

SECTION 3.0 Centennial Hall Program

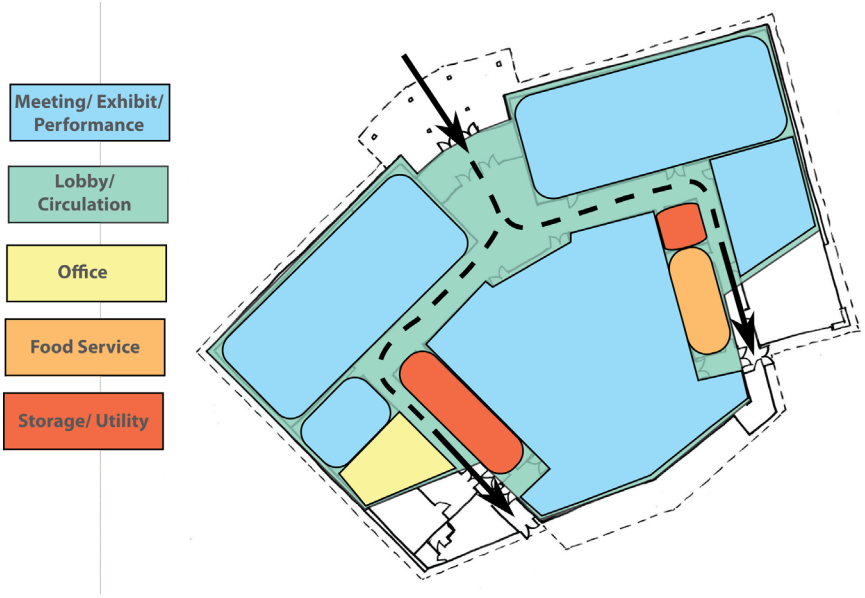
3.0 CENTENNIAL HALL PROGRAM

A building "program" is how people use a building and how the building supports or does not support the desired activities. This section examines the spaces in Harrigan Centennial Hall (HCH) and their uses in several ways:

1. By describing in text what activities the building supports and what the building operators and users like and don't like. This creates the basis for proposing changes in size, location, adjacency and features of various spaces.
2. With detailed room attribute sheets that list what exists and what is recommended for each room in the building.
3. By diagramming spatial relationships: how people move into, out of and through the building; how big spaces are and how they work together to meet various needs.
4. With tables of room areas that group functionally related parts of the building. The area tables list existing areas and proposed areas to provide guidance for allocating space and sizing additions.

INTRODUCTION

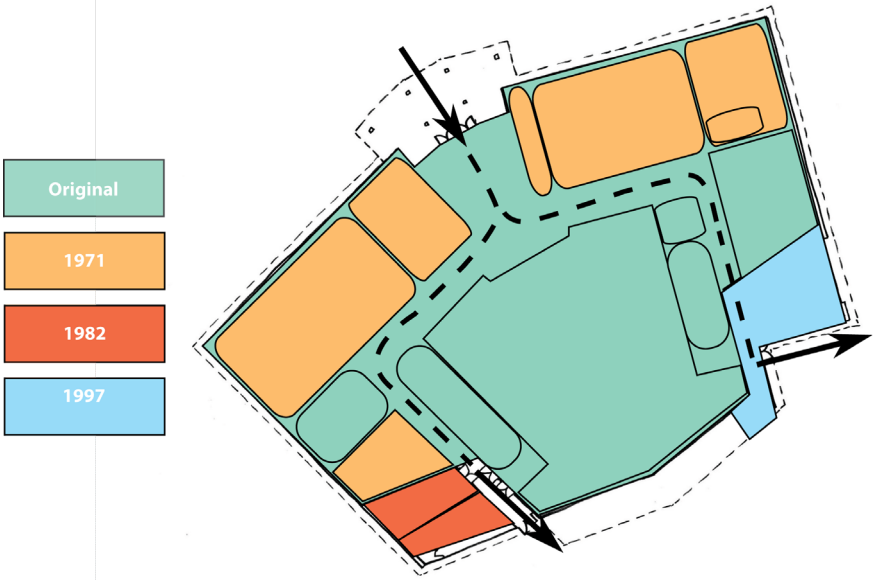
The original program of Centennial Hall was simple and focused on serving small convention, meeting and exhibition needs. The central multipurpose room was flanked with support spaces; kitchen, toilets, storage and mechanical. The outer wings under the low roof area were simply open exhibit areas with one group of offices on the west.



3.0 CENTENNIAL HALL PROGRAM

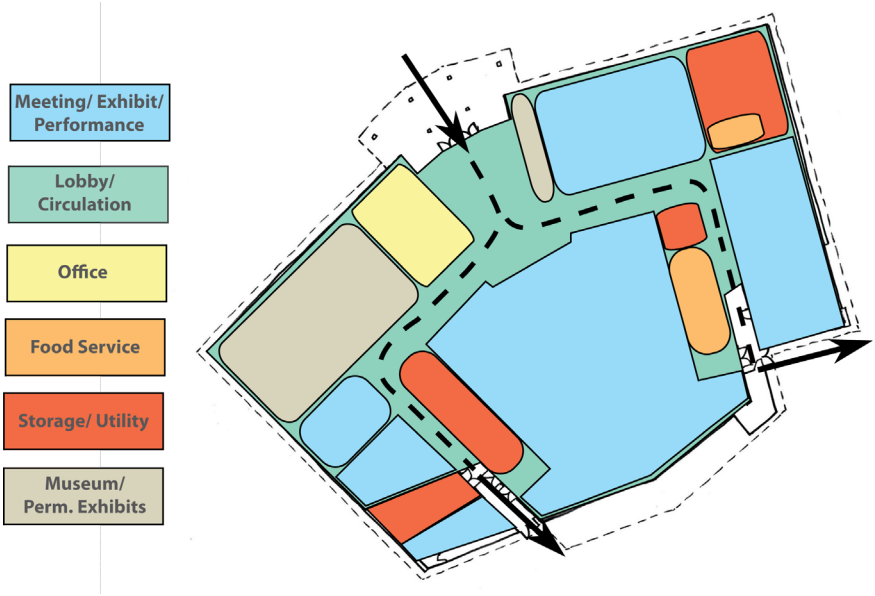
Over the years, the open exhibit space has been subdivided to accommodate an increasingly complex program reflective of the importance of this space and the community's diverse interests and aspirations.

In 1971 the City signed a memo allowing the Sitka Historical Museum to take up residence in the east exhibit space. The space was subdivided for a Chamber of Commerce office, the museum, museum shop and museum office. This use fits the building's original purpose but its permanent nature restricts the flexibility of the space. The west exhibit hall was also divided early on to create a general building storage room.



A 1982 renovation added the Dressing room and mechanical spaces at the southeast corner of the building. At this time the toilet rooms were also reconfigured to make them accessible; a change that reduced the fixture count by 1 each for women and men.
In 1997 an addition was made to the southwest corner, expanding the Maksoutoff room and installing a lift for disabled access to the stage.

Today Centennial Hall is host to a broad array of tenants, seasonal users, civic, convention and performance events. The facility is indispensable in Sitka because of its unique combination of central location, flexible spaces and local historical character. HCH acts as the living room for the community and reception hall for visitors.



3.0 CENTENNIAL HALL PROGRAM

Uses, Needs and Program Goals

To understand the demands on this facility is to understand the long list of building users and the almost endless list of potential scenarios for use. Below is a partial list of building users and the activities they rely on HCH to support.

Building User	Rooms Used	Description of Activity	Frequency of Use
Sitka Assembly	Maksoutoff	Meeting with head table and chairs for Assembly and chairs for 40 in audience. TV broadcast	Evening, bi-monthly
Public Meeting – City and Non-profits	Maksoutoff Exhibit Rousseau	Meetings with various table and chair configurations for 10-75 participants. Projection	As needed
Banquet Events – Fundraisers, Conferences, Weddings	Baranof Kitchen Maksoutoff	Large dinner with presentation or entertainment. Food preparation, dancing	As needed
Conference	Baranof, Kitchen, Maksoutoff, Exhibit, Rousseau, Davis and Pestchouroff	Presentation to large group, table service and buffet dining, mid-size group presentations, vendor exhibits	As needed
Sitka Convention & Visitors Bureau	Lobby	Greeting visitor arriving via cruise ship and providing information and orientation.	Daily in summer
Baranof Arts and Crafts Association	Exhibit A & B	Display and sales of local arts and crafts	Daily in summer
New Archangel Dancers	Baranof, Stage, Dressing	Dance performances with light and sound, folding chairs for 200	Twice daily when ships are in town
Sitka Historical Society Museum	Museum, Office, Collections	Permanent exhibit of historical artifacts, gift shop sales, administration, collections storage and processing	Permanent
AK Chamber Music Association		Sitka Summer Music Festival	Thursday-Saturday in June
Greater Sitka Arts Council		Wearable Art Show	Once Annually
Raven Radio		Stardust Ball	Once Annually
Whale Fest			Once Annually

Each of these scenarios of use brings different requirements; some general like tables and chairs for the anticipated group size and some specific like stage lighting and sound or climate-controlled artifact storage. The challenge for a multipurpose civic center like HCH is to address the specifics without restricting the generalities. Flexibility is the key to success in these spaces. In our experience this can be achieved by creating spaces that are neutral but have variety among them. We call this principal "Many and Varied". We also strive to create "Hard-Working" spaces that can meet several needs at once.

Centennial Hall already has some good examples of these kinds of spaces in the Baranof MPR and the Maksoutoff Room. Baranof is made flexible by virtue of its modest size, simple stage, flat floor and access to light and compelling views. Maksoutoff is a neutral space that can be divided by a movable partition into two rooms of different scales and also benefits from views to the harbor and bay. Aside from a need for technology and updated finishes, these rooms function well for the generalities.

On the other end of the spectrum, the Historical Society Museum currently occupies a neutral space with a program that really needs specificity. The space lacks any identity that could support the cultural mission of the organization. There is no special display lighting, no independent climate control and the space is much too small for the use.

Community and User Input

A significant effort has been made on the part of the City to collect community and building user input regarding what works and what needs improvement at HCH. This Program considers and incorporates that input while resolving conflicts that arise between competing uses and preferences.
In 2010-11, CBS commissioned a master planning process for HCH and the Crescent Harbor parking lot. Building user and community ideas and preferences were gathered through a Building Committee, Public Meetings and individual User Group meetings. The notes from these meetings are reproduced in Appendix D of this document.

In 2011, the Historical Society Museum worked with the Foraker Group to complete a pre-development program and concept design for a museum-specific addition to Centennial Hall. The report from this study is reproduced in Appendix E of this document.

The current programming and design process started in September 2012. CBS formed a Building Design Committee composed of diverse community interest groups and individual users. The BDC, along with a Technical Team including City and Borough employees and MCG have met twice to discuss project goals and review the past planning efforts. MCG has also met individually with User Groups and presented to the Assembly and at a Public Meeting. Notes from these meetings are included with Appendix D of this document. One outcome of these meetings has been the development of a Project Goal Set. The goal set is general and is intended to be refined with the BDC as the design process progresses.

HCH Project Goal Set

- Meets Convention and Visitor Needs
- Meets Local Cultural and Civic Needs
- Is Attractive to Locals and Visitors
- Is Appropriate to the Place – Climate and Culture
- Is Affordable to Construct – Good Value for Sitka
- Is Sustainable – Energy Efficient and Healthy
- Is Flexible – Diverse, Hard-Working Spaces
- Is Phased to Reduce Impact of Construction on Use

3.0 CENTENNIAL HALL PROGRAM

The underlying goal of this Renewal is to improve the existing facility so that it meets all current codes, is safe, healthy and affordable to operate (The Improvement Recommendations list in Section 4.0 of this document addresses items that need to be fixed and categorizes them). Once this is accomplished, we can turn our attention to improving the program; making the building function better for its users.

There are several ways to improve a program:

1. By changing the size of spaces
2. By changing the locations and adjacencies of spaces
3. By improving the quality of spaces
4. By increasing the connectivity and flexibility of spaces

The Room Attribute Sheets that follow this text address all of these aspects and lay the groundwork for designing a successful building that responds to the users' needs as they change over time.

The Program Areas spreadsheet at the end of this section focuses on size and functional groupings of spaces. The areas provide guidance for concept design planning and a quantitative measure for cost estimating.

AS-BUILT ROOM ATTRIBUTE SHEETS

I. Assembly / Meeting Spaces

Baranof MPR 101		**Notes** (Existing Attributes in gray)
(Existing)	Area	4219 sf
1.01	Program Use	Performance, lecture, large meeting, banquet
	Adjacencies	Concourse, Food Service, Storage, Boiler, Toilets
Recommendations		Maintain size and proportions.
Arch. Finishes		
	Floor	Broadloom carpet border (6' wide), yellow epoxy paint on concrete slab-on-grade
	Wall	Fabric wall covering & GWB. Brown wood slats over fabric acoustic panels on North end.
	Ceiling	Height = Varies 24'-9 to 18' T&G wood decking & dark painted glulam beams
	Fenestration	Windows from stage floor to roof on S side, dark anodized aluminum w IGUs, wood trim painted black
	Doors	8'9" high solid wood with custom push-pull hardware in the form of Tlingit art. All exit doors are non-latching with push pads.
	Casework	
	Furniture	Reconfigurable for audience seating, banquet tables, round tables; adjacent table storage
Recommendations		Update finishes. Maintain acoustic reflectance qualities. Provide tiered seating option for performances.
Building Systems		
	Lighting	Can lights (yellow light, sodium vapor?), Large square metal halide lights, Russian chandeliers
	Special Systems	Stage lighting, PA at center above stage
	Power/Data	
	Plumbing	None
	HVAC	
Recommendations		Update house and stage lighting. Provide floor boxes in stage. Update AV systems and provide AV booth with line of sight to stage.

Spatial Qualities		
	Ambient Noise	High ambient noise level from adjacent air handling equipment.
	Light Quality	High glare from south windows when electric light is off due to contrast of dark interior. Various lighting options but outdated, unattractive fixtures
	Views	To the Bay, boat launch activity is in the line of sight
	Proportions	High space sloping and tapering towards the stage; proscenium opening is low, stage is a little high (3')
	General	Nice space with dramatic focus on the stage and views. Finishes and fixtures are outdated and ambient noise is too high for many types of performance. Support spaces are inadequate.
Recommendations		Maintain size and proportions. Isolate HVAC to reduce ambient noise levels. Maintain views but provide more options for filtering daylight to the stage.

3.0 CENTENNIAL HALL PROGRAM

Maksoutoff 118		**Notes** (Existing Attributes in gray)
(Existing)	Area	1727 sf (South 589 sf / North 1138 sf)
1.02 & 1.03	Program Use	Large meeting, CBS Assembly, Fire and police, divides into N and S rooms.
	Adjacencies	East corridor, storage, Maksoutoff N/S when divided
Recommendations		Maintain size and proportions.
Arch. Finishes		
	Floor	Broadloom carpet, some staining, rubber base
	Wall	4' wood paneling wainscot, fabric wall covering above, marker board on N wall
	Ceiling	Height = 8'-9" to tile, 7'-10.5" to beam. 2x4 ACT with 4x8 divisions, exposed glu-lams
	Fenestration	Aluminum windows with IGU, dark anodized clerestory on E & S, full height windows E& S in Maksoutoff S w operable awning at bottom, dark horizontal blinds
	Casework	Modernfold paired panel movable wall
	Furniture	Conference table and conf. chairs, Round table w/ folding chairs (all are movable and stored in Storage)
Recommendations		Update finishes. Maintain operable partition function. Provide tackable and writable surfaces for decorating and presentations/ meetings.
Building Systems		
	Lighting	2x4 troffers w/ plastic lens diffusers, switchable in 4 banks (between column bays)
	Special Systems	Mobile AV rack, TV broadcast cart, wireless
	Power/Data	No floor boxes, wall mount, power, data and special for speakers and press feed
	Plumbing	None
Recommendations		Update lighting for greater control. Add floor boxes. Provide integrated audio visual equipment including CCTV for simulcast of conference events.
Spatial Qualities		
	Ambient Noise	Moderate to loud fan noise
	Light Quality	Side-lighting from windows, bright fluorescent electric lighting, switchable in 4 banks, on-off
	Views	Mak S has good harbor and bay views, Mak N has minor sky views out E clerestories
	Proportions	Long and low, suitable for linear lecture style
	General	Functional, organized but exposed tech causes visual clutter.
Recommendations		Maintain and improve focused views to outside. Integrate technology and improve electric light control for increase occupant comfort and improved aesthetics.

Rousseau 126		**Notes** (Existing Attributes in gray)
(Existing)	Area	570 sf
1.04	Program Use	Mid-size meeting/ classroom
	Adjacencies	Pestchouroff room, Davis, Concourse
Recommendations		Maintain size and proportions.
Arch. Finishes		
	Floor	Broadloom carpet w carpet base
	Wall	Fabric wall covering; 4' wood panel wainscot; Wood chair rail on E
	Ceiling	Height = 8'-10.5" ACT; stains, broken tiles, GLB @ 7'8.5"
	Fenestration	Clerestory on W; vertical blinds, relites to Concourse on E (wood windows, tinted glazing)
	Doors	8'9" high solid wood; non-ADA hardware
	Casework	None
	Furniture	Square meeting table with folding chairs for 16. Additional folding chairs stacked in corner
Recommendations		Update finishes and provide more flexible furniture options. Provide view windows from all meeting spaces.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent, switchable in 2 banks (E and W)
	Special Systems	Intercom speaker on N wall, wireless router on S wall
	Power/Data	Perimeter power; no data visible
	Plumbing	None
	HVAC	Ceiling supply diffusers; floor return grille
Recommendations		Update lighting. Provide better connectivity and function through integrated technology and tackable/ writable surfaces.
Spatial Qualities		
	Ambient Noise	Loud fan noise from supply
	Light Quality	Direct fluorescent, on-off; some daylight from clerestory
	Views	Sky, trees
	Proportions	Rectangle; small classroom
	General	Flexible space; lacks technology interface for meetings
Recommendations		Mitigate fan noise with new system design. Provide multi-level lighting control for presentations. Renew the space for a more professional atmosphere.

3.0 CENTENNIAL HALL PROGRAM

Pestchouroff 128		**Notes** (Existing Attributes in gray)
(Existing)	Area	245 sf
1.05	Program Use	Small meeting/ seminar
	Adjacencies	Davis room, Rousseau room, corridor
Recommendations		This room is too small for most meetings and the lack of windows makes it unpleasant to use. Increase the size to be approximately equal to the Rousseau room, 570sf
Arch. Finishes		
	Floor	Yellow rubber tile with raised round spots
	Wall	Fabric wall covering; 4' wood panel wainscot on N,E &W; Wood chair rail on N,E & S
	Ceiling	Height = 8'-11.5" ACT; stains, broken tiles
	Fenestration	None
	Doors	8'9" high solid wood; non-ADA hardware
	Casework	None
	Furniture	Square meeting table with folding chairs for 12. Additional folding chairs stacked in corner; mobile white board
Recommendations		Update finishes and provide more flexible furniture options. Provide view windows from all meeting spaces.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent
	Special Systems	Intercom speaker on W wall
	Power/Data	Perimeter power; data on E wall
	Plumbing	None
	HVAC	Ceiling supply diffusers; floor return grille
Recommendations		Update lighting. Provide better connectivity and function through integrated technology and tackable/ writable surfaces.
Spatial Qualities		
	Ambient Noise	Loud fan noise from supply
	Light Quality	Direct fluorescent, on-off
	Views	None
	Proportions	Square; 12 person meeting
	General	Small meeting room; poor lighting, no windows, limited flexibility (used to be office with south window wall)
Recommendations		Mitigate fan noise with new system design. Provide multi-level lighting control for presentations. Renew the space for a more professional atmosphere.

Davis 127		**Notes** (Existing Attributes in gray)
(Existing)	Area	227 sf
1.06	Program Use	Small meeting/ seminar
	Adjacencies	Pestchouroff room, Rousseau room
Recommendations		The small size and awkward shape make this room inflexible. Increase the size to be approximately equal to the Rousseau room, 570sf
Arch. Finishes		
	Floor	Yellow rubber tile with raised round spots
	Wall	Fabric wall covering; 4' wood panel wainscot on N,E &W; Wood chair rail on E & S
	Ceiling	Height = 8'-11.5" ACT; stains, broken tiles
	Fenestration	Clerestory on W; fabric drapes
	Doors	8'9" high solid wood; non-ADA hardware
	Casework	None
	Furniture	Square meeting table with folding chairs for 12. Additional folding chairs stacked in corner; mobile chalk board
Recommendations		Update finishes and provide more flexible furniture options. Provide view windows from all meeting spaces.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent
	Special Systems	Intercom speaker on W wall
	Power/Data	Perimeter power; data on E wall
	Plumbing	None
	HVAC	Ceiling supply diffusers; floor return grille
Recommendations		Update lighting. Provide better connectivity and function through integrated technology and tackable/ writable surfaces.
Spatial Qualities		
	Ambient Noise	Loud fan noise from supply
	Light Quality	Direct fluorescent, on-off
	Views	Sky
	Proportions	Square; 12 person meeting
	General	OK small meeting room. (used to be office w/ S window wall before addition) Needs finish and fixture update for contemporary convention use.
Recommendations		Mitigate fan noise with new system design. Provide multi-level lighting control for presentations. Renew the space for a more professional atmosphere.

3.0 CENTENNIAL HALL PROGRAM

Exhibit 119		**Notes** (Existing Attributes in gray)
(Existing & New)	Area	1690 sf
1.07, 1.08 & 1.09	Program Use	Seasonal summer displays by Baranof Arts and Crafts (BACA), Meetings, dividable by partition
	Adjacencies	Concourse East, central building storage and pantry
Recommendations		Maintain size, proportions and movable wall flexibility. Recapture the space used for taxidermy cases. Displays do not support program. The program needs additional exhibit space for vendors at conferences. Recapture space vacated by the Museum for another similar space. Potential program connection with Visitor Services if a new reception space is added adjacent.
Arch. Finishes		
	Floor	Broadloom carpet (stripe at movable partition and around edges), rubber base
	Wall	Fabric wall covering
	Ceiling	Height = 8'-6" to tile,8'10 to tile at N & S edges, 8' to beam. 2x4 ACT with 4x8 divisions, exposed glulams
	Fenestration	Clerestory on North (aluminum and wood w/ IGUs, Relites to concourse on South (hollow metal with wire glass)
	Casework	Modernfold paired panel movable wall, wildlife display cases across west wall w open joint glass
Recommendations		Update finishes and provide more flexible furniture options. Provide view windows from all meeting spaces.
Building Systems		
	Lighting	2x4 troffers w/ plastic lens diffusers
	Special Systems	
	Power/Data	Perimeter power, floor plugs(?)
	Plumbing	None
Recommendations		Update lighting. Provide better connectivity and function through integrated technology and tackable/ writable surfaces.
Spatial Qualities		
	Ambient Noise	Moderate fan noise
	Light Quality	Bright electric light,
	Views	Sky, mountain views out of clerestories
	Proportions	Good for 1 large or 2 mid sized meetings, 10-20 vendor displays
	General	Functional
Recommendations		Mitigate fan noise with new system design. Provide multi-level lighting control for presentations. Renew the space for a more professional atmosphere.

II. Stage and Support

Stage 102 & Wings		**Notes** (Existing Attributes in gray)
(Existing)	Area	Stage 772 sf, Wings 173 sf each, Total = 1118 sf
2.01, 2.02 & 2.03	Program Use	Performance platform and wings to each side for green space, lighting and sound control and piano
	Adjacencies	Opens into MPR, wings to vestibules off E & W corridors; ladders in each wing for access to fan rooms in attic; West Wing adjacent across the hall to the Dressing Room making this the logical green space
Recommendations		Users find the Stage size works as is but the Wings are too small to support many activities. Enlarge the wings to allow more off-stage setup. The windows on the Stage are central to the character of the building and are highly valued by Sitka Summer Music Festival and others.
Arch. Finishes		
	Floor	Light-colored wood (maple?) stage floor w wood base; Rubber stair tread/riser with square texture pattern
	Wall	4' wood panel wainscot in wings w white painted GWB above; same on edges of stage proscenium; Maple wood cap on half walls at Wing stairs
	Ceiling	Height varies; T&G wood deck unfinished, dark brown painted glulam beams
	Fenestration	None in wings; window wall on stage to Bay
	Doors	8'9" high solid wood; non-ADA hardware
	Casework	None
	Furniture	East Wing: Sound panel, sound rack, grand piano; West Wing: Lighting board, podiums, chairs
Recommendations		Match floors in additions to existing and refinish existing stage floor. Relocate main light and sound control gear to a dedicated AV booth with line of sight to the Stage. Retain control of lighting scenes and Music/PA from Stage Left for New Archangel Dancers.
Building Systems		
	Lighting	Shop light hanging from chain in East Wing; stage lighting;
	Special Systems	AV and Sound, ADA lift in room off East Wing
	Power/Data	Power and Mic outlets in face of stage
	Plumbing	None
	HVAC	None visible (communicates w/ MPR)
Recommendations		Renew or replace stage rigging, curtains, lighting and controls. Install flush floor boxes in the stage for power and mic without stretching cords across the Stage.

Spatial Qualities		
	Ambient Noise	Quiet; mechanical noise from adjacent spaces can be heard
	Light Quality	Electric light in wings; daylight on Stage
	Views	Bay views from Stage
	Proportions	Wings are too small to allow for green space; stage apron is narrow with <3' for walking in front of main curtain
	General	Attractive, simple stage but lacking in support space. Sound and AV systems require analysis
Recommendations		Replace existing glazing with more efficient and provide various light control options for glare control while enjoying the views.

Dressing 133		**Notes** (Existing Attributes in gray)
(Existing)	Area	257 sf (312 sf including toilets)
2.04	Program Use	Dressing & costume storage for Russian Dancers
	Adjacencies	Corridor, Storage, Mechanical, Toilets (inside)
Recommendations		Add area necessary to accommodate ADA toilets and consider enlarging to make flexible for larger or multiple groups to dress. Adjacency works well but large windows are unnecessary.
Arch. Finishes		
	Floor	Yellow rubber tile with raised round spots, Brown rubber base; 1" mosaic floor tile and base in toilet rooms (blue and beige in shower/toilet)
	Wall	Fabric wall covering;
	Ceiling	Height = 8'-11.5" ACT; stains, broken tiles
	Fenestration	Window wall on S covered with drapes, high windows in toilet on outside corner
	Doors	From Corridor 8'9" high solid wood; non-ADA hardware; To toilets 6'8" x 2'5" hollow wood, non-ADA hardware
	Casework	Blue p-lam open counter vanity w sink
	Furniture	Clothing racks, boot rack on wall, chairs
Recommendations		Renew finishes and casework. Replace window wall with high windows for daylight and privacy.
Building Systems		
	Lighting	2x4 fluorescent troffers, vanity lights at mirror, recessed 1x1 light in toilet, surface-mount round in toilet/shower and wall washers above mirror in each
	Special Systems	speakers in ceiling
	Power/Data	Perimeter power
	Plumbing	Vanity sink, lavatories (2), toilets (2), shower
	HVAC	Ceiling supply diffusers; wall unit by door to corridor
Recommendations		Update lighting including proper makeup lights. Provide accessible toilet and shower rooms to meet code.
Spatial Qualities		
	Ambient Noise	Moderate fan noise from supply
	Light Quality	Direct fluorescent, on-off, poor lighting for makeup
	Views	Big window wall to Bay, but curtains are drawn for privacy. Not a good program fit for views.
	Proportions	Odd trapezoid with cutout for toilet/shower
	General	Crowded; seems like it would be difficult for more than 4 people to dress out at one time
Recommendations		Enlarge space & utilize window wall for storage or other to improve efficiency.

III. Museum

Gallery 123		**Notes** (Existing Attributes in gray)
(Existing)	Area	Gallery 1675 sf
3.01	Program Use	Museum displays, gift shop area and ticket desk
	Adjacencies	Concourse, Museum Office and Storage (inside)
Recommendations		The Museum collections have outgrown the current space and are not able to be well represented or maintained. Utilize the programming work completed with the Foraker Pre-Development Program in 2011-12 to design a building addition and relocate museum operations. Return the current space to the HCH meeting and convention program.
Arch. Finishes		
	Floor	Yellow rubber w/ raised rounds
	Wall	Fabric wall covering N,S,W; painted wood paneling on E, paneling and shelf standards for displays
	Ceiling	Height = 8'-10.5" ACT; stains, broken tiles
	Fenestration	Clerestory on N; double-sided glass display case to Concourse on S
	Doors	Main entry 7'x3' hollow wood w/ transom lite; non-ADA hardware
	Casework	Various display cases, shelving in Storage
	Furniture	Display cases and retail displays and counter for admissions/ Museum Shop
Recommendations		Renew finishes. Resolve current exit code violations by providing 2 exits from any space with more than 49 occupants. Provide view windows where appropriate.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent
	Special Systems	Motion sensor on E wall
	Power/Data	Perimeter power; wall outlets (not in use), no data visible
	Plumbing	None
	HVAC	Ceiling supply diffusers; floor return grille
Recommendations		Update lighting. Provide better connectivity and function through integrated technology.
Spatial Qualities		
	Ambient Noise	Moderate fan noise from supply, video loop sound, cash register
	Light Quality	Direct fluorescent, on-off; minimal daylight from clerestory which is blocked in several places
	Views	Sky, trees
	Proportions	Rectangle; large; divided by center column line
	General	Flexible space; overcrowded with current displays
Recommendations		Mitigate fan noise with new system design. Renew the space for a more professional atmosphere and new program functions.

Office 125		**Notes** (Existing Attributes in gray)
(Existing)	Area	Office 189 sf
3.02	Program Use	Administration for Museum
	Adjacencies	Entered directly from Gallery, adjacent to Collections
Recommendations		Return this space to the HCH meeting & convention program. Provide new offices in Museum addition.
Arch. Finishes		
	Floor	Carpet tile w/ brown rubber base
	Wall	Wood panel N, GWB E, Fabric S, GWB S
	Ceiling	Height = 8'-10.5" ACT; stains, broken tiles
	Fenestration	Clerestory on West
	Doors	6'8"x 3' hollow wood; non-ADA hardware
	Casework	Small counter for kitchenette
	Furniture	(3) desks for director (Bob), Beverly (Accounts) and Intern in Office, filing cabinets, bookshelves, microwave, printer, copier
Recommendations		Renew finishes. Provide view windows where appropriate.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent
	Special Systems	None
	Power/Data	Perimeter power and data; wall outlets
	Plumbing	None
	HVAC	Ceiling supply diffusers; floor return grille
Recommendations		Update lighting. Provide better connectivity and function through integrated technology.
Spatial Qualities		
	Ambient Noise	Moderate fan noise from supply
	Light Quality	Direct fluorescent, on-off; minimal daylight from clerestory
	Views	Sky, trees
	Proportions	Rectangle
	General	overcrowded for # of people and quantity of books
Recommendations		Mitigate fan noise with new system design. Renew the space for a more professional atmosphere and new program functions.

Collections 124		**Notes** (Existing Attributes in gray)
(Existing)	Area	Collections 280 sf
3.03	Program Use	Collections storage, acquisition and cataloging
	Adjacencies	Entered directly from Gallery, adjacent to Office
Recommendations		Return this space to the HCH meeting & convention program. Provide new collections storage with condensed filing and separate processing space in Museum addition.
Arch. Finishes		
	Floor	Yellow painted concrete with brown rubber base;
	Wall	Painted GWB
	Ceiling	Height = 8'-10.5" ACT; stains, broken tiles
	Fenestration	Clerestory on N & W; blocked by high shelves
	Doors	6'8"x 3' hollow wood; non-ADA hardware
	Casework	Tall shelving and assorted cabinets
	Furniture	Desk for curator (Jackie)
Recommendations		Renew finishes. Provide view windows where appropriate.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent
	Special Systems	None
	Power/Data	Perimeter power; wall outlets (not in use), no data visible
	Plumbing	None
	HVAC	Ceiling supply diffusers; floor return grille
Recommendations		Update lighting. Provide better connectivity and function through integrated technology.
Spatial Qualities		
	Ambient Noise	Moderate fan noise from supply
	Light Quality	Direct fluorescent, on-off; minimal daylight from clerestory which is blocked in several places
	Views	Sky, trees
	Proportions	Rectangle
	General	Storage is severely overcrowded and the Museum stores collections in other off-site locations
Recommendations		Mitigate fan noise with new system design. Renew the space for a more professional atmosphere and new program functions.

IV. Food Services

Kitchen 114 & Prep 115		Notes (Existing Attributes in gray)
(Existing)	Area	Kitchen 228 sf, Prep 235 sf
4.01	Program Use	Food Prep, Cooking
	Adjacencies	Opens into MPR and Vestibule 116
Recommendations		Current space is not large enough to allow onsite preparation and serving for conferences. Increase space for this program area by approx. 750sf. Direct adjacency to MPR is a noise issue, move Food Service to outer edge of building.
Arch. Finishes		
	Floor	Quarry tile
	Wall	Painted GWB
	Ceiling	Height = 10'2" GWB painted; soffit 8'11"; hatch to fan room above
	Fenestration	None
	Doors	8'9" high solid wood; (3) 5' wide paired panel wood doors to MPR; 1 door w/ ADA lever handle
	Casework	Stainless steel kitchen counters, sinks, appliances
	Furniture	(4) rolling carts, (2) large garbage cans
Recommendations		Provide durable, sanitary surfaces
Building Systems		
	Lighting	Surface-mount fluorescent fixtures
	Special Systems	Food Service Equipment
	Power/Data	Wall outlets for commercial equipment; GFI above counter
	Plumbing	3 compartment sink, food rinse sink w/ large disposal, handwash sink, commercial dish washer
	HVAC	Exhaust hoods; no supply visible
Recommendations		Update food service and ventilation equipment to current codes and standards. Provide efficient, moisture resistant lighting.
Spatial Qualities		
	Ambient Noise	Refrigerator compressors
	Light Quality	Electric light; no daylight
	Views	None
	Proportions	Small for scale of convention center
	General	Equipment appears in good condition. Space is too small for the scale of events. Dish storage and pantry are remote from Kitchen and there is no room for plating for large groups (sometimes done in Maksoutoff room across the hall)
Recommendations		Increase size of space to serve the program. Provide daylight to food service work areas.

Pantry 119A		**Notes** (Existing Attributes in gray)
(Existing)	Area	111 sf
4.02	Program Use	Food Service dry storage, dishes
	Adjacencies	Exhibit room
Recommendations		Locate within or directly adjacent to Kitchen.
Arch. Finishes		
	Floor	Yellow rubber tile with raised round spots
	Wall	Fabric wall covering, painted GWB @ E and N
	Ceiling	Height = 8'-10" to tile; 2x4 ACT , stains, broken tiles, yellowed grids and tiles
	Fenestration	None
	Casework	Wood shelves built in on N and S
Recommendations		Provide durable, sanitary surfaces
Building Systems		
	Lighting	4' surface mount fluorescent
	Special Systems	
	Power/Data	(?)
	Plumbing	None
Recommendations		Provide energy efficient lighting and equipment.
Spatial Qualities		
	Ambient Noise	quiet
	Light Quality	overhead electric light
	Views	None
	Proportions	Adequate for shelves on each side
	General	Inconvenient proximity to Food Service; plating is sometimes done in Maksoutoff for banquets but Pantry opens into Exhibit
Recommendations		Work with Users to provide appropriate storage for dishes and dry goods. Incorporate a clothes washer and dryer for general building use.

V. Admin. & Visitor Services

Admin. 122		Notes (Existing Attributes in gray)
(Existing)	Area	696 sf
5.01 & 5.02	Program Use	Building Management Office, AV, supply storage
	Adjacencies	Concourse, Lobby, Museum
Recommendations		Maintain overall Admin. area with additional area for storage. Office should be easy to find from the building entry but doesn't need to be directly adjacent.
Arch. Finishes		
	Floor	Broadloom carpet w carpet base
	Wall	Fabric wall covering; 4' wood panel wainscot
	Ceiling	Height = 8'-10.5" ACT; stains, broken tiles
	Fenestration	Clerestory on N, relites to Concourse on S (wood windows, tinted glazing)
	Doors	8'9" high solid wood; non-ADA hardware
	Casework	None
	Furniture	(4) Desks for 4.5 employees, file cabinets, large copier, chairs
Recommendations		Renew finishes and furniture. Provide view windows from office.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent,
	Special Systems	
	Power/Data	Perimeter power; data, surface raceways
	Plumbing	None
	HVAC	Ceiling supply diffusers; floor return grille
Recommendations		Update lighting and controls. Provide power and data to each workstation. Control for intercom system. Provide employee toilet rooms 1 for each men and women.
Spatial Qualities		
	Ambient Noise	Moderate fan noise from supply
	Light Quality	Direct fluorescent, on-off; some daylight from clerestory
	Views	Sky, underside of front entry canopy
	Proportions	L-shape; 2 office areas, storage room
	General	Enough space for employees; needs a facelift
Recommendations		Mitigate fan noise with new system design. Renew the space for a more professional atmosphere.

Visitor Services		Recommendations
(New)	Area	2000 sf
5.03	Program Use	Reception and orientation for visitors arriving by cruise ship and bus. Pre-function space for HCH and lobby space for Museum.
	Adjacencies	Concourse, Museum, Public Toilets, Exhibit/Meeting
Arch. Finishes		
	Floor	Durable slip-resistant surfaces
	Wall	Durable attractive surfaces. Changeable display boards
	Ceiling	Attractive feature ceiling with acoustic properties.
	Fenestration	Views from both sides of the building to connect harbor side to town side.
	Doors	Glass doors to exterior. Provide power door operators for ADA.
	Casework	Reception counters, display cases.
	Furniture	(3) stools for visitor reception, lounge furniture for visitors. Vending machines in alcove.
Building Systems		
	Lighting	Surface mount 1x4 fluorescent,
	Special Systems	Intercom for music and announcements. Connection for microphone. Interactive informational displays.
	Power/Data	Perimeter power; power and data at visitor reception stations
	Plumbing	Drinking fountains
	HVAC	Ceiling supply diffusers; floor return grille
Spatial Qualities		
	Ambient Noise	Low to moderate is acceptable
	Light Quality	Daylit space with indirect electric and special display lighting.
	Views	Harbor & mountains, town.
	Proportions	Linear with enough width to accommodate tour groups.
	General	An attractive, welcoming space that acts as a hub to connect HCH and the Museum.

VI. Storage

MPR Storage 106		**Notes** (Existing Attributes in gray)
(Existing)	Area	230 sf
6.01	Program Use	MPR tables & chairs storage, custodial sink and supplies
	Adjacencies	Opens to MPR with 3 pair folding doors and to W Corridor with single door.
Recommendations		Maintain adjacency to MPR. Increase area along with general building storage.
Arch. Finishes		
	Floor	Yellow rubber tile with raised round spots
	Wall	Painted GWB
	Ceiling	Painted GWB
	Fenestration	None
	Casework	None
Recommendations		Renew finishes: resilient flooring, FRP on walls at janitor sink area, repaint walls and ceiling.
Building Systems		
	Lighting	Surface mount incandescent bulbs
	Special Systems	
	Power/Data	(?)
	Plumbing	Janitor Sink
Recommendations		Replace janitor sink. Replace lighting w/ efficient utility
Spatial Qualities		
	Ambient Noise	Low
	Light Quality	Dim, overhead electric light
	Views	None
	Proportions	Rectangle; well-suited for table storage
	General	Crowded
Recommendations		Provide more space to allow storage of all tables and chairs used in MPR. Investigate space-saving furnishings to replace older existing. Consider a separate custodial room.

Storage 136		**Notes** (Existing Attributes in gray)
(Existing & New)	Area	828 sf
6.02 & 6.03	Program Use	General building storage, tables & chairs, lift, small workbench, exhibit display panels
	Adjacencies	Exhibit room
Recommendations		Locate centrally, away from the prime perimeter spaces. Increase overall storage area. Evaluate and edit current items in storage to save space.
Arch. Finishes		
	Floor	Yellow rubber tile with raised round spots
	Wall	Fabric wall covering, painted GWB @ Pantry
	Ceiling	Height = 8'-10" to tile; 2x4 ACT , stains, broken tiles, yellowed grids and tiles
	Fenestration	Clerestory on North and East (aluminum and wood w/ IGUs)
	Casework	None
Recommendations		Renew finishes: resilient flooring, painted GWB walls, acoustic panel ceiling. No views necessary; consider daylighting with light tube skylights to reduce energy use for lighting.
Building Systems		
	Lighting	4' surface mount fluorescent
	Special Systems	
	Power/Data	(?)
	Plumbing	None
Recommendations		Washer/ Dryer connections, utility sink
Spatial Qualities		
	Ambient Noise	Moderate fan noise
	Light Quality	overhead electric light, clerestories on 2 sides
	Views	Sky, mountain views out of clerestories
	Proportions	L-shaped, could work as mid-sized meeting room with better adjacency/ access
	General	Over-crowded, poor use of space
Recommendations		Simple, rectangular space, sized to accommodate furniture, laundry, maintenance bench. Utilitarian.

VII. Building Services

Toilets 107 & 113		**Notes** (Existing Attributes in gray)
(Existing & New)	Area	Men 182sf, Women 180 sf
7.01 & 7.02	Program Use	Public toilets
	Adjacencies	Open to Concourse, adjacent to MPR
Recommendations		Maintain existing toilets and add new toilet rooms to meet required fixture count. Locate new toilets adjacent to Visitor's area. Provide 10 additional WCs for women & 4 additional WCs for men.
Arch. Finishes		
	Floor	Ceramic tile (new)
	Wall	Full-height ceramic tile (new)
	Ceiling	Height = 8'-10.75" GWB; white paint
	Fenestration	None
	Doors	8'9" high solid wood with power push-button opener for ADA
	Casework	Lavatory open counter, HDPE toilet partitions
	Furniture	None
Recommendations		New toilets to have similar finish quality.
Building Systems		
	Lighting	Wall mount fluorescent up-down wash with lens
	Special Systems	Dyson air blade hand dryers
	Power/Data	Power; GFI
	Plumbing	Men: 2 toilets, 2 urinals, 2 lavs; Women: 4 toilets, 2 lavs
	HVAC	Flat radiant panel heat
Recommendations		Replace hand dryers with a quieter solution, especially in the toilet rooms adjacent to MPR.
Spatial Qualities		
	Ambient Noise	Exhaust fan noise; loud hand dryer noise and flushing noise are a problem adjacent to MRR.
	Light Quality	Direct-indirect; bright and even
	Views	None
	Proportions	rectangle
	General	Nicely remodeled with new finishes and fixtures; too few fixtures for program and acoustic adjacency is poor with MPR.
Recommendations		Mitigate noise impact on MPR. Consider light tube skylights in new toilet rooms to reduce electric light energy use.

Boiler Room 105		**Notes** (Existing Attributes in gray)
(Existing)	Area	231 sf
7.03	Program Use	Main electrical in 129; chiller piping, phone panels and hardware, floor buffer storage in 130.
	Adjacencies	Storage, Pest and Davis, opens to Corridor
Recommendations		Depending on the new heating system design, some or all of this area may be able to return to other program. Utilize this area for MPR storage.
Arch. Finishes		
	Floor	Gray painted concrete
	Wall	White painted GWB
	Ceiling	Height = 8'-11" ACT; stains, broken tiles
	Fenestration	None
	Doors	8'9" high solid wood pair to corridor; non-ADA hardware; 6'8"x 2'10" solid wood between rooms (rated frame)
	Casework	None
	Furniture	Storage shelves
Recommendations		Abate lead paint detected on floor. Renew finishes as appropriate to use.
Building Systems		
	Lighting	Surface mount incandescent lights
	Special Systems	
	Power/Data	
	Plumbing	Floor drain
	HVAC	
Recommendations		Update lighting, power and data as appropriate to use.
Spatial Qualities		
	Ambient Noise	
	Light Quality	Direct fluorescent, on-off;
	Views	None
	Proportions	rectangle
	General	Utilitarian boiler room space. Adequate for current use.
Recommendations		Repurpose as storage if possible with new design.

Fan Rooms 201& 202		**Notes** (Existing Attributes in gray)
(Existing)	Area	750 sf each
7.04 & 7.05	Program Use	Main electrical in 129; chiller piping, phone panels and hardware, floor buffer storage in 130.
	Adjacencies	MPR, Kitchen and Storage (below)
Recommendations		Improve access if spaces will continue to be used. Provide new fan room space as necessary for building additions.
Arch. Finishes		
	Floor	Plywood
	Wall	White painted GWB
	Ceiling	Exposed wood T&G decking
	Fenestration	None
	Doors	None (hatch to Stage wing at end wall)
	Casework	None
	Furniture	None
Recommendations		
Building Systems		
	Lighting	Surface mount fluorescent shop lights
	Special Systems	
	Power/Data	?
	Plumbing	
	HVAC	Ambient heat from fan units
Recommendations		
Spatial Qualities		
	Ambient Noise	Fan noise
	Light Quality	Direct fluorescent, on-off;
	Views	None
	Proportions	Long, low attics with awkward access via ladder
	General	An efficient use of high space for fans. Difficult to access and creates a noise problem in MPR.
Recommendations		Continue to utilize as mechanical space if noise can be mitigated. Improve access with OSHA spec ladders at a minimum.

