

**Pratt Museum Kick-Off / Site Investigation  
Meeting Notes  
February 26, 2007**

Present: Heather Beggs, Neil McArthur, Betsy Webb, Bill Nelson, Dick Armstrong  
Steve Fishback

**SUMMARY**

A kick-off/site investigation meeting was held on February 26, 2007 at the Pratt Museum in Homer, Alaska. It was a clear winter day, approximately 25° F, winter's snow on the ground. The first two hours were spent discussing the building which provided a basic understanding of the building and program to the consultants. A 1 ½ - 2 hour building tour took place following the project overview meeting. The tour took in the museum building and the workshop. After the tour we reviewed the existing record drawings which were taken to a local printer for copying into an electronic format. (Steve took the CD, made copies the next day and distributed the copies to the consultant team). After lunch the group split up, Dick and Neil investigated the building systems and Heather gave Steve a site tour after which Steve went through the building more carefully making notes and confirming specific components. Dick and Bill finished their on site work in early afternoon, Steve left the site at about 5:00 p.m.

**DISCUSSION TOPICS**

1. The big question before the Museum is how should the Museum increase their building? Is the existing building sound enough to invest in or should it be torn down and replaced?
2. The existing site is larger than 8 acres (later confirmed to be 9.3 acres). It is envisioned the existing site will integrate new and existing trails. The Museum site is currently crisscrossed with several trails connecting to a larger trail system.
3. The Museum is intent on maintaining a high degree of environmental awareness. If a new structure is built, following a LEEDS program is strongly supported.
4. There is a creek running through the site that has been controlled through means of a large culvert. The Pratt Museum is uncomfortable with the concept that they as an environmentally conscious institution have a contained stream on their site. It is a strong desire to re-establish the stream bed. If the stream is re-established it will be important to assure it is diverted away from the existing building. Currently the culvert is immediately adjacent to the west exterior wall of the Museum's main structure.
5. Spruceview Avenue is currently being extended across the northern property boundary of the Museum site. Where the new road crosses the stream (Woodard Creek) a bridge is being constructed rather than a culvert. Bill Nelson is the engineer for the road and bridge project.
6. Site access and parking is an issue the Museum would like further investigated. During peak times in the summer there is not enough parking in the current lot configuration. Also

the current parking lot does not accommodate oversized vehicles well (motor homes and tour buses). Previous studies have been prepared for the Museum that suggest decentralized parking nodes, this is the approach the Museum prefers to investigate.

7. The Museum currently has a broad based support system with approximately 500 Museum members and 35,000 annual visitors. 80% of the visitation occurs during the summer months. Admissions account for approximately \$75,000 annually and membership approximately \$35,000.
8. The existing building was constructed in four components, two of which account for the bulk of the space. The original building was built in 1966, Crittenden, Cassetta, Wirum and Jacobs was the architectural firm for this 6,080 square foot building. The existing marine gallery addition was applied in 1977, the special exhibits gallery was applied in 1986, Cole and Thompson were the architects for this project. Lastly in 1991 the west porch was enclosed to create the current administrative suite.
9. The existing building does have some weaknesses and the Museum staff question the building's integrity. Some of the issues we need to investigate include the condition of the boiler, the integrity of ductwork and plumbing, the structural capacity, the condition of the fire suppression system and the overall condition of the building's many components.
  - The drawing indicates a vapor barrier was installed.
  - There is humidification for the collection but is electric and not as effective as it needs to be. The humidity can be maintained at 65% unless it is winter and windy, in those conditions the building becomes much dryer. In the summer the humidity rises well above 65% and mold becomes a concern.
  - The electrical system is a combination of old and new components.
  - There is a 20 year old single walled buried fuel oil tank on the west side of the building that is a concern for leaking.
  - There is a "wet" sprinkler system in the building.
  - The haylon fire suppression system was taken out as a part of the 1987 addition.
  - The building has a CO<sub>2</sub> monitoring system.
  - There are numerous roof leaks in the building but the worst is at the interface of the 1966 and 1986 addition.
  - There is some water migration through the basement walls.
  - The basement walls are/were cold and two additional inches of rigid insulation have been added under a furring system to reduce the heat loss.
10. The collection is held in "delta design" cabinets that are made specifically for museum collections. There is no nitrate film in the collection and no hazardous or flammable product cabinets used or needed for the collection.
11. The building appears to be a heavy timber (Type VI) building.
12. Water is provided from the City by a 6" main and the building is connected to city sewer.
13. The lack of a floor drain and chemical resistant plumbing in the aquaria is a concern since salt water is run through the system weekly. Without a floor drain spills are difficult to clean up.

14. Space utilization of the administrative suite, library, marine gallery and education offices is awkward and reorganization would be helpful.
15. A small office has been installed above the main gallery in what was attic space. Access/egress is problematic from a code standpoint.
16. The public toilet rooms don't have floor drains or coved base. Overflows are a problem and the tank type, wall hung toilets seem to be prone to overflow. There are no staff toilets.
17. The basement floor appears to be VAT (vinyl asbestos tile) in the area of original construction.
18. An office has been created outside the boiler room. This "interviewing room" may cause exiting code issues, the door out of the boiler/office swings into the direction of travel, an obvious code violation.
19. The building is not accessible or compliant with UFAS.

#### Workshop

20. The free standing workshop building has many uses.
  - Maintenance workshop
  - Graphic studio
  - Bulk storage
  - Office space
  - Collection overflow
  - Exhibit workshop
  - And a variety of other functions.