Electrical 129 & Mechanical 130		**Notes** (Existing Attributes in gray)
(Existing)	Area	Elec. 134 sf, Mech. 256 sf
7.06 & 7.07	Program Use	Main electrical in 129; chiller piping, phone panels and hardware, floor buffer storage in 130.
	Adjacencies	Storage, Pest and Davis, opens to Corridor
Recommendations		Maintain location of main distribution panel. Replace chiller system as part of heating/cooling upgrades.
Arch. Finishes		
	Floor	Gray painted concrete
	Wall	White painted GWB
	Ceiling	Height = 8'-11" ACT; stains, broken tiles
	Fenestration	None
	Doors	8'9" high solid wood pair to corridor; non-ADA hardware; 6'8"x 2'10" solid wood between rooms (rated frame)
	Casework	None
	Furniture	Storage shelves
Recommendations		Repaint floor and walls.
Building Systems		
	Lighting	Surface mount fluorescent shop lights
	Special Systems	
	Power/Data	Perimeter power; data, surface raceways, Main data rack, telephone panels
	Plumbing	Floor drain for chiller overflow
	HVAC	Fintube heat on S wall of each room; no cooling
Recommendations		Evaluate new locations for data and telecom racks.
Spatial Qualities		
	Ambient Noise	Fan noise from rack; chiller hissing
	Light Quality	Direct fluorescent, on-off;
	Views	None
	Proportions	Wedge shapes; awkward
	General	Awkward space that has been repurposed for Telecom and Chiller (systems not in original building)
Recommendations		Provide better storage for floor cleaning machines to open up this space for heating/cooling and telecom systems.

Lobby/Vest. 120		**Notes** (Existing Attributes in gray)
(Existing)	Area	Lobby 412 sf, Vestibule 374 sf
7.08	Program Use	Circulation, queues for events, reception and coats
	Adjacencies	Concourse
Recommendations		Increase the lobby area by incorporating the current vestibule. Increase connections between lobby and adjacent spaces to allow events to spill over.
Arch. Finishes		
	Floor	12" ceramic tile
	Wall	Fabric wall covering
	Ceiling	Height = 8'-10" T&G cedar boards
	Fenestration	Full height windows flanking doors
	Doors	8'9" high solid wood with custom push-pull hardware in the form of Tlingit art
	Casework	Coat racks/ hat shelves each side, free-standing welcome desk
Recommendations		Renew finishes. Relocate visitor desks to new visitor area. Provide lounge furniture, power and data for informal meetings. Increase daylight to this space.
Building Systems		
	Lighting	Can lights (yellow light, sodium vapor?), emergency lights
	Special Systems	
	Power/Data	Perimeter power data outlets at welcome desk
	Plumbing	None
	HVAC	Wall registers
Recommendations		Renew lighting with multi-level. Provide power/data on both walls. Wireless data.
Spatial Qualities		
	Ambient Noise	Echoes and noise carried from adjacent rooms
	Light Quality	Yellow light, direct and harsh, some daylight from entry windows
	Views	To parking lot, no lites in doors may present safety issues
	Proportions	Low, compressive space opens into tall Concourse
	General	Durable floor; space is too small for convention crowds
Recommendations		Increase acoustic absorbtion of walls and ceilings. New doors with lites in door. Improve electric and daylight lighting.

3.0 CENTENNIAL HALL PROGRAM

Concourse 110		**Notes** (Existing Attributes in gray)
(Existing)	Area	East 536 sf, Central 279 sf, West 536 sf, Total 1351 sf
7.09	Program Use	Circulation, queuing for events, display
	Adjacencies	Exhibit room, Lobby, Museum, Ballroom, W Meeting Rooms
Recommendations		Reduce quantity and variety of displays in Concourse and create more focus. Consider a stronger connection to MPR via large doors or transparency.
Arch. Finishes		
	Floor	Broadloom carpet
	Wall	Fabric wall covering above 4' wood panel wainscot on N, stained wood boards on S
	Ceiling	Height = 18'-11" to 25'-6.5" bottom of T&G wood deck; Dark painted glulam beams
	Fenestration	Large clerestory along N wall (under roof eaves)
	Casework	Wood shelves built in on N and S
Recommendations		Renew finishes. Use lighter palette and introduce natural themed materials. Improve daylight and reduce amount of shaded high glazing in clerestory.
Building Systems		
	Lighting	Russian chandeliers, Spot lights from clerestory sill to S display wall
	Special Systems	
	Power/Data	Perimeter convenience outlets
	Plumbing	None
	HVAC	Wall registers
Recommendations		Salvage and relamp Russian theme chandeliers. Install new indirect lighting on photocells and efficient display spot lighting.
Spatial Qualities		
	Ambient Noise	Echoes and noise carried from adjacent rooms
	Light Quality	Dim, dark ceilings and overhang at clerestory limit daylight, electric fixtures are too few and not diffuse enough, causing glare when viewed from below
	Views	None
	Proportions	Tall and narrow. Too narrow for a crowd
	General	A potentially grand space is dark and cluttered by diverse displays on the walls.
Recommendations		The space could be improved by lightening and connecting to adjacent rooms. Reduce clutter caused by displays. Recess vending machines in an alcove or move. Stronger representation of Tlingit culture.

East Corridor 112		**Notes** (Existing Attributes in gray)
(Existing)	Area	438 sf
7.10	Program Use	Circulation
	Adjacencies	Connects to Concourse, Maksoutoff, Food Service
Recommendations		Maintain function.
Arch. Finishes		
	Floor	Broadloom Carpet
	Wall	4'wood panel wainscot, fabric wallcovering above all painted on N & E and in Vestibule 116; Painted cedar vertical boards on S & W; Light wood chair rail on E & W
	Ceiling	Height = 8'-10" @ N end, 8'9" remainder; 2x4 ACT w/6" scored grid pattern
	Fenestration	None
	Doors	8'9" high solid wood
	Casework	None
	Furniture	None
Recommendations		Renew finishes. Abate asbestos. Provide visual connection to outdoors if possible (lead with light).
Building Systems		
	Lighting	Surface-mount fluorescent fixture @ N end; Fluorescent troffers remainder of corridor; surface-mount 1' squares in Vestibule 116
	Special Systems	None
	Power/Data	Power
	Plumbing	None
	HVAC	Flat radiant panel heat
Recommendations		Renew lighting and provide occupancy sensor controls for energy savings. Provide discreet spot lighting for historic photos.
Spatial Qualities		
	Ambient Noise	
	Light Quality	Electric light; no daylight
	Views	None
	Proportions	Long dead end corridor
	General	Recently updated with paint and historic photographs because the corridor serves as a back entrance for cruise ship passengers. OK as a hall; inadequate as a visitor entrance.
Recommendations		Lead with daylight if possible. Provide a new entrance more appropriate to welcoming visitors.

W Corridor 111		**Notes** (Existing Attributes in gray)
(Existing)	Area	480 sf
7.10	Program Use	Circulation
	Adjacencies	Connects to Concourse, West meeting rooms, MPR Storage, Boiler, Stage Left
Recommendations		Maintain function.
Arch. Finishes		
	Floor	Broadloom Carpet
	Wall	4'wood panel wainscot, fabric wallcovering above N end W wall to Storage 129 Painted cedar vertical boards on S end W wall and on E;
	Ceiling	Height = 9'-1.5" @ S end, Painted cedar boards running lengthwise; 8'11" N end, 2x4 ACT
	Fenestration	None
	Doors	8'9" high solid wood
	Casework	None
	Furniture	None
Recommendations		Renew finishes. Abate asbestos. Provide visual connection to outdoors if possible (lead with light).
Building Systems		
	Lighting	Surface-mount fluorescent fixtures @ N end; 8"x1' can lights @ S end
	Special Systems	None
	Power/Data	Power
	Plumbing	None
	HVAC	Wall registers
Recommendations		Renew lighting and provide occupancy sensor controls for energy savings. Provide discreet spot lighting for historic photos.
Spatial Qualities		
	Ambient Noise	Moderate
	Light Quality	Electric light; no daylight; dim
	Views	None
	Proportions	Long dead end corridor
	General	Utility corridor that should be separated from public space but is not.
Recommendations		Lead with daylight if possible.

HARRIGAN CENTENNIAL HALL SPACE PROGRAM ANALYSIS

I. Assembly/Meeting Spaces

	Name/Type of Space:	Existing Quantity	Area Each	Tier 1 Existing Building Areas: Area Sub-Total	Tier 2 Code and Core Program Recommendations	Tier 3 Visitor and Museum (Foraker Pre-Dev) Recommendations	Tier 4 Other Program Recommendations
1.01	Auditorium	1	4,219	4,219	4,219	4,219	4,219
1.02	Maksoutoff South- Meeting Room	1	589	589	589	589	589
1.03	Maksoutoff North- Meeting Room	1	1,138	1,138	1,138	1,138	1,138
1.04	Rousseau - Meeting Room	1	570	570	570	570	570
1.05	Petchouroff - Meeting Room (1)	1	245	245	245	**570**	570
1.06	Davis - Meeting Room (1)	1	227	227	227	**570**	570
1.07	Exhibit Space - A	1	964	964	964	964	964
1.08	Exhibit Space - B	1	726	726	726	726	726
1.09	Exhibit Space C (1)			0	0	**940**	940
	Sub-Total:			**8,678**	**8,678**	**10,286**	**10,286**

II. Stage & Support

	Name/Type of Space:	Existing Quantity	Area Each	Tier 1 Area Sub-Total	Tier 2	Tier 3	Tier 4
2.01	Stage	1	772	772	772	772	772
2.02	Stage Right (4)	1	172	172	**297**	297	297
2.03	Stage Left (4)	1	173	173	**298**	298	298
2.04	Dressing Room W/ Toilets (9)	1	315	315	**415**	415	415
	Sub-Total:			**1,432**	**1,782**	**1,782**	**1,782**

III. Museum

	Name/Type of Space:	Existing Quantity	Area Each	Tier 1 Area Sub-Total	Tier 2	Tier 3	Tier 4
3.01	Gallery	1	1,675	1,675	1,675		
3.02	Office	1	189	189	189		
3.03	Collections	1	280	280	280		
3.03	Exhibit Cases 1	1	71	71	71		
3.04	Exhibit Cases 2	1	69	69	69		
3.05	Exhibit Cases 3	1	73	73	73		
3.06	Foraker Programing Study (2)			0	0	**3,518**	3,518
3.07	Existing Museum Area (11)			0	0	2,357	2,357
	Sub-Total:			**2,357**	**2,357**	**5,875**	**5,875**

IV. Food Services

	Name/Type of Space:	Existing Quantity	Area Each	Tier 1 Area Sub-Total	Tier 2	Tier 3	Tier 4
4.01	Kitchen/Prep/Clean (7)	1	446	463	**1,213**	1,213	1,213
4.02	Pantry	1	111	111	111	111	111
	Sub-Total:			**574**	**1,324**	1,324	**1,324**

HARRIGAN CENTENNIAL HALL SPACE PROGRAM ANALYSIS

V. Administration

	Name/Type of Space:	Quantity	Area Each	Area Sub-Total (Tier 1)	Tier 2	Tier 3	Tier 4
5.01	Building Administration (open offices) (3)	1	505	505	505	505	505
5.02	Storage	1	191	191	191	191	191
5.03	Visitor Information and Reception (10)			0	0	**2,000**	2,000
	Sub-Total:			**696**	**696**	**2,696**	**2,696**

VI. Storage

	Name/Type of Space:	Quantity	Area Each	Area Sub-Total (Tier 1)	Tier 2	Tier 3	Tier 4
6.01	Auditorium Storage (includes Janitor)	1	230	230	230	230	230
6.02	Building Storage (4) (5)	1	828	828	**1,828**	1,828	1,828
7.03	Overall Building Storage (1) (5)			0	0	**300**	**1,000**
	Sub-Total:			**1,058**	**2,058**	**2,358**	**3,058**

VII. Building Services

	Name/Type of Space:	Quantity	Area Each	Area Sub-Total (Tier 1)	Tier 2	Tier 3	Tier 4
7.01	Women - Public Toilets (9)	1	180	180	**530**	530	530
7.02	Men - Public Toilets (9)	1	182	182	**432**	432	432
7.03	Boiler Room	1	231	231	231	231	231
7.04	Fan Room 1 (Level 2) (8)	1	750	750	**1,050**	1,050	1,050
7.05	Fan Room 2 (Level 2) (8)	1	750	750	**1,050**	1,050	1,050
7.06	Electrical Room - MDF	1	134	134	134	134	134
7.07	Mechanical/Storage	1	256	256	256	256	256
7.08	Lobby	1	412	412	412	412	412
7.09	Concourse	1	1,351	1,351	1,351	1,351	1,351
7.10	Circulation and Grossing Factor (6)	1	2,593	2,593	**3,093**	3,093	**3,293**
7.11	Custodial Office (1)			0	0	**120**	120
7.12	Intermediate Dist. Frame (1)			0	0	**75**	75
7.13	Custodial Closets/Storage (1)			0	0	**75**	75
7.14	Coat Room (1)			0	0	**169**	150
	Sub-Total:			**6,839**	**8,539**	**8,978**	**9,159**

	Tier 1	Tier 2	Tier 3	Tier 4
	Square Feet	Total Recommended Area	Total Recommended Area	Total Recommended Area
GROSS BUILDING AREA:	**21,634**	**25,434**	**33,299**	**34,180**
Addition Area by Tier		3,800	7,865	881

Footnotes:

(1) Museum Backfill - Museum addition returns space to the main building
(2) Museum Addition Areas - As Developed in Foraker Study (11/29/2012 & 5/4/2012)
(3) Re-apportion available Area into a reception and office areas
(4) Recommend adding area to improve program function
(5) Recommended Storage Area is 30% of Assembly & Meeting Areas
(6) Recommend adding Arctic Vestibules for energy savings
(7) Recommend making the Food Service Area larger
(8) Recommend making Fan Rooms larger or adding a new fan room for new capacity
(9) Additional area required to meet code requirements for plumbing fixtures and accessibility
(10) Estimated area allowance for new visitor reception and information space
(11) Amount of area currently occupied by Museum. A new museum would likely be in an addition and this area used by other program.

SECTION 4.0 Deficiencies and Recommendations

4.0 DEFICIENCIES AND RECOMMENDATIONS

DEFICIENCIES AND IMPROVEMENT RECOMMENDATIONS

Each design discipline generated a list of recommended capital improvements based on facility deficiencies identified and categorized as:

- Health and Safety (HEALTH)
- Protection of Structure (STRUC)
- Code and Accessibility Deficiencies (CODE)
- Program Space Deficiencies (PROG)
- Operating Cost Savings (ENERGY)
- Standard Facility Maintenance (MAINT)

These capital improvement recommendations are each addressed with a cost in the estimate as outlined in Section 5.0 of this document.

ARCHITECTURAL RECOMMENDATIONS

	Deficiency	Category	Improvement Recommendation
A1	The high roof has only 1" of insulation and does not meet current energy codes or best practices for thermal insulation.	CODE ENERGY MAINT	Remove existing roofing down to deck and replace with a fully-adhered membrane roof over 6" of rigid foam insulation and sloped insulation. Reroof low roof areas as part of structural framing upgrades *(Item S2)*
A2	The exterior wall assemblies (2x4 framing with R-13 batt insulation) do not meet current energy codes or best practices for thermal insulation.	CODE ENERGY	Remove existing interior finishes, wall board and batt insulation at all exterior walls. Fill stud cavities with spray foam insulation. Install new 6mil poly vapor retarder and 5/8" type X gypsum wallboard. Paint.
A3	The large clerestory windows under the high roof brow do not provide much natural light but allow significant heat loss.	ENERGY	Remove the clerestory windows and install insulated channel glass similar to Bendheim SF60 storefront system. Modify the framing of the overhanging high roof brow to allow more daylight to the glazing.
A4	The low clerestory windows around the building perimeter do not provide enough light or view to some spaces and are unnecessary in others.	ENERGY PROG	Remove glazing where windows are not needed (approx. 20% of clerestory) and replace with insulated metal panel or insulated wall framing. Cut openings in exterior wall (approx. 10% of perimeter) and install view windows. Use metal clad wood windows with triple glazing.
A5	The lack of glazing in the main entry doors causes a risk of collision with other people. The existing vestibule is also too short and lacks appropriate flooring to clean boots and shoes at entry.	HEALTH MAINT	Replace existing exterior doors with glazed wood doors. Salvage and reinstall custom door pulls. Construct a new **400sf** arctic vestibule from the existing outer doors under the existing portico. Install ADA compliant grating outside and walk-off carpet inside. Demo the inner wall of existing vestibule to increase the Lobby area.
A6	One outer pair of main entry doors has a push button opener but the inner pair does not. This requires the doors to be propped open to the vestibule.	CODE ENERGY	Install push button openers on one outer and one inner pair of main entry doors.
A7	There is no arctic vestibule at the 2 south entries.	ENERGY	Add **(2)100sf** vestibules at the southeast and southwest entries.
A8	Many interior doors have knob handles that do not meet ADA.	CODE	Replace all door hardware with ADA compliant commercial quality hardware. Use CBS standard "Best 93" lever sets.
A9	The existing number of toilet fixtures is below the code minimum for the building occupant load.	CODE PROG	Add new toilet rooms to increase women's WCs by 10, lavatories by 3 and Men's WCs by 4, urinals by 3, lavatories by 3. The existing toilet rooms are newly remodeled and should be left as is. Area for new toilet rooms will displace

			other program or require additional building area of approx. **600sf**. The UPC also requires 1 each toilet room for employee use. Add 2 accessible single toilet rooms, **60sf** each.
A10	Neither toilet room in Dressing is ADA Accessible.	CODE	Demolish and replace existing toilet rooms. 1 toilet room is to be a single accessible toilet room with accessible shower (**100sf**). The second toilet room is a single toilet with lavatory, not required to be ADA (**40sf**).
A11	The stage apron, in front of the curtain, is narrower than usual creating a fall hazard. When open, the curtains block the stairs up to the stage. The stage floor is worn.	HEALTH PROG	Reposition the front curtain when curtains and stage lighting are revised. Create pockets for curtains to draw into on the Stage wings. Sand and refinish the entire stage floor.
A12	The Maksoutoff Room lacks the required panic hardware on exits.	CODE	Replace with panic hardware as part of item A8.
A13	The Museum lacks the required 2 out-swinging exits w/ panic hardware.	CODE	Demolish and replace existing door with outswinging door w/ panic hardware. Install a second out-swinging exit door 20 feet or greater from the first door.
A14	Exhibit 119 lacks the required panic hardware on exits. When divided by the movable partition, there are not enough exits from either side.	CODE	Replace with panic hardware as part of item A8. Post "Maximum Occupancy 49" signs on both sides of the room for times when the partition is closed.
A15	The existing 8' high interior wood doors are scratched and dented.	MAINT	Remove and refinish all interior doors. Evaluate for replacement if door hardware replacement is too damaging.
A16	Floor finishes throughout the building are worn out.	MAINT	Replace all existing floor finishes with similar commercial quality finishes.
A17	The suspended acoustic ceilings throughout the building have stained and broken tiles. Many of the fixtures installed in the ceiling are not energy efficient to current standards.	MAINT	Demolish and replace all suspended acoustic panel ceilings and grid. See electrical for light fixture recommendations.
A18	There are only 2 fire extinguishers in the public areas of the building.	CODE HEALTH	Install fire extinguishers in recessed cabinets adjacent to each building exit. Install surface bracket mounted extinguishers in Boiler, Fan rooms and Electrical room.
A19	Access to the second floor fan rooms is via ladders without safety cages. This does not meet code and is problematic for maintenance.	CODE HEALTH MAINT	Replace existing ladders with OSHA approved ladders and enlarge hatches to the Fan rooms as possible. This deficiency may best be remedied by relocating the mechanical equipment which would also help address acoustic issues in the MPR.

A20	Meeting rooms lack adequate tack and whiteboard surfaces.	PROG MAINT	Install white boards in all meeting rooms. Install continuous tack strip around the perimeter of all meeting room walls.
A21	General building storage is inadequate for table and chairs and maintenance supplies and equipment.	PROG	Double the existing general building storage area. This will require displacing program or adding building area of **1,000sf**.
A22	Audience seating in the MPR is limited to folding chairs on the floor. Setup is labor intensive and sightlines are not ideal.	PROG MAINT	Install telescoping stadium seating on the back wall to either side of the doors (approx. 200 seats). Purchase 300 new upholstered folding chairs to match telescoping seating.
A23	Much of the furniture at Centennial Hall is worn and outdated.	PROG	Replace all building furnishings. Office: matching desks and modular storage, new task chairs and small conference table. Assembly Chamber: Modular tables with privacy screens and wire management, task chairs. Meeting Rooms: Rolling flip-top tables, conference chairs, side chairs, adjustable height laptop lecterns, mobile whiteboard easels.
A24	Stage Lighting and AV in the MPR is controlled from backstage where it is difficult to monitor the results.	PROG	Construct an AV booth and 2 entry vestibules at the back center of the MPR.
A25	Portions of the building will be occupied continuously during construction.	PROG	Provide a budget allowance for phasing improvements to the facility.
A26	The Historical Society Museum has outgrown their current space and there is not adequate space nor climate control for preservation and display of artifacts	PROG MAINT	Construct a building addition of approximately **5,800sf** to meet the Museum's program needs based on the Foraker pre-development program. (budget $500 per square foot)
A27	Centennial Hall lacks adequate space to fulfill its roll as a visitor reception and information center.	PROG	Add approximately **2000sf** building area for visitor information counters, information display and seating. Provide an integrated architectural solution for vendors to do business with visitors at the Centennial Hall site. (budget $400 per square foot)

STRUCTURAL RECOMMENDATIONS

	Deficiency	Category	Improvement Recommendation
S1	9" x 43.875" Glue-laminated girders in the main hall are deficient for snow load capacity	HEALTH CODE STRUC	Retrofit glue-lam girders. Proposed retrofit solution would use post-tensioning cable at the bottom of the existing girders.
S2	Low roof framing is deficient for code required roof snow load and snow drift.	HEALTH CODE STRUC	Replace low roof framing.
S3	Low roof multiple ply 2x12 girders have reduced capacity due to numerous piping penetrations.	HEALTH CODE STRUC	Replace low roof girders.
S4	Untreated exterior columns in contact with wet surfaces	STRUC	Replace columns with appropriate footing and offset structural base to eliminate contact with water.
S5	4x6 plank deck at main hall is not an approved shear diaphragm assembly	HEALTH CODE	Install plywood sheathing over existing 4x6 plank during roof retrofit with appropriate nailing pattern to 4x6 planks.
S6	Existing shearwalls throughout the facility are deficient for current code loads.	HEALTH CODE	Upgrade shearwalls throughout the facility with appropriate plywood nailing and structural holddowns for overturning.
S7	Strip windows at exterior walls interrupt shear load path between roof and foundation.	HEALTH CODE	Replace some of the exterior strip windows with shear rated panels to create a complete shear load path.

MECHANICAL RECOMMENDATIONS

	Deficiency	Category	Improvement Recommendation
M1	Sprinkler System	MAINT STRUC CODE	Replace dry sprinkler system with wet sprinkler system that complies with current NFPA 13 requirements. Utilize dry systems only where required for exterior combustible canopies.
M2	Domestic Water System	CODE	Install double check backflow prevention device on sprinkler system to prevent backflow of sprinkler system water into domestic water system and to comply with UPC. Install pressure relief valve on domestic water piping.
M3	Plumbing Piping	MAINT	Replace plumbing distribution piping. Piping is nearing the end of its expected useful life.
M4	Heating System	ENERGY MAINT	Replace oil fired boiler system with a sea water or air source electric heat pumps system. Demolish existing fuel system equipment and piping.

M5	Building Ventilation System	HEALTH CODE PROG	Replace ventilation equipment with new equipment to provide ventilation in accordance with ASHRAE 62.1. Incorporate variable volume and demand control ventilation to reduce energy use. Incorporate sound attenuation and proper sizing of ventilation system components to reduce ventilation noise levels in the building. Add fan room area as necessary to serve building additions; approx. **600sf**
M6	Kitchen Ventilation System	CODE MAINT	Upgrade kitchen ventilation systems to comply with current IMC requirements.
M7	Cooling System	ENERGY MAINT	Replace cooling equipment with system capable of simultaneous heating and cooling incorporated into heat pumps systems.
M8	Controls Upgrades	ENERGY MAINT	Upgrade existing control system workstation and front end to modern internet accessible version to provide improved interface for remote monitoring and allow for future upgrade capability.
M9	The Stage is lacking code-required smoke ventilation.	CODE	Add heat-activated smoke vents in the roof above the middle of the stage to meet IBC 410.3.7
M10	Provide back-up heating system	MAINT	Utilize fuel oil boiler or stand-by generator to provide back-up heating supply for electric heat pump systems.
M11	Replace Water Heaters	MAINT	Replace water heaters nearing the end of their useful life expectancy. Size new water heaters for additional plumbing fixtures planned in renovation.

ACOUSTICAL RECOMMENDATIONS

	Deficiency	**Category**	**Improvement Recommendation**
AC1	Noise from the Lobby and Concourse can be a disruption during events in the MPR	PROG	Construct vestibules at the 2 pairs of doors connecting the Concourse to MPR (See A24) to increase acoustic separation.
AC2	Mechanical systems are creating disruptive noise levels in the MPR and small meeting rooms.	PROG MAINT	Any mechanical systems remodel or replacement should include vibration isolation, duct silencers and acoustic duct lining *(Also see M5)*. Equipment should not be located adjacent to noise sensitive spaces. See acoustical narrative for more information.
AC3	Currently projection in the MPR is done from a projector on a cart in the room.	PROG	Locate projection equipment in a sound isolated booth to avoid fan noise in the MPR.

ELECTRICAL RECOMMENDATIONS

	Deficiency	Category	Improvement Recommendation
E1	Electrical Branch Panels	MAINT CODE	Replace all branch panels from original construction. Total of (2) 2-section 225A panels, (1) 1-section 400A panel, (1) 2-section 400A panel, (2) 125A panels.
E2	Convenience Receptacles	MAINT PROG	Replace all convenience receptacles in the building. Provide new receptacles at additional locations to support facility needs.
E3	Interior Lighting - General	ENERGY MAINT	Replace all existing T12 fluorescent fixtures with new LED or T8 fluorescent fixtures.
E4	Interior Lighting – MPR	ENERGY MAINT	Replace all metal-halide general lighting fixtures with new LED or T5HO fluorescent fixtures. Replace all HPS fixtures in the lobby and entry vestibule with new LED or T8 fluorescent fixtures.
E5	Exterior Building Lighting	ENERGY MAINT	Replace all building-mounted HPS fixtures with new LED fixtures.
E6	Emergency and Exit Lighting	CODE MAINT	Replace all emergency lights and exit signs at existing locations. Provide new emergency lights and exit signs where required by code. Provide new emergency egress lights outside all exterior exit doors.
E7	Lighting Control - General	ENERGY MAINT	Replace all light switches in the building. In offices, storage rooms, mechanical/electrical rooms, and other support spaces, install new occupancy sensor wall switches to turn off lights when rooms are unoccupied. In restrooms, install new ceiling occupancy sensors. In corridors, install new ceiling occupancy sensors to provide multi-level lighting control to reduce output to 50% during unoccupied periods.
E8	Fire Alarm	CODE MAINT	Replace the entire conventional fire alarm system with a new addressable fire alarm system. Install new devices at existing locations and add more notification appliances where required by code.
E9	Telecommunications	MAINT PROG	Replace the entire telecom system. Install a new telecom head-end in a dedicated room. Install new Cat 6 telecom outlets at all existing locations and provide new Cat 6 telecom outlets at new locations to support facility needs.

AUDIO-VISUAL RECOMMENDATIONS

	Deficiency	Category	Improvement Recommendation
AV1	The speakers in the MPR are not adequate for the use.	PROG	Install a new speaker system with a coverage pattern appropriate for the space.
AV2	A lack of floor boxes on the Stage, in Maksoutoff and other meeting spaces makes cord management difficult and creates tripping hazards.	PROG MAINT HEALTH	Install floor boxes with power, data and sound as appropriate in the Stage floor, Maksoutoff room, Exhibit, Museum and small meeting rooms.
AV3	Audio mixing cannot be done well from the current backstage location.	PROG	Establish a mix position in the rear of the MPR (see A24)
AV4	Sounds system head-end equipment is outdated.	PROG MAINT	Replace existing in MPR and Maksoutoff with digital signal processing system (DPS) equipment allowing automated room scenes and manual override. (see AV narrative)
AV5	Manual 4:3 aspect ratio screens in MPR and Maksoutoff are awkward to use and outdated.	PROG	Replace manual screens with motorized widescreen 16:10 aspect ratio screens in MPR and Maksoutoff. Install fixed high-definition video projectors in these two rooms.
AV6	Maksoutoff ceiling speakers do not have full coverage and are outdated.	PROG MAINT	Replace existing ceiling speakers and install additional speakers to cover the entire room.
AV7	MPR and meeting rooms lack assistive listening systems.	CODE	Install ADA-compliant assistive listening systems in MPR, Maksoutoff, Rousseau and Exhibit rooms.
AV8	Portions of the AV system in the MPR and Maksoutoff are outdated.	MAINT	The mixing console (MPR only), monitor speakers (MPR only), wireless microphones and wired mics can be reused. Replace all other components of the AV system.
AV9	Small meeting rooms have no AV capabilities	PROG	Install large flat screen monitors with built in speakers and connectivity from wall and floor box.
AV10	There is no space capable of acting as a green room for the Stage	PROG	Connect the small meeting rooms to the MPR sound system to allow remote monitoring as a green room.
AV11	The original building paging system is defunct.	PROG MAINT	Install ceiling speakers throughout the building for building-wide and zoned paging and background music applications.

STAGE LIGHTING RECOMMENDATIONS

	Deficiency	Category	Improvement Recommendation
ST1	The dimming system is 13 years old and has approx. 7-10 years of useful life remaining.	PROG MAINT	Option SD-1 – Retain existing and purchase replacement parts for future maintenance. Option SD-2 – Demo and replace all existing dimmer racks and stage distribution. Both Options – Add new stage electrics for upstage and front of house and provide dimming to these circuits. *(see stage lighting narrative)*
ST2	The stage lighting control console is 13 years old. The computer is becoming outdated but has 3-5 years of useful life remaining.	PROG MAINT	Replace the existing console with a new console and replace all house lighting stations with LCD touchscreens or 4-button preset stations.
ST3	Stage curtains are faded in places. They are hung with under-rated pipe and the proscenium opening is too low.	PROG HEALTH	Replace all stage rigging and curtains with new. Raise the bottom of the valance and other borders. Replace all existing pipe battens with schedule 40 pipe and load-rated hardware. Install new masking drapes at the new lighting positions. *(see stage lighting narrative)*

FOOD SERVICE RECOMMENDATIONS

Food Service

	Deficiency	Category	Improvement Recommendation
F1	Facility currently does not have good flow	HEALTH PROG	Provide larger space and reorganize equipment into internal zones; prep, cooking, dishwashing and storage. Add **750sf** of area for this program.
F2	Equipment appears to be old and outdated	MAINT ENERGY HEALTH	Provide new equipment that is more energy efficient and meets newer standards. (Estimated cost of $225k-$250k)

HAZARDOUS MATERIALS RECOMMENDATIONS

	Deficiency	Category	Improvement Recommendation
H1	Several samples of wall joint compound tested positive for asbestos.	CODE HEALTH	Abate joint compound as part of any demolition or remodel work involving gypsum or plaster wall board inside Centennial Hall.
H2	Adhesive under the carpet in MPR tested positive for asbestos	CODE HEALTH	Abate MPR floor when replacing finish flooring.
H3	Adhesive behind some wainscot paneling tested positive for asbestos	CODE HEALTH	Abate adhesive as part of any demolition or remodel work involving wainscot paneling in Centennial Hall.

SECTION 5.0 Cost Summary

5.0 COST SUMMARY

We are approaching programming and cost estimating in 4 tiers:

- Tier 1 improvements are basic upgrades to the Centennial Hall to address identified code, energy, and maintenance deficiencies. These items are estimated in the attached professional cost estimate. Some are optional and some are scalable allowing fine tuning of costs as the project develops.
- Tier 2 improvements address core program deficiencies that require additions to the building. These items are estimated in the attached professional cost estimate. Some are optional and some are scalable allowing fine tuning of costs as the project develops.
- Tier 3 improvements provide additional program area for the Sitka Historical Society Museum and Visitor Services. Museum areas are based on the May 2012 Foraker Pre-Development study.
- Tier 4 improvements address other program areas that are deficient at Centennial Hall in comparison with other similar facilities.

Using the Capital Improvement Recommendations from Section 4.0 of this document, Estimations Inc. produced an estimate of costs for each of the Tier 1 & 2 items. The estimate gives a summary cost for each item using its identifying number from the list. An estimating contingency of 15% is added as well as 3.5% for escalation of construction costs in 2013.

Tier 1 Estimated Costs = $6.7 million (see note 1).

Tier 2 Estimated Costs = $1.1 million (see note 1).

Using per square foot cost allowances we estimated construction costs for program areas added in Tiers 3 and 4.

Tier 3 Estimated Costs =

- Museum Addition $2.9 million (5,800sf x $500/sf)
- Visitor Service Addition $800,000 (2,000sf x $400/sf)
- Tier 2 TOTAL = $3.7 million

Tier 4 Estimated Costs = $628,000

TOTAL of Tiers 1,2, 3 and 4 = $12.1 million

These estimates reflect construction costs only are exclusive of other Project Costs such as design and project management fees, permitting costs etc. A conservative estimate of Project Costs for the HCH project would be 125% of Construction Costs. Factoring this in, Total Project Costs are estimated as: $12.1 million x 1.25 = **$15.2 million**

These estimated costs will continue to be refined as the design is developed and decisions are made to align the project scope with available funding.

Refer to Appendix A for the professional cost estimate of Tier 1&2 remodel/ addition.

Note 1 – MCG added $170,000 to item A5 to account for a new entry vestibule addition. Some items have been shifted from Tiers 1 and 2 to Tier 4.

SECTION 6.0 Drawings

6.0 DRAWINGS

Sitka Centennial Hall Renewal As-Built Sheet Set

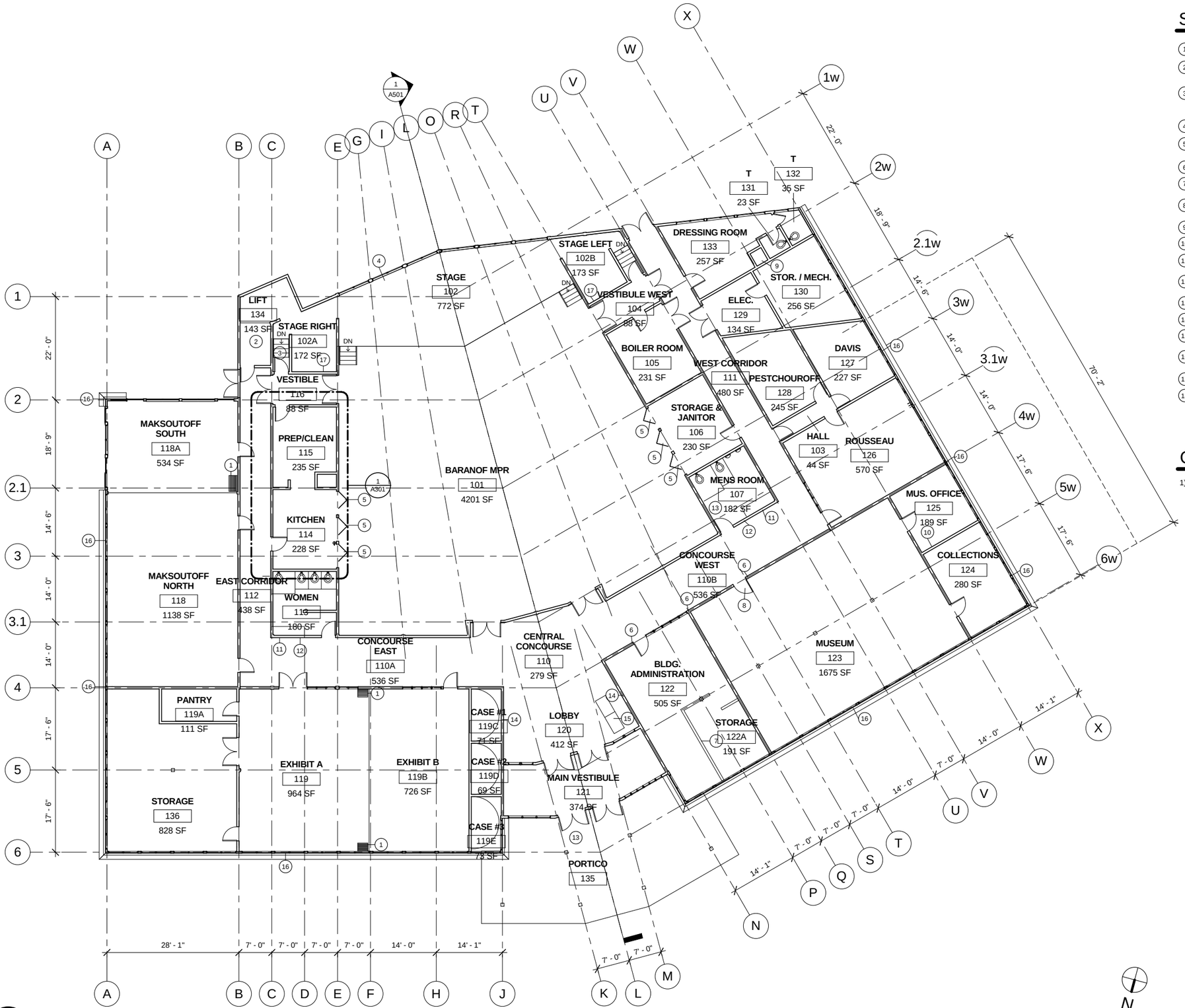
ARCHITECTURAL
A201 – Floor Plan – Level 1
A202 – Floor Plan – Level 2
A201 - Roof Plan
A301 – Enlarged Plans
A401 – Exterior Elevations
A402 – Exterior Elevations
A501 – Building Sections
I311 – Ceiling Plan – Level 1

STRUCTURAL
S201 – Foundation Plan
S202 – Roof Plan

MECHANICAL
M101 – Mechanical Site Plan As-built
M110 – Underfloor Plumbing Plan As-built
M120 – Underfloor Abandoned Piping As-built
M121 – Level 1 Plumbing Plan As-built
M122 – Level 2 Plumbing Plan As-built
M131 – Level 1 Heating Plan As-built
M132 – Level 2 Heating Plan
M140 – Underfloor Ventilation As-built
M141 – Level 1 Fan Coil Ventilation Plan As-built
M150 – Boiler Room Enlarged Plan As-built
M151 – Mechanical Room Enlarged Plan As-built
M152 – Fan Room Enlarged Plans As-built

ELECTRICAL
E101 – Existing Lighting Plan
E102 – Existing Power Plan
E103 – Existing Signal Plan
E104 – Existing Second Floor Plan
E105 – Existing Enlarged Power & Signal Plan Boiler & Mechanical Room

HAZARDOUS MATERIALS
H1 – Hazmat Samples Plan



1 A201 EXISTING FLOOR PLAN - LEVEL 1

3/32" = 1'-0"

SHEET NOTES

1. OPERABLE PARTITION
2. APA LIFT
3. NO LANDING W/ DOOR OPENING INTO STAIR; NORD-COMPLIANT HANDRAILS; RISERS ARE UP TO 36.5"
4. REPLACE GLAZING WITH LOW-E
5. 8' - 10"H x 5' WIRE BIFOLD WOOD DOORS
6. 7" x 7" WOOD COLUMN
7. 97" TALL WALL; NOT FULL HEIGHT
8. DISPLAY CASE CONFLICTS W/ ADA DOOR CLEARANCES
9. SHOWER; NOT ADA
10. 8' HIGH WALL
11. FIRE EXTINGUISHER
12. DRINKING FOUNTAIN SINGLE AT APA HEIGHT
13. ADA POWER OPERATOR ON DOOR
14. COAT RACKS
15. COUNTERS (MOBILE)
16. RAIN GUTTER DOWN SPOUT IN ROCK WALL
17. LADDER ACCESS TO FAN
18. ROOMS

GENERAL NOTES

1) REPLACE DOOR LATCH SETS; MANY DOORS DO NOT HAVE LEVER HANDLES

JOB NO. 2012007
PROJ. MGR. Designer
DRAWN BY: BEG
DATE: 10-26-12
REVISIONS:
REVIEWED BY: Checker

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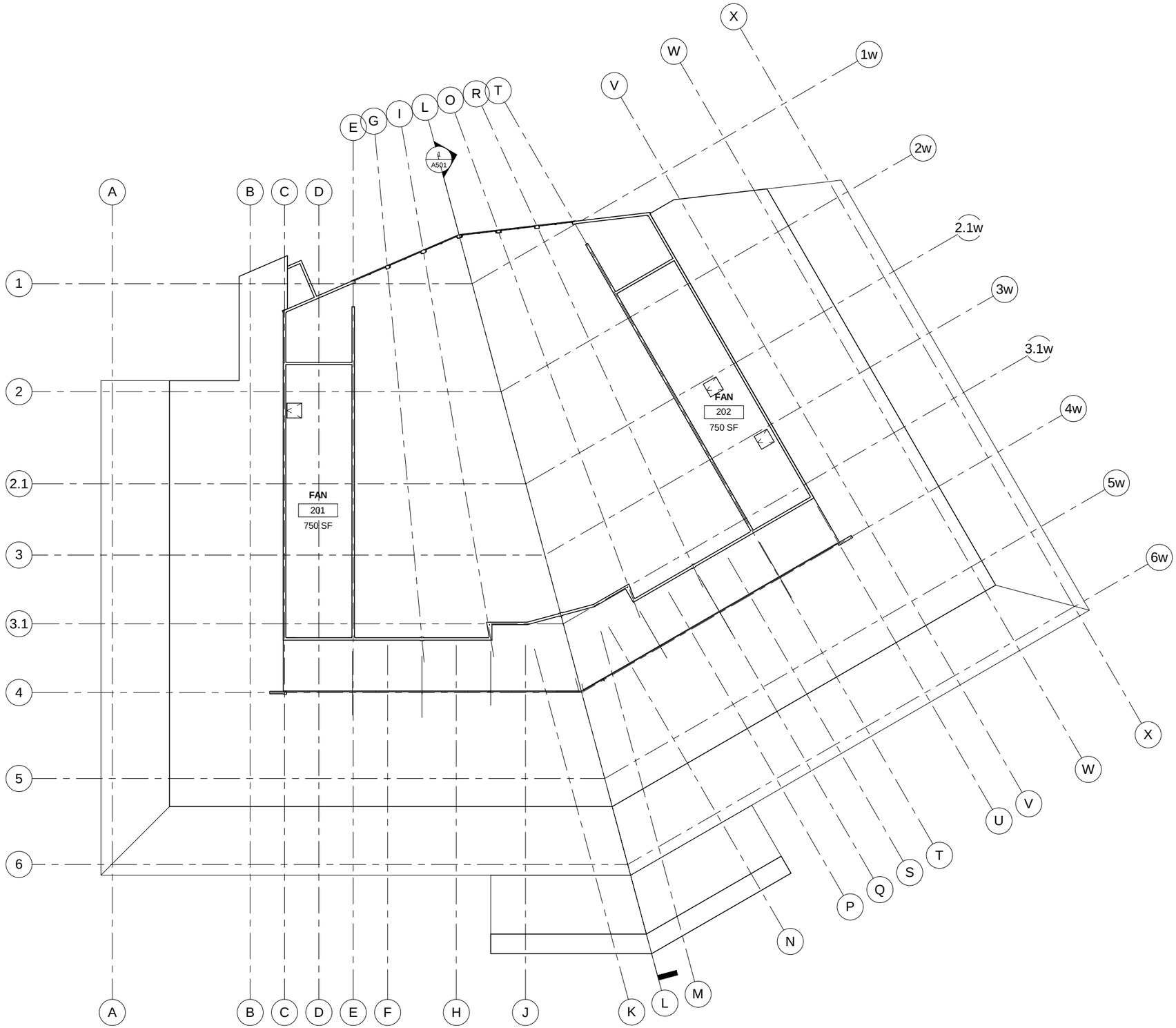
FLOOR PLAN - LEVEL 1

AS-BUILT

SHEET NO. A201



1 A202 EXISTING FLOOR PLAN - LEVEL 2
3/32" = 1'-0"

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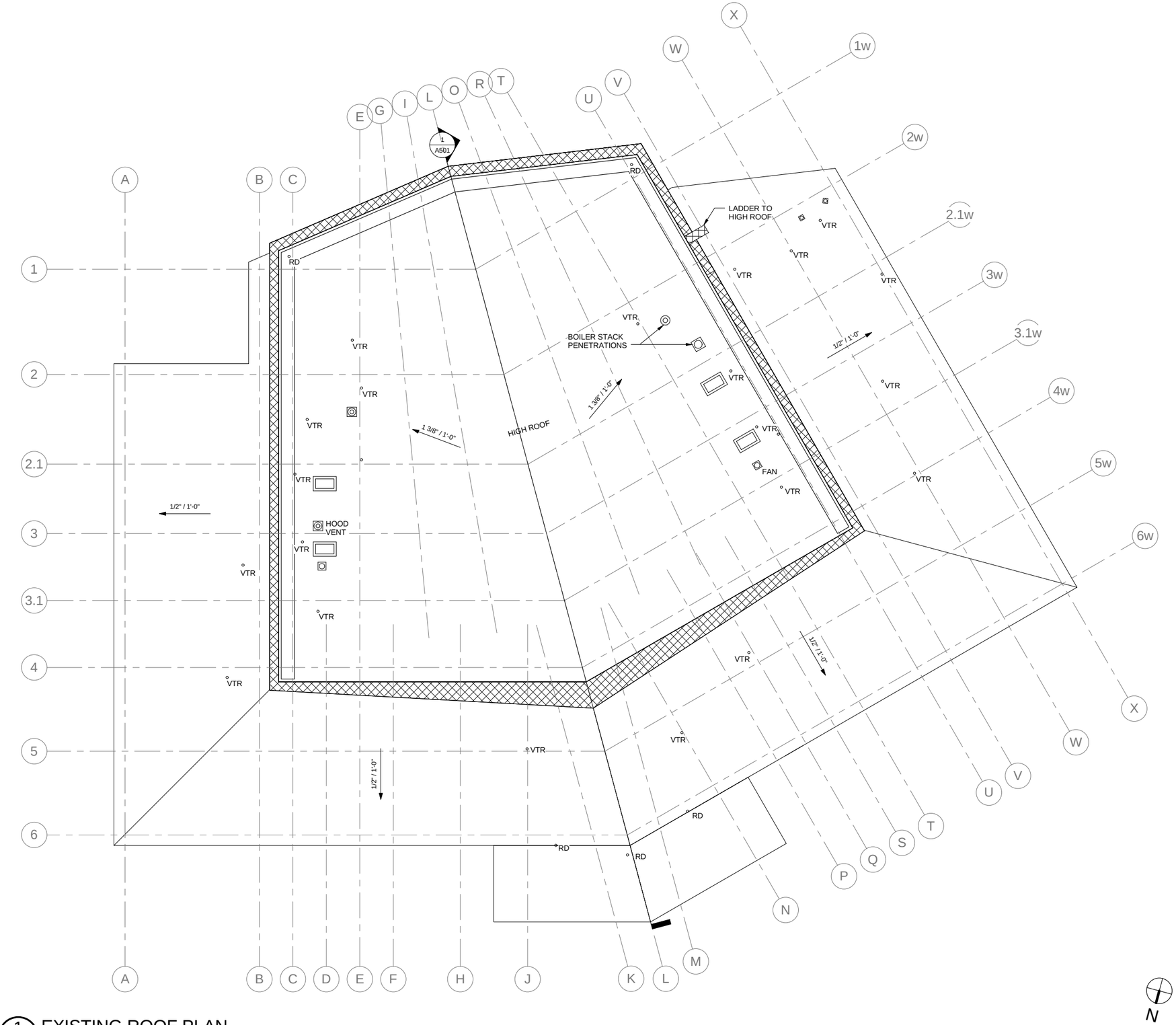
FLOOR PLAN - LEVEL 2

SHEET NO.
A202

AS-BUILT



1 A203 EXISTING ROOF PLAN
3/32" = 1'-0"

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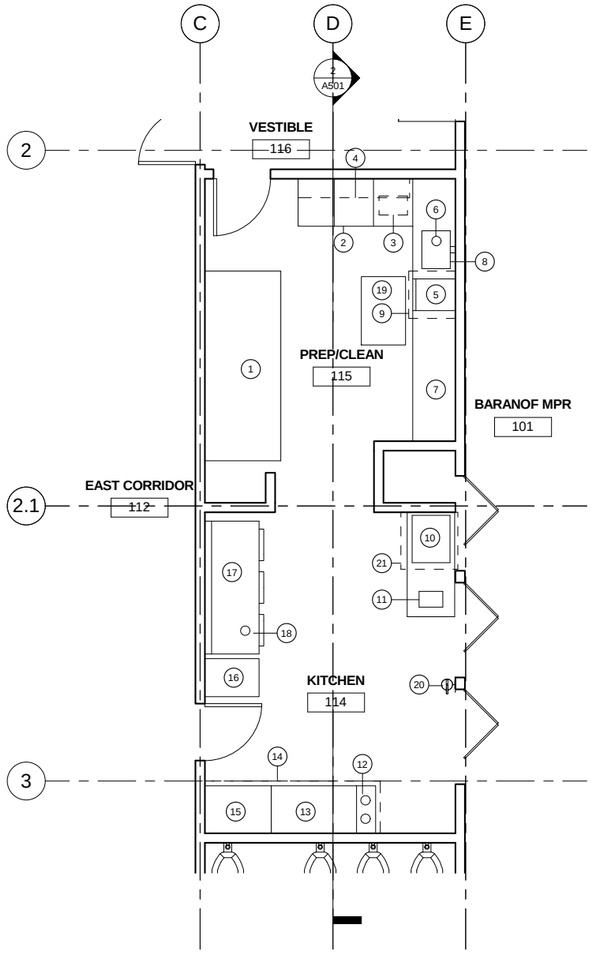
ROOF PLAN

AS-BUILT

SHEET NO.
A203



1 A301 EXISTING KITCHEN ENLARGED PLAN

1/4" = 1'-0"

SHEET NOTES

1. STAINLESS STEEL TABLE W/
2. 3 COMPARTMENT SINK
3. FLOOR SINK
4. WIRE SHELVES
5. DISH WASHER; (BLAKES LEE)
6. DISPOSAL
7. DRYING TABLE
8. SPRAY WASH (ALLEN-BRADLEY)
9. EXHAUST HOOD
10. COFFEE MACHINE
11. SINK (HAND)
12. WARMING PLATE (LANG)
13. STOVE/OVEN (LANG)
14. TYPE 1 HOOD (GAYLORD)
15. WARMER OVEN (CANS)
16. STAINLESS STEEL TABLE
17. REFRIGERATOR/FREEZER (TRAILSEN)
18. FLOOR DRAIN
19. GREASE TRAP (ZURN) 3'-6" X 2'-4"
20. FIRE EXTINGUISHER
21. EXHAUST HOOD

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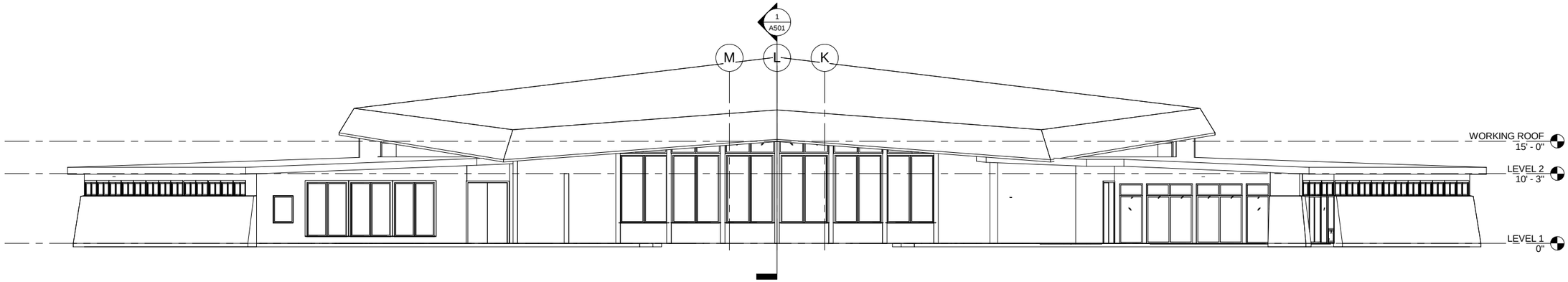
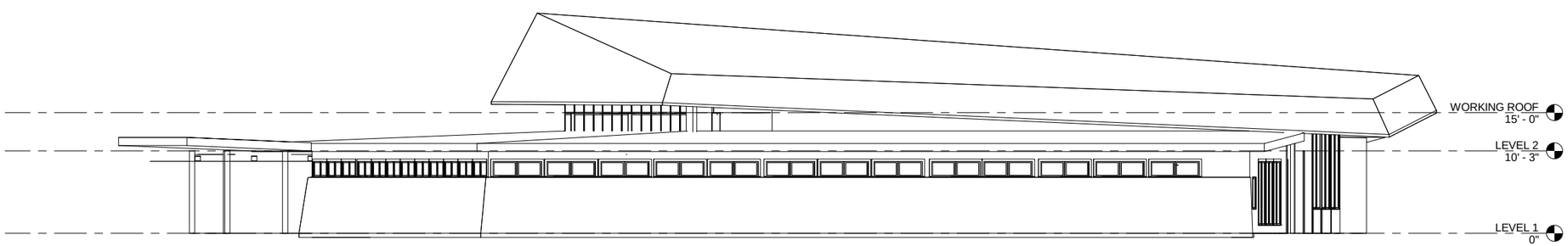
ENLARGED PLANS

AS-BUILT

SHEET NO.
A301



1 A401 EXISTING NORTH ELEVATION
1/8" = 1'-0"



2 A401 EXISTING EAST ELEVATION
1/8" = 1'-0"

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PROJ. MGR. **Designer**
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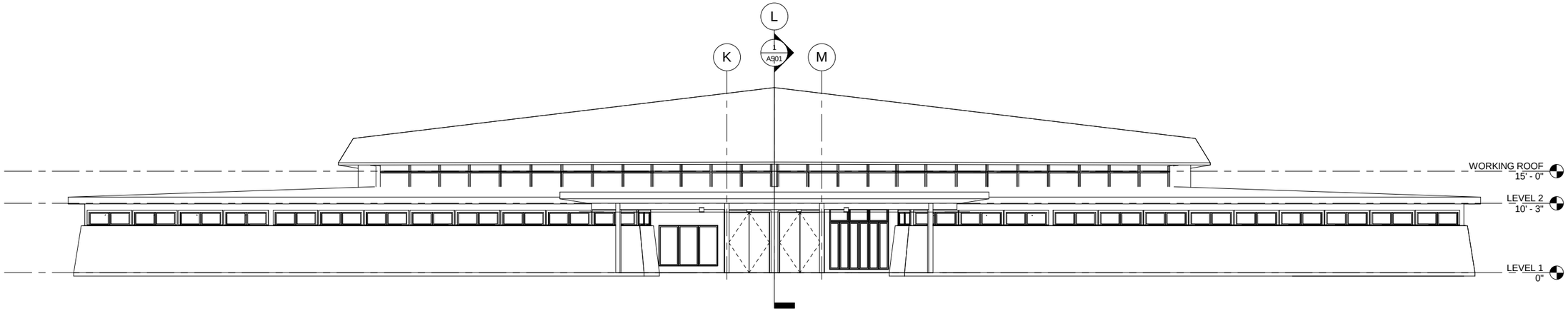
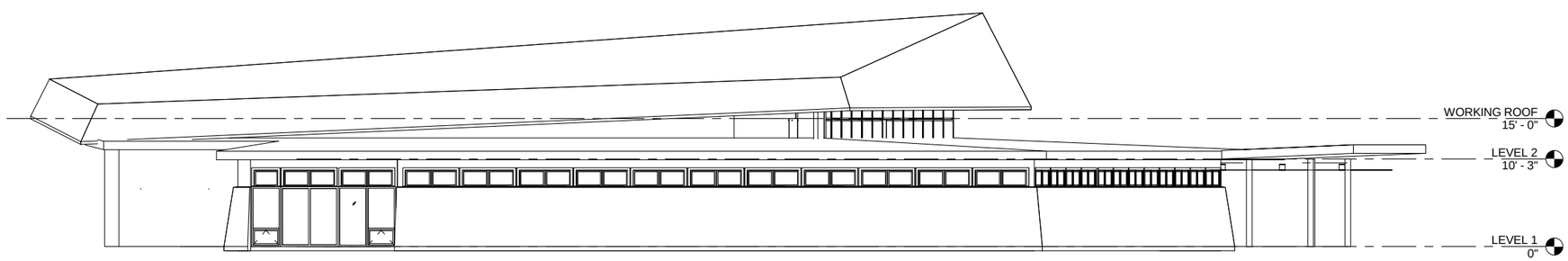
EXTERIOR ELEVATIONS

SHEET NO.
A401

AS-BUILT



1 / A402 EXISTING SOUTH ELEVATION
1/8" = 1'-0"



2 / A402 EXISTING WEST ELEVATION
1/8" = 1'-0"

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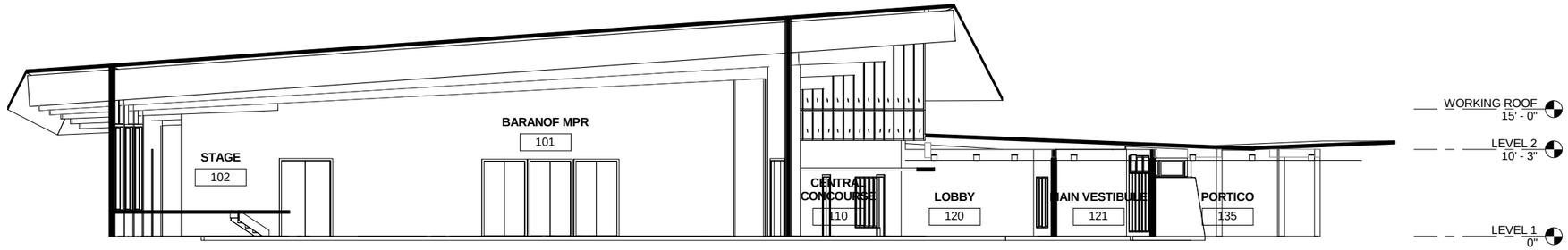
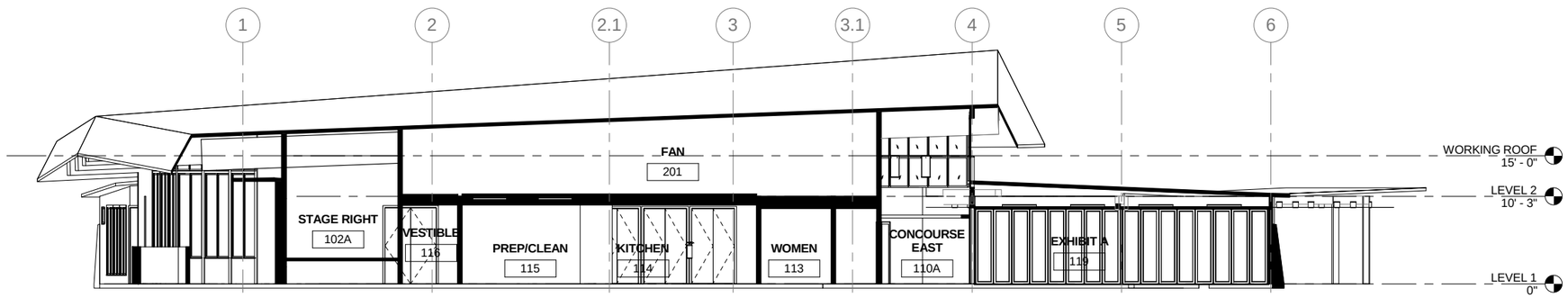
EXTERIOR ELEVATIONS

AS-BUILT

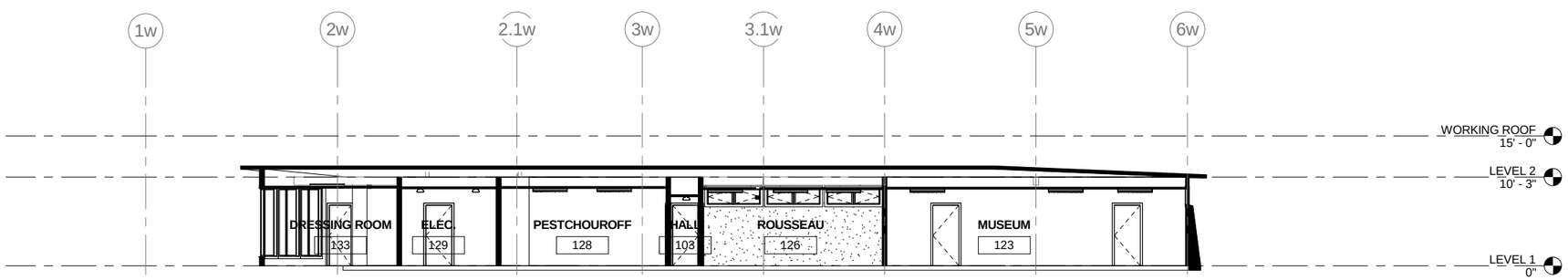
SHEET NO.
A402



1 A501 Section 1
1/8" = 1'-0"



2 A501 Section 2
1/8" = 1'-0"



3 A501 Section 3
1/8" = 1'-0"

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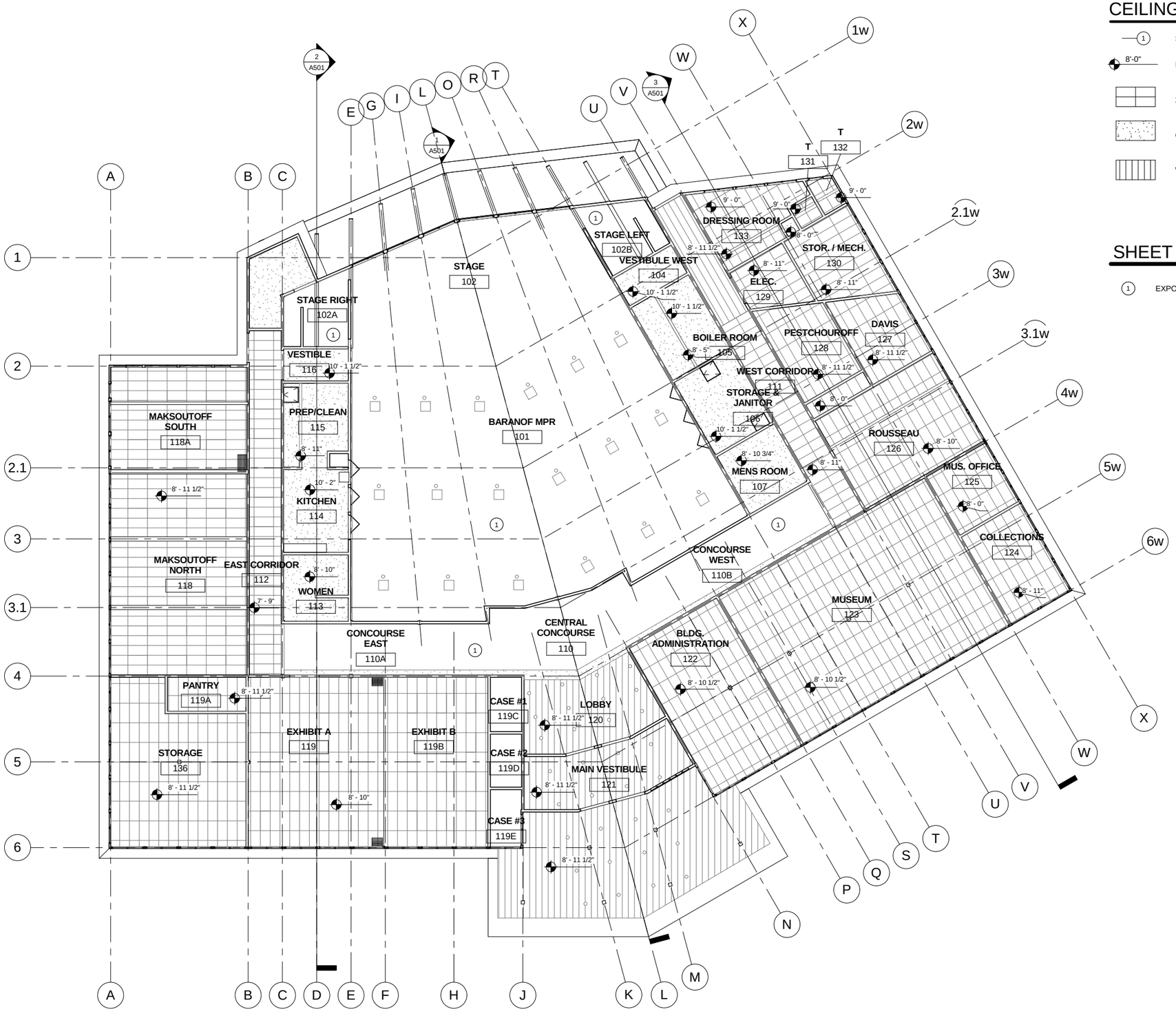
BUILDING SECTIONS

AS-BUILT

SHEET NO.
A501



1 EXISTING RCP - LEVEL 1
I311
3/32" = 1'-0"

CEILING PLAN LEGEND

- (1) SHEET NOTES
- 8'-0" INDICATES CEILING HEIGHT FROM FLOOR
- 2' X 4' SUSPENDED ACOUSTIC CEILING
- GYPSUM BOARD CEILING
- WOOD CEILING

SHEET NOTES

(1) EXPOSED WOOD DECK; ELEVATION VARIES

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PROJ. MGR. Designer
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DATE: 10-26-12
REVISIONS:
REVIEWED BY: Checker

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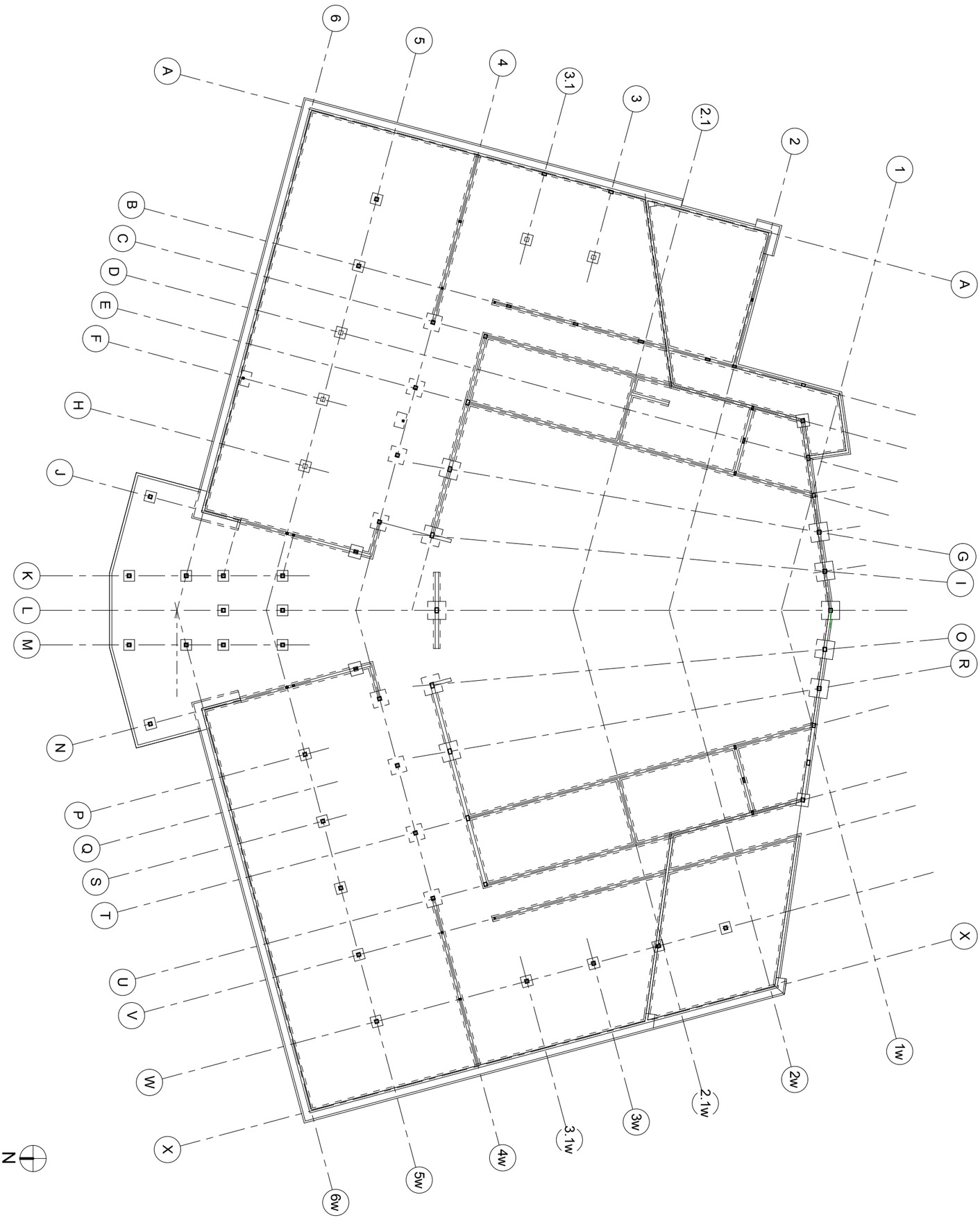
CEILING PLAN - LEVEL 1

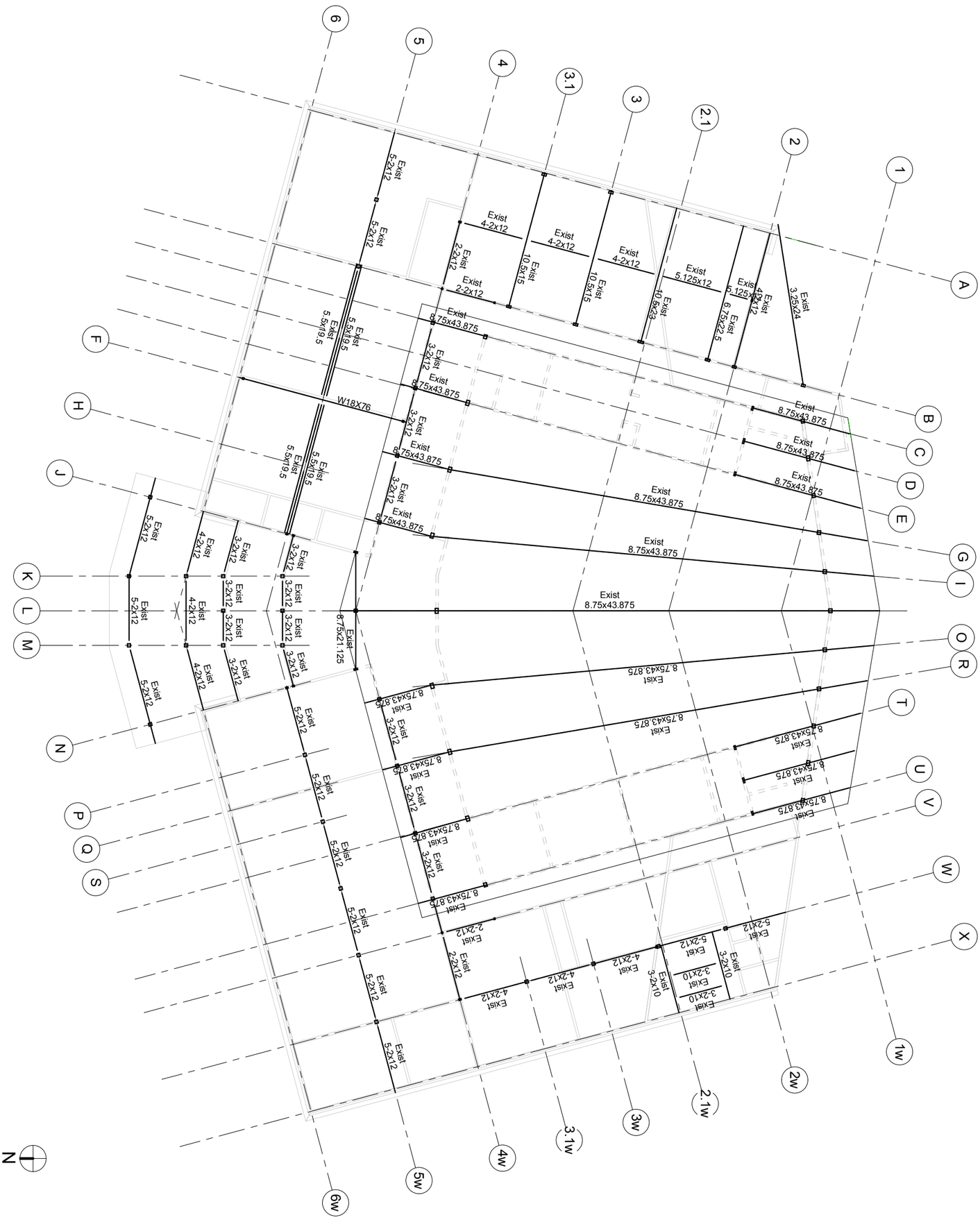
AS-BUILT

SHEET NO.
I311



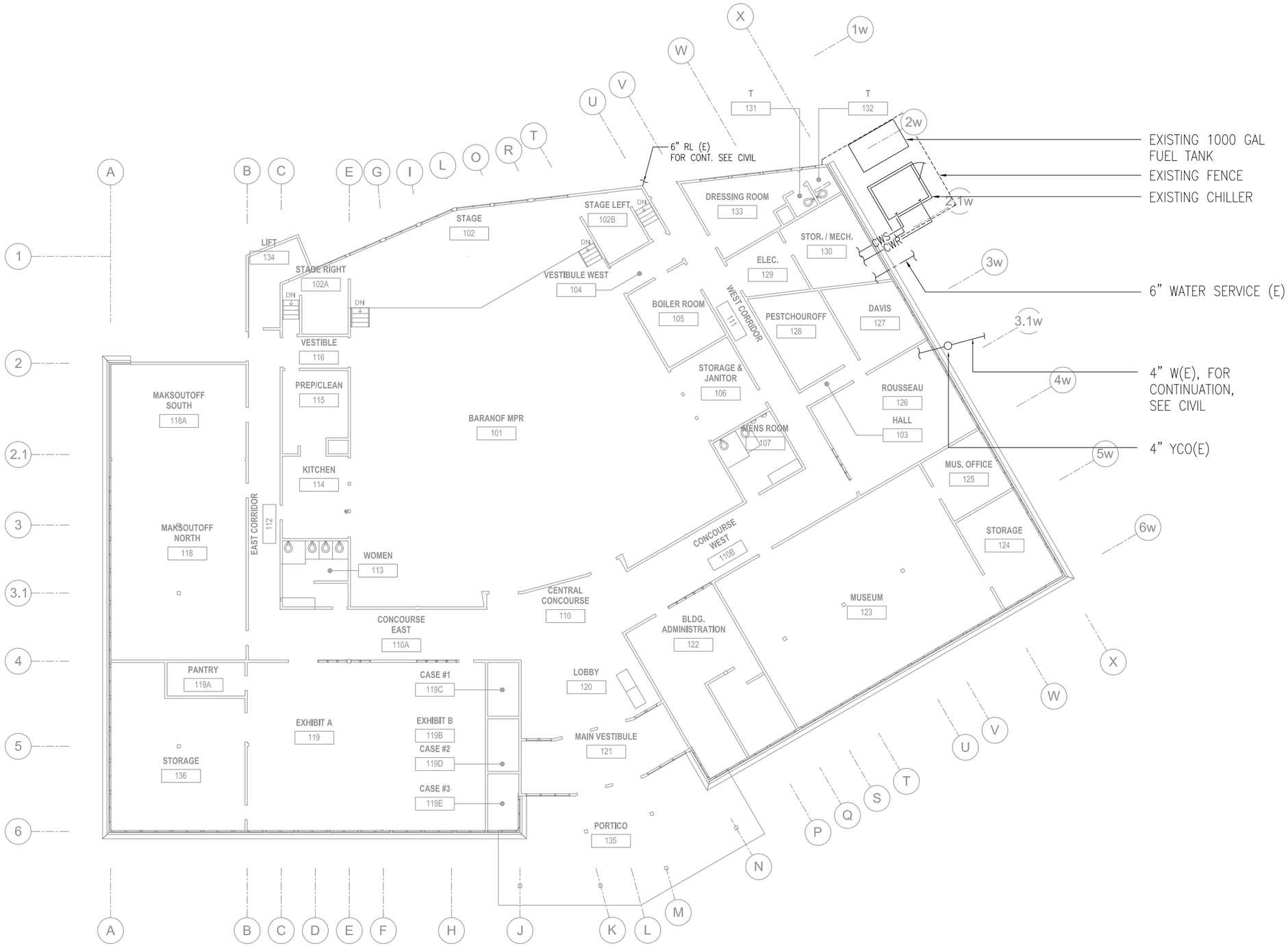
IN-PROGRESS

SHEET NO.	CENTENNIAL HALL RENEWAL	McCOOL CARLSON GREEN	P N D ENGINEERS, INC.	JOB NO. 121100	REVIEWED BY:
S201	XXX City and Borough of Sitka FOUNDATION PLAN	ARCHITECTURE . INTERIOR DESIGN . SPACE PLANNING 421 W. 1ST AVE, Suite 300, ANCHORAGE, AK (907) 563-8474	1506 West 36th Avenue, Anchorage, Alaska 99503 Phone: 907.561.1011 Fax: 907.563.4220	PROJ. MGR.: JG DRAWN BY: WAY DATE: 10-26-2012	JG
				REVISIONS:	



IN-PROGRESS

SHEET NO.	CENTENNIAL HALL RENEWAL	McCOOL CARLSON GREEN	P N D ENGINEERS, INC.	JOB NO. 121100	REVIEWED BY:
S202	XXX City and Borough of Sitka ROOF PLAN	ARCHITECTURE · INTERIOR DESIGN · SPACE PLANNING 421 W. 1ST AVE. Suite 300, ANCHORAGE, AK (907) 563-8474	1506 West 36th Avenue, Anchorage, Alaska 99503 Phone: 907.561.1011 Fax: 907.563.4220	PROJ. MGR.: JG DRAWN BY: WAY DATE: 10-26-2012	JG
				REVISIONS:	



1 MECHANICAL SITE PLAN AS-BUILT
3/32"-1'-0"

AS-BUILT

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

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RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
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Fax: Mech (907) 562-1820 Elec (907) 562-1021

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

MECHANICAL SITE PLAN AS-BUILT

SHEET NO.
M101

1 UNDERFLOOR PLUMBING PLAN AS-BUILT
3/32"-1'-0"

AS-BUILT

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

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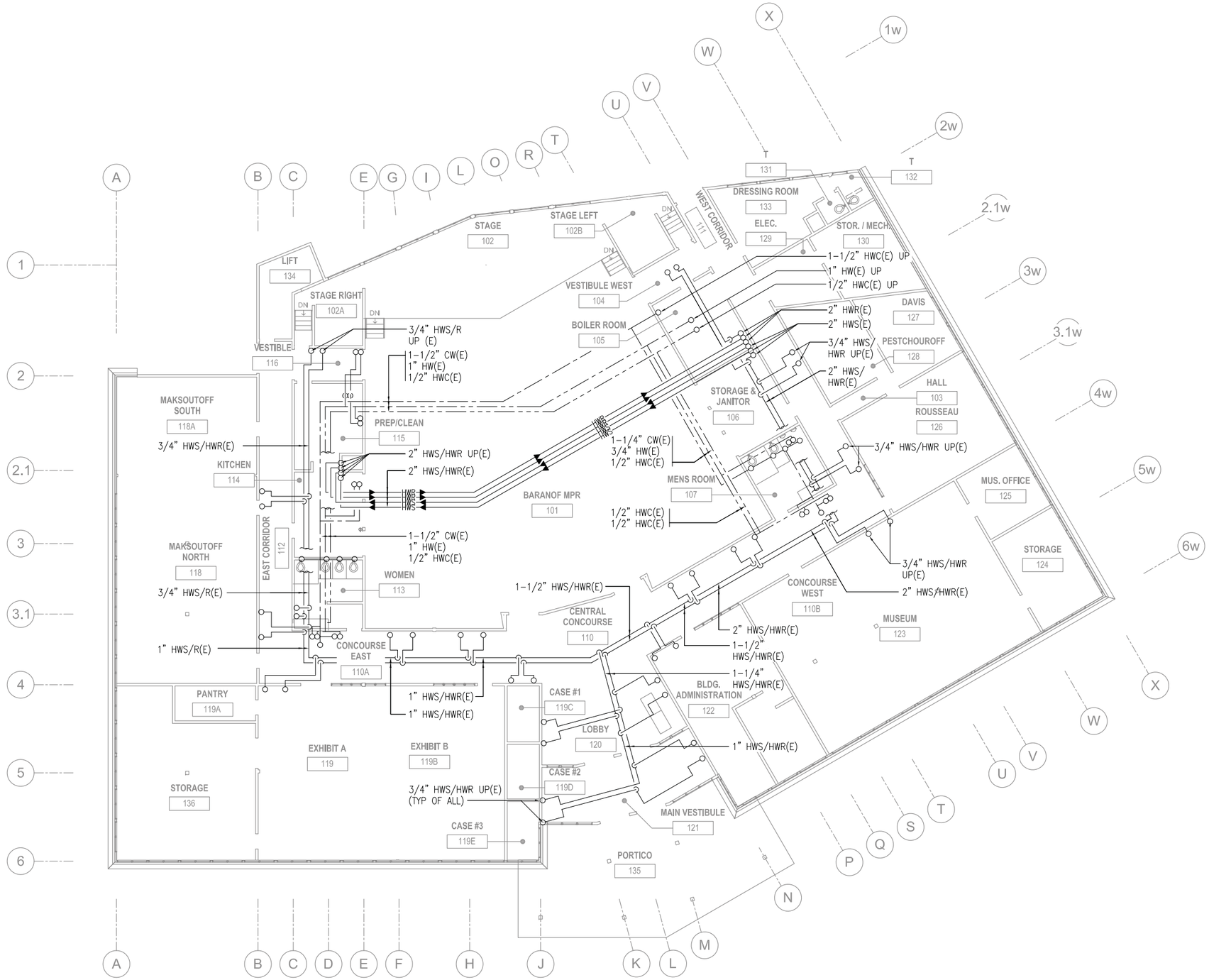
2232 Eagle River Road, Suite 6, Eagle River, Alaska 99577
Anchorage, AK 99503 (907) 272-0201 Fax (907) 272-0287

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

UNDERFLOOR PLUMBING PLAN AS-BUILT

SHEET NO.
M110



1 ABANDONED UNDERFLOOR PIPING PLAN AS-BUILT
3/32"-1'-0"

AS-BUILT

SHEET NO.
M120

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA
UNDERFLOOR
ABANDONED PIPING AS-BUILT

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2232 Eastlake Ave. E., Seattle, Washington 98102
Anchorage, AK 99503 (907) 276-0501 Fax (206) 323-5654
Walla, Walla 99362 (509) 367-1921

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

1 LEVEL 1 PLUMBING PLAN AS-BUILT
3/32"=1'-0"

AS-BUILT

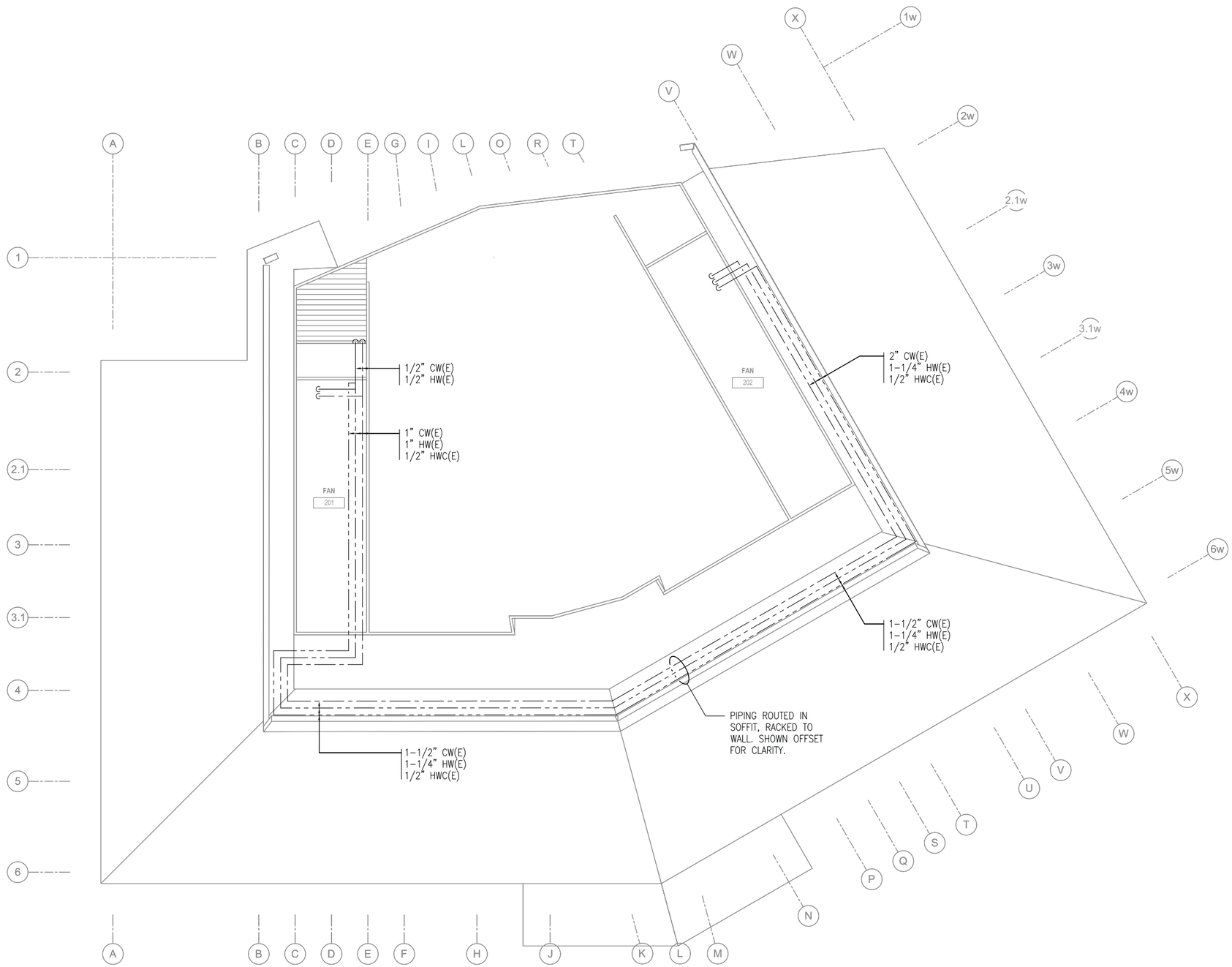
SHEET NO.
M121

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA
LEVEL 1
PLUMBING PLAN AS-BUILT

McCOOL CARLSON GREEN
ARCHITECTURE, INTERIOR DESIGN, SPACE PLANNING
421 W. 1ST AVE, Suite 300, ANCHORAGE, AK (907) 563-8474

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
2232 Eastlake Ave. E., Seattle, Washington 98102
Anchorage, AK 99503 (907) 276-0501 Fax (907) 276-1021

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVIS/CNS:	
REVIEWED BY:	



1 LEVEL 2 PLUMBING PLAN
3/32"-1'-0"

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVIS/CNS:	

REVIEWED BY:

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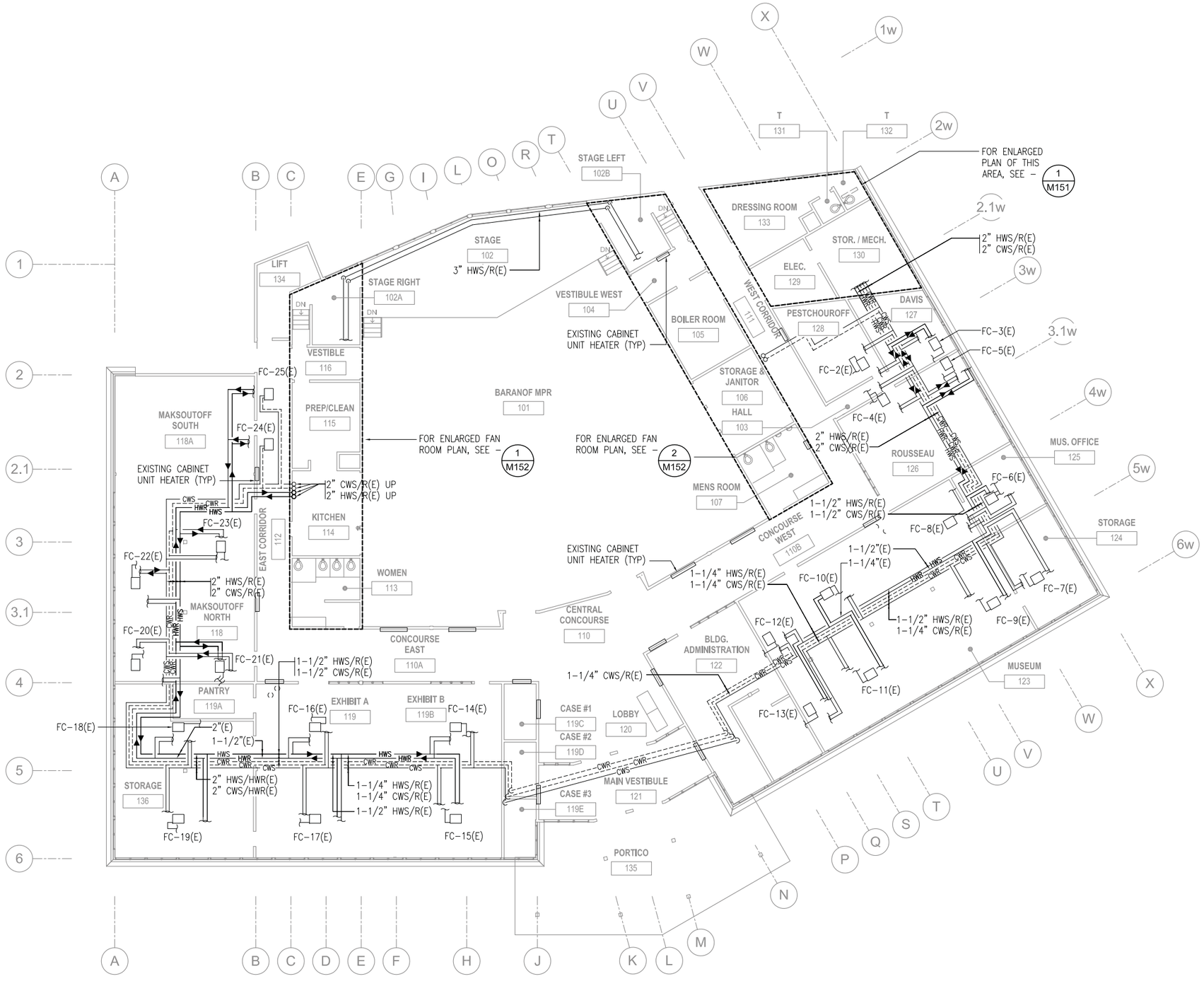
Wasilla, Alaska 99654 (907) 357-1001

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

LEVEL 2
PLUMBING PLAN ASBUILT

SHEET NO.
M122

AS-BUILT



1 LEVEL 1 HEATING/COOLING PLAN AS-BUILT
3/32"-1'-0"

AS-BUILT

SHEET NO. M131

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

LEVEL 1
HEATING PLAN AS-BUILT

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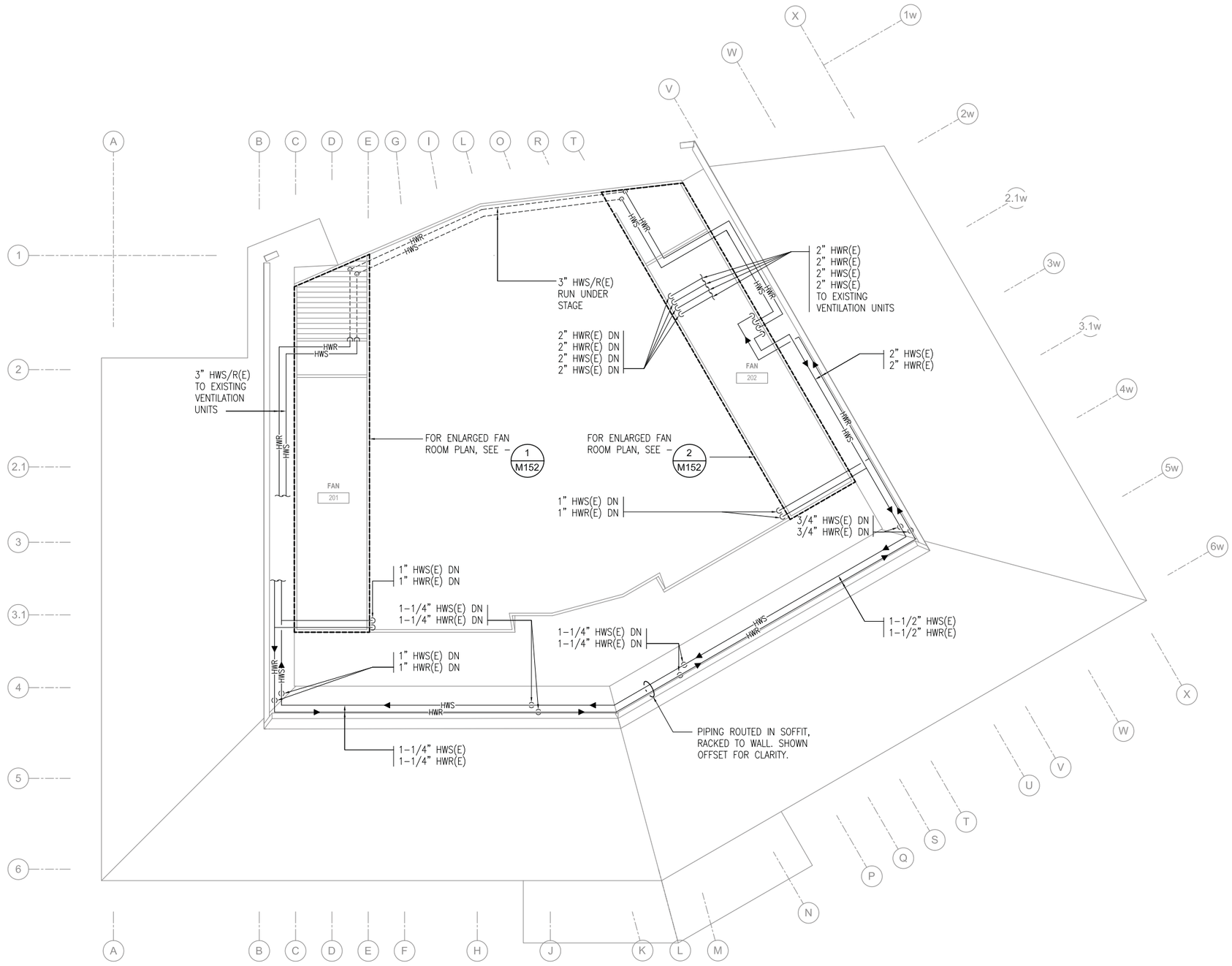
421 W. 1ST AVE, Suite 300, ANCHORAGE, AK (907) 563-8474

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
2532 Tongass Avenue, Suite 200 Voice: (907) 562-2741
Anchorage, AK 99503-3991 Fax: (907) 562-1687

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	



1 LEVEL 2 HEATING PLAN
3/32"-1'-0"

AS-BUILT

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

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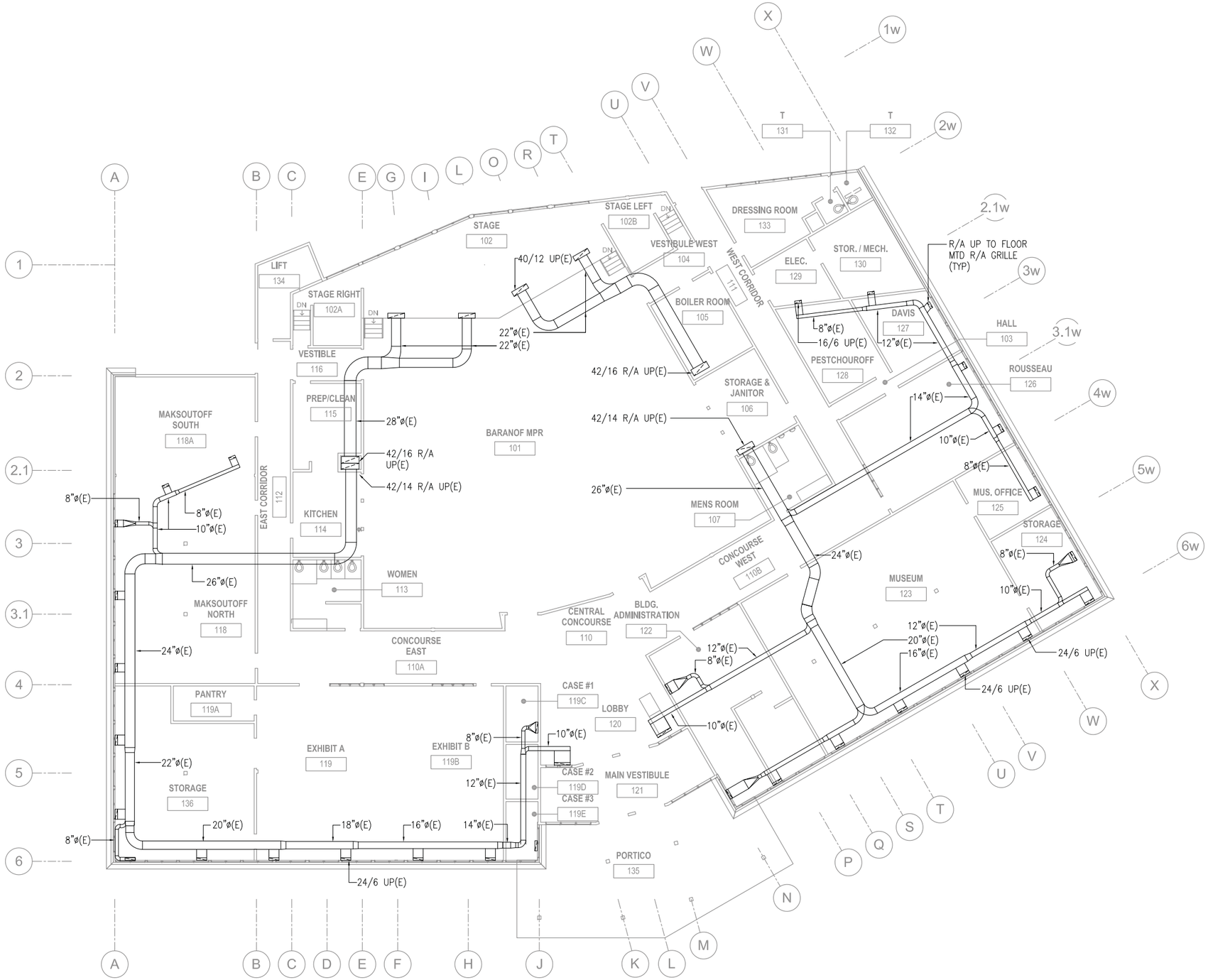
2532 Arctic Blvd., Suite 200, Anchorage, AK 99503
Ph/Fax: (907) 272-0301 / 272-0401

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

LEVEL 2
HEATING PLAN

SHEET NO.
M132



1 UNDERFLOOR VENTILATION PLAN AS-BUILT
3/32"-1'-0"

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

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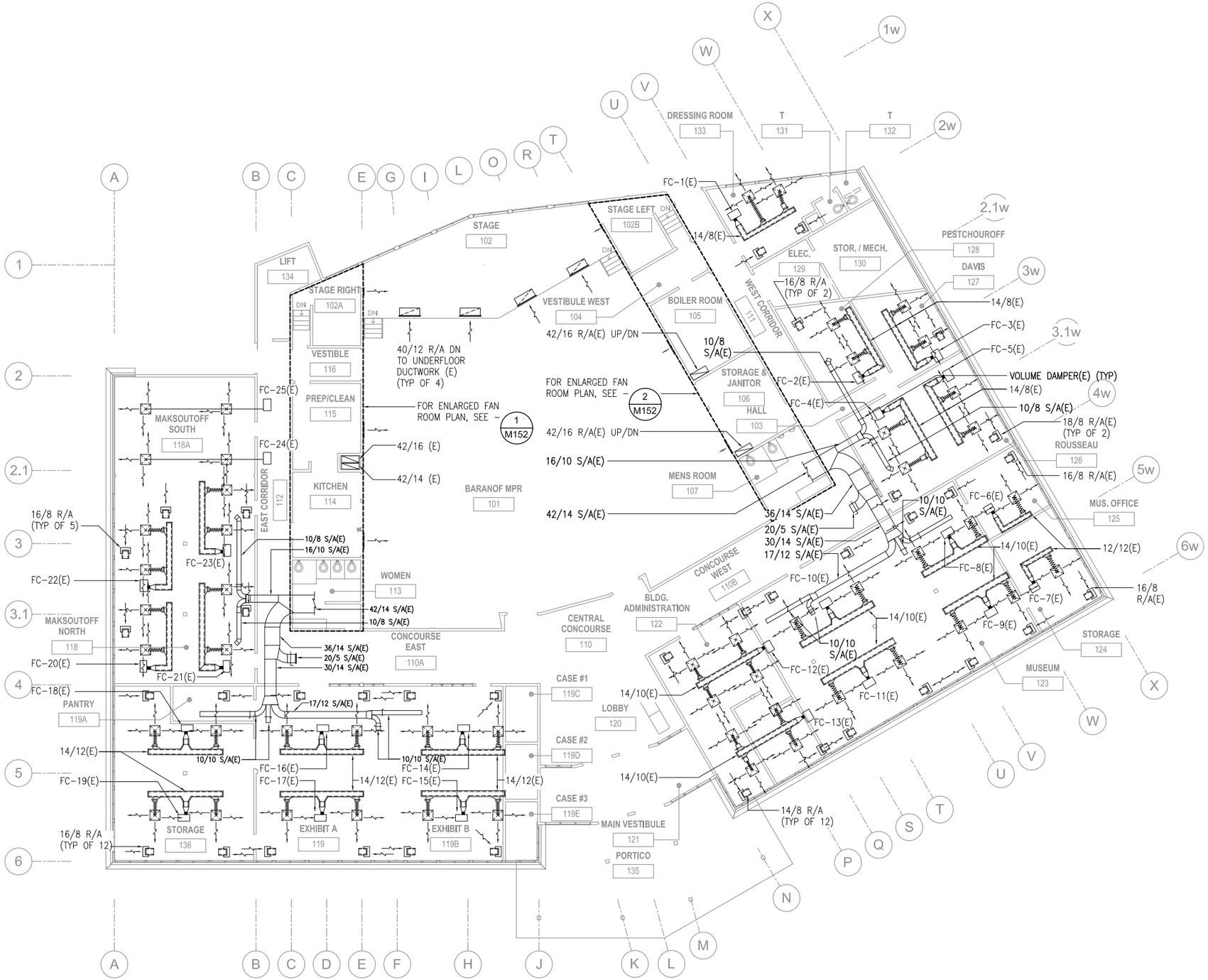
Ph/Fax: Main (907) 561-2992 / Fax (907) 561-2991

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

UNDERFLOOR VENTILATION AS-BUILT

SHEET NO.
M140

AS-BUILT



1 LEVEL 1 FAN COIL VENTILATION PLAN AS-BUILT
3/32"-1'-0"

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

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RSA Engineering, Inc.
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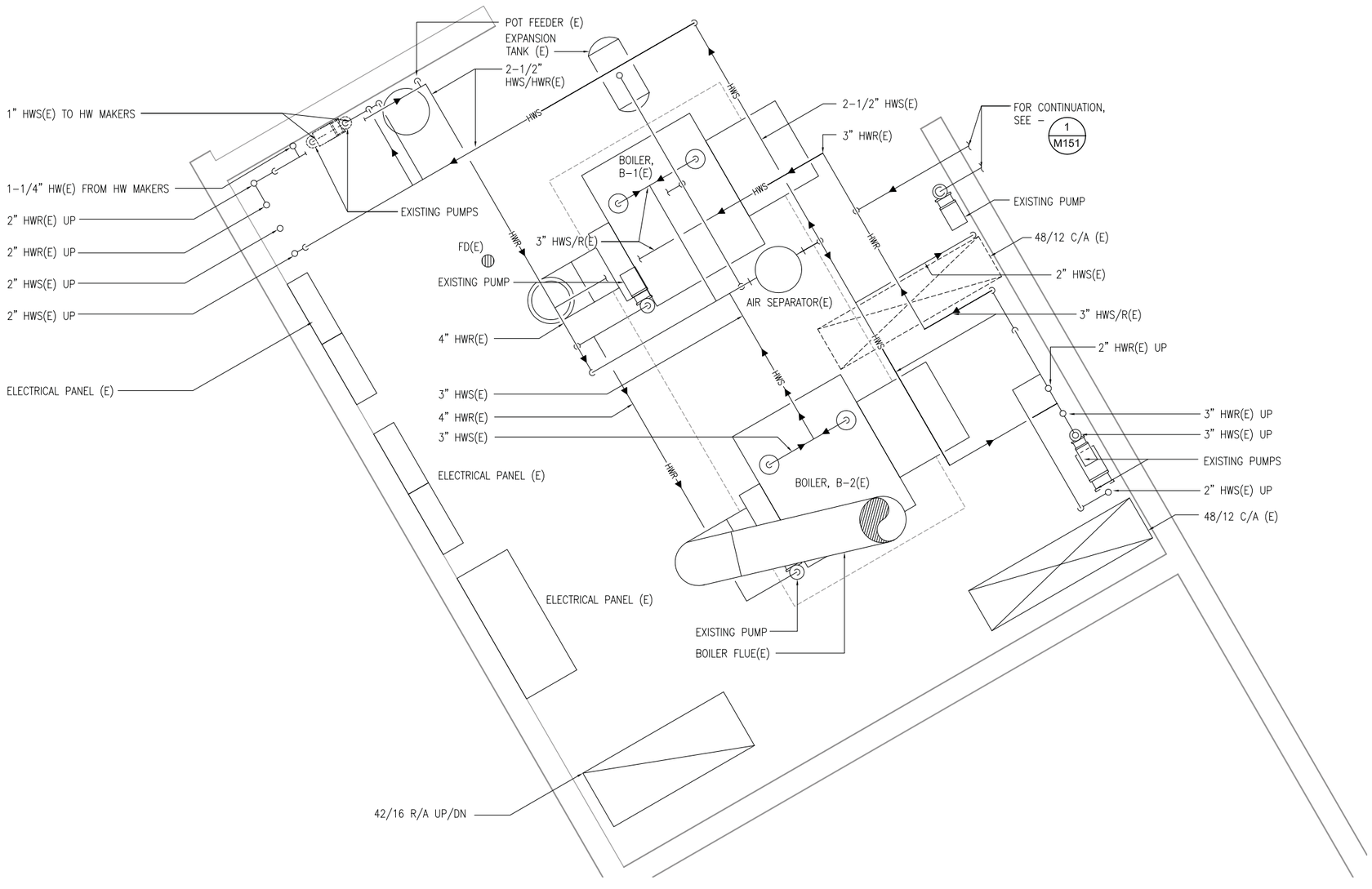
Web: www.rsaeng.com

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

LEVEL 1
FAN COIL VENTILATION PLAN AS-BUILT

SHEET NO.
M141

AS-BUILT



1 ENLARGED BOILER ROOM PLAN AS-BULT
3/4"-1'-0"

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

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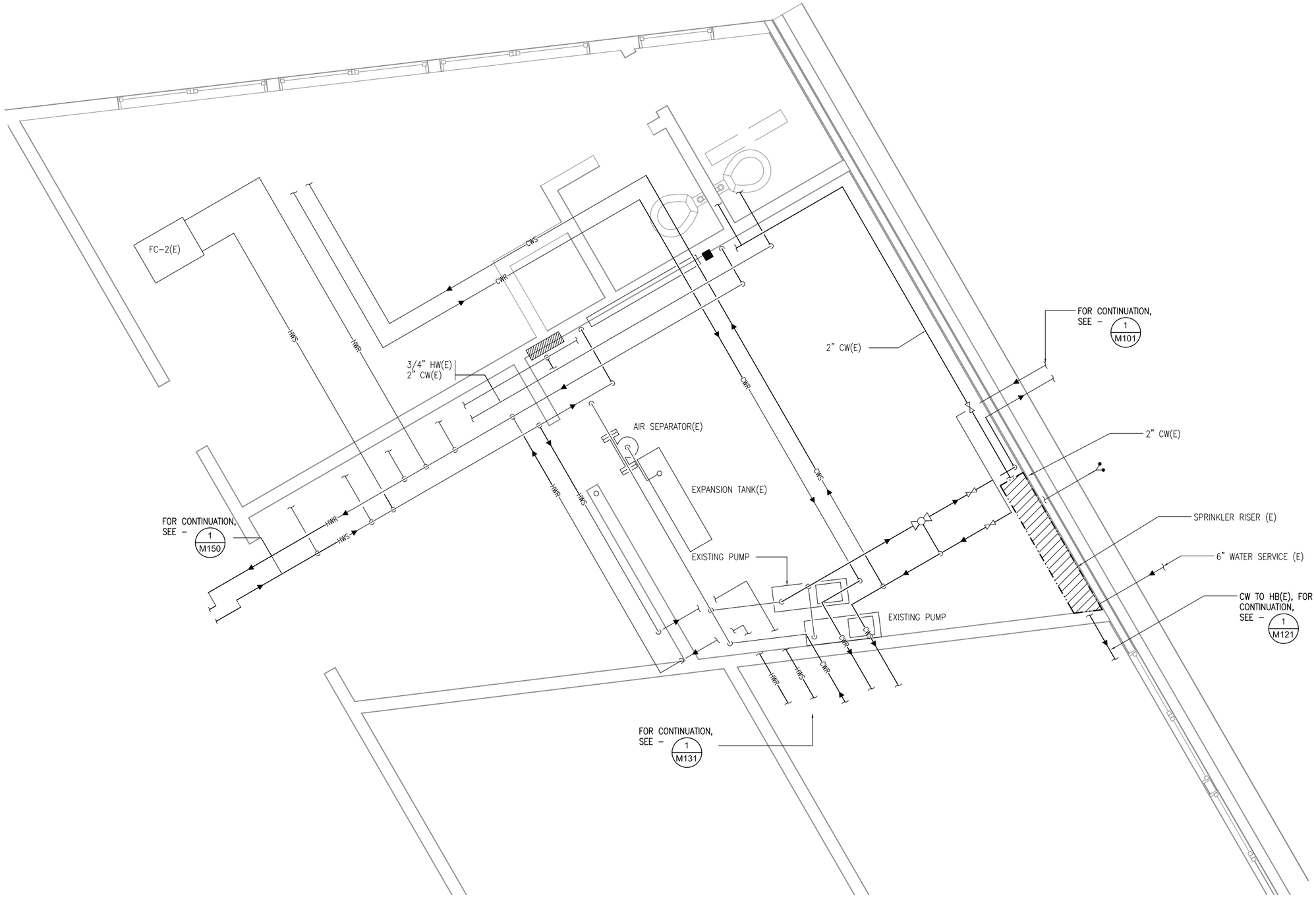
Anchorage, AK 99503-3686 Fax: (907) 562-1687

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

BOILER ROOM
ENLARGED PLAN AS-BUILT

SHEET NO.
M150

AS-BUILT



1 ENLARGED MECHANICAL ROOM PLAN AS-BULT
1/2"=1'-0"

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
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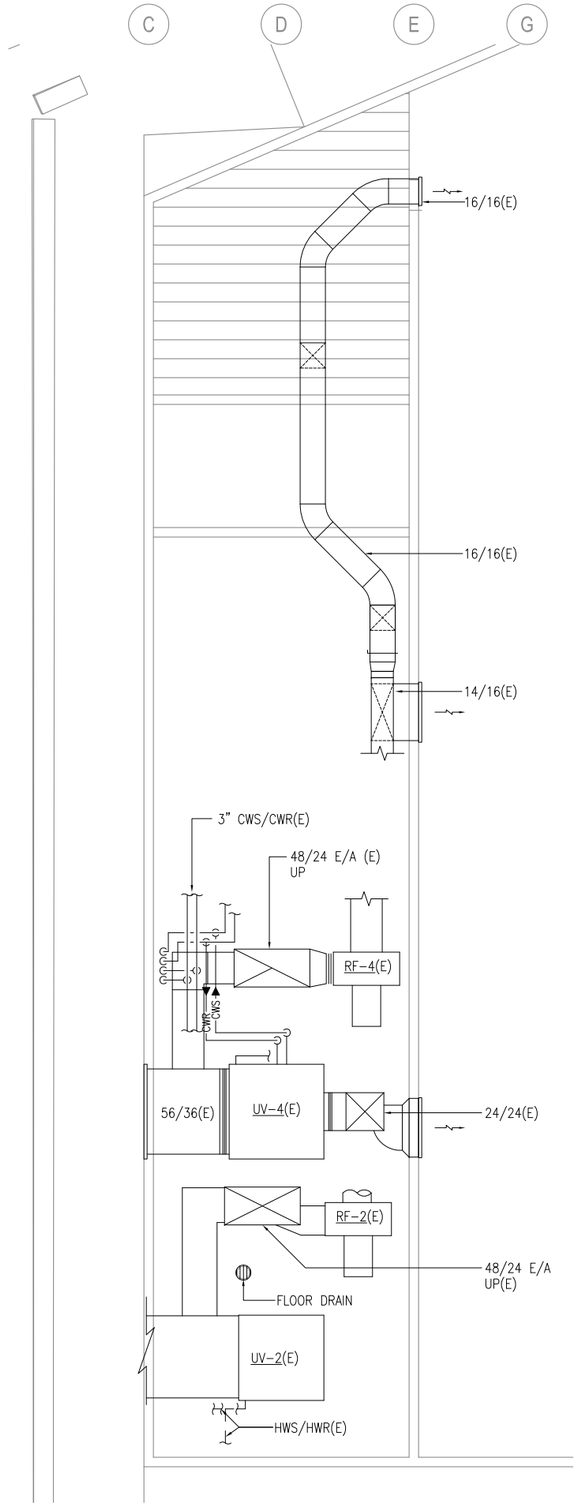
CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

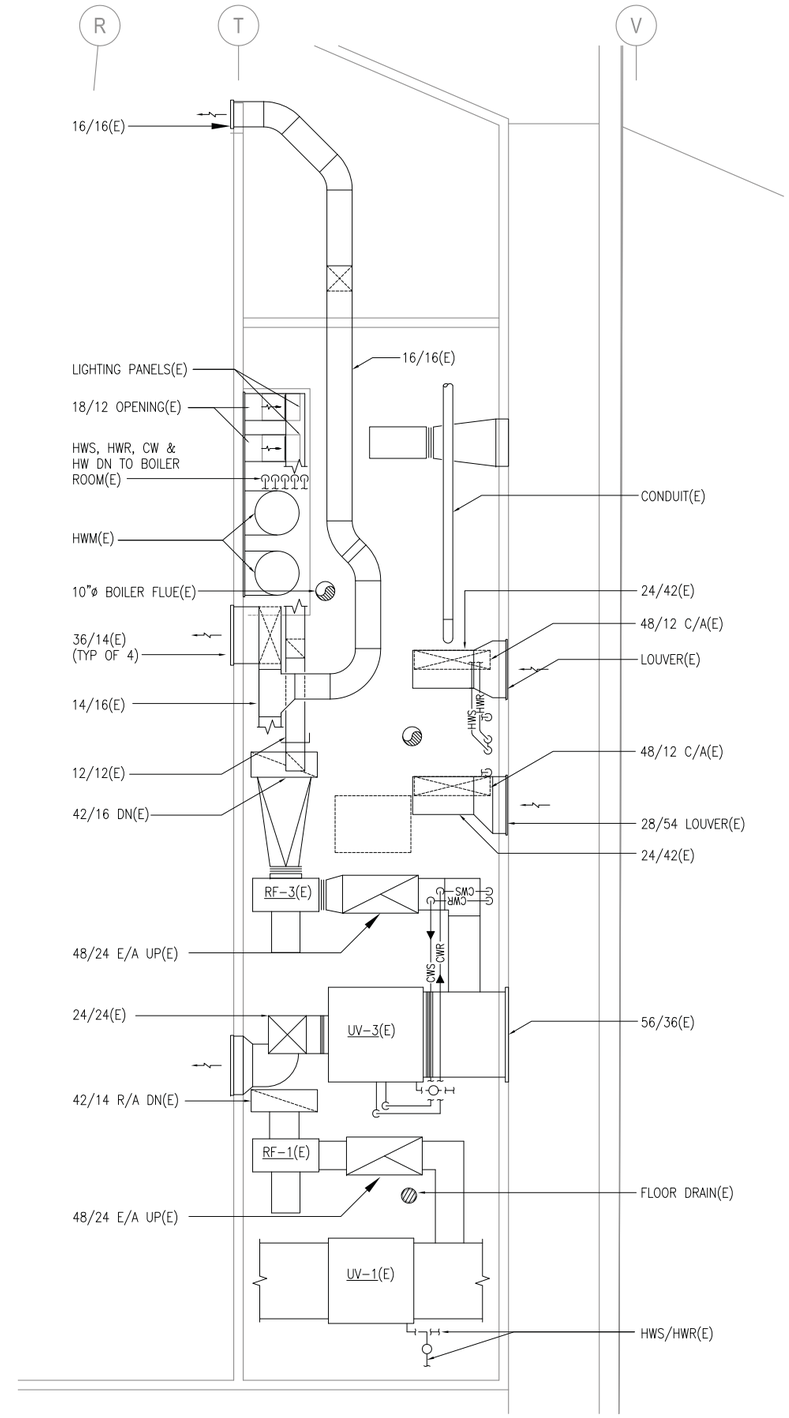
MECHANICAL ROOM ENLARGED PLAN AS-BUILT

SHEET NO.
M151

AS-BUILT



1 EAST FAN ROOM ENLARGED PLANS AS-BUILT
1/4"-1'-0"



2 WEST FAN ROOM ENLARGED PLANS AS-BUILT
1/4"-1'-0"

JOB NO.	L2179
PROJ. MGR.:	BPP
DRAWN BY:	EME
DATE:	10/26/2012
REVISIONS:	
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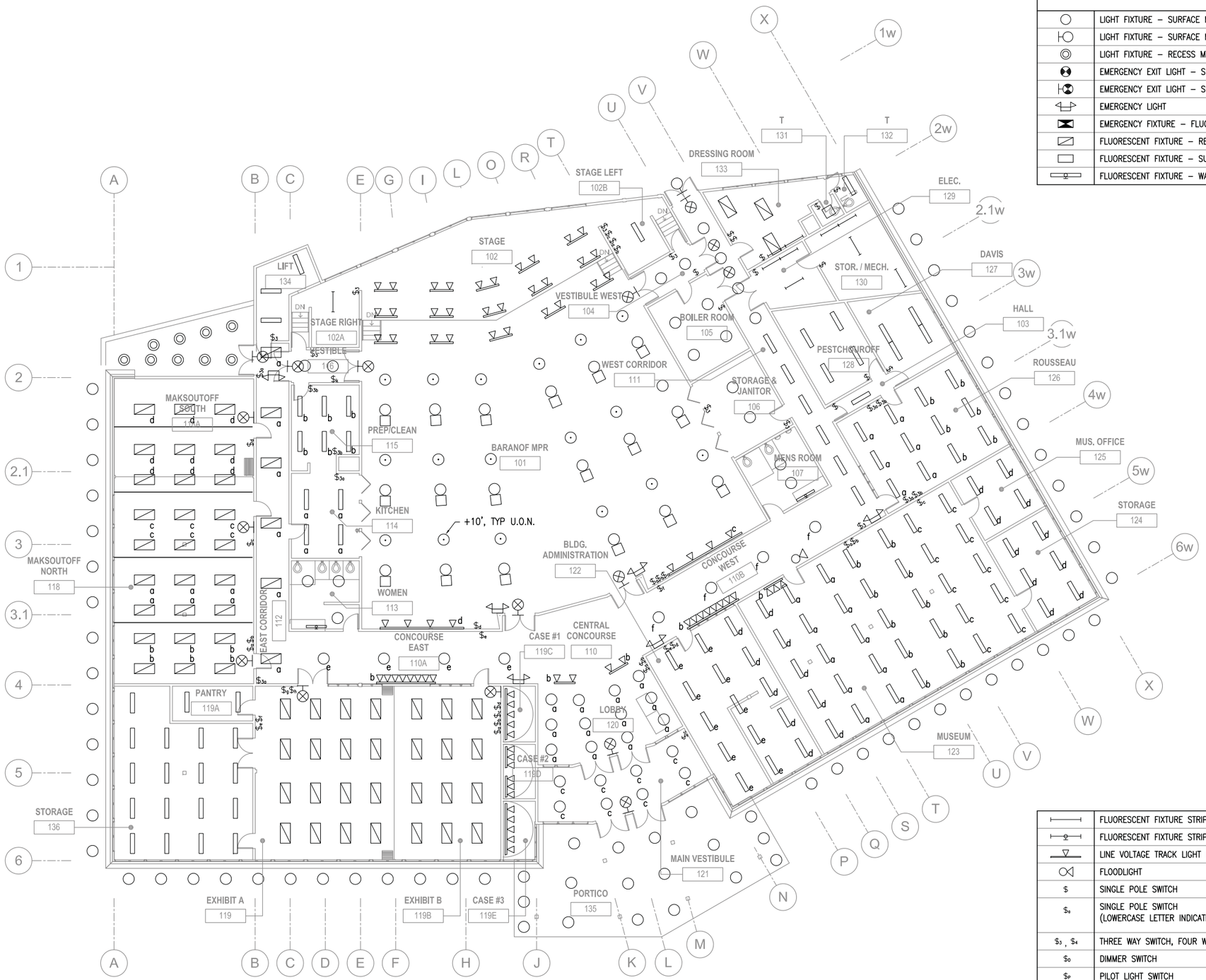
CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

FAN ROOM
ENLARGED PLANS AS-BUILT

SHEET NO.
M152

AS-BUILT



1 EXISTING LIGHTING PLAN
3/32"=1'-0"

LEGEND - EXISTING ELECTRICAL SYSTEM

	LIGHT FIXTURE – SURFACE MTD		EXISTING PANEL
	LIGHT FIXTURE – SURFACE MTD ON WALL		DUPLEX RECEPTACLE
	LIGHT FIXTURE – RECESS MTD		GFCI RECEPTACLE
	EMERGENCY EXIT LIGHT – SURFACE MTD CLG		QUADRAPLEX RECEPTACLE
	EMERGENCY EXIT LIGHT – SURFACE MTD WALL		SPECIAL PURPOSE OUTLET
	EMERGENCY LIGHT		RECEPTACLE FLOOR OUTLET – DUPLEX, QUAD
	EMERGENCY FIXTURE – FLUORESCENT		JUNCTION BOX
	FLUORESCENT FIXTURE – RECESS MTD		PUSHBUTTON
	FLUORESCENT FIXTURE – SURFACE MTD		MOTOR (SIZED AS NOTED)
	FLUORESCENT FIXTURE – WALL MTD	$f	FRACTIONAL HORSEPOWER MOTOR STARTER
			DISCONNECT SWITCH
			DISCONNECT SWITCH (FUSED)
			COMBINATION DISCONNECT/MAGNETIC MOTOR STARTER
			TELEPHONE OUTLET
			TELECOMMUNICATIONS OUTLET (TELEPHONE/DATA)
			TELECOMMUNICATIONS FLOOR OUTLET
			P.A. SPEAKER
		M	MICROPHONE OUTLET
		TV	TELEVISION OUTLET
		SCP	SECURITY CONTROL PANEL
		DC	DOOR POSITION CONTACT
		K	SECURITY KEYPAD
		MS	SECURITY MOTION SENSOR
		FCP	FIRE ALARM CONTROL PANEL
		FRA	FIRE ALARM REMOTE ANNUNCIATOR PANEL
			FIRE ALARM PULL STATION
			SPRINKLER ALARM BELL
			FIRE ALARM HORN (WALL, CLG MOUNTED)
			FIRE ALARM HORN/STROBE LIGHT (WALL, CLG MOUNTED)
			FIRE ALARM STROBE LIGHT (WALL, CLG MOUNTED)
			HEAT DETECTOR
			SMOKE DETECTOR
			DUCT TYPE SMOKE DETECTOR
		BT	BEAM DETECTOR (TRANSMITTER)
		BR	BEAM DETECTOR (RECEIVER)
		RTS	REMOTE TEST SWITCH
		M	MAGNETIC HOLD OPEN
		FS	SPRINKLER WATER FLOW SWITCH
		TS	SPRINKLER VALVE TAMPER SWITCH
		1	NOTE TAG (No. INDICATES NOTE)
		AFF	ABOVE FINISHED FLOOR
		AFG	ABOVE FINISHED GRADE
		C	CONDUIT
		CO	CONDUIT ONLY
		E	DENOTES EXISTING ITEM
		GFCI	GROUND FAULT CIRCUIT INTERRUPTER
	FLUORESCENT FIXTURE STRIP – SURFACE MTD CLG	GRSC	GALVANIZED RIGID STEEL CONDUIT
	FLUORESCENT FIXTURE STRIP – WALL MTD	HPS	HIGH PRESSURE SODIUM
	LINE VOLTAGE TRACK LIGHT FIXTURE	MCB	MAIN CIRCUIT BREAKER
	FLOODLIGHT	MH	METAL HALIDE
$	SINGLE POLE SWITCH	MLO	MAIN LUGS ONLY
$a	SINGLE POLE SWITCH (LOWERCASE LETTER INDICATES SWITCHING)	NEC	NATIONAL ELECTRICAL CODE
		NL	NIGHTLIGHT
$3 , $4	THREE WAY SWITCH, FOUR WAY SWITCH	TTB	TELEPHONE TERMINAL BACKBOARD
$D	DIMMER SWITCH	TYP	TYPICAL
$P	PILOT LIGHT SWITCH	UON	UNLESS OTHERWISE NOTED
P	PHOTOCELL	WP	WEATHERPROOF

JOB NO. L2179
PROJ. MGR.: RLW
DRAWN BY: MS
DATE: 10/26/2012
REVISIONS:
REVIEWED BY:

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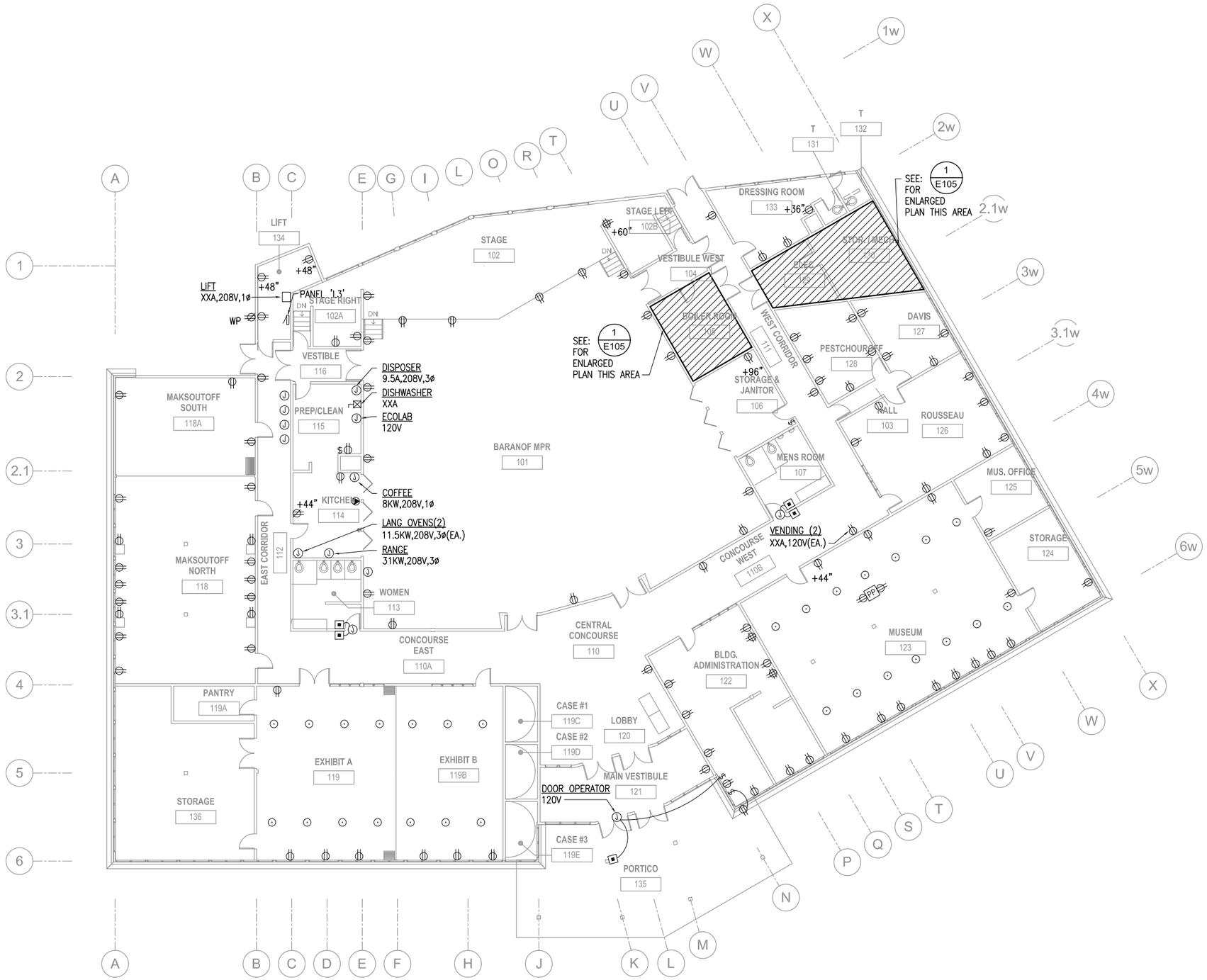
CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

EXISTING LIGHTING PLAN
XXX

SHEET NO.
E101

AS-BUILT



1 EXISTING POWER PLAN
3/32"-1'-0"

JOB NO.	L2179
PROJ. MGR.:	RLW
DRAWN BY:	MS
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	

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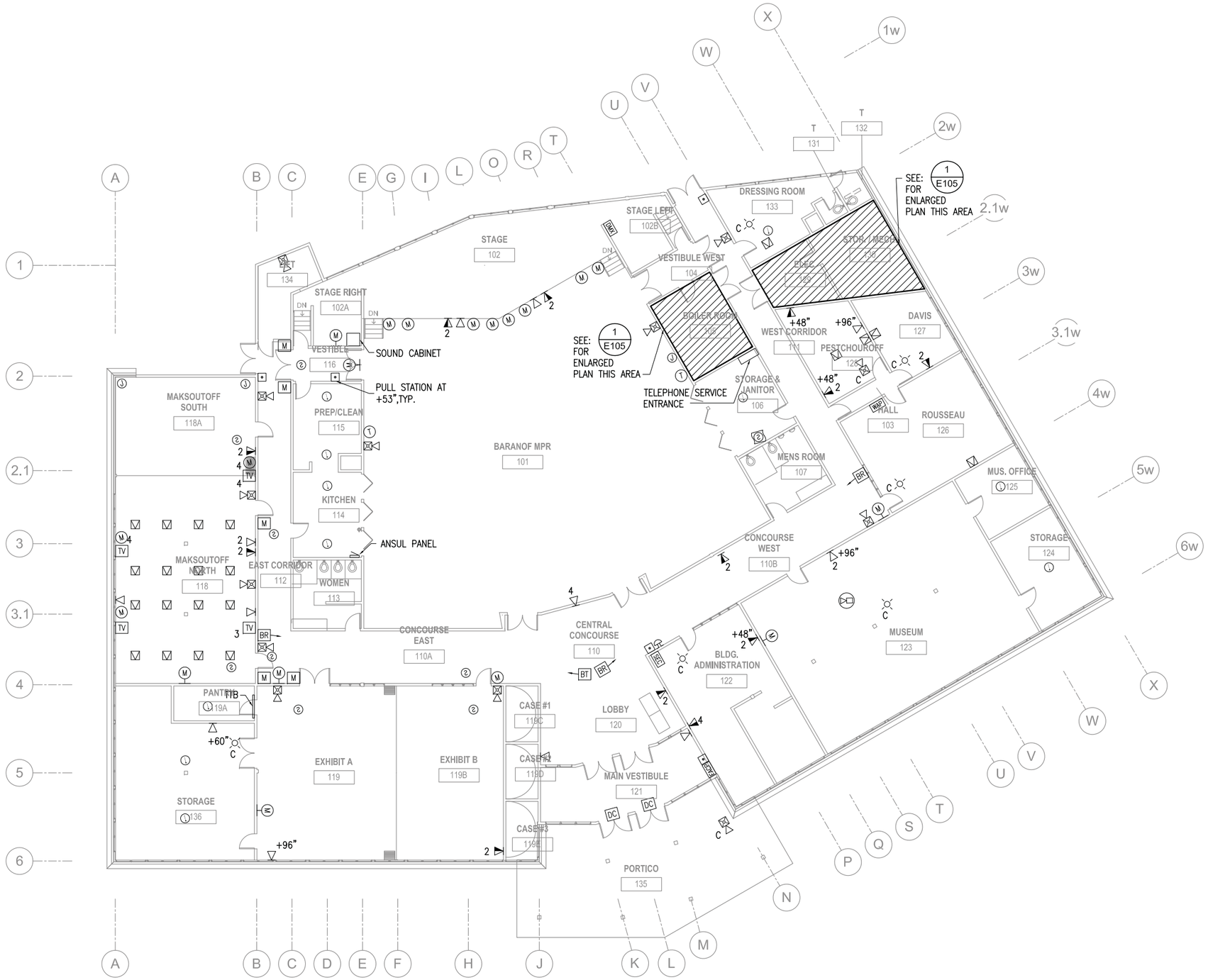
Anchorage, AK 99503-3991 Fax: (907) 561-0327

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

EXISTING POWER PLAN
XXX

AS-BUILT

SHEET NO.
E102



1 EXISTING SIGNAL PLAN
3/32"-1'-0"

AS-BUILT

SHEET NO.
E103

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA
EXISTING SIGNAL PLAN
XXX

JOB NO. L2179
PROJ. MGR.: RLW
DRAWN BY: MS
DATE: 10/26/2012
REVISIONS:
REVIEWED BY:

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ARCHITECTURE, INTERIOR DESIGN, SPACE PLANNING
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MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
2930 Eagle Drive, Suite 101, Anchorage, AK 99503
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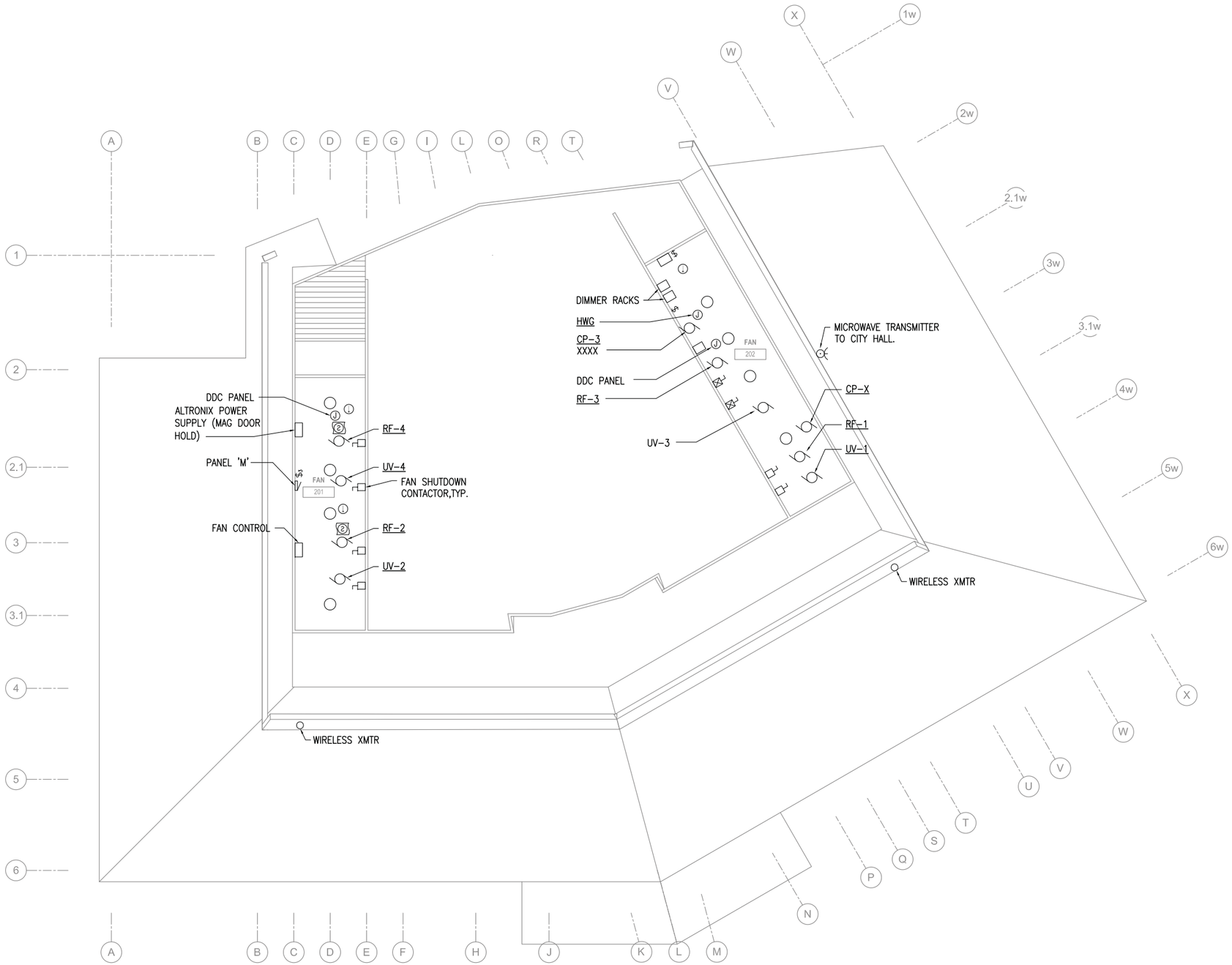

1 EXISTING MEZZANINE AND LOWER ROOF ELECTRICAL PLAN
3/32"-1'-0"

AS-BUILT

SHEET NO.
E104

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA
EXISTING SECOND FLOOR PLAN

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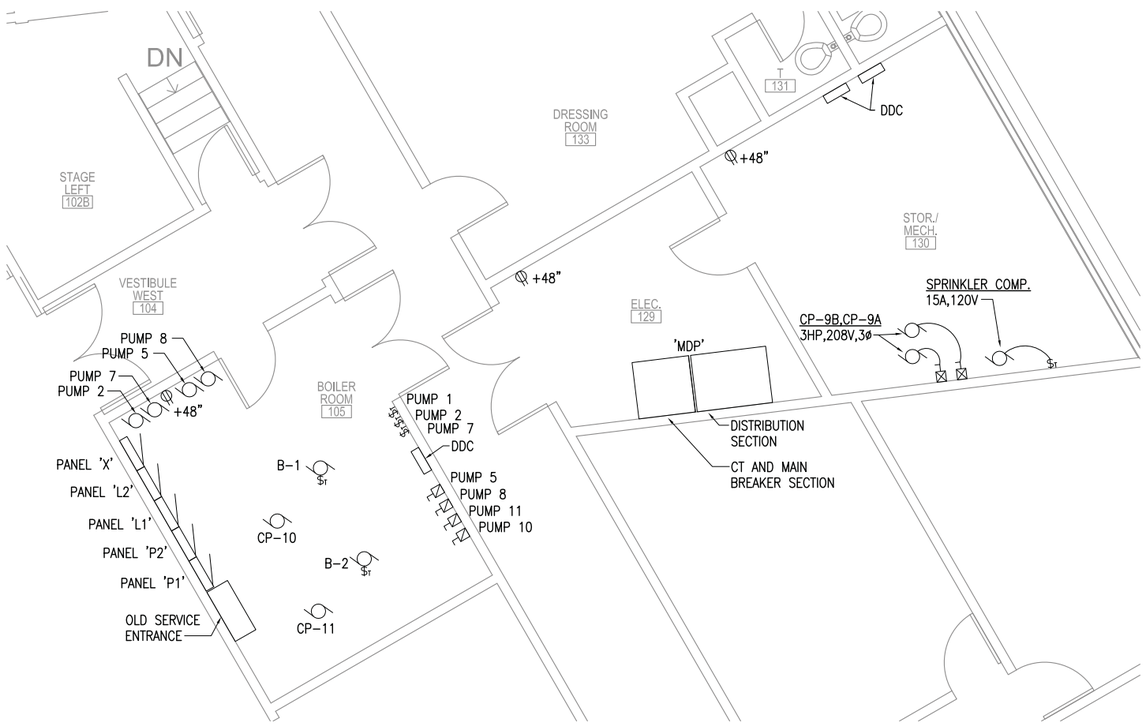
2232 Eagle Ridge Dr. Suite 2-101
Anchorage, AK 99503-7577 (907) 337-1287

JOB NO.	L2179
PROJ. MGR.:	RLW
DRAWN BY:	MS
DATE:	10/26/2012
REVISIONS:	
REVIEWED BY:	



1 EXISTING ENLARGED POWER & SIGNAL PLAN - BOILER & MECHANICAL ROOM
1/4"=1'-0"

JOB NO.	L2179
PROJ. MGR.:	RLW
DRAWN BY:	MS
DATE:	10/26/2012
REVISIONS:	

REVIEWED BY:

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ARCHITECTURE, INTERIOR DESIGN, SPACE PLANNING
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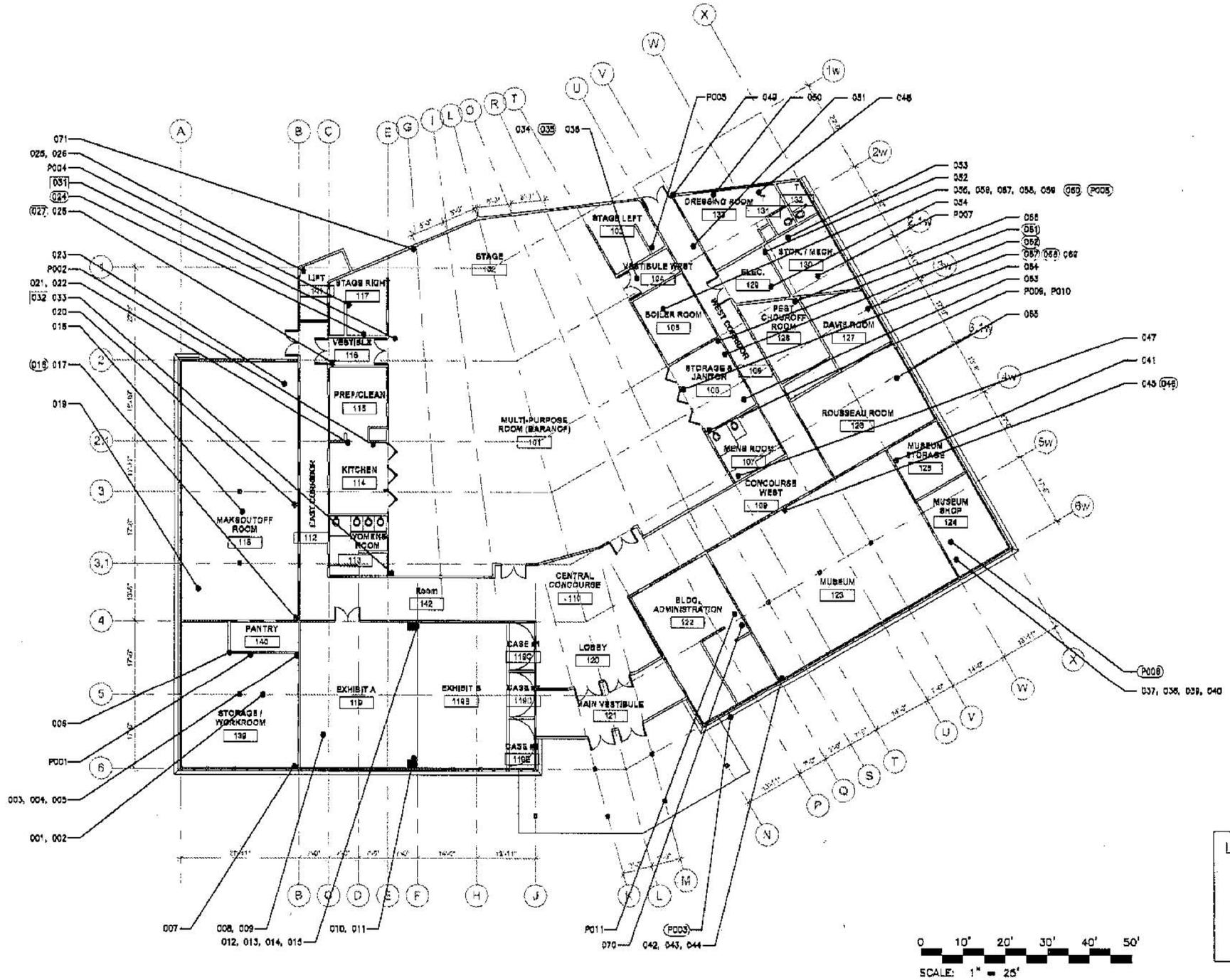
Anchorage, AK 99503 (907) 276-0541
Fax (907) 276-2537

CENTENNIAL HALL RENOVATIONS
SITKA, ALASKA

EXISTING ENLARGED POWER & SIGNAL PLAN
BOILER & MECHANICAL ROOM

SHEET NO.
E105

AS-BUILT



WHITE ENVIRONMENTAL CONSULTANTS INC.

701 I Street Suite 201 Anchorage, Alaska 99501 Phone (907) 258-5551 Fax (907) 258-5563
1241 Kenicott Avenue Fairbanks, Alaska 99701 Phone / Fax (907) 458-3263

HARRIGAN CENTENNIAL HALL

PROJECT NO. 12C5LT-210	CHECKED: MATT WHITE	JOB No. 12C5LT-210
EPA ACCREDITED PROJECT DESIGNER BRETT O'BRAY	SCALE: AS SHOWN	DATE: 11/05/12
DRAWN: MATTHEW DOERKSEN	DWG. TITLE: HARRIGAN CENTENNIAL HALL	1 of 2

APPENDIX A
Facility Assessment Cost Estimate

Harrigan Centennial Hall Renewal
City and Borough of Sitka
Sitka, Alaska

Construction Cost Estimate
Needs Assessment
October 25, 2012

ESTIMATIONS
1225 E. International Airport Road, Suite 205
Anchorage, Alaska 99518
907.561.0790

Prepared for:
McCool Carlson Green
421 West First Avenue, Suite
Anchorage, Alaska 99501
907.563.8474

Harrigan Centennial Hall Renewal
City and Borough of Sitka
Prepared for McCool Carlson Green by Estimations

Construction Cost Estimate
Needs Assessment
October 25, 2012

Description	Estimated Cost	Estimated Cost Plus Contingency & Escalation
Architectural		
A1 Roof Replacement	$405,208	$482,299
A2 Exterior Wall Insulation	$101,530	$120,846
A3 Clerestory Windows (North)	$202,292	$240,778
A4 Reduce Clerestory - See S7	$0	$0
A5 Replace Doors	$32,340	$38,493
A6 Push Button Operators	$7,781	$9,261
A7 Add Vestibule at The SE Entrance	$117,086	$139,362
A8 Interior ADA Hardware	$47,217	$56,200
A9 Add Toilet Rooms	$375,207	$446,590
A10 Replace Toilet Rooms	$99,531	$118,467
A11 Relocate Curtain	$19,386	$23,074
A12 Replace Panic Hardware - See A8	$0	$0
A13 Museum Door	$10,275	$12,230
A14 Exhibit 119 Door Hardware - See A8	$0	$0
A15 Interior Doors	$63,459	$75,532
A16 Flooring	$203,471	$242,181
A17 Suspended Ceilings	$102,080	$121,501
A18 Fire Extinguishers	$3,166	$3,768
A19 Ladders	$3,651	$4,346
A20 Whiteboards	$6,994	$8,325
A21 Add Storage	$286,323	$340,796
A22 Seating	$126,018	$149,993
A23 Furniture	$287,280	$341,935
A24 AV Booth	$68,284	$81,275
A25 Allowance For Phasing	$371,070	$441,666

Harrigan Centennial Hall Renewal
City and Borough of Sitka
Prepared for McCool Carlson Green by Estimations

Construction Cost Estimate
Needs Assessment
October 25, 2012

Description	Estimated Cost	Estimated Cost Plus Contingency & Escalation
Structural		
S1 Retrofit GLB Girders	$52,038	$61,938
S2 Replace Low Roof Framing	$222,547	$264,887
S3 Replace Low Roof Girders	$19,934	$23,726
S4 Replace Exterior Columns	$63,783	$75,918
S5 Add Plywood To Plank Decking	$54,383	$64,729
S6 Improve Shearwalls	$22,907	$27,265
S7 Replace Strip Windows With Shear Panels	$32,311	$38,458
Mechanical		
M1 Sprinkler System	$254,320	$302,704
M2 Domestic Water	$4,664	$5,551
M3 Plumbing Piping	$45,780	$54,490
M4 Heating System	$334,463	$398,095
M5 Building Ventilation System	$543,394	$646,775
M6 Kitchen Ventilation	$37,406	$44,522
M7 Cooling System - See M4	$0	$0
M8 Controls Upgrades	$41,895	$49,866
M9 Stage Smoke Ventilation	$17,955	$21,371
M10 Backup Heating System	$88,298	$105,097
M11 Replace Water Heaters	$19,911	$23,699
Acoustics		
AC1 Vestibules at Lobby - See A24	$0	$0
AC2 Mechanical System Noise	$13,148	$15,649
AC3 Projection Booth - See A24	$0	$0

Description	Estimated Cost	Estimated Cost Plus Contingency & Escalation
Electrical		
E1 Replace Branch Panels	$25,732	$30,628
E2 Convenience Receptacles	$66,313	$78,929
E3 Interior Lighting - General	$174,268	$207,422
E4 Interior Lighting – MPR	$88,316	$105,118
E5 Exterior Building Lighting	$47,808	$56,903
E6 Emergency and Exit Lighting	$13,032	$15,511
E7 Lighting Controls - General	$25,595	$30,464
E8 Fire Alarm	$136,658	$162,657
E9 Telecommunications	$58,780	$69,963
Audio Visual		
AV1 Speakers In The MPR	$118,922	$141,547
AV2 Floor Boxes	$15,404	$18,335
AV3 Audio Mixing - See A24	$0	$0
AV4 Sound System Head-end	$29,915	$35,606
AV5 MPR Screen	$32,199	$38,325
AV6 Maksoutoff Ceiling Speakers	$83,163	$98,985
AV7 MPR and Meeting Room Assistive Listening	$59,850	$71,236
AV8 Outdated Equipment	$33,348	$39,692
AV9 Small Meeting Rooms AV	$28,652	$34,103
AV10 Green Room	$10,792	$12,845
AV11 Paging System	$24,096	$28,680

Harrigan Centennial Hall Renewal
City and Borough of Sitka
Prepared for McCool Carlson Green by Estimations

Construction Cost Estimate
Needs Assessment
October 25, 2012

Description	Estimated Cost	Estimated Cost Plus Contingency & Escalation
Stage Lighting		
ST1 Dimming System	$29,925	$35,618
ST2 Stage Lighting Control Console	$59,850	$71,236
ST3 Stage Curtains	$100,639	$119,786
Food Service		
F1 Additional Area	$289,092	$344,092
F2 Food Service Equipment	$345,895	$411,702
Hazardous Materials		
H1 Joint Compound (ACM)	$268,436	$319,506
H2 MPR Floor (ACM)	$37,111	$44,171
H3 Abate Adhesive In Wainscot	$35,910	$42,742
Total Estimated Cost - Basic Bid:	**$7,048,487**	**$8,389,462**

Estimating Contingency:				15.0%
Escalation For Inflation: (2013 Costs)	12 Mths	@	3.5%	3.5%

Documents

Needs Assessment Submittal
As-Builts, Deficiency Report, Narrative

Notes and Assumptions

1. Based on 2014 procurement/2014 construction.
2. Labor rates based on Davis Bacon, 50 hours/week.
3. Weather, logistics and construction time window has been considered.
4. Assumes open competitive bid procurement.
5. Materials storage area will be designated near the building.
6. Local contractor with limited room and board.

Harrigan Centennial Hall Renewal

City and Borough of Sitka
Prepared for McCool Carlson Green by Estimations

Construction Cost Estimate

Needs Assessment
October 25, 2012

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
1											
2	**A1 Roof Replacement**										
3											
4	Demo Roofing, Assume ACM	22,442	SF	$0.15	$3,366	0.030	673.3	$44,709	$3,366	$51,441	$67,733
5	New Parapets	945	LF	$24.25	$22,916	0.270	255.2	$19,132		$42,048	$50,331
6											
7	**Membrane Roofing**	**22,442**	**SF**								
8	Tapered Insulation, 1/4" Per Foot	14,026	BF	$0.55	$7,714	0.003	42.1	$2,778		$10,492	$13,815
9	Vapor Retarder, 10 Mil V.Q	22,442	SF	$0.06	$1,347	0.006	134.7	$8,889		$10,236	$13,478
10	Gypsum Sheathing, 1/2"	22,442	SF	$0.65	$14,587	0.008	179.5	$11,845		$26,432	$34,803
11	EPDM Membrane, Fully Adhered	23,342	SF	$1.20	$28,010	0.019	443.5	$29,267		$57,277	$75,417
12	Rigid Insulation, 6" EPS	134,652	BF	$0.58	$78,098	0.004	538.6	$35,543		$113,641	$149,631
13											
14											
15	**Subtotal: A1 Roof Replacement**				$156,038		2,266.9	$152,163	$3,366	$311,567	**$405,208**
16											
17											
18											
19	**A2 Exterior Wall Insulation**										
20											
21	Demo GWB at Ext Wall	6,100	SF			0.013	79.3	$5,266		$5,266	$6,934
22	Rmv Batt Insulation	6,100	SF			0.003	18.3	$1,218		$1,218	$1,604
23	Spray Foam Insulation	6,100	SF	$6.50	$39,650					$39,650	$52,207
24	6Mil Vapor Retarder	6,100	SF	$0.10	$610	0.006	36.6	$2,437		$3,047	$4,012
25	GWB	6,100	SF	$0.45	$2,745	0.031	189.1	$12,591		$15,336	$20,193
26	Tape & Paint	6,100	SF	$0.15	$915	0.021	128.1	$8,529		$9,444	$12,435
27	Allow For Remove/Replace Wall Appurtences	6,100	SF	$0.05	$305	0.007	42.7	$2,843		$3,148	$4,145
28											
29											
30											
31	**Subtotal: A2 Exterior Wall Insulation**				$44,225		494.1	$32,884		$77,109	**$101,530**
32											
33											
34											
35	**A3 Clerestory Windows (North)**										
36											
37	Demo Glazing (80%)	514	SF			0.286	147.1	$11,028		$11,028	$13,201
38	New Channel Glass Glazing System (80%)	643	SF	$120.00	$77,160					$77,160	$92,361
39	Modify Mansard Roofing	1,300	SF	$30.00	$39,000	0.429	557.7	$41,810		$80,810	$96,730
40											
41											
42	**Subtotal: A3 Clerestory Windows (North)**				$116,160		704.8	$52,838		$168,998	**$202,292**
43											
44											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
45											
46	**A4 Reduce Clerestory - See S7**										
47											
48											
49											
50	**Subtotal: A4 Reduce Clerestory - See S7**										
51											
52											
53											
54	**A5 Replace Doors**										
55											
56	Demo Doors	7	PR			4.000	28.0	$2,099		$2,099	$2,513
57	New Wood and Glass 9'H Dbl Entrance Doors	7	PR	$2,960.00	$20,720	8.000	56.0	$4,198		$24,918	$29,827
58											
59											
60	**Subtotal: A5 Replace Doors**				$20,720		84.0	$6,297		$27,017	**$32,340**
61											
62											
63											
64	**A6 Push Button Operators**	1	EA	$6,500.00	$6,500					$6,500	$7,781
65											
66											
67											
68	**Subtotal: A6 Push Button Operators**				$6,500					$6,500	**$7,781**
69											
70											
71											
72	**A7 Add Vestibule at The SE Entrance**										
73											
74	Foundations	60	LF	$88.00	$5,280	2.143	128.6	$9,641	$180	$15,101	$18,076
75	Slab	200	SF	$3.13	$626	0.054	10.8	$810		$1,436	$1,719
76	Roof Structure	260	SF	$15.00	$3,900	0.400	104.0	$7,797		$11,697	$14,001
77	Exterior Wall	720	SF	$27.25	$19,620	0.263	189.4	$14,199		$33,819	$40,481
78	Roofing	300	SF	$11.60	$3,480	0.229	68.7	$4,534		$8,014	$10,552
79											
80	New Double Wood & Glass Doors	2	PR	$2,960.00	$5,920	8.000	16.0	$1,065		$6,985	$9,197
81	New Light Fixture	2	EA	$285.00	$570	5.071	10.1	$807		$1,377	$2,060
82	HVAC	200	SF	$25.00	$5,000	0.429	85.8	$6,764		$11,764	$17,602
83	Flooring, Walk-Off Carpet	200	SF	$9.00	$1,800	0.057	11.4	$781		$2,581	$3,398
84											
85											
86											
87	**Subtotal: A7 Add Vestibule at The SE Entrance**				$46,196		624.8	$46,398	$180	$92,774	**$117,086**
88											
89											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
90											
91	**A8 Interior ADA Hardware**										
92											
93	Remove Hardware	42	LV			1.000	42.0	$3,149		$3,149	$3,769
94	Int Door Hardware, Single Door	26	SETS	$800.00	$20,800	2.000	52.0	$3,898		$24,698	$29,564
95	Int Door Hardware, Double Door	8	SETS	$1,150.00	$9,200	4.000	32.0	$2,399		$11,599	$13,884
96											
97											
98											
99											
100											
101											
102											
103	**Subtotal: A8 Interior ADA Hardware**				$30,000		126.0	$9,446		$39,446	**$47,217**
104											
105											
106											
107	**A9 Add Toilet Rooms**										
108											
109	Foundations	70	LF	$88.00	$6,160	2.143	150.0	$11,245	$210	$17,615	$21,085
110	Slab	600	SF	$3.13	$1,878	0.054	32.4	$2,429		$4,307	$5,155
111	Roof Structure	740	SF	$15.00	$11,100	0.400	296.0	$22,191		$33,291	$39,849
112	Exterior Wall	840	SF	$27.25	$22,890	0.263	220.9	$16,561		$39,451	$47,223
113	Roofing	740	SF	$11.60	$8,584	0.229	169.5	$11,185		$19,769	$26,030
114	Flooring	600	SF	$5.00	$3,000	0.107	64.2	$4,275		$7,275	$9,579
115	Ceilings	600	SF	$3.50	$2,100	0.029	17.4	$1,159		$3,259	$4,291
116	Wall Finishes	160	SF	$5.00	$800	0.107	17.1	$1,139		$1,939	$2,553
117	Doors	2	EA	$1,250.00	$2,500	6.000	12.0	$900		$3,400	$4,070
118	Partitions	500	SF	$2.90	$1,450	0.127	63.5	$4,761		$6,211	$8,178
119	Toilet Fixtures Complete	21	EA	$1,500.00	$31,500	40.000	840.0	$66,219		$97,719	$146,212
120	HVAC	600	SF	$25.00	$15,000	0.429	257.4	$20,231		$35,231	$52,714
121	Lighting	8	EA	$285.00	$2,280	5.071	40.6	$3,246		$5,526	$8,268
122											
123											
124											
125											
126											
127											
128											
129											
130											
131											
132	**Subtotal: A9 Add Toilet Rooms**				$109,242		2,181.0	$165,541	$210	$274,993	**$375,207**
133											
134											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
135											
136	**A10 Replace Toilet Rooms**										
137											
138	Demolition	140	LF	$88.00	$12,320	2.143	300.0	$22,491	$420	$35,231	$42,172
139	Flooring	140	SF	$5.00	$700	0.107	15.0	$999		$1,699	$2,237
140	Ceilings	140	SF	$3.50	$490	0.029	4.1	$273		$763	$1,005
141	Wall Finishes	544	SF	$5.00	$2,720	0.107	58.2	$3,875		$6,595	$8,684
142	Doors	2	EA	$1,250.00	$2,500	6.000	12.0	$900		$3,400	$4,070
143	Partitions	680	SF	$2.90	$1,972	0.127	86.4	$6,477		$8,449	$11,125
144	Toilet Fixtures Complete	4	EA	$1,500.00	$6,000	40.000	160.0	$12,613		$18,613	$27,850
145	Exhaust	140	SF	$1.00	$140	0.007	1.0	$79		$219	$328
146	Lighting	2	EA	$285.00	$570	5.071	10.1	$807		$1,377	$2,060
147											
148											
149	**Subtotal: A10 Replace Toilet Rooms**				$27,412		646.8	$48,514	$420	$76,346	**$99,531**
150											
151											
152											
153	**A11 Relocate Curtain**										
154											
155	Demolition	1	LS			40.000	40.0	$2,999		$2,999	$3,590
156	Relocate Curtain	1	LS	$500.00	$500	60.000	60.0	$4,498		$4,998	$5,983
157	Partitions	600	SF	$2.90	$1,740	0.127	76.2	$5,713		$7,453	$9,813
158											
159											
160	**Subtotal: A11 Relocate Curtain**				$2,240		176.2	$13,210		$15,450	**$19,386**
161											
162											
163											
164	**A12 Replace Panic Hardware - See A8**										
165											
166	**Subtotal: A12 Replace Panic Hardware - See A8**										
167											
168											
169											
170	**A13 Museum Door**										
171											
172	Demo Door & Wall Adjacent	2	EA			8.000	16.0	$1,200		$1,200	$1,436
173	Partitions	160	SF	$2.90	$464	0.127	20.3	$1,522		$1,986	$2,615
174	Door, Frame and Hardware, Panic	2	EA	$2,150.00	$4,300	6.000	12.0	$900		$5,200	$6,224
175											
176											
177	**Subtotal: A13 Museum Door**				$4,764		48.3	$3,622		$8,386	**$10,275**
178											
179											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
180											
181	**A14 Exhibit 119 Door Hardware - See A8**										
182											
183											
184	**Subtotal: A14 Exhibit 119 Door Hardware - See A8**										
185											
186											
187											
188	**A15 Interior Doors**										
189											
190	Demo Doors	42	LV			1.500	63.0	$4,723		$4,723	$5,653
191	New Doors 8'H	42	LV	$700.00	$29,400	6.000	252.0	$18,892		$48,292	$57,806
192	See A8 For Door Hardware										
193											
194											
195											
196											
197	**Subtotal: A15 Interior Doors**				$29,400		315.0	$23,615		$53,015	**$63,459**
198											
199											
200											
201	**A16 Flooring**										
202											
203	Demo Flooring	20,038	SF			0.014	280.5	$18,677		$18,677	$24,592
204	Flooring, Carpet Or Sheet Goods	19,193	SF	$4.40	$84,449	0.029	556.6	$37,060		$121,509	$159,991
205	Tile	845	SF	$5.00	$4,225	0.107	90.4	$6,019		$10,244	$13,488
206	Walk-Off Carpet	375	SF	$9.00	$3,375	0.029	10.9	$726		$4,101	$5,400
207											
208											
209											
210											
211	**Subtotal: A16 Flooring**				$92,049		938.4	$62,482		$154,531	**$203,471**
212											
213											
214											
215	**A17 Suspended Ceilings**										
216											
217	Demo Ceilings	13,000	SF			0.013	169.0	$11,253		$11,253	$14,817
218	New Ceilings	13,000	SF	$3.50	$45,500	0.024	312.0	$20,774		$66,274	$87,263
219											
220											
221											
222	**Subtotal: A17 Suspended Ceilings**				$45,500		481.0	$32,027		$77,527	**$102,080**
223											
224											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
225											
226	**A18 Fire Extinguishers**										
227											
228	FEC	6	EA	$250.00	$1,500	2.000	12.0	$900		$2,400	$2,873
229	FE Wall Mtd	2	EA	$85.00	$170	0.500	1.0	$75		$245	$293
230											
231	**Subtotal: A18 Fire Extinguishers**				$1,670		13.0	$975		$2,645	**$3,166**
232											
233											
234											
235	**A19 Ladders**										
236											
237	New Ladder	1	EA	$900.00	$900	6.000	6.0	$450		$1,350	$1,616
238	New Access Hatch	1	EA	$500.00	$500	16.000	16.0	$1,200		$1,700	$2,035
239											
240											
241	**Subtotal: A19 Ladders**				$1,400		22.0	$1,650		$3,050	**$3,651**
242											
243											
244											
245	**A20 Whiteboards**										
246											
247	Whiteboards	4	EA	$768.00	$3,072	1.829	7.3	$546		$3,618	$4,331
248	Tack Strips	240	LF	$5.00	$1,200	0.057	13.7	$1,025		$2,225	$2,663
249											
250	**Subtotal: A20 Whiteboards**				$4,272		21.0	$1,571		$5,843	**$6,994**
251											
252											
253											
254	**A21 Add Storage**										
255											
256	Foundations	95	LF	$88.00	$8,360	2.143	203.6	$15,264	$285	$23,909	$28,619
257	Slab	1,000	SF	$3.13	$3,130	0.054	54.0	$4,048		$7,178	$8,592
258	Roof Structure	1,190	SF	$15.00	$17,850	0.400	476.0	$35,685		$53,535	$64,081
259	Exterior Wall	1,140	SF	$27.25	$31,065	0.263	299.8	$22,476		$53,541	$64,089
260	Roofing	1,190	SF	$11.60	$13,804	0.229	272.5	$17,983		$31,787	$41,854
261	Flooring	600	SF	$0.35	$210	0.010	6.0	$399		$609	$802
262	Wall Finishes	160	SF	$0.15	$24	0.020	3.2	$213		$237	$312
263	Doors	2	LV	$1,250.00	$2,500	4.000	8.0	$600		$3,100	$3,711
264	HVAC	1,000	SF	$15.00	$15,000	0.343	343.0	$26,959		$41,959	$62,781
265	Lighting	13	EA	$185.00	$2,405	5.071	65.9	$5,269		$7,674	$11,482
266											
267	**Subtotal: A21 Add Storage**				$94,348		1,732.0	$128,896	$285	$223,529	**$286,323**
268											
269											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
270											
271	**A22 Seating**										
272											
273	Stadium Seating	200	EA	$125.00	$25,000	0.429	85.8	$5,713		$30,713	$40,440
274	Upholstered Folding Chairs	300	EA	$200.00	$60,000	0.250	75.0	$4,994		$64,994	$85,578
275											
276											
277	**Subtotal: A22 Seating**				$85,000		160.8	$10,707		$95,707	**$126,018**
278											
279											
280											
281	**A23 Furniture**										
282											
283	Allowance For Furniture	20,000	SF	$12.00	$240,000					$240,000	$287,280
284											
285											
286	**Subtotal: A23 Furniture**				$240,000					$240,000	**$287,280**
287											
288											
289											
290	**A24 AV Booth**										
291											
292	Demolition	1	LS			40.000	40.0	$2,999	$3	$3,002	$3,593
293	Flooring	300	SF	$5.00	$1,500	0.107	32.1	$2,137		$3,637	$4,789
294	Ceilings	300	SF	$3.50	$1,050	0.029	8.7	$579		$1,629	$2,145
295	Wall Finishes	560	SF	$5.00	$2,800	0.107	59.9	$3,988		$6,788	$8,938
296	Doors	2	EA	$1,250.00	$2,500	6.000	12.0	$900		$3,400	$4,070
297	Partitions	700	SF	$2.90	$2,030	0.127	88.9	$6,665		$8,695	$11,449
298	HVAC	300	SF	$18.00	$5,400	0.200	60.0	$4,716		$10,116	$15,136
299	Lighting	6	EA	$285.00	$1,710	5.071	30.4	$2,430		$4,140	$6,194
300	Electrical	1	LS	$10,000.00	$10,000					$10,000	$11,970
301											
302											
303	**Subtotal: A24 AV Booth**				$26,990		332.0	$24,414	$3	$51,407	**$68,284**
304											
305											
306											
307	**A25 Allowance For Phasing**										
308											
309	Phasing	1	LS	$310,000.00	$310,000					$310,000	$371,070
310											
311											
312	**Subtotal: A25 Allowance For Phasing**				$310,000					$310,000	**$371,070**
313											
314											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
315											
316	**S1 Retrofit GLB Girders**										
317											
318	Post Tensioning Cables	968	LF	$3.00	$2,904	0.160	154.9	$12,829		$15,733	$20,716
319	Misc Hardware	11	SETS	$1,500.00	$16,500	8.000	88.0	$7,288		$23,788	$31,322
320											
321											
322	**Subtotal: S1 Retrofit GLB Girders**				$19,404		242.9	$20,117		$39,521	**$52,038**
323											
324											
325											
326	**S2 Replace Low Roof Framing**										
327											
328	Demo Sheathing	12,200	SF			0.013	158.6	$11,890		$11,890	$14,232
329	Demo Joists	9,173	LF			0.036	330.2	$24,755		$24,755	$29,632
330	Misc Interior Demolition	12,200	SF			0.057	695.4	$52,133		$52,133	$62,403
331	New Sheathing	12,200	SF	$1.05	$12,810	0.017	207.4	$15,549		$28,359	$33,946
332	New Roof Joists	9,173	SF	$4.50	$41,278	0.040	366.9	$27,506		$68,784	$82,334
333											
334											
335	**Subtotal: S2 Replace Low Roof Framing**				$54,088		1,758.5	$131,833		$185,921	**$222,547**
336											
337											
338											
339	**S3 Replace Low Roof Girders**										
340											
341	Demo Girders	320	LF			0.034	10.9	$817		$817	$978
342	New GLB	2,880	BF	$2.50	$7,200	0.040	115.2	$8,636		$15,836	$18,956
343											
344											
345	**Subtotal: S3 Replace Low Roof Girders**				$7,200		126.1	$9,453		$16,653	**$19,934**
346											
347											
348											
349	**S4 Replace Exterior Columns**										
350											
351	Shoring	12	EA	$100.00	$1,200	4.000	48.0	$3,599		$4,799	$5,744
352	Demo Columns & Ftgs	12	EA			4.000	48.0	$3,599	$2,400	$5,999	$7,181
353	New Footings	12	EA	$768.54	$9,222	10.976	131.7	$9,873		$19,095	$22,857
354	New Pedestals	12	EA	$402.00	$4,824	12.160	145.9	$10,938		$15,762	$18,867
355	New Columns 6x6	12	EA	$336.00	$4,032	4.000	48.0	$3,599		$7,631	$9,134
356											
357	**Subtotal: S4 Replace Exterior Columns**				$19,278		421.6	$31,608	$2,400	$53,286	**$63,783**
358											
359											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
360											
361	**S5 Add Plywood To Plank Decking**										
362											
363	Plywood	22,442	SF	$0.75	$16,832	0.017	381.5	$28,601		$45,433	$54,383
364											
365											
366	**Subtotal: S5 Add Plywood To Plank Decking**				$16,832		381.5	$28,601		$45,433	**$54,383**
367											
368											
369											
370	**S6 Improve Shearwalls**										
371											
372	Demo GWB	2,800	SF			0.010	28.0	$1,953		$1,953	$2,572
373	Add Plywood	2,800	SF	$0.75	$2,100	0.017	47.6	$3,320		$5,420	$7,137
374	New GWB	2,800	SF	$0.50	$1,400	0.021	58.8	$4,102		$5,502	$7,244
375	Tape & Paint	2,800	SF	$0.15	$420	0.021	58.8	$4,102		$4,522	$5,954
376											
377											
378	**Subtotal: S6 Improve Shearwalls**				$3,920		193.2	$13,477		$17,397	**$22,907**
379											
380											
381											
382	**S7 Replace Strip Windows With Shear Panels**										
383											
384	Allow For Replace Windows W/ Shear Panels	10	EA	$900.00	$9,000	24.000	240.0	$17,993		$26,993	$32,311
385											
386											
387	**Subtotal: S7 Replace Strip Windows With Shear Panels**				$9,000		240.0	$17,993		$26,993	**$32,311**
388											
389											
390											
391	**M1 Sprinkler System**										
392											
393	**Demo & Replace Dry Sprinkler System With Wet Pipe System**										
394	Remove & Replace ACT Ceiling (25%)	2,492	SF	$3.25	$8,098	0.023	57.3	$4,517		$12,615	$18,875
395	Remove & Replace Hard Ceiling (25%)	625	SF	$7.50	$4,688	0.237	148.1	$11,675		$16,363	$24,483
396	High Stage, Auditorium Ceiling Mods	7,185	SF	$5.00	$35,925					$35,925	$53,753
397	Modify Sprinkler Piping, Relocate Heads	20,387	SF	$0.96	$19,572	0.046	937.8	$73,929		$93,501	$139,901
398	Modify Dry Pipe Sprinkler Riser	1	LS	$1,500.00	$1,500	48.000	48.0	$3,784		$5,284	$7,906
399	Wet Pipe Sprinkler Riser	1	LS	$2,500.00	$2,500	48.000	48.0	$3,784		$6,284	$9,402
400											
401											
402	**Subtotal: M1 Sprinkler System**				$72,283		1,239.2	$97,689		$169,972	**$254,320**
403											
404											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
405											
406	**M2 Domestic Water**										
407											
408	Install Double Check BFPP On WSE	1	LS	$2,500.00	$2,500	8.000	8.0	$598		$3,098	$3,708
409	Install PRV On WSE	1	LS	$500.00	$500	4.000	4.0	$299		$799	$956
410											
411											
412											
413											
414	**Subtotal: M2 Domestic Water**				$3,000		12.0	$897		$3,897	**$4,664**
415											
416											
417											
418	**M3 Plumbing Piping**										
419											
420	**Replace Plumbing Distribution Piping.**										
421	Demo Existing Plbg Piping	1,200	LF			0.040	48.0	$3,784		$3,784	$5,662
422	Demo and Replace HW, CW Mains, 2"	240	LF	$17.84	$4,282	0.219	52.6	$4,147		$8,429	$12,612
423	Demo and Replace HW, CW Mains, > 1.5"	240	LF	$11.40	$2,736	0.177	42.5	$3,350		$6,086	$9,106
424	Demo & Replace Branch Piping - 1"	360	LF	$8.30	$2,988	0.136	49.0	$3,863		$6,851	$10,251
425	Demo & Replace Branch Piping - 3/4"	360	LF	$5.58	$2,009	0.121	43.6	$3,437		$5,446	$8,149
426											
427											
428											
429											
430											
431											
432	**Subtotal: M3 Plumbing Piping**				$12,015		235.7	$18,581		$30,596	**$45,780**
433											
434											
435											
436	**M4 Heating System**										
437											
438	Demo Oil Fired Boiler, Assoc Piping, Valves, Specialties	1	LS			80.000	80.0	$6,307		$6,307	$9,437
439	Demo Fuel System, Tanks, Piping	1	LS			80.000	80.0	$6,307		$6,307	$9,437
440	Install Water Source Heat Pump, Tie In To Existing Distribution System	1,200	MBH	$160.00	$192,000	0.200	240.0	$18,920		$210,920	$315,589
441											
442											
443											
444											
445	**Subtotal: M4 Heating System**				$192,000		400.0	$31,534		$223,534	**$334,463**
446											
447											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
448											
449	**M5 Building Ventilation System**										
450											
451	Demo Existing AHU, Assoc Fan Rm Equipment	1	LS			120.000	120.0	$9,432		$9,432	$14,113
452	Demo Existing Distribution Ductwork	20,387	SF			0.014	285.4	$22,432		$22,432	$33,564
453	Component Air Handlers, Incl Mix Box, Coils, Filter Section, Int. Isolation, VAV, VFD	20,387	CFM	$7.00	$142,709	0.012	244.6	$19,225		$161,934	$242,294
454	Distribution Ductwork Modifications	10,200	LBS	$2.47	$25,194	0.105	1,071.0	$84,178		$109,372	$163,648
455	Allow For New Fan Room	600	SF	$125.00	$75,000					$75,000	$89,775
456											
457											
458	**Subtotal: M5 Building Ventilation System**				$242,903		1,721.0	$135,267		$378,170	**$543,394**
459											
460											
461											
462	**M6 Kitchen Ventilation**										
463											
464	Upgrade Kitchen Ventilation Systems, Demo & Replace Range Hoods, Provide Makeup Air - Allowance	1	LS	$25,000.00	$25,000					$25,000	$37,406
465											
466											
467	**Subtotal: M6 Kitchen Ventilation**				$25,000					$25,000	**$37,406**
468											
469											
470											
471	**M7 Cooling System - See M4**										
472											
473	Cost Included In Price Of Water Source Heat Pump - Item M4										
474											
475											
476	**Subtotal: M7 Cooling System - See M4**										
477											
478											
479											
480	**M8 Controls Upgrades**										
481											
482	Replace Front-End Equipment, Replace Workstation, Add Internet Comm Capability - Allowance	1	LS	$25,000.00	$25,000					$25,000	$41,895
483											
484											
485	**Subtotal: M8 Controls Upgrades**				$25,000					$25,000	**$41,895**
486											
487											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
488											
489	**M9 Stage Smoke Ventilation**										
490											
491	Smoke Vents	1	LS	$12,000.00	$12,000					$12,000	$17,955
492											
493											
494											
495											
496											
497											
498											
499	**Subtotal: M9 Stage Smoke Ventilation**				$12,000					$12,000	**$17,955**
500											
501											
502											
503	**M10 Backup Heating System**										
504											
505	Boiler System	450	MBH	$35.00	$15,750	0.286	128.7	$10,146		$25,896	$38,747
506	Boiler Room Equipment	1	LS	$3,500.00	$3,500	24.000	24.0	$1,892		$5,392	$8,068
507	Boiler Room Piping	1	LS	$3,000.00	$3,000	40.000	40.0	$3,153		$6,153	$9,206
508	Fuel Storage	2,000	GAL	$6.00	$12,000	0.029	58.0	$4,572		$16,572	$24,796
509	Controls	1	LS	$5,000.00	$5,000					$5,000	$7,481
510											
511											
512											
513											
514											
515											
516											
517	**Subtotal: M10 Backup Heating System**				$39,250		250.7	$19,763		$59,013	**$88,298**
518											
519											
520											
521	**M11 Replace Water Heaters**										
522											
523	Water Heaters	2	EA	$3,500.00	$7,000	40.000	80.0	$6,307		$13,307	$19,911
524											
525											
526											
527											
528											
529											
530	**Subtotal: M11 Replace Water Heaters**				$7,000		80.0	$6,307		$13,307	**$19,911**
531											
532											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
533											
534	**AC1 Vestibules at Lobby - See A24**										
535											
536											
537											
538	**Subtotal: AC1 Vestibules at Lobby - See A24**										
539											
540											
541											
542	**AC2 Mechanical System Noise**										
543											
544	Allow For Vibration Isolation	1	LS	$5,000.00	$5,000	80.000	80.0	$5,984		$10,984	$13,148
545											
546											
547											
548	**Subtotal: AC2 Mechanical System Noise**				$5,000		80.0	$5,984		$10,984	**$13,148**
549											
550											
551											
552	**AC3 Projection Booth - See A24**										
553											
554											
555											
556	**Subtotal: AC3 Projection Booth - See A24**										
557											
558											
559											
560	**E1 Replace Branch Panels**										
561											
562	Panelboards, 120/208V, 3 Phase, 4 Wire, 225A, MLO, 42 Circuit, W/ Breakers	2	EA	$1,800.00	$3,600	10.000	20.0	$1,599		$5,199	$7,779
563	Dist Panelboard, 400A	2	EA	$3,200.00	$6,400	10.000	20.0	$1,599		$7,999	$11,969
564	Panelboards, 120/208V, 3 Phase, 4 Wire, 125A, MLO, 42 Circuit, W/ Breakers	2	EA	$1,200.00	$2,400	10.000	20.0	$1,599		$3,999	$5,984
565	**Assume Feeders To Remain**										
566											
567											
568											
569											
570											
571											
572											
573	**Subtotal: E1 Replace Branch Panels**				$12,400		60.0	$4,797		$17,197	**$25,732**
574											
575											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
576											
577	**E2 Convenience Receptacles**										
578											
579	Demo Existing Receptacles	251	EA			0.500	125.6	$10,042		$10,042	$15,025
580	New Receptacles: Complete Assemblies, Incl Wiring, Conduit	271	EA	$46.40	$12,588	1.000	271.3	$21,690		$34,278	$51,288
581											
582											
583	**Subtotal: E2 Convenience Receptacles**				$12,588		396.9	$31,732		$44,320	**$66,313**
584											
585											
586											
587	**E3 Interior Lighting - General**										
588											
589	Replace All Existing T12 Fluorescent Fixtures W/ LED Fixtures	233	EA	$300.00	$69,900	2.500	582.5	$46,570		$116,470	$174,268
590											
591											
592											
593											
594	**Subtotal: E3 Interior Lighting - General**				$69,900		582.5	$46,570		$116,470	**$174,268**
595											
596											
597											
598	**E4 Interior Lighting – MPR**										
599											
600	Replace All MH and HPS Fixtures In MPR and Lobby W/ LED	72	EA	$500.00	$36,000	4.000	288.0	$23,025		$59,025	$88,316
601											
602											
603											
604	**Subtotal: E4 Interior Lighting – MPR**				$36,000		288.0	$23,025		$59,025	**$88,316**
605											
606											
607											
608	**E5 Exterior Building Lighting**										
609											
610	Replace Wall Mtd HPS Ext Fixtures With LED	20	EA	$450.00	$9,000	4.000	80.0	$6,396		$15,396	$23,036
611	Replace Ceiling Mtd HPS Ext Fixtures With LED	18	EA	$600.00	$10,800	4.000	72.0	$5,756		$16,556	$24,772
612											
613											
614											
615	**Subtotal: E5 Exterior Building Lighting**				$19,800		152.0	$12,152		$31,952	**$47,808**
616											
617											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
618											
619	**E6 Emergency and Exit Lighting**										
620											
621	Replace Existing Exit Lighting	12	EA	$156.00	$1,872	2.000	24.0	$1,919		$3,791	$5,672
622	Replace Existing Emergency Lighting	12	EA	$250.00	$3,000	2.000	24.0	$1,919		$4,919	$7,360
623											
624	**Subtotal: E6 Emergency and Exit Lighting**				$4,872		48.0	$3,838		$8,710	**$13,032**
625											
626											
627											
628	**E7 Lighting Controls - General**										
629											
630	Demo Wall Switches	46	EA			0.750	34.7	$2,774		$2,774	$4,151
631	New Occupancy Sensors	56	EA	$156.00	$8,736	1.250	70.0	$5,596		$14,332	$21,444
632											
633											
634											
635											
636	**Subtotal: E7 Lighting Controls - General**				$8,736		104.7	$8,370		$17,106	**$25,595**
637											
638											
639											
640	**E8 Fire Alarm**										
641											
642	Replace Fire Alarm System With A New Addressable Fire Alarm System	20,387	SF	$4.00	$81,548					$81,548	$136,658
643											
644											
645											
646											
647	**Subtotal: E8 Fire Alarm**				$81,548					$81,548	**$136,658**
648											
649											
650											
651	**E9 Telecommunications**										
652											
653	Replace Headend Equipment	1	LS	$7,500.00	$7,500	40.000	40.0	$3,198		$10,698	$16,007
654	Telecomm Outlets, Complete Assembly, Wiring, Conduit	100	EA	$86.00	$8,600	2.500	250.0	$19,987		$28,587	$42,773
655											
656											
657											
658	**Subtotal: E9 Telecommunications**				$16,100		290.0	$23,185		$39,285	**$58,780**
659											
660											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
661											
662	**AV1 Speakers In The MPR**										
663											
664	MPR Speakers	1	LS	$99,350.00	$99,350					$99,350	$118,922
665											
666											
667	**Subtotal: AV1 Speakers In The MPR**				$99,350					$99,350	**$118,922**
668											
669											
670											
671	**AV2 Floor Boxes**	**6**	**EA**								
672											
673	Slab Cuts/Repairs	120	LF	$14.00	$1,680	0.200	24.0	$1,919		$3,599	$5,385
674	Boxes	6	EA	$250.00	$1,500	1.500	9.0	$720		$2,220	$3,322
675	Wireways/Conduits	120	LF	$7.00	$840	0.160	19.2	$1,535		$2,375	$3,554
676	Conduits Above Ground	480	LF	$1.20	$576	0.057	27.4	$2,050		$2,626	$3,143
677											
678	**Subtotal: AV2 Floor Boxes**				$4,596		79.6	$6,224		$10,820	**$15,404**
679											
680											
681											
682	**AV3 Audio Mixing - See A24**										
683											
684											
685	**Subtotal: AV3 Audio Mixing - See A24**										
686											
687											
688											
689	**AV4 Sound System Head-end**										
690											
691	Digital Mixing Console	2	EA	$11,000.00	$22,000	20.000	40.0	$2,992		$24,992	$29,915
692											
693	**Subtotal: AV4 Sound System Head-end**				$22,000		40.0	$2,992		$24,992	**$29,915**
694											
695											
696											
697	**AV5 MPR Screen**										
698											
699	New Screens & Projection	1	LS	$26,900.00	$26,900					$26,900	$32,199
700											
701											
702	**Subtotal: AV5 MPR Screen**				$26,900					$26,900	**$32,199**
703											
704											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
705											
706	**AV6 Maksoutoff Ceiling Speakers**										
707											
708	Video/Projection	1	EA	$31,937.50	$31,938					$31,938	$38,230
709	Audio	1	EA	$16,537.50	$16,538					$16,538	$19,796
710	Controls	1	EA	$7,875.00	$7,875					$7,875	$9,426
711	Miscellaneous	1	EA	$13,125.00	$13,125					$13,125	$15,711
712											
713											
714	**Subtotal: AV6 Maksoutoff Ceiling Speakers**				$69,476					$69,476	**$83,163**
715											
716											
717											
718	**AV7 MPR and Meeting Room Assistive Listening**										
719											
720	Assistive Listening Systems	5	EA	$10,000.00	$50,000					$50,000	$59,850
721											
722											
723											
724	**Subtotal: AV7 MPR and Meeting Room Assistive Listening**				$50,000					$50,000	**$59,850**
725											
726											
727											
728	**AV8 Outdated Equipment**										
729											
730	Allowance	1	LS	$27,860.00	$27,860					$27,860	$33,348
731											
732											
733											
734	**Subtotal: AV8 Outdated Equipment**				$27,860					$27,860	**$33,348**
735											
736											
737											
738	**AV9 Small Meeting Rooms AV**										
739											
740	Video/Projection	1	LS	$7,221.00	$7,221					$7,221	$12,101
741	Audio	1	LS	$1,245.00	$1,245					$1,245	$2,086
742	Controls	1	LS	$1,660.00	$1,660					$1,660	$2,782
743	Miscellaneous	1	LS	$3,320.00	$3,320					$3,320	$3,974
744	Audio To Sm Meetings	1	LS	$6,440.00	$6,440					$6,440	$7,709
745											
746											
747	**Subtotal: AV9 Small Meeting Rooms AV**				$19,886					$19,886	**$28,652**
748											
749											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
750											
751	**AV10 Green Room**										
752											
753	Connect Small Meeting Room To MPR	1	LS	$6,440.00	$6,440					$6,440	$10,792
754											
755											
756											
757											
758											
759	**Subtotal: AV10 Green Room**				$6,440					$6,440	**$10,792**
760											
761											
762											
763	**AV11 Paging System**										
764											
765	Digital Signage	1	LS	$4,238.00	$4,238					$4,238	$6,341
766	Audio	1	LS	$4,238.00	$4,238					$4,238	$6,341
767	Controls	1	LS	$4,238.00	$4,238					$4,238	$6,341
768	Miscellaneous	1	LS	$4,238.00	$4,238					$4,238	$5,073
769											
770											
771											
772											
773											
774	**Subtotal: AV11 Paging System**				$16,952					$16,952	**$24,096**
775											
776											
777											
778	**ST1 Dimming System**	1	LS	$25,000.00	$25,000					$25,000	$29,925
779											
780											
781											
782											
783	**Subtotal: ST1 Dimming System**				$25,000					$25,000	**$29,925**
784											
785											
786											
787	**ST2 Stage Lighting Control Console**	1	LS	$50,000.00	$50,000					$50,000	$59,850
788											
789											
790											
791											
792	**Subtotal: ST2 Stage Lighting Control Console**				$50,000					$50,000	**$59,850**
793											
794											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
795											
796	**ST3 Stage Curtains**										
797											
798	Stage Curtains, 1 Curtain, Side Draw	54	LF	$450.00	$24,300	2.000	108.0	$7,191		$31,491	$41,464
799	Valance Curtains	54	LF	$105.00	$5,670	1.000	54.0	$3,595		$9,265	$12,199
800	Masking Drapes	2	EA	$6,750.00	$13,500	30.000	60.0	$3,995		$17,495	$23,036
801	Rigging	1	LS	$20,000.00	$20,000					$20,000	$23,940
802											
803											
804	**Subtotal: ST3 Stage Curtains**				$63,470		222.0	$14,781		$78,251	**$100,639**
805											
806											
807											
808	**F1 Additional Area**										
809											
810	Foundations	85	LF	$88.00	$7,480	2.143	182.2	$13,659	$255	$21,394	$25,609
811	Slab	750	SF	$3.13	$2,348	0.054	40.5	$3,036		$5,384	$6,445
812	Roof Structure	920	SF	$15.00	$13,800	0.400	368.0	$27,589		$41,389	$49,543
813	Exterior Wall	1,020	SF	$27.25	$27,795	0.263	268.3	$20,114		$47,909	$57,347
814	Roofing	920	SF	$11.60	$10,672	0.229	210.7	$13,904		$24,576	$32,359
815	Flooring	600	SF	$5.00	$3,000	0.107	64.2	$4,275		$7,275	$9,579
816	Ceilings	600	SF	$3.50	$2,100	0.029	17.4	$1,159		$3,259	$4,291
817	Wall Finishes	160	SF	$5.00	$800	0.107	17.1	$1,139		$1,939	$2,553
818	Doors	2	EA	$1,250.00	$2,500	6.000	12.0	$900		$3,400	$4,070
819	Partitions	500	SF	$2.90	$1,450	0.127	63.5	$4,761		$6,211	$8,178
820	Plumbing Fixtures Complete	2	EA	$1,500.00	$3,000	40.000	80.0	$6,307		$9,307	$13,926
821	HVAC	750	SF	$25.00	$18,750	0.429	321.8	$25,293		$44,043	$65,899
822	Lighting	9	EA	$285.00	$2,565	5.071	45.6	$3,646		$6,211	$9,293
823											
824											
825											
826	**Subtotal: F1 Additional Area**				$96,260		1,691.3	$125,782	$255	$222,297	**$289,092**
827											
828											
829											
830	**F2 Food Service Equipment**										
831											
832	New Food Service Equipment	1	LS	$250,000.00	$250,000					$250,000	$299,250
833	Architectural Repairs/Patch	1	LS	$15,000.00	$15,000	160.000	160.0	$11,968		$26,968	$32,281
834	Freight To Sitka	20	TONS	$600.00	$12,000					$12,000	$14,364
835											
836											
837	**Subtotal: F2 Food Service Equipment**				$277,000		160.0	$11,968		$288,968	**$345,895**
838											
839											

Line No.	Description	Qty	UNITS	Material Costs Unit	Material Costs Total	Labor Hours Units	Labor Hours Totals	Labor Cost	Equip Cost	Total Cost	Total Cost w/ OH & P
840											
841	**H1 Joint Compound (ACM)**										
842											
843	Abate Joint Compound	20,387	GSF	$10.00	$203,870					$203,870	$268,436
844											
845											
846											
847											
848											
849											
850											
851											
852	**Subtotal: H1 Joint Compound (ACM)**				$203,870					$203,870	**$268,436**
853											
854											
855											
856	**H2 MPR Floor (ACM)**										
857											
858	Abate MPR Floor	4,200	SF	$1.00	$4,200	0.086	361.2	$23,985		$28,185	$37,111
859											
860											
861											
862											
863											
864											
865											
866											
867	**Subtotal: H2 MPR Floor (ACM)**				$4,200		361.2	$23,985		$28,185	**$37,111**
868											
869											
870											
871	**H3 Abate Adhesive In Wainscot**	1	LS	$30,000.00	$30,000					$30,000	$35,910
872											
873											
874											
875											
876											
877											
878											
879											
880											
881											
882	**Subtotal: H3 Abate Adhesive In Wainscot**				$30,000					$30,000	**$35,910**
883											
884											

APPENDIX B
Asbestos Lab Report

WHITE LABORATORIES LLC.
383 INDUSTRIAL WAY ANCHORAGE, AK 99501 PH (907) 258-8661

NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

E-MAILED OCT 18 2012

WL Project #: 12CSLT-210
Client Project#:

Report #: 92950
Report By: C.Blanchard
Report Date: 10/15/2012

Client: McCool Carlson Green
421 West 1st Ave., Ste 300
Anchorage, Ak 99501

Collection Date: 10/3/2012
Collection By: CLIENT
TAT: 72 Hours
Analysis By: D.Milton
Analysis Date: 10/15/2012
Received By: Milton
Received Date: 10/15/2012

 # Samples: 2 **# Layers:** 10

Project Name/Location: Sitka Centennial Hall

Client ID#	WL ID#	Location	Material	Layer
072	AB12-10832A	Lower Roof	Felt	1 of 5

ASBESTOS

None Detected

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Homogenous: No
Color: Black

Other Fibrous Materials

Cellulose	75%
Fiberous Glass	20%

Client ID#	WL ID#	Location	Material	Layer
072	AB12-10832B	Lower Roof	Insulation	2 of 5

ASBESTOS

None Detected

% Other Fibrous Materials: 85%
% Non-Fibrous Materials: 15%

Homogenous: No
Color: Brown

Other Fibrous Materials

Cellulose	85%

Client ID#	WL ID#	Location	Material	Layer
072	AB12-10832C	Lower Roof	Insulation	3 of 5

ASBESTOS

None Detected

% Non-Fibrous Materials: 100%

Homogenous: No
Color: Yellow

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
072	AB12-10832D	Lower Roof	Felt	4 of 5

ASBESTOS

None Detected

% Other Fibrous Materials: 30%
% Non-Fibrous Materials: 70%

Homogenous: No
Color: Black

Other Fibrous Materials

Fiberous Glass	30%

WHITE LABORATORIES LLC.
383 INDUSTRIAL WAY ANCHORAGE, AK 99501 PH (907) 258-8661

NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92950
Report By: C.Blanchard
Report Date: 10/15/2012

Client ID#	WL ID#	Location	Material	Layer
072	AB12-10832E	Lower Roof	Tar Mastic	5 of 5

ASBESTOS

None Detected

Homogenous	Color
No	Black

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
073	AB12-10833A	Upper Roof	Felt	1 of 5

ASBESTOS

None Detected

Homogenous	Color
No	Black

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Other Fibrous Materials

Cellulose	75%
Fiberous Glass	20%

Client ID#	WL ID#	Location	Material	Layer
073	AB12-10833B	Upper Roof	Insulation	2 of 5

ASBESTOS

None Detected

Homogenous	Color
No	Yellow

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
073	AB12-10833C	Upper Roof	Insulation	3 of 5

ASBESTOS

None Detected

Homogenous	Color
No	Brown

% Other Fibrous Materials: 85%
% Non-Fibrous Materials: 15%

Other Fibrous Materials

Cellulose	85%

Client ID#	WL ID#	Location	Material	Layer
073	AB12-10833D	Upper Roof	Felt	4 of 5

ASBESTOS

None Detected

Homogenous	Color
No	Black

% Other Fibrous Materials: 30%
% Non-Fibrous Materials: 70%

Other Fibrous Materials

Fiberous Glass	30%

WHITE LABORATORIES LLC.
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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92950
Report By: C.Blanchard
Report Date: 10/15/2012

Client ID#	WL ID#	Location	Material	Layer
073	AB12-10833E	Upper Roof	Tar Mastic	5 of 5

ASBESTOS

Homo-genous	Color
No	Black

None Detected

% Non-Fibrous Materials: *100%*

Other Fibrous Materials

None Detected

Milton Dave, Lab Analyst

Date 10/15/2012

Date 10/15/2012

Analysis performed by EPA Method 600/R-93/116. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WEC Inc., and are subject to WEC Inc. General Terms and Conditions (see reverse).

WHITE ENVIRONMENTAL CONSULTANTS INC.
731 I Street, Suite 203, Anchorage, AK 99501 Phone (907) 258-8661 Fax (907) 258-8662
4868 Old Airport Way, Fairbanks, AK 99701 Phone (907) 456-4637 Fax (907) 456-4638

CHAIN OF CUSTODY

Date: 10/12/12

Client Name: McCool/Carlson Green Project Name: Sitka Centennial Hall Project #: 2012007

Billing Address: 421 W. 1st Ave. City: Anchorage State: AK Zip Code: 99501

Phone: 907-563-8474 Fax: 907-563-4572 Cell:

Email: kim@mccoolastacom

By signing for these samples you are responsible for payment. We will not bill someone else on your behalf.

Samples Relinquished By: McCool Carlson Green Date: 10/12/12 Time: 1:30

Samples Received By: Bekah Waltrich Date: 10/12/12 Time: 4:10

Samples Relinquished By: Date: Time:

Samples Received By: Date: 10-15-12 Time: 1100

Samples Analysis Type: **PCM PLM TEM LEAD TCLP Other (specify)**

Composite: **Y N**

Turn-around Time: **6 HR RUSH 24HR 48HR 72HR 5DAY**

Method of Payment: **CASH CHECK CREDIT CARD ACCOUNT**

Sample #	Collection Date	Sample Condition	Turnaround Time	Analysis Type	Volume (L) Air Samples	Time (min) Air Samples	Flow Rate Samples	A/R
072	10/5/12	good	72	PLM	N/A	N/A	N/A	
073	10/5/12	good	72	PLM				

It is the responsibility of the Customer to ensure that samples are correctly taken and packaged. WEC reserves the right to refuse samples for analysis which are obviously unsuitable due to damage, incorrect or insufficient labeling, or incorrect sample loading. WEC will contact the Customer as soon as such a problem is identified and will discuss with the Customer the course of action to be taken.

WHITE ENVIRONMENTAL CONSULTANTS INC.

731 I St. Ste. 203, Anchorage AK 99501
Phone: (907) 258-8661 (907) 258-8662

PROJECT NAME Centennial Hall
LOCATION Anch AK PROJECT NO. 12CSLT 210
CLIENT McCool Carson & Overd DATE 10/12/12
CLIENT PROJECT# SHEET NO. 1 OF 1

CHAIN OF CUSTODY RECORD – ANALYTICAL REQUEST

ANALYSIS REQUESTED (circle) PCM PLM TEM LEAD	TURNAROUND REQUESTED 72	NO. OF SAMPLES 2	COLLECTION DATE 10/3/12
RELINQUISHED BY	DATE / TIME	SAMPLES RECEIVED BY	DATE / TIME
SHIPPING METHOD exp-Mail	COURIER (signature)	SAMPLES RECEIVED BY	DATE / TIME

COMMENTS

Collected by CBC const. on 10/3/12

SAMPLE ID#	MATERIAL	LOCATION	COMMENTS
072	Roofcore	lower roof	
073	Roof core	upper roof	

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client: McCool Carlson Green
421 West 1st Ave., Ste 300
Anchorage, Ak 99501

Collection Date: 9/12/2012
Collection By: B.O'Bray
TAT: 5 Day
Analysis By: D.Milton
Analysis Date: 9/19/2012
Received By: Milton
Received Date: 9/19/2012

 # Samples: 71 **# Layers:** 75

Project Name/Location: Hartigan Centennial Hall

Client ID#	WL ID#	Location	Material	Layer
001	AB12-9644	Exhibit Storage/Above Ceiling	BAT Insulation	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Fiberous Glass	99%

% Other Fibrous Materials: *99%*
% Non-Fibrous Materials: *1%*

Homogenous: No
Color: Yellow

Client ID#	WL ID#	Location	Material	Layer
002	AB12-9645	Exhibit Storage	2' X 4' Ceiling Tile	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	35%
Mineral Wool	60%

% Other Fibrous Materials: *95%*
% Non-Fibrous Materials: *5%*

Homogenous: No
Color: Off-White

Client ID#	WL ID#	Location	Material	Layer
003	AB12-9646	Exhibit Storage	Covebase Mastic	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: Off-White

Client ID#	WL ID#	Location	Material	Layer
004	AB12-9647	Exhibit Storage	Wall Paper Adhesive	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: Yellow

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
005	AB12-9648	Exhibit Storage	Rubber Floor Adhesive	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Yellow

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
006	AB12-9649	Exhibit Storage	Joint Comp	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	White

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
007	AB12-9650	Exhibit Storage	Joint Comp	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	White

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
008	AB12-9651	Exhibit Room	2' X 4' Ceiling Tile	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Off-White

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Other Fibrous Materials

Cellulose	35%
Mineral Wool	60%

Client ID#	WL ID#	Location	Material	Layer
009	AB12-9652	Exhibit Room/Above Ceiling	BAT Insulation	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Yellow

% Other Fibrous Materials: 99%
% Non-Fibrous Materials: 1%

Other Fibrous Materials

Fiberous Glass	99%

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
010	AB12-9653	Exhibit Room	Wall Paper Adhesive	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Off-White

% Non-Fibrous Materials: *100%*

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
011	AB12-9654	Exhibit Room	Joint Comp	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	White

% Non-Fibrous Materials: *100%*

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
012	AB12-9655	Exhibit Room	Wallboard	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Off-White

% Other Fibrous Materials: *6%*
% Non-Fibrous Materials: *94%*

Other Fibrous Materials

Cellulose	3%
Fiberous Glass	3%

Client ID#	WL ID#	Location	Material	Layer
013	AB12-9656	Exhibit Room	Cove Base Mastic	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Off-White

% Non-Fibrous Materials: *100%*

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
014	AB12-9657	Exhibit Room	Carpet Mastic	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Yellow

% Non-Fibrous Materials: *100%*

Other Fibrous Materials

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
015	AB12-9658	Exhibit Room	Leveling Comp	1 of 1

ASBESTOS

None Detected

Homogenous: No
Color: Gray

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
016	AB12-9659	Maksoutoff Room	Joint Comp	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

Homogenous: No
Color: Off-White

% Non-Fibrous Materials: 95%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
017	AB12-9660	Maksoutoff Room	Joint Comp	1 of 1

ASBESTOS

None Detected

Homogenous: No
Color: White

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
018	AB12-9661	Maksoutoff Room	2' X 4' Ceiling Tile	1 of 1

ASBESTOS

None Detected

Homogenous: No
Color: Tan

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Other Fibrous Materials

Cellulose	45%
Mineral Wool	50%

Client ID#	WL ID#	Location	Material	Layer
019	AB12-9662A	Maksoutoff Room	Carpet	1 of 2

ASBESTOS

None Detected

Homogenous: No
Color: Yellow

% Non-Fibrous Materials: 100%

Other Fibrous Materials

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
019	AB12-9662B	Maksoutoff Room	Leveling Comp	2 of 2

ASBESTOS

None Detected

Homo-genous	Color
No	Gray

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Client ID#	WL ID#	Location	Material	Layer
020	AB12-9663	Maksoutoff Room	Wainscot Adhesive	1 of 1

ASBESTOS

None Detected

Homo-genous	Color
No	Yellow

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Client ID#	WL ID#	Location	Material	Layer
021	AB12-9664	Kitchen	Joint Comp	1 of 1

ASBESTOS

None Detected

Homo-genous	Color
No	White

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Client ID#	WL ID#	Location	Material	Layer
022	AB12-9665	Kitchen	Wainscot Adhesive	1 of 1

ASBESTOS

None Detected

Homo-genous	Color
No	Yellow

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Client ID#	WL ID#	Location	Material	Layer
023	AB12-9666	Roof/Lower Level	Roof Seam Mastic	1 of 1

ASBESTOS

None Detected

Homo-genous	Color
No	Black

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
024	AB12-9667	Above Stage Right In HVAC Room	Joint Comp	1 of 1

ASBESTOS

Chrysotile 5%

% Asbestos: 5%

% Non-Fibrous Materials: *95%*

Homogenous: No
Color: Cream

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
025	AB12-9668	Stage Right	Joint Comp	1 of 1

ASBESTOS

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: White

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
026	AB12-9669A	Stage Right	Floor Tile	1 of 2

ASBESTOS

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: Beige

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
026	AB12-9669B	Stage Right	Floor Tile Mastic	2 of 2

ASBESTOS

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: Orange

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
027	AB12-9670A	Vestibule 116	Covebase Mastic	1 of 2

ASBESTOS

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: Off-White

Other Fibrous Materials

None Detected

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383 INDUSTRIAL WAY ANCHORAGE, AK 99501 PH (907) 258-8661

NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
027	AB12-9670B	Vestibule 116	Joint Comp	2 of 2

ASBESTOS
Chrysotile 5%

% Asbestos: 5%

Homogenous: No

Color: Cream

Other Fibrous Materials: *% Non-Fibrous Materials: 95%*

None Detected

Client ID#	WL ID#	Location	Material	Layer
028	AB12-9671	Vestibule 116	Carpet Mastic	1 of 1

ASBESTOS
None Detected

Homogenous: No

Color: Yellow

Other Fibrous Materials: *% Non-Fibrous Materials: 100%*

None Detected

Client ID#	WL ID#	Location	Material	Layer
029	AB12-9672	East Corridor	Carpet Mastic	1 of 1

ASBESTOS
None Detected

Homogenous: No

Color: Yellow

Other Fibrous Materials: *% Non-Fibrous Materials: 100%*

None Detected

Client ID#	WL ID#	Location	Material	Layer
030	AB12-9673	Stage Right Stairway	Stair Tread Mastic	1 of 1

ASBESTOS
None Detected

Homogenous: No

Color: Black

Other Fibrous Materials: *% Non-Fibrous Materials: 100%*

None Detected

Client ID#	WL ID#	Location	Material	Layer
031	AB12-9674	Multi Purpose Room	Carpet Mastic	1 of 1

ASBESTOS
Chrysotile 5%

% Asbestos: 5%

Homogenous: No

Color: Yellow/

Other Fibrous Materials: *% Non-Fibrous Materials: 95%*

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
032	AB12-9675	Multi Purpose Room	Carpet Mastic	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

% Non-Fibrous Materials: 95%

Homogenous No

Color Brn/Yellow

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
033	AB12-9676	Multi Purpose Room	Covebase Mastic	1 of 1

ASBESTOS

None Detected

% Non-Fibrous Materials: 100%

Homogenous No

Color Off-White

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
034	AB12-9677	Above Stage Left/HVAC Room	Wallboard	1 of 1

ASBESTOS

None Detected

% Other Fibrous Materials: 8%
% Non-Fibrous Materials: 92%

Homogenous No

Color Off-White

Other Fibrous Materials

Cellulose	5%
Fiberous Glass	3%

Client ID#	WL ID#	Location	Material	Layer
035	AB12-9678	Above Stage Left/HVAC Room	Joint Comp	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

% Non-Fibrous Materials: 95%

Homogenous No

Color Cream

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
036	AB12-9679	Above Stage Left/HVAC Room	HVAC Seam Sealant	1 of 1

ASBESTOS

None Detected

% Non-Fibrous Materials: 100%

Homogenous No

Color Gray

Other Fibrous Materials

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
037	AB12-9680	Museum Shop 124	Wallboard	1 of 1

ASBESTOS

None Detected

% Other Fibrous Materials: *8%*
% Non-Fibrous Materials: *92%*

Homogenous: No
Color: Off-White

Other Fibrous Materials	
Cellulose	5%
Fiberous Glass	3%

Client ID#	WL ID#	Location	Material	Layer
038	AB12-9681	Museum Shop 124	Wall Texture	1 of 1

ASBESTOS

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: White

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
039	AB12-9682	Museum Shop 124	2' X 4' Ceiling Tile	1 of 1

ASBESTOS

None Detected

% Other Fibrous Materials: *95%*
% Non-Fibrous Materials: *5%*

Homogenous: No
Color: Tan

Other Fibrous Materials	
Cellulose	45%
Mineral Wool	50%

Client ID#	WL ID#	Location	Material	Layer
040	AB12-9683	Museum Shop 124/Above Ceiling	BAT Insulation	1 of 1

ASBESTOS

None Detected

% Other Fibrous Materials: *99%*
% Non-Fibrous Materials: *1%*

Homogenous: No
Color: Yellow

Other Fibrous Materials	
Mineral Wool	99%

Client ID#	WL ID#	Location	Material	Layer
041	AB12-9684	Museum Storage 125	Carpet Mastic	1 of 1

ASBESTOS

None Detected

% Non-Fibrous Materials: *100%*

Homogenous: No
Color: Yellow

Other Fibrous Materials

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
042	AB12-9685	Museum 123	Rubber Floor Mastic	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

None Detected

% Non-Fibrous Materials: 100%

Homogenous: No
Color: Off-White

Client ID#	WL ID#	Location	Material	Layer
043	AB12-9686	Museum 123	Covebase Mastic	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Wollastonite	3%
Talc	7%

% Other Fibrous Materials: 10%
% Non-Fibrous Materials: 90%

Homogenous: No
Color: Brown

Client ID#	WL ID#	Location	Material	Layer
044	AB12-9687	Museum 123	2' X 4' Ceiling Tile	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	45%
Mineral Wool	50%

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Homogenous: No
Color: Tan

Client ID#	WL ID#	Location	Material	Layer
045	AB12-9688	Museum 123/Center E Wall	Thermal Sys. Ins.	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	15%
Mineral Wool	30%

% Other Fibrous Materials: 45%
% Non-Fibrous Materials: 55%

Homogenous: No
Color: Off-White

Client ID#	WL ID#	Location	Material	Layer
046	AB12-9689	Museum 123/E Wall	Joint Comp	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

% Non-Fibrous Materials: 95%

Other Fibrous Materials

None Detected

Homogenous: No
Color: Cream

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Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
047	AB12-9690	Mens Bathroom	Ceiling Texture	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	White

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Client ID#	WL ID#	Location	Material	Layer
048	AB12-9691	Dressing Room	2' X 4' Ceiling Tile	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Tan

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Other Fibrous Materials

Cellulose	45%
Mineral Wool	50%

Client ID#	WL ID#	Location	Material	Layer
049	AB12-9692	Dressing Room	Joint Comp	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	White

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Client ID#	WL ID#	Location	Material	Layer
050	AB12-9693	Dressing Room	Covebase Mastic	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Brown

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Client ID#	WL ID#	Location	Material	Layer
051	AB12-9694	West Corridor	Carpet Mastic	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Yellow

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
052	AB12-9695	Storage 129	Fire Door Insulation	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	<1%
Fiberous Glass	5%

% Other Fibrous Materials: 5%
% Non-Fibrous Materials: 95%

Homogenous: No
Color: Off-White

Client ID#	WL ID#	Location	Material	Layer
053	AB12-9696	Mechanical 130	Joint Comp	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

None Detected

% Non-Fibrous Materials: 100%

Homogenous: No
Color: White

Client ID#	WL ID#	Location	Material	Layer
054	AB12-9697	Storage 129	BAT Insulation	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Mineral Wool	99%

% Other Fibrous Materials: 99%
% Non-Fibrous Materials: 1%

Homogenous: No
Color: Pink

Sample Comments: Paper Backing Negative

Client ID#	WL ID#	Location	Material	Layer
055	AB12-9698	Boiler #1	Flange Gasket	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	40%

% Other Fibrous Materials: 40%
% Non-Fibrous Materials: 60%

Homogenous: No
Color: Black

Client ID#	WL ID#	Location	Material	Layer
056	AB12-9699	Boiler #1	Rope Gasket	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Fiberous Glass	99%

% Other Fibrous Materials: 99%
% Non-Fibrous Materials: 1%

Homogenous: No
Color: Off-White

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
057	AB12-9700	Boiler #1	Peep Hole Gasket	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Mineral Woopl	95%

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Homo-genous: No
Color: Off-White

Client ID#	WL ID#	Location	Material	Layer
058	AB12-9701	Boiler Room	Flange Valve Gasket	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	10%

% Other Fibrous Materials: 10%
% Non-Fibrous Materials: 90%

Homo-genous: No
Color: Red

Client ID#	WL ID#	Location	Material	Layer
059	AB12-9702	Boiler #1	Boiler Insulation	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Mineral Wool	99%

% Other Fibrous Materials: 99%
% Non-Fibrous Materials: 1%

Homo-genous: No
Color: Yellow

Client ID#	WL ID#	Location	Material	Layer
060	AB12-9703	Boiler Room	Joint Comp	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

Other Fibrous Materials

None Detected

% Non-Fibrous Materials: 95%

Homo-genous: No
Color: Cream

Client ID#	WL ID#	Location	Material	Layer
061	AB12-9704	Storage 106	Joint Comp	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

Other Fibrous Materials

None Detected

% Non-Fibrous Materials: 95%

Homo-genous: No
Color: Cream

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
062	AB12-9705	Storage 106	Joint Comp	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

% Non-Fibrous Materials: 95%

Homogenous No

Color Cream

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
063	AB12-9706	Storage 106 Ceiling	Skim Coat	1 of 1

ASBESTOS

None Detected

% Non-Fibrous Materials: 100%

Homogenous No

Color White

Other Fibrous Materials

None Detected

Client ID#	WL ID#	Location	Material	Layer
064	AB12-9707	Storage 106	Covebase Mastic	1 of 1

ASBESTOS

None Detected

% Other Fibrous Materials: 12%
% Non-Fibrous Materials: 88%

Homogenous No

Color Dk.Brown

Other Fibrous Materials

Wollastonite	5%
Talc	7%

Client ID#	WL ID#	Location	Material	Layer
065	AB12-9708	Rosseau Room	2' X 4' Ceiling Tile	1 of 1

ASBESTOS

None Detected

% Other Fibrous Materials: 95%
% Non-Fibrous Materials: 5%

Homogenous No

Color Tan

Other Fibrous Materials

Cellulose	45%
Mineral Wool	50%

Client ID#	WL ID#	Location	Material	Layer
066	AB12-9709	Chovroff Room	Wainscot Adhesive	1 of 1

ASBESTOS

None Detected

% Non-Fibrous Materials: 100%

Homogenous No

Color Black

Other Fibrous Materials

None Detected

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
067	AB12-9710	Davis Room	Joint Comp	1 of 1

ASBESTOS

Chrysotile	5%

% Asbestos: 5%

Other Fibrous Materials

% Non-Fibrous Materials: *95%*

None Detected

Homogenous	Color
No	Cream

Client ID#	WL ID#	Location	Material	Layer
068	AB12-9711	Davis Room	Wainscot Mastic	1 of 1

ASBESTOS

Chrysotile	12%

% Asbestos: 12%

Other Fibrous Materials

% Non-Fibrous Materials: *88%*

None Detected

Homogenous	Color
No	Dk.Brown

Client ID#	WL ID#	Location	Material	Layer
069	AB12-9712	Davis Room	Rubber Floor Mastic	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

% Non-Fibrous Materials: *100%*

None Detected

Homogenous	Color
No	Gray

Client ID#	WL ID#	Location	Material	Layer
070	AB12-9713A	Chamber Of Commerce	Carpet Mastic	1 of 2

ASBESTOS

None Detected

Other Fibrous Materials

% Non-Fibrous Materials: *100%*

None Detected

Homogenous	Color
No	Yellow

Client ID#	WL ID#	Location	Material	Layer
070	AB12-9713B	Chamber Of Commerce	Leveling Comp	2 of 2

ASBESTOS

None Detected

Other Fibrous Materials

% Non-Fibrous Materials: *100%*

None Detected

Homogenous	Color
No	Gray

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NVLAP®
Lab Code: 200124-0

Bulk Sample Analysis for Asbestos

WL Project #: 12CSLT-210
Client Project#:

Report #: 92355
Report By: C.Blanchard
Report Date: 9/24/2012

Client ID#	WL ID#	Location	Material	Layer
071	AB12-9714	Main Stage Windows	Window Glaze	1 of 1

ASBESTOS

None Detected

Homo-genous	Color
No	Gray

Other Fibrous Materials

% Non-Fibrous Materials: 100%

None Detected

Comments: Collection Dates: 9/12/12 & 9/13/12

Milton Dave, Lab Analyst

Date 9/24/2012

Date 9/24/2012

Analysis performed by EPA Method 600/R-93/116. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WEC Inc., and are subject to WEC Inc. General Terms and Conditions (see reverse).

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PROJECT NAME: CCO Hartigan Centennial Hall
LOCATION: Sitka Alaska PROJECT NO. 12CSCJ-210
CLIENT: McCool Carson & Green DATE: 9/12/12
CLIENT PROJECT#: SHEET NO. 1 OF 5

CHAIN OF CUSTODY RECORD – ANALYTICAL REQUEST

ANALYSIS REQUESTED (circle) PCM PLM TEM LEAD	TURNAROUND REQUESTED	NO. OF SAMPLES	COLLECTION DATE:
	5 day	71	9/12/12 9/13/12
RELINQUISHED BY:	DATE / TIME	SAMPLES RECEIVED BY	DATE / TIME
	9/18/12		
SHIPPING METHOD	COURIER (signature)	SAMPLES RECEIVED BY	DATE / TIME
N/A	N/A		9-19-12

COMMENTS

SAMPLE ID#	MATERIAL	LOCATION	COMMENTS
001	Bat Insulation	above ceiling exhibit storage	
002	2'x4' ceiling tile	exhibit storage	
003	cove base adhesive	exhibit storage	
004	wallpaper adhesive	" "	
005	rubber floor adhesive	" "	
006	joint cmp	" "	
007	joint cmp	" "	
008	2x4 ceiling tile	exhibit Rm	
009	bat insulation	above ceiling exhibit Rm	
010	wallpaper adhesive	exhibit Rm	
011	joint cmp	" "	
012	wallboard	" "	
013	cove base mastic	" "	
014	carpet mastic	" "	
015	lvl cmp	" "	

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PROJECT NAME: Hurtigan Centennial Hall
LOCATION: Sitka AK PROJECT NO. 12CSCT210
CLIENT: MCG DATE: 7/12/12
CLIENT PROJECT#: SHEET NO. 2 OF 5

CHAIN OF CUSTODY RECORD – ANALYTICAL REQUEST

ANALYSIS REQUESTED (circle) PCM PLM TEM LEAD	TURNAROUND REQUESTED	NO. OF SAMPLES	COLLECTION DATE:
RELINQUISHED BY:	DATE / TIME	SAMPLES RECEIVED BY	DATE / TIME
SHIPPING METHOD	COURIER (signature)	SAMPLES RECEIVED BY	DATE / TIME

COMMENTS

SAMPLE ID#	MATERIAL	LOCATION	COMMENTS
016	Joint cmp	Marksovtoff rm	
017	Joint cmp	" "	
018	2x4' ceiling tile	" "	
019	carpet mastic/wl cmp	" "	
020	wainscot adhesive	" "	
021	Joint cmp	Kitchen	
022	wainscot adhesive	" "	
023	roof seam mastic	Roof lower lvl	
024	Joint cmp	above stage right in HVAC Rm	
025	Joint cmp	stage right	
026	12x12 floor tile/mastic	" "	
027	coveback mastic joint cmp	Vestible 116	
028	carpet mastic	" "	
029	carpet mastic	east corridor	
030	stair tread mastic	stage right stairway	

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PROJECT NAME: Hartigan Centennial Hall
LOCATION: Sitka AK PROJECT NO. 12CGET-210
CLIENT: MCG DATE: 9/12/12
CLIENT PROJECT#: SHEET NO. 3 OF 5

CHAIN OF CUSTODY RECORD – ANALYTICAL REQUEST

ANALYSIS REQUESTED (circle) PCM PLM TEM LEAD	TURNAROUND REQUESTED	NO. OF SAMPLES	COLLECTION DATE:
RELINQUISHED BY:	DATE / TIME	SAMPLES RECEIVED BY	DATE / TIME
SHIPPING METHOD	COURIER (signature)	SAMPLES RECEIVED BY	DATE / TIME

COMMENTS

SAMPLE ID#	MATERIAL	LOCATION	COMMENTS
031	carpet mastic	multipurpose Room	
032	carpet mastic	" "	
033	covebase adhesive	" "	
034	wallboard	above stage left	HVAC Rm
035	joint comp	"	"
036	HVAC seam sealant	"	"
037	wall board	museum shop	124
038	wall texture	"	"
039	2x4' ceiling tile	"	"
040	Batt insulation	above ceiling museum shop	124
041	carpet mastic	Musem Storage	125
042	rubber floor mastic	Museum	123
043	covebase mastic	museum	123
044	2x4 ceiling tile	Museum	123
045	TSI	museum 123 center E. wall	

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PROJECT NAME: Harrigan Centennial Hall
LOCATION: Sitka Alaska PROJECT NO. 12CSCT-210
CLIENT: MCG DATE: 9/12/12
CLIENT PROJECT#: SHEET NO. 4 OF 5

CHAIN OF CUSTODY RECORD – ANALYTICAL REQUEST

ANALYSIS REQUESTED (circle) PCM PLM TEM LEAD	TURNAROUND REQUESTED	NO. OF SAMPLES	COLLECTION DATE:
RELINQUISHED BY:	DATE / TIME	SAMPLES RECEIVED BY	DATE / TIME
SHIPPING METHOD	COURIER (signature)	SAMPLES RECEIVED BY	DATE / TIME

COMMENTS

Warnock Hersey
Vancouver door company
1hr Rating
metal boxes Boiler chimney

SAMPLE ID#	MATERIAL	LOCATION	COMMENTS
046	joint cmp	Museum 123 E.	wall
047	ceiling texture	mens Bathroom	
048	2x4 ceiling tile	Dressing Rm	
049	joint cmp	Dressing Rm	
050	cove base mastic	" "	
051	carpet mastic	West corridor	
052	Fire door insulation	storage 129	
053	joint cmp	mechanical 130	
054	Bat insulation	storage 129	
055	Boiler Flange gasket	Boiler #1	
056	" " rope gasket	Boiler #1	
057	Boiler peephole gasket	Boiler #1	
058	Flange valve gasket	Boiler Rm	
059	Boiler insulation	Boiler #1	
060	joint cmp	Boiler Rm	

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PROJECT NAME Hartigan Centennial Hall
LOCATION Sitka AK PROJECT NO. MCSUT-210
CLIENT MCG DATE 9/13/12
CLIENT PROJECT# SHEET NO. 5 OF 5

CHAIN OF CUSTODY RECORD – ANALYTICAL REQUEST

ANALYSIS REQUESTED (circle) PCM PLM TEM LEAD	TURNAROUND REQUESTED	NO. OF SAMPLES	COLLECTION DATE:
RELINQUISHED BY:	DATE / TIME	SAMPLES RECEIVED BY	DATE / TIME
SHIPPING METHOD	COURIER (signature)	SAMPLES RECEIVED BY	DATE / TIME

COMMENTS

SAMPLE ID#	MATERIAL	LOCATION	COMMENTS
061	joint cmp	storage 106	cream
062	joint cmp	" "	white
063	skim coat	storage 106 ceiling	
064	cove base mastic	storage 106	
065	2x4 ceiling tile	Rousseau Rm	
066	wainscot adhesive	Rest Chourott Rm	Black
067	joint cmp	Davis Rm	
068	wainscot adhesive	" "	Black
069	rubber floor mastic	" "	
070	carpet mastic / lvl cmp	chamber of commerce	
071	window glaze	main stage windows	

APPENDIX C
Lead Paint Lab Report

WHITE LABORATORIES LLC.
383 INDUSTRIAL WAY ANCHORAGE, AK 99501 PH (907) 258-8661

Lead Analysis in Paint

WL Project #: 12CSLT-210
Client Project#:

Report #: 92304
Report By: C.Blanchard
Report Date: 9/21/2012

Client: McCool Carlson Green
421 West 1st Ave., Ste 300
Anchorage, Ak 99501

TAT: 5 Day **# Samples:** 11

Collection By: B.O'Bray
Collection Date: 9/12/2012
Analysis By: J.Hicklin
Analysis Date: 9/20/2012
Received By: Hicklin
Received Date: 9/19/2012

Project /NameLocation: Hartigan Centennial Hall

Client ID #	WL ID#	Result	Result Units	Reporting Limit (ppm)
P-001	AL12-2113	<72	ppm	72
P-002	AL12-2114	<58	ppm	58
P-003	AL12-2115	560	ppm	74
P-004	AL12-2116	<63	ppm	63
P-005	AL12-2117	<67	ppm	67
P-006	AL12-2118	92	ppm	78
P-007	AL12-2119	<73	ppm	73
P-008	AL12-2120	1,600	ppm	69
P-009	AL12-2121	<62	ppm	62
P-010	AL12-2122	<62	ppm	62
P-011	AL12-2123	<69	ppm	69

Joe Hicklin, Lab Analyst — Date 9/21/2012

Date 9/21/2012

Preparation is performed according to EPA Method SW-846 3050B (M). Analysis performed according to EPA method SW-846 7420 (M), analysis by flame atomic absorption spectroscopy. The Reporting Limit is at least twice that of the Method Detection Limit (MDL). The MDL (defined as the minimum concentration of an analyte that can be reported with 99% confidence to have a concentration greater than zero) is determined from statistical analysis of replicate samples in a given matrix containing the analyte, as defined in 40CFR Part 136, Appendix B. Field and laboratory blanks are used to assess possible contamination and sensitivity of analysis, and no blank correction is made. Unless otherwise stated, all quality control samples are acceptable. Modifications made to the previously referenced test methods are documented in WL, LLC's Standard Operating Procedures Manual. Supporting laboratory documentation is available upon request. Unless otherwise stated, samples are received in acceptable condition. Results relate only to the items tested. WL, LLC Anchorage is a current proficient participant in the AIHA ELPAT program (Lab ID# 102739). Test reports must not be reproduced without the approval of WL, LLC and are subject to WL, LLC General Terms and Conditions (see reverse).

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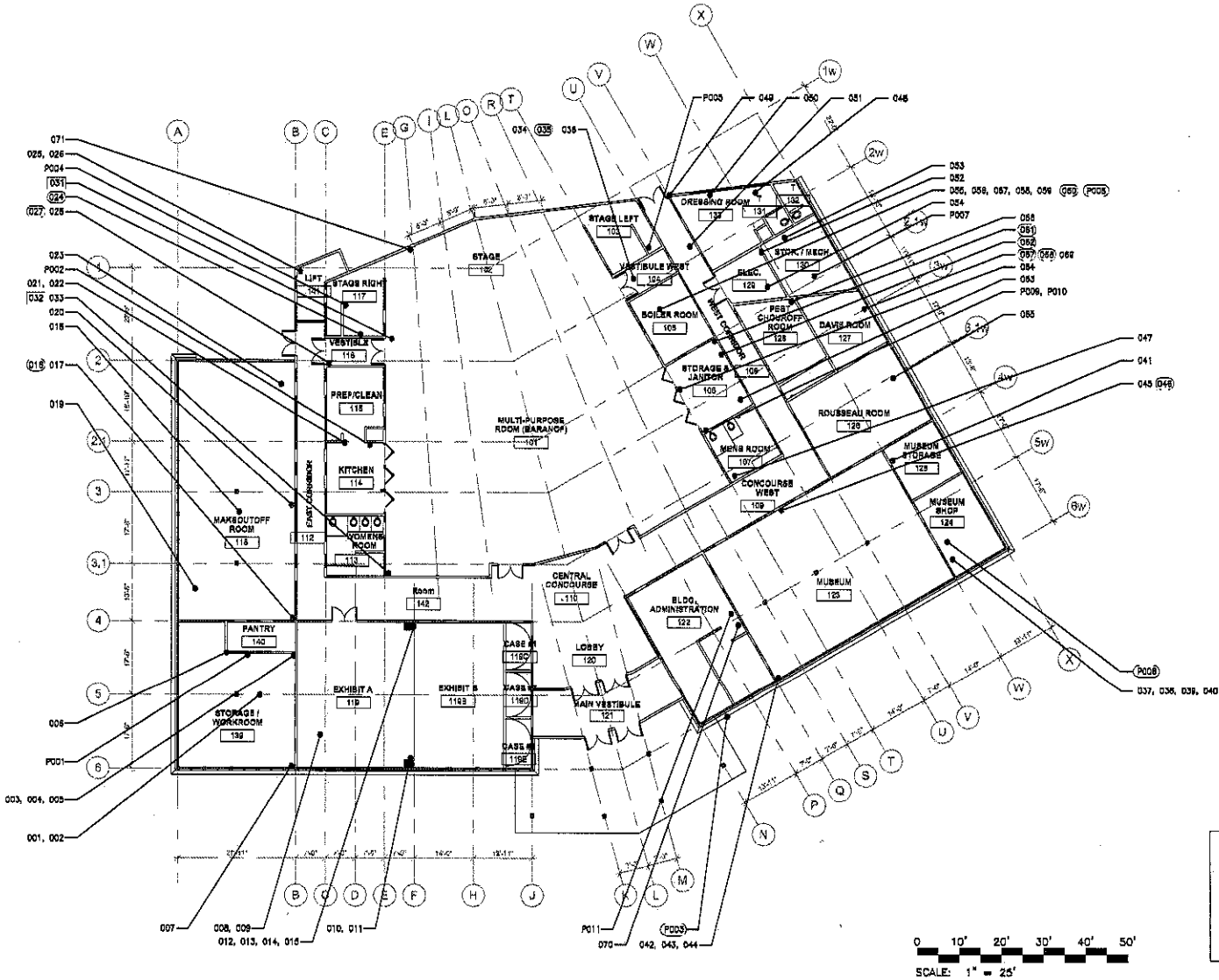
PROJECT NAME: Hartigan Centennial Hall
LOCATION: Sitka AK
PROJECT NO. 12CSLT 210
CLIENT: MCG
DATE: 9/12/12
CLIENT PROJECT#:
SHEET NO. 1 OF 1

CHAIN OF CUSTODY RECORD – ANALYTICAL REQUEST

ANALYSIS REQUESTED (circle) PCM PLM TEM LEAD	TURNAROUND REQUESTED	NO. OF SAMPLES	COLLECTION DATE:
	5 day	11	9/12/12 - 9/13/12
RELINQUISHED BY:	DATE / TIME	SAMPLES RECEIVED BY	DATE / TIME
	9/18/12	JM	9.19.12
SHIPPING METHOD	COURIER (signature)	SAMPLES RECEIVED BY	DATE / TIME
N/A	N/A		

COMMENTS

SAMPLE ID#	MATERIAL	LOCATION	COMMENTS
P-001	paint chips	exhibit storage	
P-002		Kitchen	
P-003		exterior paint	
P-004		stage right	
P-005		stage left	
P-006		museum shop	124 Floor
P-007		Mechanical	130 Floor
P-008		Boiler Rm Floor	
P-009		storage	106 Floor
P-010		storage	106
P-011		chamber of commerce	122



LEGEND:

XXX = SAMPLE NUMBER

SEE WRITTEN REPORT ASSOCIATED WITH THIS PROJECT FOR DETAILED INFORMATION ON EACH SAMPLE.

PXXX = INDICATES PAINT SAMPLE

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HARRIGAN CENTENNIAL HALL

PROJECT NO. 12C5LT-210	CHECKED: MATT WHITE	JOB No. 12C5LT-210
EPA ACCREDITED PROJECT DESIGNER BRETT O'BRAY	SCALE: AS SHOWN	DATE: 11/05/12
DRAWN: MATTHEW DOERKSEN	DWG. TITLE: HARRIGAN CENTENNIAL HALL	1 of 2

APPENDIX D
Public Input

HCH User Group and Individual Comments – Collected for 2011 Masterplan

1. **Harrigan Centennial Hall Manager** - Don Kluting

a. Museum does not pay for space or utilities. Having the Museum located in Centennial Hall impacts budget and requires increase in hours.
b. Visitor industry does not pay for Centennial Hall use but impacts operating budget.
c. Current use structure: 66% Non Profit, 27% City Government, 2% Commercial, 5% Other.
d. Centennial Hall shows 500k annually to operate but only 70-80k/year in revenue.
e. In general, Centennial Hall needs more space and would like to reclaim Museum area.
f. Would like to see a computerized system/program for Reservations, Tracking, Room arrangements. This would optimize organization and would enable more efficient management.
g. The existing Kitchen is not large enough to support large functions. The kitchen would benefit greatly from a preparation and staging area. Attached storage would also be useful.
h. Use other existing Boat Ramps in the community (UAS). The South and East sides of the building are incredibly busy. Between bus turn around and staging, boat launching and cruise ship passengers there is too much going on in that area.
i. Visitors currently arrive at the back of the building. Don would like to possibly expand building to Crescent Harbor sidewalk (East) and create second Entry.
j. Centennial Hall staff need a reconfigured office space. In general they would benefit from a front / back of house. This would allow a public front area, and a private office
space which would allow the staff to concentrate on work and not an influx of visitors.
k. Would like to host more Conventions. The technology and sound system are not up to date. During Sitka Summer Music Fest, HVAC has to be turned off because of noise.
l. A Convention staff office would also be beneficial to attracting more conventions.
m. Need Auditorium Overflow Area / Expanded Entrance and Lobby.

Sitka Historical Museum - Bob Medinger, Jacqueline Fernandez

a. The Museum needs more space. Much of the Museum's collection is unable to be displayed do to a lack of space. It also currently utilizes multiple off-site storage spaces.
b. Centennial Building lacks museum-level environmental controls, including temperature and humidity control.
c. Building lacks secure and stable collections storage and management space.
d. The building is very poor for exhibit spaces, due to low ceilings, and bad lighting.
e. The museum has no visibility and is not logically located. It is very difficult to find.
f. It is important for Centennial Hall to retain some displays.
g. Very receptive to sharing space with other venues such as Library or SCVB.

Russian Dancers / New Archangel Dancers - Linda Speerstra, Angela McGraw

a. They choose to use Centennial Hall / love the location
b. Walk-ins account for 20% of their audience
c. They have a good relationship with Sitka Tribe of Alaska.

d. Centennial Hall Stage: Bigger okay, small not okay
e. Lights and acoustics need improving.
f. The dancers are concerned about the construction schedule. Being displaced for a summer would be difficult to work with.
g. Performances Tuesday, Wednesday, Thursday (Cruise Ship Schedule).
h. 2011 - 120,000 expected cruise ship visitors. This is down from past years.

4. **Sitka Summer Music Festival** - Dan Jones, Melissa Marconi Wentzel, Bobi Rinehart

a. A true Green Room would be greats addition to the Music Festival. Audio / Video set up in room adjacent to Auditorium. Possible location in one of the three smaller meeting rooms (Davis).
b. Audio/Visual comes from Maksoutoff Room. They would benefit from a larger network for broadcast, similar to Performing Arts Center.
c. Create an enlarged Entry Area / Lobby / Foyer. There is no place to gather and wait, especially for older people.
d. Bathrooms and Kitchen are noisy during performances.
e. Enhance view from Auditorium, possibly by lowering parking area, and preferably closing area to traffic.
f. Now that we are doing performances during the day and night, there is concern about cruise ship passenger noise.
g. Alter to improve acoustics, within the main space, appropriate to high-end performance. From a patron standpoint, the biggest complaint is the air system. It is LOUD. So loud, that we must turn it off during concerts. It would be great to silence that a lot. It would also be nice to split the air so that we can have it on the patrons and not the stage. More wireless mics that do not have to be hand held would also be nice, as well as higher quality boom stands (that work for hand held mics).
h. We would like to see some serious improvement regarding the lighting capabilities on stage.
i. We would like the lighting console and the sound console on the same side of the stage (need inputs for sound on the other side). We should be able to control both in the same place.
j. We need additional lighting instruments, and we need additional points to hang the lighting. It would be great to have more circuits, too. If we cannot get more circuits, we could just have additional places to hang lighting and "steal/share" circuits.
k. The Backstage area is tight. It would be great to have more space for artists getting ready to go out.
l. It would be wonderful if we could eliminate or lower the wood railing where the piano is stored, allowing someone to move the piano out without crashing into the railing.
m. It goes without saying that the view is VERY important to the Festival but we still feel like the need to reiterate that again here. Along those same lines, we would like to see some sort of permanent film blinds (we have no idea what these are called but we are sure that they are probably made), allowing photos and video to be taken with the windows open. It would be perfect if these fancy blinds could be lowered and raised, depending on the brightness. We think that this could be a very important tool for marketing the building.

Sitka Tribe of Alaska - Camille Ferguson, Gerry Hope

a. Primary step would be to improve traffic flow through the site and building. Create entrances / exits with less 'through' flow of traffic blocking key areas.

b. Create separate area for busses and pedestrians to safely cue.
c. Centennial Hall should be a place for a nice, protected bus stop. Transportation funding possibly available to supplement the city. Transit plan should use Multi-modal funds. It will be important to have a good overall vision and do it the right way the first time.
d. Public Transit stop possibly not located within parking area, instead create a "typical" city bus drop off.
e. Centennial building needs more restrooms. Overall aesthetics should be brought up to 21st century. HVAC updates are needed to reduce air noise.
f. Would like to see a covered vendor area. First, it would be best if the procession from Cruise Ships was through a comfortable vendor area and not a beeline to the building.
g. The Visitor's "trolley" busses should go to Centennial Hall as location to pick up tourists.
h. Parking demand is high, especially at certain times. It might be necessary to look at multi-level parking.
i. In changing the flow of traffic, there might be an "Entrance Only" off of Franklin Street.
j. The Island Dwellers should pay to park.
k. Sitka public transit busses are all moving towards 29' so turning radiuses will be increasing.

6. **Alaska Day Committee** - Ted Allio
a. Would like to see better control over building HVAC. To minimize noise, they turn HVAC off, doors are then opened to increase air circulation, which in turn triggers the HVAC.
b. Alaska Day Ball would benefit from enlarging the Auditorium and providing increased seating.
c. To improve the site capacity, move the Baranov statue. Consider adding tideland fill to create more useable area.

7. **Vendors** - April 8th, 2011
Deborah Younger-Rear, Sea Life Discovery
John Dunlap, Allen Marine & Sound Ocean Adventures (Kayak Tours)
Bruce Conine, Sitka Wildlife Tours (most sales made on docks)
Mitch Cowan, Captain Black Bart's Charters
Betty Jo Moore, More Taxi & Tours

a. Would like covered shelter for Vendors that is colorful, attractive and protected from the weather.
b. There needs to be a place for people to queue when reloading the lighter boats.
c. The current shelter is under utilized. Is it possible to dress it up and use it more? When the fishermen need it, they need it. It does not matter if there is a cruise ship there.
d. Provide more restrooms with proximity to vendors.
e. Currently there is a huge safety and congestion issue with people crossing the road from the lightering dock due to conflicting traffic from the boat ramp and bus turnaround.
f. Boat ramp has to go.
g. Human-powered craft (kayak and canoes) should be accommodated completely away from tender lanes at Centennial Hall if possible.
h. Suggestion that maybe lightering only goes to Crescent Harbor and the O'Connell

Bridge dock is used for small boat / man powered craft launch.
i. One Lighter dock at Crescent Harbor would create simplicity, recognition, and ease of way finding for tourists. It would alleviate anxiety about which dock to send people to. It needs to be simplified for people coming off boats.
j. Getting rid of bridge lightering scares some vendors.
k. Elevated / multi level parking would create a reduced footprint. It would open more area for visitors and not remove Lincoln Street landscape areas.
l. Consider a new Visitor Center in front of Centennial Hall. Warm, dry space with restrooms and vendor accommodations. Create the "Complete Central Location"
m. Vendors need to be visible. First 20 feet is most important. People need to be able to locate restroom and view where they are supposed to head next. Design improvements should guide people where we want them to go.
n. The new Library building should include Museum and Visitor Center combo.
o. New ships will likely utilize the McGraw Dock, and vendors will sell tours at McGraw dock. Some vendors are excited to not deal with city. It does however present challenges for Allen Marine, as they currently meet ships off-shore.
p. Provide more public seating protected from elements for waiting people.
q. For quick Implementation, even this summer: rain relief for vendors and visitors waiting to load lighters. Possible use of canopies.

8. **Vendors** - April 20th, 2011
Mike Wasson, Alaska Travel Adventures
Kenneth Rear, Greenling Enterprises LLC
Deborah Younger-Rear, Greenling Enterprises LLC
Sherry Aitken, Sitka Tribal Tours

a. There is currently no place to gather tours. The building, busses, and boat ramp access create a pinch point.
b. Additional restrooms, exterior of Centennial Hall, would be an attribute.
c. Move boat launch. Add possible Kayak launch on other side. Extend the lightering dock toward the break water.
d. Narrow Franklin Street green strip slightly to allow for some increased parking.
e. Group does not believe Centennial Hall is the right place for a Visitor Center.
f. Centennial Hall is meant to host conventions not necessarily be the central tourism area of Sitka. Possible locations for a Visitor Center would be at O'Connell Bridge, or in an underutilized building downtown visible from the Crescent Harbor Lightering Dock.
g. The combination of one entrance / exit into Crescent Harbor along with the location of the lightering dock creates a dangerous harbor. Possible solution is to add a second opening into Crescent Harbor.
h. O'Connell Bridge area could function as a bus transfer location including busses from McGraw Dock. From O'Connell there could be positive traffic flow to downtown and a sea walk to Centennial Hall.
i. Cruise ships are guided to the specific lightering dock.
j. It is important to ask the Cruise Ships what they want to see happen. What would help more cruise ships come to Sitka? Vendors would like to see 2 ships a day to drive sales revenue.
k. Lightering is not a desirable option for Cruise ships or passengers.
l. Sitka is an expensive port. To stay competitive as a port, community support is needed.
m. Would prefer to see a Visitor Center in one of the underutilized buildings downtown with good signage welcoming tourists.

n. The number one question of visitors as they exit the cruise ships is, "Where is downtown?" This problem needs to be solved.

9. **Senior Center** - April 8, 2011

a. Would like to see sitting area on the water side behind Centennial Hall, similar to what is along the water at the Library.
b. Punch buttons on Bathroom doors for Accessibility.
c. There are not enough Handicap spots that are actually available and accessible.
d. Keep bus traffic in front of building, not behind.
e. Island dwellers park for extended periods in parking lot during the busy summer times. Would like to see a plan that limits or regulates their time similar to other Sitka residents.
f. Provide additional safe crosswalks connecting downtown to Centennial Building.
g. Some 'Multifunction' elements should be removed from Centennial Building so it can more truly function as the conference center it was originally intended for. The museum seems like obvious use to relocate.

10. **Sitka Convention & Visitors Bureau**, Sitka Chamber of Commerce, SEDA
Tonia Rioux, Sitka Convention & Visitors Bureau
Jennifer Robinson, Sitka Chamber of Commerce
Gerry White, SEDA

a. There has been discussion of moving the three agencies to Centennial Building or a separate Visitor's Center.
b. Concern for SCVB that their current rent is supper low. They only staff 3 employees with volunteers filling in seasonally. They are worried that if centrally located, staffers would need to be shielded from "the front line."
c. The Chamber would like to be more visible to local businesses.
d. SEDA is happy behind the scene, does not need to be in the public's face.
e. Visitor's Center would benefit from a "home base" in the Centennial area.
f. The Chamber of Commerce uses Centennial Hall for the Artisan Market. This three day event uses the big hall and two large rooms.
g. Other key summer use includes BACA: Baranov Arts and Crafts. BACA utilizes the Baranov Room, and East and West Exhibits all summer. This creates subsidized space on City properties. There is a kickback to Centennial Hall, but does this outweigh the alternative option of opening meeting rooms for Conventions instead?
h. Economically, charters, fishing and cruise capacity are all down. Are there other economic growth opportunities with SJ Campus?
i. Current visitor services happen in Centennial Foyer. This is cramped and works very poorly.
j. Possible shared facility with Sitka Sustainable Outdoor Recreation Park, SSORP, should be considered.
k. Consider a new combination building including Chamber / Visitor Center / Museum / Visitor Bureau with public space on First Floor, and offices on Second Floor.

11. **Center for Community**: The lead agency of Sitka Public Transit - Connie Sipe

a. There is low-interest federal transit money and State-controlled transit grants at 80/20 federal/local available for parking facilities, lots, transit buildings. Juneau's new downtown parking garage, transit ticket office, and snack shop were built with transit money. Usually only "catch" is that income must go into public transportation (maybe

in proportion to transit money as percentage of whole).
b. Parking needs to be regulated during busy months. Cost of enforcement could be supported by higher business usage fees for tourism, vendors, tour buses, charter operators that fill the lot in the summer, etc. Businesses are charged only $400 per year for a permit to Harrigan's lot. It should be $500 a month for 4 months or $2000 for a year.

12. **Anderson Land Planning** - Monique Anderson

a. Create strong waterfront pedestrian route - Green space should be as wide as possible.
b. Buses are big gorilla in room. Carefully strategize bus drop-off, staging for tours, and bus parking impacts since they are big visual barriers. Running engines are distraction too.
c. Create better relationship of lightering facility to Centennial Hall. The backdoor approach does not work.
d. Expand building toward waterfront. Create outdoor and performing arts locations, plaza, active space.
e. Move boat ramp! This is a "one of a kind" view, and other boat ramp options exist..
f. Covered pavilion is used for "rainy day" outdoor events and needs upgrade.
g. Parking lot should be viewed as an outdoor festival space as well as for cars.
h. Seasonal busses might suggest temporary tourism 'shack' needs. Cover vendor space and cueing space could be removed after summer. Space should be allocated in plan.
i. Move canoe to another prime waterfront location.
j. Co-locate various visitor services in a new center with Wi-Fi and computer access.

13. Lisa Baugher

a. Enlarge the restroom at corner of Harbor and Lincoln Streets. Side walks cracked and crumbling. Need to be replaced and possibly widened.
b. Need to preserve as much green space as possible. Even a few feet of border is more attractive and appealing. Need new attractive lighting.
c. Pedestrian and vehicular flow seems to be the number one priority in listening to folks voice their concerns, for both summer visitor and year-round residents. Absolutely rework parking lot configuration.
d. One suggestion would be to move the library to SJ if possible and relocate the museum to the Library building.
e. Another priority for Centennial Hall is the creation of more meeting. Like idea of routing tour boat folks into building and utilizing museum area for visitor information. Build 2nd floor around central room for more space.

14. Jeff Budd

a. Provide more Restroom space.
b. Give community and users lots of warning concerning construction as people have events scheduled 2 years in advance.
c. Provide more breakout rooms in Centennial Building.
d. Refer to building staff for use patterns and needs as they know the most.
e. Don't forget that Sitka Summer Music Fest is all of June.
f. Build new Visitor Center / Chamber / SEDA space between Library and Centennial Building.

15. Rebecca Poulson

a. Take advantage of and retain distinctive architecture of building, especially porch, entry, lobby, interior design - (wood, linen etc) which is distinctive, stylish and now vintage. If you update, new version will soon be dated.
b. Maintain and improve glass wall back of stage.
c. Retain enough landscape so site is appealing. We'll never have all the parking we want anyway.
d. Strength of the building is its multiple uses - flexibility.
e. It would be difficult to add a new function (Visitor Center) when the building is already pushed to limit to accommodate existing uses.
f. Need good wheelchair / accessible routes / paths. Library front doors, Centennial building front doors, Harbor, Downtown

16. Judith Ozment

a. Crescent parking should change traffic flow to logical one-way routes.
b. No bus parking or standing in front Centennial Hall.
c. No inoperative vehicles, boat trailers or "for sale", objects allowed in parking lot.
d. Provide one allotted space per island residence; rent space for island commercial uses (lodges etc.)
e. Use landscaping and plantings to create a beautiful surrounding edge to Centennial Parking, and also discourage pedestrians crossing Harbor Drive in un-safe locations.
f. Centennial Hall needs a "family" type restroom for disabled needing assistance & families with children. This would also help with crowds from music festival, tourist groups, etc.

17. Ralph C. Lawson

a. Widen entrance of one way out and make two way, also serving as a bus entrance.
b. Eliminate the interior island to make it into an expanded parking lot.

18. John Stein

a. Acquire "Women's Club" land for Museum / Library.
b. Preserve open space along waterfront.
c. Think about Tsunami issues.
d. Abandon trailer boat launch, add kayak launch float.
e. Signage visible from "both" directions. Marque / reader board?
f. Consider impact of McGraw dock and bus impacts.
g. Keep working on Harbor walk.
h. Side doors on South side with outdoor paved patios.
i. Sidewalk to library.
j. Ocean-source heat pump heating.
k. Interior re-decoration.
l. Canoe to near village, or near SJ Campus.
m. Fees to use parking lot to clear-out inactive storage.
n. Remove columns in museum space.
o. Boardwalks to end of breakwaters with outlook.

p. Get "Ride" bus stop out of parking lot.
q. Queue busses off-site. Japonski, Baranof School yard.
r. Color code and flag lightering docks. ie. "Red Dock" "Blue Dock"
s. Mezzanine over hall for auxiliary use?
t. Consider size of vehicles, many large vans, trucks etc.
u. Moveable flower/landscape displays that can be put away in the winter, out in the summer and moved with a fork lift.
v. Move museum to Library.
w. Jitney (?) transport for downtown - Totem Park.

19. Nancy Davis

a. Agrees there is a strong case to separate museum from Centennial Hall.
b. Balcony for events and raised seats with a view.
c. Wrap around roof.
d. Maximize spectacular view.
e. Hire students to help visitors negotiate the complexity of the site.
f. Add Filipino heritage, history and local participation.

October 30, 2012

User Group Meetings

Time and Place: 10am – 5pm, Centennial Hall

Technical Team:

- Garrett Burtner, Architect – MCG
- John Weir, Principal Architect – MCG
- Stephen Weatherman, Municipal Engineer – CBS

a. **Sitka Summer Music Festival** – Kayla Boettcher (Executive Director) & Jeff Budd (Board Member)
   i. SSMF of the Alaska Chamber Music Festival has been held in HCH for 41 years. The location was selected over other venues for it's iconic view from the stage. The view continues to be definitive of the festival.
   ii. SSMF brings 25-30 world class chamber musicians to Alaska every year. There are 8-10 concerts in HCH during the month of June; Thursday noon and Saturday-Sunday evenings. A crab feed is held in the Net Shed shelter nearby HCH. An outdoor concert has been held in the Totem Park the past 2 years.
   iii. Kayla would like to be the alternate for Dirk White on the BDC. Dirk is often out of town and the SSMF needs to be represented on the BDC.
   iv. Acoustics in the MPR are OK but HVAC noise in the space is a problem.
   v. Should be able to run sound (and lights) from the back of the MPR.
   vi. SSFM has a lighting designer in Anchorage. When a schematic is ready for MPR lighting is should be reviewed by this designer and other key users.
   vii. Telescoping stadium seating needs to be quiet. This equipment can be very noisy when people walk around during a performance.
   viii. The stage is large enough for SSMF but the wings/ backstage is <u>not.</u>
   ix. Traffic flow in the Lobby and Concourse is confusing. Needs better wayfinding and signage.
   x. Boat launch traffic can be distracting during performances since SSFM always has the curtains open to enjoy the view.

b. **Greater Sitka Arts Council, Sitka Monthly Grind** – Jeff Budd (Executive Director)
   i. GSAC puts on an annual wearable art show in the MPR. They build their own runway with risers and last year rigged lighting above the runway with the help of HCH staff. New lighting designs should consider this need.
   ii. Jeff is concerned that Don be included in design decision-making with the Building Design Committee.
   iii. The strength of HCH is in its multi-purpose nature. This should be maintained and enhanced with the renewal.

c. **New Archangel Dancers** - Linda Speerstra & Angela McGraw
   i. The dancers run their own lights and sound from the stage because they do not have an extra person to do this. Angela coordinates from the wings in view of the stage. They currently use their own AV rack which they keep parked on stage left behind the curtain all summer. It plugs into the

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house speakers on the front of stage left. If the main light and sound controls are moved to a booth at the back of the MPR, the dancers will need remote control for lighting scenes and a way to tie in their music and mic to the house speakers.

ii. The Dancers hang their own blue curtain on a spare rail across the back of the stage. This is because their costumes don't photograph well against a black curtain. The design should accommodate a spare rail for this need and others.

iii. The MPR needs more flexibility for decorating. The walls should have a rail for hanging things around the edge.

iv. The dressing room works OK for the Dancers. In the summer they store all costumes in the room and it isn't used by anyone else. They have not heard that this is a problem.

v. The stage is big enough for the Dancers but the wings are cramped.

d. **Sitka Convention and Visitors Bureau** – Tonia Rioux (Director) & Philip Rupell (Director Convention Sales)

i. Additional space needs to be allocated to a Visitor's Center in the building. The primary function of this area is orientation of new arrivals and is done by greeting them at a counter and by providing graphics, information, maps etc. Room for up to 3 greeters is required.

ii. Wall space is needed in the Visitor area for card racks, interactive displays, signage and maps.

iii. Places to sit inside the building are important for tired and elderly visitors as well as for locals using the building.

iv. A coat check room would allow secure storage of coats during events. Currently people do not use the coat racks in the Lobby much. Replacing these with a coat check room would free up Lobby space for seating and provide another source of income for donations during events. The coat room would be staffed by the Event.

v. The building needs a CCTV system to allow simulcasting from the MPR to the other meeting rooms during larger conferences.

vi. Large banquet events in HCH can seat 300 people at rounds split between MPR and Maksoutoff. If MPR cannot be made larger, CCTV can be used to connect the rooms during a large banquet.

vii. All rooms need independent temperature control. Currently raising the thermostat in the Maksoutoff room causes the entire building to heat up.

viii. The area currently occupied by the office is prime meeting space. The office should be relocated.

ix. A loading dock would increase the ability of HCH to host larger events.

x. Traffic for the boat launch conflicts with visitors coming off the lightering docks. Access to the boat launch should be controlled.

xi. The building and site need to direct cruise ship passengers past the tour vendors on their way in to HCH.

xii. The lightering dock at the McConnell Bridge was built to direct more visitor foot traffic to that end of Lincoln St. It seems that visitors usually only walk as far as the orthodox church so depending on where they start, some shops see more traffic than others.

e. **Harrigan Centennial Hall** – Don Kluting (Facility Manager)
   i. There needs to be adequate exhibit space for convention vendors.
   ii. As a marketing tool the facility needs more views of the landscape/harbor.
   iii. The facility needs state of the art, embedded technology to meet contemporary meeting and convention needs.
   iv. Auditorium needs a good durable floor.
   v. Need a recessed grate at the entry.
   vi. Chandeliers are part of the Russian heritage.
   vii. Need a washer and dryer for kitchen and Janitorial.
   viii. If we take space from the auditorium we need to make it bigger; could use an additional 500-100 SF.

f. **Sitka Historical Society Museum** – Bob Meninger (Executive Director) & Jaqueline Fernandez (Curator)
   i. There was an assembly resolution a few weeks back that recognizes the Museum project as part of the May 2012 4.5million grant request and supports further development of the Museum project as started with the Foraker pre-development process. Bob gave MCG a copy of this resolution.
   ii. Does MCG have a museum consultant on the design team? The Museum will need someone to help develop the permanent exhibits.
   iii. Bob is concerned about phasing and the effects of construction on continued operations. MCG will develop phasing plans.
   iv. We need to discuss the location of the visitor center. Mayor McConnell would like to see a café and seating area incorporated. It may make sense to have 2 spaces, 1 at each entry.

APPENDIX E
Historical Society Museum Pre-Development

Sitka Historical Museum

Final Report

Recommendations for Programming for the Sitka Historical Museum

The Foraker Group
Pre-Development Program

November 30, 2011

Prepared by
Mary Pat Wyatt, Consultant
Alaska Cultural Resources
1760 Capital View
Juneau, Alaska 99824
907-364-326

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Executive Summary

Introduction:

A new addition to Centennial Hall for a museum and visitor services is proposed. This offers an exciting opportunity to strengthen Sitka's museum services to the community and to the visiting public, while making space available in Centennial Hall for revenue making meeting spaces. This report suggests museum best practices for space, staffing, and budget. Museum operations include providing collection management, a safe, interesting exhibit area, and educational programs to engage the community and Sitka's visitors. This report identifies the level of services possible with the recommended and sustainable staffing, budget and space.

In Sitka, as in many other Alaskan communities, the collections are owned by the historical society and the City owns the facility. Sitka residents are fortunate that the Sitka Historical Society (SHS), established in 1957, has preserved so many historical objects, and operated a museum for Sitka since 1971. In addition to offering exhibit and educational programs, the Museum currently preserves and documents over 8,000 historical objects/artworks, 25,000 photographic prints/negatives, and 35,000 (110,000 pages) archival materials. Preservation and documentation of collections is an on-going public trust responsibility and the basis of any museum's mission. The City, honoring its 1967 funding requirements, has provided space and utilities. Sitka benefits from this team effort.

Critical Needs:

Despite heroic efforts by the small staff and volunteers, there are several critical needs at this time.

- The Museum has seriously outgrown its space in Centennial Hall. The collections are packed into a 300 sq.ft. on-site dedicated collection processing/storage room, with about 130 sq.ft. of workspace crafted out of the exhibit gallery. Unheated space in the Pulp Mill Administrative Building is free, but with no guaranteed continued use. The U.S. Geodetic Survey White House leased from the USDA Forest Service provides critical work and storage space, but not for irreplaceable museum objects. A museum's public trust responsibility is to care for their collections to last ***forever***.
- The exhibit space is not adequate, and the exhibits are old and tired. Staff is taking steps to protect objects from deterioration from light and is slowly revamping the exhibits. They have recently emptied one exhibit to create a small temporary exhibit area. A total redesign of the exhibits is needed.
- Staffing is not adequate to perform basic tasks on a professional level. There is a very large backlog of collection management tasks - perhaps 5 years x 2 FTE to get caught up. The Museum's Curator, summer museum interns, and volunteers focus on collection management as much as possible. Plus, in 2011

alone, 750 historical objects, photographs and archival materials have been received. Approximately 15,000 acquisitions since 2001! This is a huge number to process with the current staffing, let alone catching up the backlog. It will be critical to have collection information efficiently accessible when designing exhibits for the new space.

- A stable revenue source is needed to attract and retain professional staff.

Recommendations:

The following recommendations for staffing, programming, space and budget are based on museum services offered to the community and the related workload.

- **Space:** A 5,800 sq. ft. dedicated museum space is recommended, located off a visitor services and orientation lobby connection to the new, enlarged Centennial Hall entrance. Designed for efficient, sustainable operation, this size would be adequate for exhibits to tell the story of Sitka's peoples. Museum level environmental controls will ensure the preservation of the collections and enable the Museum to borrow objects and temporary exhibits from other institutions.
- **Staffing** would provide best practices care of the collections, safely open the Museum 7 days a week in the summer and 4-5 days a week in the winter, maintain and change exhibits on a set schedule, and provide educational activities. Staffing is recommended at 4.5 FTE, plus 6-9 months of a museum or archival student intern per year, and volunteer assistance at the front desk, in collections, and other activities. Reliable staffing and employee benefits are crucial to attracting and retaining staff.
- **Budget:** The Museum operating **budget** should be adequate and stable to attract and retain staff and to safely keep the museum open, accomplish interpretive activities (exhibits and educational programs), care for collections, and market the museum services. A balanced budget will require a commitment from the City and from the Society. New exhibits, in a new improved space located off a visitor information lobby should increase revenues dramatically, with appropriate marketing and operation. An operating budget of $318,000 Is recommended.

Planning should start soon. The Museum has already developed a permanent exhibit layout plan including recommended objects approved by their Board of Directors. They will need to refine this plan as the new exhibit galleries are designed. Although Sitka residents should develop the exhibit themes, much of the implementation should be by professional exhibit designers. Staff should gather statistics and surveys to best understand their audience and how to market aggressively and cost effectively.

Introduction & Methodology

Museum History

The Sitka Historical Society was established in 1957. The Society installed a museum operation into the recently constructed Centennial Hall in 1971 when the Society was asked by the City "to provide exhibits of local history in the building." The U.S. Department of Commerce Grant to construct Centennial Hall stipulated that the building be "…a Civic center, convention and exhibition building." The 1966 plans show about 2/3 of the building intended for "Exhibits." A 1967 letter from F. Gaines Sutherlin, the Alaska Centennial Project Officer, to the Mayor and City Council complements the building but expresses a concern about the use of the building:

> *…I am sure you gentlemen appreciate that your application for construction funds to erect this building was based on the continued use of this building as a convention and community center and to display historical items of significance and interest to the people of the world relating to Sitka and the State of Alaska History…Space is also to be maintained on a continuing basis for a tourist promotion and information office in the building.*
> Sutherlin letter: August 28, 1967

Society volunteers first operated the Museum. Isabel Miller volunteered as the full-time museum manager from 1972 until 1989. Since 1971, the City has recognized the value of the Museum by providing space, utilities and operational funds, and until last year, janitorial assistance. This has allowed the historical society to focus on their mandated public trust responsibility of preserving the rapidly growing collections, keeping regular open hours for the museum exhibits, providing school tours and educational programs, assisting researchers, providing outreach exhibits, and supporting community historical and cultural events and projects. The Museum's mission, collections and exhibits focus on the human history of the Sitka area.

> *The mission of the Sitka Historical Society is to preserve and promote the events, stories and artifacts of the human history of the Sitka area for the inspiration, education and benefit of the public and future generations*.

Museum Planning

Sitka is pursuing an exciting vision for a new museum, with a visitor services lobby connecting to the Centennial Hall expansion and remodel. The expansion will offer the opportunity for a more successful and professional museum operation and enhanced visitor services. Museums are a natural pairing with visitor services as museum exhibits provide orientation to new residents and visitors, and a sense of place and pride to Sitka's residents.

The Foraker Group Pre-Development Program is assisting with planning to insure that the new facility and operation are well-tailored to the community needs, sustainable, based on museum best practices, and provide a sound basis for a long-term successful program. Mary Pat Wyatt of Alaska Cultural Resources was hired in October 2011 to provide museum best practices *recommendations* for:

- facility size, museum space allocations and adjacencies,
- professional staffing levels, and
- a balanced budget.

These recommendations assume that the Museum will be located off a welcoming lobby that will serve as a visitor information and orientation center. The lobby would equally welcome both the lightering side of Centennial Hall and the main entrance coach drop-off area, and allow cruise ship and independent visitor access to vendors located outside. Visitor brochures and an information desk would be located in this lobby. The SCVB has expressed an interest in providing and stocking rack cards, staffing a visitor desk and, if financially affordable, in renting a small workspace or office to provide permanent staffing serving both cruise ship and independent travelers. Self-service information would be available for off-season visitors. It would be wise to pursue this possibility in depth, as the Museum staff could not assume visitor services.

One idea presented to the Sitka Historical Consortium group was the possibility of permanent, built-in exhibit cases in the visitor center lobby that might be rented by non-profit historical and cultural groups and managed by Museum staff. Sheldon Jackson Museum, Sitka National Historical Park, and the USDA Forest Service have all expressed great interest, and/or have offered to pay for exhibit development and/or installation. A large interactive or three-dimensional map of Sitka would be helpful, but what visitors really like is contact with local residents. The lobby would also access restrooms, Centennial Hall, and the Baranof Arts & Crafts Association (BACA) display/sales room. Ideally the lobby would find a variety of year round uses.

Sitka is fortunate to have the advantage of other communities' experience. The McDowell Group researched *Alaska Libraries and Museums: A Review* in 2007, comparing several newer museum and library facilities on the Kenai Peninsula, Prince William Sound, Kodiak, Aleutians, and Southeast Alaska. The research for this planning document used that publication, plus Foraker recommendations for the Seward Museum and Yupiit Piciryarait Museum in Bethel, and a Foraker Survey on salaries and benefits for non-profits. Recommended spaces for the proposed Sealaska Heritage Institute and the Cordova Center were also studied. Bob Medinger, Museum Executive Director, provided operating and history information on the Museum, and I contacted museums in Cordova, Ketchikan, Juneau, Wrangell, Nome, Kenai and Wasilla to provide comparison statistics found in this report, Appendix A. Special focus was on museums that shared a facility.

Planning and preparation that should start immediately is:

- Assemble a Standard Operating Procedures Manual (See Appendix C).
- Create a Daily Visitor Report. A single sheet would record visitation numbers, special groups, identify special events that affect visitation, record volunteer names & hours, admission revenue and Museum Shop revenue. This will provide valuable statistics to help with staffing and revenue projections, scheduling, budget and grants. (See Appendix B).
- Continue to develop an outline of exhibit themes, and list objects/materials to interpret each exhibit.
- As mentioned, accelerate data entry with photographs into the Museum's PastPerfect collection database. Inventory collections by year and track number of accessions and number of objects/photos/archival received each year to better understand workloads and collection growth needs. That information was not clearly available for this report. Include this data in Museum Annual Reports to create a history of the museum development.

When establishing position salary levels/ranges, careful comparisons were made from information from The Foraker Group 2010 Salary Benefits Survey, The Alaska State Museums the Consumer Price Index from the Bureau of Labor Statistics.

The Museum has been farsighted in applying for and receiving the American Association of Museums' Collection Stewardship Museum Assessment Program (CSMAP) review via funding from a Rasmuson Organizational Improvement grant. This funded the recent CSMAP visit and report evaluating the museum collections and made recommendations for improvement. Year two of this grant provided $35,500 to implement the CSMAP recommendations. Museum staff is currently implementing this phase, which will include:

- A two month intern (Nov/Dec 2011) focusing on collections/exhibits
- Possible archivist funding support
- Temporary exhibit equipment: Milla walls, and pedestals
- UV protection on the windows and lighting
- New Museum Panels
- An object bagging station
- A market/visitor survey
- Archival supplies

Specific planning activities for this report also included information gathering in Sitka in October 24-26, 2011 from a SHS Museum Committee meeting, a Sitka Historical Consortium meeting, and staff at the Museum, Centennial Hall, City, and Sitka Convention and Visitor Bureau, among others. I am working closely with MRV Architects on conceptual space layout and adjacencies to ensure practical application. Their work includes the estimation of facility construction and operating costs.

Current Museum Space Allocations and Operations

Museum Space

The Museum collections are owned and managed by the Sitka Historical Society (SHS), a 501(c)(3) nonprofit. The Museum exhibits, Museum Shop, office, and some collection processing and storage are located in a 2,161 sq.ft. In Harrigan Centennial Hall, owned by the City and Borough of Sitka (City). The City, via a 1971 agreement, does not charge for rent or utilities. Centennial Hall is open seven days a week in the summer, and six days a week in the off-season, with support spaces, such as restrooms, meeting rooms, mechanical and lobby.

It is difficult to calculate the space the exhibits actually take in the 1,578 sq.ft. public area. This area includes a 75 sq.ft. reception/sales desk, a 230 sq.ft. Museum Shop, about 95 sq.ft. collection work/storage space, which leaves 1,178 sq.ft. for exhibits. A 35 sq.ft. table used for research, receiving donations, and exhibit preparation, also took up exhibit space. The space has no structural interior walls, and the entire exhibit area may be seen from the entrance, which makes it appear small. Removing a permanent exhibit and the large table created a small temporary exhibit space and enlarged video viewing area.

Support space can be found in the **White House**, a 1901 U.S. Coast and Geodetic Survey house on the National Register of Historic Places. Approximately .30 mile up the hill from the Museum, it was recently leased from the U.S.D.A. Forest Service via a 10-year "Special Use Permit" for $100 per year, plus maintenance, grounds keeping, insurance, and utilities. The current terms could have the permit withdrawn for one of several reasons, requiring the Museum to vacate. There is a possibility that the property might be secured with more favorable terms. This house serves to process and store archives, photos, art and objects, and exhibit and supplies storage, exhibit production, and as critically important intern housing. Historic objects, plus museum supplies and equipment are stored in the basement, accessed by outside and inside narrow stairs. Archival collections are stored on the main floor back bedroom where an efficient processing area is set up, while the front room is used for exhibit production and meetings. Two rooms on the second floor are used for housing interns and visiting consultants, and the third to be used for exhibit production. The closets in two of the three-bedroom store framed artworks. Collection storage fills 205 sq.ft. (817 cu.ft.).

Two rooms (504 sq.ft.) in the **Pulp Mill** Administration Building basement provide the third dedicated museum space. This space is free, but there is no guaranteed continued use agreement. It has no environmental controls, but it is sprinkled and the doors lock. Museum objects should be covered with sheets and then with visqueen to protect against damage from dust and moisture, and from potential damage if sprinklers go off. Furniture and oversize historic objects including Father Veniaminov's table, a NWC decorated armoire, Bishop Rowe's objects, archival

material, museum equipment and supplies are stored here. Historic collection storage fills 315 sq.ft. (1,265 cu.ft.).

Public Hours and Visitation

The Museum is open daily to the public from 9:00-5:00 from early May to late September. During the winter it is open Tuesday through Saturday from 10:00 to 4:00 and for special events, conventions, and when the ferry is docked. Most cruise ship passengers are either lightered to a dock at Centennial Hall or brought to Centennial Hall from other docks by busses. Shore excursions and vendor booths, plus the popular BACA sales area, are located at Centennial Hall. During the summer, when cruise ships are in port, the Sitka Convention and Visitors Bureau maintains an information services desk in Centennial Hall lobby, staffed by CVB paid and volunteer staff. Independent travelers in summer and winter generally have more time to spend in Sitka, and are key visitors to the Museum.

Sitka visitor numbers were supplied by the SVCB. The visitor numbers in the table below are calculated at 80% of cruise ship, 63% of ferry passengers, and 44% of air travelers, based loosely on the 2007 calculations the McDowell Group used for visitors to Juneau for the Juneau Convention and Visitor Bureau. A new Alaska Visitor Statistics Program Report will be published in February 2012, and it is possible for SCVB to purchase a special Sitka report of this more current data.

Year	Cruise Ship Visitors	Independent Travelers By Ferry	Independent Travelers By Air	Total Sitka Visitors	Museum Visitors Actual	Admission/ Shop Revenues
2006	213,620	7,131	33,111	253,862	40,220	$4411 / $46,583
2007	187,538	5,515	33,954	227,007	26,848	$2,469 / $65,838
2008	239,002	7,486	29,392	275,880	28,562	$7,316 / $99,007
2009	175,928	6,145	28,785	210,858	26,648	$7,515 / $74,201
2010	117,119	7,131	27,661	151,911	20,886	$7,201 / $58,502
2011	98,512	7,000 est.	25,000 est	130,512	22,060est.	$4,411 / $46,583
2012	98,500 est.					

It is important to know what percent of Sitka's visitors go to the Museum, and what percent pay admission, in order to understand revenue sources and have a basis for projection. There is no exterior sign identifying that the museum is in Centennial Hall, other than a small fluorescent museum sign in the window. The Museum is about 30-40' down a corridor from the visitor information lobby area in Centennial Hall. Although the museum sandwich board sign may be seen from the lobby, the museum is not well located for visitor traffic. Approximately 10% of the Museum's visitors are estimated to be residents who visit the museum during the winter months when the museum is free, or with relatives in the summer. A new location directly off the visitor information lobby should increase admission and sales by 25 - 50%.

About 14% of Sitka's 130,512 visitors went to the Museum in 2011. Visitors are counted electronically and then the number divided in half, with a few more reduced for staff entering and exiting. It would be smart during the winter to do an actual tally, and compare figures. Admission was by donation until 2009, when a summer admission fee of $1.00 was instituted, and then raised to $2.00 in the summer of 2010. The raised admission is appropriate and does not seem to have made much impact on the number of visitors. After a study, visitors were permitted to enter the Museum Store without having to pay the museum entrance fee. The placement of the sales counter near the museum entrance makes high traffic times difficult to manage. Some museum entry fees have apparently been missed. The door counter is recorded nightly. 2011 revenue indicates fewer than 2,200 paying visitors.

Over the past few years museum visitation has dropped as Sitka visitor numbers have dropped. The large drop seen in museum visitation in 2007 may have occurred when the tour company started dropping off passengers immediately before the New Archangel dance performance, not allowing a 15-20 minute visit in the museum. The Museum does not charge admission in the winter and children are free. The Museum should record visitor numbers 2-3 times a day, daily, and seasonally and periodically conduct visitor surveys to determine if visitors are residents or visitors, how many times they have visited, their favorite display, and ask for constructive criticism.

Admission and Museum Shop Revenues:

The Museum operates on a small budget compared with other Alaska museums. It is in transition from a small museum run by dedicated volunteers, to a museum run by museum professionals. The chart below is a rough allocation of the Society's revenue over the past five years. All revenues are not used for museum operation. The Total Income and Total Expense columns are from the Museum's Profit and Loss Statements.

Year	City Support	SHS Fundraiser	Project Grants	Admission	Museum Shop	Total Income	Total Expense
2007	$ 36,000	$ 5,900	$22,520	$2,469	$65,838	$144,649	$121,008
2008	$ 44,500	$ 6,900	0	$7,316	$99,143	$165,150	$158,559
2009	$130,250	$15,150	$ 4,594	$7,515	$74,201	$235,869	$166,102
2010	$ 78,535	$15,125	$21,800	$7,201	$58,502	$203,768	$208,787
2011	$120,000	$25,000+	$37,501	$4,411	$46,582	$219,408	$223,530

The Society/Museum has recently changed to fiscal year accounting in order to be more in line with the City, and this has made some of the budget analysis complicated. The Museum's projected annual revenue is $179,000 for FY2012 (July, 2011 – June, 2012). The main fundraising season has just started, with the following projections:

- Dale DeArmond Art Acquisition Fundraiser $ 8,500 Oct/Nov 2011
- Wine Tasting/Silent Auction/Concert $ 9,000 Dec 2011
- 1st Annual Fund Drive Goal $35,000 Nov/Dec 2011

The Museum Shop, which sells items closely related to the collections and Sitka history, is located near the entrance and the front desk so staff can do both reception and gift shop duties efficiently. It appears quite successful and brings in approximately $2.50 per visitor.

SHM writes and receives annual Alaska State Museum Grant-in-Aids that have funded various projects and equipment. The Museum has not participated in the Rasmuson Art Acquisition fund, but plans to this cycle. However they received a Rasmuson Organization Improvement Grant for $60,000, and a $17,000 Rasmuson award for a 2010 Conference Proceeding Publication.

Staffing

Sitka Historical Museum is currently staffed by 3.10 FTE:

- ***Museum Executive Director***: 1 FTE, responsible for overall direction, supervision, grant writing, budget management, fundraising, and facility management of the museum space.
- ***Curator of Collections and Exhibits:*** 1 FTE, responsible technical museum collection management and exhibit design and installation & upkeep tasks, and educational tours.
- ***Visitor Services Manager:*** .75 FTE, responsible for front desk duties, Museum Shop purchasing/management, oral historical interpretation, and clerical. (Full Time May – Sept; 24 hpw Oct.-April.)
- ***Museum Assistant***: .35 FTE, assists with front desk, gift shop, and interpretation duties. (26 hpw in summer, 6 hpw in winter.)
- ***Museum Graduate Student Intern:*** *10-12 weeks,* to primarily help with collections management, but also provide back up during the summer.
- ***Volunteers:*** Average of 15 hours weekly of collections assistance, plus additional assistance.

Please see Appendix A for a comparison with other museum operations. 3.35 FTE is an average staff for 10 museums in Alaska. Museum best practices indicate that several of these museums appear sadly understaffed.

Collections

The Museum's permanent collections consist of 8,000 historic and fine art objects, about 27,000 historic photographs and negatives, and 35,000+ (110,000 pages) of archival material for a total collection size of 70,000. The collections are augmented

by about 30 loaned objects. Most of these have been accessioned into the old card catalog system and numbered, but this information needs to be transferred into the database and with images. Only 2% of the permanent collections have been entered in the PastPerfect museum management database, and a little over 1% have documentation images entered. Documentation photographs are currently being taken and linked to the records but these tasks are slow. Approximately 65,000 acquisitions are pending entry into the database. 750 objects were acquired this year, primarily through donations. Records need to be updated to understand a five-year trend. Processing 750-1,500 objects would typically occupy 1 FTE one year to process, depending on the completeness of the documentation and the complexity of the objects Photos and archival material generally are faster than objects to process. Sitka's curator has multiple tasks including collection and exhibit care and maintenance, and education programs.

Some outstanding objects and documents in the collections and on loan should receive better interpretation and display:

- A significant historic painting collection including a 1879 painting of the *Jamestown*, 2 James Everett Stuart paintings of Sitka, 2 Theodore Richardson paintings, and many Dale DeArmond prints and woodblocks.
- An extensive collection of photos and negatives of Sitka and Alaska from 'The Photo Shop,' documenting Sitka history from 1924-1960.
- Captain George Emmons' journal from the *U.S.S. Ossippe,* Oct. 27, 1866-Dec. 31,1867.
- Artifacts from Vitus Bering's ship *The St. Peter.*
- Gen. Jeff Davis' pistol, 1st American commander in charge of Alaska. (On loan)
- Tobacco mortar attributed to Alexander Baranov. (On loan)
- Mary Willard Chilkat Robe used regularly in local ceremonies.
- Armoire with carved NWC design. (On loan)
- Table reportedly made by Father Veniaminov (St. Innocent).
- 8' x 8' diorama of Russian era New Archangel in 1867.
- Four Russian era ship anchors, one possibly from the *Neva* is owned by the City.
- Bishop Peter Trimble Rowe's traveling organ and medicine trunk. (On loan)

Exhibit Programming

The Museum's interpretive exhibits adhere appropriately to their mission to tell the story of the Sitka area's human history. A small percent of the museum collections are on exhibit, and there are large gaps in the Sitka story, due in large part to lack of space. Given the small 1,178 sq.ft. exhibit gallery in Centennial Hall, recommendations are to regularly rotate exhibited material in order to provide better preservation and also to interpret Sitka's rich heritage and encourage visitation by the local residents. This is very time consuming given the limited staff and other critical duties. A small area is dedicated to viewing a video about Sitka history.

To better serve the public small outreach exhibits have been installed in locations around town including: the Russian Bishop's House, 1st Bank, the Westmark Hotel Lobby, the Pulp Mill Administrative Building Lobby, the Performing Arts Center, the Sitka Airport, and the Dive Shop. In addition, photomurals reproduced from the museum collections are located in Centennial Hall hallways and additional photomurals using the museum collections are being developed and installed by SeaMart in their stores. A State Historic Preservation grant has been applied for to help develop and install an exhibit at the ANB hall in 2012.

Educational Programs

Education programs include themed school tours for about 15-20 visits per year by students from not only the Sitka And Mount Edgecumbe schools, but from many southeast schools and traveling sports and academic teams, and are free of charge with donations accepted. Many museum tours are part of a tour that also includes a visit to other museum and/or historic site. The 1867 diorama is a favorite exhibit.

There are multiple fund raising events for adults. There is a small area in the exhibits where historical videos may be played. In the summer, the video plays continually.

Marketing and Advertising

The Museum has a very small marketing and advertising budget. They rely on both paid and free listings on websites, travel books, and newspaper articles.

- The Museum produces a brochure which can be found in the SCVB brochure racks, and other brochure rack around Sitka in hotels, ferry terminal, etc. They also produce an historic walking map, and has its own website. They are #18 on the SCVB website under "Play", "Attractions" and under "Shopping" which lists contact information, a photo, location on a map and short description. http://www.sitka.org/play/attractions/
- They can be found on the City's website by searching under Harrigan Centennial Hall, then Visitors, under Things To Do listing. Unfortunately, this list does not say where any of the "Things to Do" are, nor does it link to the attraction's website. http://www.cityofsitka.com/visitors/index.html
- On the web they are mentioned on "Trip Advisor," "Wikipedia," "Via Michelin," "Moon Travel Guides," and some other sites.
- They are also listed in the free "All About Sitka" newspaper guide and the SCVB "Sitka Through 4 Seasons" guide, and the SCVB's Vacation Planner. The last two listings are paid subscriptions totaling about $800 per year.

FY2012 Sitka Historical Society & Gift Shop Budgets

Museum/Society Income	
C&B of Sitka	$120,000
Wine fund Raiser	$ 5,000
Entrance Fees	$ 5,000
Membership Dues	$ 7,000
Museum Income	$ 2,000
Operating Reserves	$ 30,000
Annual Philanthropic Giving	$ 10,000
Total Income	**$179,000**

Gift Shop Income	Downturn
Gross Sales	$ 48,000
	(down 15%)
Society Transfer	$ 2,500
Total Income	**$ 50,500**

Museum/Society Expenses	
Advertise (43)	$ 2,500
Bank Fee	$ 350
Conservation/Collections/Display	$ 10,000
Technology	$ 2,000
Memberships	$ 500
Salary & Wages	$105,186
(Director,Curator, .5 Asst.Curator,Clerk)	
Payroll Taxes (7.68%)	$ 8,078
Benefits: Cafeteria	$ 18,934
Conf/Travel/Lobby	$ 1,800
Telephone & Internet (34)	$ 4,500
Postage/Web Site	$ 1,200
Consulting	$ 800
Accounting/Quick Books	$ 1,000
Payroll Services	$ 1,500
Insurance	$ 1,402
Library Books	$ 600
Memberships (sic)	$ 600
Newsletter	$ 400
Product Dev.	$ 100
Publications (38)	$ 150
Special Projects	$ 600
Volunteer Recognition	$ 500
Office Expenses/Supplies	$ 1,800
Gift Shop/Staff Transfer	$ 2,500
White House	$ 12,000
Total Expense	**$179,000**

Gift Shop Expenses	
Freight	$ 1,000
Cost of Goods Sold	$ 17,500
General Expenses	$ 700
Sales Tax to City	$ 2,880
Shop/Floor Wages	$ 22,554
Payroll Taxes	$ 1,732
Benefits: Cafeteria	$ 4,060
Total Expenses	**$ 50,426**
Net Income	**$ 74**

FY2011 Passengers 146,399
FY2012 Passengers 123,140
Down 15%

Foundations for Recommendations

Size of a facility depends on the size of the collections to be exhibited and stored, the number of staff that require offices or workstations, and the museum services offered to the community and to the visiting public.

See Appendix A: Comparison Chart page 35

This chart was updated for this report. It compares community size, museum size, ownership of the collections and building, staffing, budget, city financial support, and city facility maintenance of 10 museum operations, including Sitka, in the Alaska with a special emphasis on Southeast museums and museums associated with a larger facility. If there is an asterisk (*) in the column it is discussed here:

- Juneau-Douglas City Museum: Front desk, collection, and docent volunteers and interns *each* equal 1 FTE. The City pays building and grounds maintenance not in the museum budget.
- Dorothy Page Museum: An 800 sq.ft. cabin also serves as visitor center. They manage several cabins on their grounds. They anticipate moving into the adjacent city library when vacated in a few years. The City maintains their building, but their budget is charged for the service.
- Kenai Visitor & Cultural Center: The Center operation is contracted out by the City. 4 positions make up the 1.25 FTE dedicated to museum operation. 1,800 sq.ft is dedicated to museum with a 2,625 non-permanent exhibit space.
- Ketchikan Museums: Two facilities. They anticipate moving into the library portion of their building in 1+ years when the new library is completed. They will then have 24,000 sq.ft. of dedicated museum space.
- Cordova Museum: The new museum space listed is under construction. The Museum receives 95% of its operating budget from the City with the historical society contributing the rest. The City also pays for building maintenance, janitorial, and utilities not in the museum budget.
- Valdez Museum: Maintains two buildings.
- Carrie McLain Museum, Nome: They have funding to construct a new facility of an estimated 10,000 sq.ft., but their current size is 2,264.

This chart shows that Sitka's museum is small in size, staffing and budget. Four museums on this list are anticipating increased space within the next 1-3 years, two museums have moved into new facilities within the past 5-10 years, and two others within the past 25 years. Sitka's museum has been in the same location for 40 years, making it one of the few museums in the state that has not had meaningful improvements to its facility.

An adequate staffing level depends on maintaining the workload and the services offered to the public at a museum best practices level.

Staffing of approximately 4.50 staff, with 12 weeks to 9 months a year of museum and/or archival graduate student intern assistance and some increased volunteer assistance could maintain the workload listed below and the anticipated increase in visitation.

Recommendations in this report are based on:

- a relatively large, rapidly growing collection with a large backlog of work,
- open to the public daily (56 hours per week) in the summer, 20-25 hours week in the winter,
- new permanent interpretive exhibits maintenance, with temporary exhibit changes 5-8 times a year, and securely managed lobby and outreach exhibits,
- 20-30 children's tours/activities and 10-15 adult events per year, focusing on the winter months.

It is anticipated that the exhibits will be designed professionally in the new facility. Designing the exhibits will take about 12 months, with installation requiring two-three months. In order to accomplish this efficiently, it is recommended that planning and preparation start immediately.

Recommended Level of Operation

New Space

The recommended solution would consolidate Museum operations into one environmentally controlled, sustainable space, with some support space off-site in the White House. This would provide the best preservation for the collections and the most efficient staffing. Museum best practices environmental goals are 68 degrees Fahrenheit, and a relative humidity (RH) range of 40-50%, with no more than 3% variation per month. The collection room might be 2-3 degrees cooler. Lighting levels should be low. Use of LED lighting in the galleries and processing area would reduce concerns about deterioration caused by UV and visible lighting levels. A 5,800 sq. ft. proposed museum addition to Centennial Hall is recommended to serve the Museum's needs for 15-20 years of growth. Directly adjacent to the Museum would be the visitor services lobby that ideally would be accessible from the lightering dock and the bus drop-off area in front of a main entrance.

Public spaces (Reception/Exhibit Galleries/Museum Store) should anticipate a 25-50% increase in visitors and revenue the first year, with a 5-10% increase in the following 3-5 years before leveling off. This first increase would be primarily caused by the improved location and new exhibits. This increase would take place within the current hours of operation. The subsequent increases would be caused by smart marketing and understanding and meeting audience needs.

When comparing size with other community museums (Appendix A), Sitka's recommended museum space may seem small. However, many of the museums have space allocated for restrooms, mechanical rooms and lobbies, which Sitka Historical Museum will not need, as it has the advantage of sharing these spaces with Centennial Hall. Interior and exterior signage should be integrated with the redesigned building signage.

Centennial Hall Museum Space	Existing	Proposed
Reception Desk Area	75	150
Museum Store	236	350
Permanent Exhibit Gallery	1,272	2,000
Rotating Gallery	100	500
Collection Storage Room	300	900
Collection Processing/Research	80	350
Exhibit Preparation Room	0	300
Offices	1 @ 200	4 = 570
Storage & Equipment	0	150
Circulation @ 10%		530
TOTAL SPACE	2,161 sq.ft	5,800 sq.ft.

Shared facility spaces the Museum may use, but not listed here, are:

- New Visitor Services Lobby
- Rest Rooms located off the lobby (for public and staff)
- Loading Dock & Janitorial Room
- Conference/Meeting Rooms
- Parking
- Communication, Mechanical, &Electrical Rooms

Museum Public Spaces

Reception Area

- Purpose: To greet and supervise museum visitors, accept admission fees, serve as Museum Store sales counter, store visitor coats/backpacks, and serve as a workstation.

Located in the Museum's entry, immediately off the main lobby behind lockable 8-10' wide doors, a reception desk would be used by staff during open hours, and potentially during closed hours. A window display opening onto the lobby could advertise the museum exhibits and special events. During open hours staff would greet visitors, offer information, take admission, conduct museum store sales transactions, and provide supervision and security of the galleries. A countertop would provide space for guest book, brochures, and convenience for both standing and wheelchair bound visitors without blocking entry/exit circulation. A workstation and security monitors could be hidden behind the counter. If needed as a workstation during closed hours, task lighting would prevent the need for gallery lights, preventing deterioration of the collections and saving electricity. An "L" configuration with space for two individuals is recommended to facilitate admission and sales transactions.

This area would be large enough to enable individual visitors and classrooms of children to leave their coats, backpacks, and umbrellas in a semi-secure location. This will protect the collections from introduced moisture and dirt, and help prevent accidents to exhibits, while making the museum visitor more comfortable. Windows and/or glass doors would be inviting, therefore a handsome, intriguing space, is desired.

- Current Size: 75 sq.ft.
- Recommended Size: 150 sq.ft.

Museum Store

- Purpose: To generate revenue for the museum operation while offering the visitor an opportunity to purchase quality items relating to Sitka's history and culture. It also provides an opportunity to support, and gain revenue from,

temporary exhibits by artists and others.

In the new space the store should continue to be near the entrance/exit to allow one staff member to handle both admissions and store sales and assistance, and to allow visitors to access the store without paying admission. Increased visitation will result in increased sales, and require a larger inventory.

The Store is the big money maker, averaging around $2.50 per visitor over the past five years. To continue to be a big money maker, the Museum will need an attractive and plentiful inventory that relates to the museum mission and/or collections. Imagine what could happen if the Museum increases paying visitors by 50% the first year of operation, and about 10% for the next five years as projected in the new facility.

Currently a long window wall is along one side, and display cases along another side. A window looking into the space is recommended to entice visitors, but walls are also desirable to display potentially large and dramatic pieces. Storage for sales inventory and display items should be designed into the display cabinet bases. Bulk storage would be in the White House. A slightly larger space is justified.

- Current Size: 236 sq.ft.
- Recommended Size: 350 sq. ft.

<u>Permanent Exhibition Gallery</u>

- Purpose: To be used for long-term exhibition of the Museum's, and borrowed, collections to tell the story of the human history of the Sitka area.

The purpose and intent of the museum galleries, the Museum's primary public space, is reflected in the Museum's mission statement:

> *The mission of the Sitka Historical Society is to preserve and promote the events, stories and artifacts of the human history of the Sitka area for the inspiration, education and benefit of the public and future generations.*

An adequately staffed, environmentally controlled and secure space will allow the Museum to borrow objects from other institutions that help tell Sitka's story. A controlled environment which protects from damage from temperature and humidity fluctuations and excessive light plus staffing to provide a secure display is required by most lending institutions. The Museum should be able to control the temperature in the galleries. Research at the Alaska State Museums' collections documents 365 objects cross-referenced under Sitka. Other Sitka based institutions, including Sitka National Historic Park, the U.S. Forest Service, potential Sitka Tribe of Alaska repatriated objects, and/or private collections, could "fill the gaps" and provide a service to other institutions or collectors through long-term display.

It is difficult to get a size on the current actual exhibit space as it is chopped up with collection management and research spaces, reception area and Museum Store. One exhibit and a large table were recently removed to make room for a small temporary exhibition space and video viewing area. A 2,000 sq.ft. gallery dedicated to permanent interpretive exhibits, including a small video area seating up to 20 people, would experience heavy use at times during the summer, and could accommodate visiting school groups, Elderhostel groups, and docent tours and yet be comfortably sized for independent visitors. This would almost double permanent exhibit space, and reduce collection storage needs.

Wide (8-10') doorways into the gallery (and into the Museum itself) are necessary to accommodate large objects, exhibits, and exhibit cases. High ceilings, 12-14,' and no windows are recommended. LED lighting is recommended. Design should minimize, or efficiently locate, doors, thermostats, smoke/fire alarms, light switches, and vents to provide uninterrupted walls and flexible space.

- Current permanent exhibit gallery size: 1,178 sq. ft.
- Recommended size: 2,000 sq. ft.

<u>Temporary Exhibition Gallery</u>

- Purpose: To be used for short-term traveling exhibits and 1-3 month exhibits generated in-house or by the community.

Temporary exhibit research, design, installation and de-installation can be very time consuming. But they are an excellent service to the community and increase museum visitation. Sitka museum staff realizes this and are exploring the possibility of establishing temporary exhibit schedule in which approximately three one-month exhibits per year are developed and installed by staff and the community would install another thee per year. Thus, a typical schedule could be:

- September: Museum generated Alaska Day exhibit
- October & November: Community/Artist exhibits
- December: Borrowed traveling exhibit
- January, February March: Community/Artist exhibits
- April – September: Museum exhibit geared to school tours & summer visitors

The Museum would develop a temporary exhibit policy and require applications from prospective community organizations and/or artists at the beginning of each new season, perhaps in the spring. Many museums and arts councils have policies and experience to share.

Traveling exhibits come in all sizes, and most are flexible to fit a variety of spaces. The Alaska State Museum has an attractive traveling exhibit program that is free except for shipping costs, with large and small formats to serve a variety of venues.

One, “Dale DeArmond: Nondalton Legends” takes only 60 linear feet, and includes a video and player. This would be a natural, which could augment a temporary display of the Museum’s own DeArmond prints. Another, “*Eight Stars of Gold: The Story of Alaska’s Flag,”* also requires 60 linear feet, might mesh with an Alaska Day exhibit. The size and source of traveling exhibitions depend on the Museum’s rental and transportation budget, staff to install it, and the security and environmental controls to meet lenders’ requirements. Most traveling exhibits are loaned for 1-3 months and need to be reserved months in advance. Having the schedule set by August of every year would enable producing a season poster.

A 500 sq.ft. temporary gallery was considered a good size by several Consortium Meeting attendees. This gallery could be able to be divided into two smaller gallery spaces, using Milli-Walls or other movable wall systems if needed.

The temporary gallery should be accessible from the museum reception area without going through the permanent exhibit gallery. Some museums prefer the ability to close off the permanent exhibits with a security wall during special events. The gallery space design should minimize, or efficiently locate, doors, thermostats, smoke/fire alarms, light switches, and vents to provide uninterrupted walls and flexible space and yet provide one large door. Ideally, the temporary gallery should be convenient to a receiving area so exhibit crates do not need to go through the main gallery. This may not be possible in Sitka. LED lighting is recommended. High ceilings, 12-14,’ and no windows are recommended.

- Current Size: 80 sq.ft.
- Recommended size: 500 sq. ft.

Museum Non-Public Space

<u>Collection Storage Room</u>

Purpose: Secure storage of the museum’s permanent object, photographic and archival collections, and potential storage of some loaned collections.

As noted above, the Museum’s collection storage room is overflowing. The permanent collections consist of about 8,000 historic and fine art objects, 25,000 historic photographs and negatives, and 110,000 pages of archival objects. The collections are augmented by about 30 loaned objects. An astounding 750 objects were acquired this year, primarily through donations, but records were not available to understand a 5-year growth trend. It appears that many new donations are archival materials and photographs that take relatively little room.

The square foot and cubic foot measurements of stored museum collections in the three storage locations were taken:

○ Sitka Historical Museum:	107 sq.ft.	860 cu.ft.
○ The White House:	205 sq.ft.	815 cu.ft
○ Pulp Mill Administrative Building:	315 sq.ft.	1,265 cu.ft.
	637 sq.ft.	2,940 cu.ft.

An on-site collections storage room, 900 sq.ft. x 10 feet high, would accommodate compacting storage of approximately 750 sq.ft. x 9 feet high = 6,750 cu.ft., if the room is configured efficiently.

The recommended size of the collections storage room should accommodate 15- 20 years of growth. The size takes into consideration the doubled gallery size, thus more objects will be on exhibit and not in the storage room. Compacting storage is assumed, as this densely packed storage requires about 45% less floor space. If compacting storage is not used, increase size by 350 sq. ft.

It is important that this room have museum best practices environmental controls as mentioned above. The temperature might be kept a couple of degrees lower than the rest of the museum. Lighting should be off when a person is not in the room. A timer may be appropriate to insure that lights are not left on. The doors should remain closed and locked. The Collection Processing room should be adjacent to the Collection Storage Room, and the Collection/Exhibits Curator's Office near both. Double doors

○ Current Size: 3 storage facilities	637 sq.ft.	2,940 cu.ft.
○ Recommended Size:	900 sq.ft.	6,750 cu.ft.

Museum Collection Processing and Research

- Purpose: This space is used for receiving, inspecting, cataloging/accessioning, photographing and preserving acquisitions, and preparing collections for storage and exhibition, and for research of collections by staff and researchers.

This size is suitable for 1-3 working individuals. It would have areas for cleaning, photographing, and processing a variety of large and small objects, photographs, and archival materials. Museum objects may be safely stored here for days or weeks waiting processing. Therefore, security is necessary, and admission to this area is restricted to staff, collection volunteers, and staff-accompanied researchers while working on collection projects. General office duties would be accomplished in the offices. A "No Handling" policy is always in place.

One large table would be at one end, separated from the processing area, to be used by researchers. As museum/archival best practices requires that staff be present when researchers are using the collections, a small workstation would allow staff to work while researchers are present. It is possible that the Museum's reference library

could be moved into the research side of this space. Care must be taken that the processing side is off limits to the public.

The Museum Processing Room would include cabinetry, shelving, double sink, large tables, photography/scanner set up, possible fume hood or increased ventilation, five-six 4-drawer file cabinets of collection records, processing and storage supplies, and a small freezer. Bulk supplies would be stored in the White House.

- Current Size: Museum & White House 280 sq. ft
- Recommended Size: 350 sq. ft.

Offices

- Purpose: Private and shared offices for 4FTE employees, plus seasonal interns, and volunteers.

Museum current staffing of 3.10 FTE positions share a single office with three desks, the reference library, copier, supply storage, overflow artwork and the communal coffee station is located in the Museum's one office. Two other workstations are located in the collection room and a space in the exhibit area and in the White House.

This report recommends a permanent, stable, staff of 4.50 FTE, with 6-9 months of a museum studies or archival graduate student intern(s). The four recommended offices below would accommodate two or more workstations/desks per office. These offices could be cut back by one office if the ½-time archivist shared an office with the Collection/Exhibit Curator and intern, and the Program Coordinator shared an office with the visitor Services Manager and volunteers. But, this would not allow room for growth over the next 20 years.

- Executive Director: private office with small conference table suitable for meetings of 4-6 people. Located near the entrance, but not the first office to discourage drop-in visitors. 150 sq.ft.
- Collection/Exhibit Curator: shared office with seasonal Intern, located near the Processing Room. 150 sq.ft.
- Archivist & Program Coordinator: shared office for 2 ½-time positions. Located near the Processing Room. 150 sq.ft.
- Visitor Services Manager: shared office with volunteer desk, copier, coffee, under counter refrigerator, and office and Museum Shop supplies to last 1-2 months. Located near the entrance, ideally buffering the ED's office. 120 sq.ft.
- Museum Assistant: station at the front desk.

No workstations may be located in Collection Storage. However, a compact workstation in the Processing Room and another at the front reception desk is

advisable. Collection documentation file cabinets would be in the Processing Room.

- Current Size: 169 sq. ft. (1 shared office)
- Recommended Size: 570 sq. ft. (4 shared offices)

Exhibit Preparation

- Purpose: To assemble museum exhibits, cut and spray-mount labels, make exhibit mounts, and repair/make armatures, etc.

Currently exhibit changes take place directly in the exhibit gallery, obviously disruptive to visitors, in another room in Centennial Hall if available, and/or at the White House. The room would be furnished with hand and power tools, a flammables cabinet for paints and combustibles, a small fume hood or ventilation suitable for spray paints and adhesives, worktables, and storage cabinetry with countertop and sink. It would be large enough to temporarily house an exhibit case and a wheeled cart and be suitable for 1-2 people working at a time. This is where dirty, dusty work such as sanding, sawing, and painting would take place. This activity is not appropriate in the Processing Room. Staff would use this space sporadically, but intensely. This space should be located so exhibit cases can be transported easily to and from the galleries, but not a door directly into a gallery.

- Current Size: None
- Recommended Size: 300 sq. ft.

General Storage

- Purpose: For storing exhibit cases, and exhibit, educational and oversize supplies and equipment that are used on a regular basis such as the MIli-Wall system. Bulky, and long term storage of equipment and supplies would continue to be at the White House

This small room would contain shelving to maximize storage space. It would be used for storing exhibit cases, props, lighting, and building supplies, dollies, larger pieces of museum equipment, furniture, and shipping crates not stored at the White House.

- Current Size: None
- Recommended Size: 150 sq. ft.

Proposed Staffing

Staffing: **4.5 FTE plus interns and volunteer assistance**

As with any small museum, the staff will still job share. Staffing goals are to manage this program efficiently, yet professionally. Adequate staffing to insure a well-monitored museum operation is important for security requirements from lending institutions. I recommend that the Museum never be open without two staff (or one paid staff or intern and one trained volunteer). Volunteers should be recruited, trained and supported to provide about .50 FTE.

- ***Museum Director*:** 1 FTE, to provide overall direction and supervision, grant writing, budget management, fundraising, and facility management of the museum space. With an increased staff come increased organizational and supervisory duties.
- ***Curator Collections & Exhibits:*** 1 FTE, with a professional Museum Studies degree, to accomplish technical museum collection and exhibit duties, assist researchers.
- ***Museum Archivist:*** .5 FTE, ideally with an Archives degree. There is a large backlog and large number of recently acquired archival materials requiring inventory, scanning, and accessioning into the Past Perfect database and re-housing. This position would also assist archives and photo collection researchers. It is possible that after 5 years, when the backlog of collections are accessioned, the position could be eliminated, and replaced by an "Program Coordinator" to assume responsibility for youth and adult activities and events and marketing/advertising.
- ***Visitor Services Manager:*** 1 FTE, to manage front desk and Museum Store, recruit & schedule front desk volunteers, volunteer appreciation event, and clerical responsibilities including daily visitor statistics and money handling.
- ***Program Coordinator:*** .5 FTE, to develop and implement museum educational programming, activities, and marketing and advertising. This position would focus their time from September through May.
- ***Museum Assistant*:** .5 FTE, a summer seasonal employee, would assist with front desk duties full time in summer, 6 HPW in winter.
- ***Museum Intern:*** .5 FTE, one-two museum studies or archival graduate interns would primarily help with collections records management and preservation assistance. *Budget for six to nine months of assistance.*
- ***Janitor:*** Contract employee to provide 1-hour, 5 days a week in summer, 1-hour, 2 days a week in winter to vacuum, and to collect and remove garbage on a weekly basis. Museum staff would clean exhibit glass during opening duties. ***It is difficult to hire such a part-time position and it would be ideal if Centennial Hall staff could include this in their duties and budget.***
- ***Volunteers:*** .5 FTE: 7 3-hour reception desk volunteers in summer, 4 3-hour reception desk volunteers in winter; 2-3 3-hour collection volunteers year round; 2 special event volunteers; 5-8 volunteers for special projects.

Staff deserves benefits. It will be difficult to attract and retain employees otherwise. The scope of this report does not recommend a health benefit plan, but one calculated at 30% of salary. However, "The Foraker Group Salary & Benefits Survey for 2010 offers Data Trends:

> *The most significant and probably reliable trend is a continuing (from 2002 data) move away from a vacation/sick combination toward a paid-time-off structure with a single leave bank. A single bank is easier to administer and eliminates a number of problems with sick leave in particular. Other movement appears to indicate:*
>
> - *Cost shifting makes employees responsible for a larger proportion of premium payments and cost of care.*
> - *Employees are paying larger deductibles.*
> - *Consistent movement is seen toward a high deductible health care plan paired with a Health Reimbursement, Health Savings or Flexible Spending Account with employers funding part or all of the supplemental account.*
> - *Waiting periods for health care coverage may be smaller.*
> - *More organizations are offering retirement plans.*
> - *More organizations appear to be offering a comprehensive benefits package including dental, vision, life insurance, long-term disability and accidental death and dismemberment.*
>
> *Additionally, The Society for Human Resource Management (SHRM) reports the following projected trends for 2010:*
>
> - *Higher out-of-pocket costs*
> - *Greater use of incentives to stay healthy*
> - *Increase in monitoring spousal or dependent coverage to ensure eligibility*
> - *Reduction of health plan options*
> - *Growth in consumer-directed health plans*
>
> Data Trends, page T2

Recommended Operation Goals

So what level of services and revenues can you expect from the recommended space and staffing and budget?

Annual Cycle

Museum operation is impacted by distinct seasonal changes, particularly in Alaska where there are wide seasonal fluctuations in visitation. But it is always busy.

- During the summer, the focus is on daily maintaining a safe, secure and welcoming operation while performing on-going collection management, intern recruitment, research assistance, and planning for fall/winter/spring temporary exhibits, fall fundraising events and Alaska Day activities, and educational programming.
- Shorter public hours in the fall and winter (open 4-5 days a week, 5 hours per day) permit focusing on collection management, coordinating and/or installing temporary exhibits, updating permanent exhibits, professional development, collaborative relationships and projects, designing the next summer's exhibit, offering youth and adult activities, grant writing, recruiting a new intern and marketing. Fall also focuses on school tours, getting advertising for the next summer exhibit to publications, advertising changing exhibits, and participating in the Sitka Purchase celebrations.
- Spring also focuses on school tours, installing the new summer exhibit, ordering and restocking the Museum Shop, training paid and volunteer summer staff, designing, ordering and disseminating brochures and posters, and writing Alaska State Museum and Rasmuson Foundation grants.

Public Hours and Visitation

With the recommended staff of 4.50, the Museum could be open daily, 8 hours a day during the 4 ½ month summer (56 hours per week). During the winter, open 4-5 days a week and 4-5 hours a day to serve the Sitka residents would be possible. Staff would also work when the Museum is closed to the public. The Museum would be able to open for special events such as evening exhibit openings, conventions, ferry dockings, and by appointment. Open hours should be evaluated annually to meet community use. Counting visitors, hours of the day that receive the most visitation, and periodic surveys will help set open hours that best serve your audience.

About 120 staff hours per week in the summer, and 50 hours per week in the winter, are needed to safely and securely open, close, and staff the Museum. There should be two staff in the building when open to the public in case of an emergency. Trained volunteers could be one of those staff, but would not assume the responsibility of operating the Museum. This schedule allows for 15 minutes before opening and after

closing for security checks, secure cash handling, and visitor and sales record keeping. The front desk should be designed to serve as a workstation, greeter's desk and Museum Shop desk to make multi-tasking possible during slow visitation. There should always be a welcoming greeter at the front reception desk.

The Museum and Store attracted about 22,000 visitors, with 2,200 paying visitors in 2011. In 2010 it was close to 3,600 paying visitors, averaged at 3,000. Because of the enhanced, larger new facility in an excellent location off the primary visitor information services lobby, collaborations, actively taking admission (not relying on the honor system), improved exhibits, effective marketing, and quality programming with AV presentations, paid museum visitation is expected to increase by 50% the first year, and by 10-15% for each of the next five years. A reasonable goal after five years should be 20% of Sitka's visitors or approximately 20,000 summer visitors per year, each paying $4.00. Most visitors come during summer months and to special events. So, if visitation to Sitka does not change significantly, work and plan for 6,000 paying visitors x $4 = $24,000 the first year, $22,500 the second year, $30,000 the third year, etc. With the increase in visitors will come a significant increase in Museum Shop sales.

Admission and Museum Shop Projections

General Admission in the new space should be raised to $4.00 per adult, with children free. $4.00 for admission is common in other Alaska museums of this size. Several options could be considered for Sitka residents' admission including:

- May 15-September 15: $4.00 adult admission; free for children under 19.
- Free admission for SHS members.
- $10 - $20 annual individual or family passes. The Alaska State Museum has interesting annual pass options that should be reviewed.
- Free winter admission sponsored by local businesses, service groups, or individuals. Track admissions/donations per month and average it to get a suggested amount to subsidize admission. An admission sign might read: "ADMISSION IS FREE THIS MONTH THANKS TO _____ "
- A donation jar near the front desk might solicit donations for a particular object purchase or cause, for example the purchase of the Bob DeArmond painting.
- Give away something. Offer paying visitors a postcard, the Historic Walking Tour Map, or similar item. The same item would sell for $.50-$1.00 in the Museum Store.

Museum Shops range in size from about 70 sq.ft. to 1,074 sq.ft. in six museums studied in the McDowell Group's 2007 *Alaska Libraries and Museums: A Review.* The same study indicated that between 0 - $45,000 was budgeted to purchase Museum Store merchandise annually and $20,000 – $60,000 was earned in revenue. In Kenai, some revenue is from a percentage of the sale of a special summer art exhibit.

Many museums view their Museum Store as an important service to local artists, and an educational extension of their mission.

The location of the Museum Shop near the entrance off the visitor information lobby, with a window display onto the lobby, would be extremely attractive to the summer visitors who congregate there. The front reception desk staff that greet visitors, would also staff the Museum Shop. Quality merchandise that relates to the museum collections and mission is important. A combination of expensive, unique items, possibly on commission, and inexpensive items is recommended. A policy of not underselling local retail stores should be adopted. Other successful museum shops, such as the Alutiiq Museum's, should be queried about their most popular and best revenue making items.

Revenues averaged $68,000 per year over the past five years, with average visitation of 25,000. But Sitka visitation has declined. Based on sales of $2.50 per person, and visitation does not decrease substantially, a roughly 50% increase in visitors over 2011 who only come into the Shop could be 30,000, to equal sales revenues of $75,000 per year. This is an extremely important revenue source.

It will be important to schedule volunteer reception/greeters on cruise ship days to provide backup for staff who would assume very busy Museum Shop duties on those days.

Exhibit Programming

Exhibit gallery space will be over twice as large as the current space. In addition to the museum galleries, integrated photomural displays throughout the Centennial Hall should be continued and labeled with the Museum name and logo, and an invitation to visit the Museum. As attractive as integrating exhibits into other areas of the building might be, focusing the exhibits in the Museum is important to insure maximum revenue. Exhibit interpretation and installation requires research, design, environmental controls, and preservation considerations, plus a firm commitment to present balanced, unbiased interpretation. A visit to Sitka's museum should help the visitor understand Sitka's history and culture, as well as help Sitka's residents, particularly the children and new residents, understand their sense of place and community.

The newly designed **permanent interpretive exhibits,** mostly in new exhibit cases, will continue to focus on and interpret the history and culture of Sitka in the larger exhibit gallery. Although the Museum has already developed a new exhibit plan and layout, professional exhibit designers should refine the layout with new exhibit cases in this gallery. They would need significant assistance with the collections and interpretation and Sitka history themes so that they can also design, plan and install objects in each display, and write and design interpretive material, which should be reviewed by staff and advisors. This will require working closely with the staff

throughout the process. Exhibit design should start about one year prior to opening the completed building. Although these exhibits should be considered long-term installations, they should be designed to accept newly received objects and have interpretive labels that could be reproduced in-house. These exhibits could certainly be phased and completed as money allows, however, a professionally installed exhibit gallery at the opening of the museum will have the biggest impact on visitation and revenues.

A 500 sq.ft. **temporary exhibit gallery** is envisioned for short term traveling exhibits, objects from the collections, local artists, and collaborative exhibits possibly with the school district and/or other organizations. Initially, the Curator of Collections and Exhibits could design and install three exhibits including a special exhibit which would be displayed April through September. The Curator also could coordinate three exhibits designed and installed by the community. Many museums offer their rotating gallery to local artists who hang, label, and take down their own shows following established guidelines, thus reducing staff time. The museums then receive a commission on sales. After a several years, exhibits might increase gradually to seven, if the community participates to keep workloads low.

An exhibit case near the reception desk might feature recent acquisitions, community events, or private collections that could be changed two-three times per year. This could provide an excellent opportunity to engage the community.

Approximately 35% of the Curator's time would be on exhibit design and maintenance: upgrading and maintaining the permanent exhibits, changing exhibit cases, inventorying outreach exhibits and gallery exhibits, and coordinating rotating exhibits.

AV Presentations: The Museum should obtain the rights to show one 15-25 minute video in a small 15-20-seat mini-theater in the exhibit gallery. This would be popular with summer visitors, and advertised as a delightful way to rest their feet! In the summer, these programs should be put on a continuous loop DVD to show on the ½ hour, starting ½ hour after the Museum opens and ending ½ hour before the Museum closes. Age appropriate videos could be a part of a 1-hour museum school tour. Eventually, the Museum may want to commission a videographer to film a 20-minute history of Sitka suitable for 6th grade through adult.

Educational Programming

Goals and scheduling should be worked out carefully, building the program slowly. Staff should develop a prioritized list for educational programming. Educational programming should encompass many aspects to entertain, enlighten and educate adults and youth on historical, fine art, cultural, natural history and social issues. Museum exhibits and educational programming are an excellent way to encourage civic and personal pride and social understanding.

Programming would target local residents and visitors, adults and children. Local groups who might use the space would be a local Girls and Boys Club, community schools, historic preservation groups, and the Sitka Historical Society, among others.

Youth Programming

- Public and private schools and youth groups should be encouraged to bring children to the Museum. Identify teacher needs and develop age and curricula appropriate programs. Components might include a pre-visit introduction via flyer or DVD, a tour of the Museum exhibits, and a follow-up activity for the teacher in the classroom. Prioritize program theme and age groups to develop one new tour a year, maintaining four-five tour offerings for different ages. Aim to get local kids into the Museum on school tours at least three times between kindergarten and 12th grade. Market these offerings with a flyer to the schools each September.
- Coordinate with activities provided at the library, special events such as Alaska Day and Sitka Music Festival and other venues.
- A half-day, one week long children's activity for ages 6-12 might be offered during either spring or winter break. Up to 16 children could be accommodated, possibly with activities happening in the visitor lobby. The museum intern might lead these, with volunteer assistance. The Juneau-Douglas City Museum has offered a summer activity for years. Cost should be comparable to other Sitka children's activities, but for this report calculated at 16 children x $150 = $2,250 with a $250 expense budget for food and supplies.

Adult Programming

- Educational Programs for adults might include exhibit openings, lectures or tours in the winter on selected themes offered by specialists. For example, ask a local or visiting expert or organization to speak, give a tour on an object or exhibit theme in the Museum. Attempt to have a variety of themes, academic and popular. Museum Interns should offer a parting presentation.
- Programs should be designed attract no more than 15 participants per tour. If a seated presentation, plan for room to expand. Budget for travel, housing and honorarium for out of town experts. These programs would be shared with the other organizations, with the Museum's contribution being housing.
- Offer a 3-hour training in the spring to community tourism providers to educate them on local history and culture while introducing them to the Museum. A 3-hour training might include watching a Sitka history video, a guided tour of the exhibits, a Q & A session, a table for brochures from tourism operators, and handouts on Sitka's history and natural history. A $30-40 fee would cover staff time, printing and refreshments and include a single visit pass to encourage participants to become familiar with the Museum. This might be done jointly with SCVB and their volunteer training.
- Coordinate the management and operations of the various AV presentations.

- Collaborate with other tourism operations such as the railroad and other local venues.

Marketing & Advertising

Marketing and advertising is critical to success. The Museum Director and Board would establish goals and scheduling. Audiences would be identified so that the programs and marketing will be effective.

Marketing for the Museum:

- Create and disseminate an annual brochure/rack card & poster, create articles for travel books, SCVB, other visitor guides, and newspapers, and use the local scanning channel, PSAs, and an enhanced Museum web page, and other local resources. Articles for summer marketing should be sent out by January.
- Fall flyers about youth offerings, school tours, and winter exhibits and lectures would be disseminated through the Parks and Recreation Department, the schools, the Library, SCVB, and using local PSAs, the scanning channel, and the Museum web-page.
- Outreach exhibits and signage should *always* include the Museum name and logo and invitation to visit the Museum. "Visit us in Harrigan Centennial Hall."
- Staff should know who on the Board or on staff belongs to the Chamber of Commerce, Rotary, and Visitors Bureau, and present at tourism and local civic organizations' functions annually.
- Obtain sponsorship for events and winter admission and have the sponsoring organization's membership promote and attend the event.
- Engage the community. Spring tourism training and special events encourage word-of-mouth promotion.
- Free single and season passes encourage visitation and thank donors.
- Coordinate with the other cultural organizations to consider a group admission ticket possibility.

Signage for the Museum is a very important aspect of successful marketing. Exterior signage should be located on the main sign near the road, as well at exterior entrance(s) leading to the Museum. Directional signs should be located in the lobby, and directly outside the Museum entrance. Use the Museum branding logo. Wayfinding signage for the Sitka Historical Museum and other cultural venues should be located around town, with arrows directing pedestrians and drivers to attractions.

RECOMMENDED BUDGET

Expenses

Personnel Services		**Recommended**
Museum Exec. Director	1 FTE	$50,000
Curator Coll.& Exhibits	1 FTE	$42,000
Archivist	½ FTE	$20,000
Visitor/ Store Manager	1 FTE	$30,000
Program Coordinator	½ FTE	$18,000
Museum Asst	½ FTE	$12,000
Total Salaries		**$175,000**
Total Personnel		**$227,500 w/ 30% benefits**

Services and Commodities		
Printing & Advertising		**$ 2,700**
Summer & Fall Brochure & Poster	$ 1200	
Historic Walking Maps	$ 200	
Newsletter	$ 400	
Misc. Advertising & Forms	$ 600	
Exhibit photos, labels, interpretive material	$ 500	
Subscriptions/Dues		**$ 500**
Memberships: MuseumsAlaska $100, AASLH $100, Ak. Hist.Soc. $100, misc. other $200		
Travel/PerDiem		**$ 2,500**
2 staff to Museums Alaska Conf.	$ 2500	
Communications		**$ 5,000**
Telephone & Internet: Based on FY2011	$ 4500	
Web site maintenance	$ 400	
Postage and shipping	$ 100	
Training/Education		
Board Training	$ 300	
2 Museums Alaska Conf. registrations	$ 800	
Professional books	$ 200	
Other Special Services		**$ 36,800**
Museum Store inventory & shipping	$35000	
Bank charges & CC Fees 1700, checks	$ 100	
Insurance - Blanket policy for all locations		**$ 5,112**
(liability, property,10 most valuable objects)		
Maintenance & Repairs		**$ 1,000**
Collections restoration or preventive care	$ 500	
Office & exhibit equipment	$ 500	
Contracted Services		**$ 18,300**
Accounting/QuickBooks	$1,500	
Intern Stipend (12 wks x $250p/w + $500 travel	$ 3600	
Intern Stipend (26 wks x $250p/w + $500 travel	$ 7500	
Misc. Consulting (Historical, IT, etc.)	$ 500	
Janitorial 5 avg.hpw for museum gallery @ $20 p/h	$ 5200	

Museum Acquisitions		**$ 1,000**
Purchase of material for the permanent collections.		
Operating Supplies		**$ 5,200**
Collections: cleaning, storage, accessioning,	$ 600	
Exhibits: interpretive materials, paper:	$ 800	
Programming, reception/event/fundraising food:	$2000	
Volunteer Recognition:	$ 500	
Printer/copier ink, toner, paper, pens, filing:	$1000	
Museum Shop supplies and equipment	$ 300	
Equip, Furniture, Tools		**$ 1,500**
New and replaced equipment and furniture	$1500	
White House		**$ 11,500**
Utilities	$ 8400	
Maintenance	$ 3000	
Annual Fee	$ 100	
Total Non-Personnel		**$ 91,100**
TOTAL OPERATING BUDGET		**$318,600**

Revenues

City Subsidy		**$175,000**
Subsidy to cover cost of salaries		
Admissions		**$ 24,500**
Individual $24,000, Season Passes $500		
Museum Store Sales		**$ 75,000**
Web sales should include charge for postage		
Fundraisers:		**$ 27,500**
To fund operational expenses in museum		
Wine Tasting	$ 7500	
Annual Fundraiser	$20000	
Artist Sales		**$ 200**
Membership (based on FY2012 budget)		**$ 7,000**
Lobby Exhibit Case Rental		**$ 4,000**
Museum coordinates and manages 8 cases in Lobby.		
$500 per year x 8 = $4,000		
Successful Grants		**$ 9,000**
To fund operational expenses	$ 8000	
To fund art acquisitions	$ 1000	
Classes & Programs		**$ 3,000**
1 ½-day x 5 day Spring or Winter	$ 2250	
Tourism Training 20 participants x $35	$ 750	
Misc. Donations		**$ 500**
Copy/Research Charges		**$ 100**
TOTAL REVENUES		**$325,300**