There is a small quantity of paint/volatile material that is currently stored outside of flammable cabinets. This should be corrected. Objects requiring isolation are frozen in an "ultra cold" freezer which is housed in the workshop.

21. The workshop crawl space floor has been provided with a vapor retarder and plywood panels to create a semi dry useful storage space. The 4-5 foot ceiling results in this being a non-occupiable space in spite of its usefulness. The fuel fired furnace is in the crawl space making the egress concern more serious.

**QUESTIONS FROM THE FEBRUARY 26, 2007 INITIAL SITE MEETING****Overall, is it reasonable to make proposed modifications to this building, or should we consider a new building?**

*The building currently is in very good condition and due in part to the post and beam structural system it would be easily modified to accommodate the program you suggest. The primary mechanical and electrical system components are in good condition and should be able to continue to provide service in an expanded building. The weakest component of the building is the exterior envelope which is easily accessible and repairable/replaceable.*

*Disruption of current operations during construction and protection of the collection will be our greatest concerns during the construction process. The best time to build is unfortunately the Museum's peak season thus inhibiting patronage and income.*

**By parts, in order to make proposed modifications:****Will proposed modifications provide intended expansion of exhibit, collections, office and storage areas?**

*The short answer to your question is yes, the proposed construction would accommodate those building areas you are requesting. I am concerned that the project's outcome will not be as far reaching as it could be. To mitigate opportunities left undiscovered, I suggest a comprehensive view of the Museum's vision be undertaken prior to beginning design. The first step is to hold a work session with the Board/Building Committee to establish short, medium and long term Museum goals. Once the vision is established an implementation plan identifying how the goals become a building can be generated. This phase is normally called the programming phase. After programming, the traditional design phases can be undertaken and the building is constructed.*

**Can the building reasonably be made accessible for handicapped and freight?**

*Our preliminary assessment of the building's spatial zoning is that it can be made to provide logical locations for both accessible pedestrian movement, as well as, object/freight movement between the building's levels.*

**Can the building be made reasonably airtight for effective affordable heating and humidification?**

*The building envelope improvements can be easily accommodated. One approach is to remove the 2x10 exterior boards, install a high quality air barrier over the existing sheathing, caulk and seal all known holes in the wall assembly and install a new layer of siding or plywood and re-apply the 2x10's. If done correctly, this approach will make the Museum's exterior wall assembly as airtight as any modern building.*

**What is the expected life of the present roof and support beams?**

*The existing roof is well over 20 years old and is past its expected life. The question is if the insulation under the roofing has become saturated with water. There is about a 50/50 chance the vapor pressure from within the building, or the persistent roof leaks through the roof have saturated the insulation. If this has occurred there is a high likelihood that the wooden roof deck is rotting. Destructive investigation could be undertaken that would help clarify this question. Unfortunately, such tests are only going to identify the specific areas tested (usually a series of 4 inch diameter holes) and could miss areas where a completely different condition exists. If sufficient funds could be raised I suggest the Museum receive quotes from roofers to provide a new 60 mil EPDM or PVC roof that is fully adhered to a new layer of ¾ inch thick plywood that is to be placed over the existing recycled insulation. The existing roof will need to be stripped down to the existing wood deck and the deck inspected for decay and mold growth. The new shear plywood described in the Condition Survey should be applied and a new 10 mil polyethylene vapor retarder installed. The roof's draining patterns should be assessed and redesigned to eliminate the current problem areas. The new roof slopes will likely be achieved through addition of specifically tapered plies of insulation placed over the decking and under the recycled roof insulation. As mentioned in the survey, insulation loses some insulating value with time. Also, the roof is structurally designed to accommodate a 40 pound per square foot (PSF) snow load. Existing conditions and the building code indicate 50 PSF should be used. A discussion with a structural engineer regarding the risk of adding insulation beyond what is currently on the Museum is recommended. The more insulation the more snow is retained and the more potential weight is added to the roof.*

*As mentioned, there is a chance some of the insulation will be unusable due to saturation and the roof decking could be rotten. A unit price for new insulation and decking replacement should be part of the contractor's bid package, that way a competitive pre-known price for the remedial work will be established. The roof structural system is in good condition, although designed for a live load that is approximately 20% below what is now recommended.*

**Does the heating system need to be replaced?**

*The heating system is in good condition. See the Condition Survey discussion for details.*

**Does the HVAC system need to be redesigned and replaced?**

*The HVAC backbone is in good condition. See the Condition Survey discussion for details.*

**Will the sprinkler system need to be replaced, or just extended?**

*The sprinkler system will only need to be extended, however, as discussed in the Condition Survey, the addition of a mist system in the Collections area should be considered and freeze protected drops and heads outdoors will need to be installed.*

**Will the fire alarm system need to be replaced?**

*The fire alarm system should be replaced. See the Condition Survey for further specifics.*

**Will the intrusion alarm system need to be replaced?**

*The intrusion alarm should be replaced. See the Condition Survey for further specifics.*

**What is the expected remaining life of 1968 plumbing under the lower level floor, and throughout the building? Must it be replaced?**

*It is very difficult to assess the remaining life of plumbing. Water PH has a significant effect on piping life and without destructive demolition and laboratory analysis it will not be possible to assess how much life is remaining in the piping.*

**Is the plumbing installed under floors in 1987, but never connected, likely to be of any use in the modified structure?**

*The in-place plumbing is, in all likelihood, still in good condition and if new plumbing distribution requirements match what was planned in 1987 the existing plumbing should be useable.*

**Will present electrical wiring have to be replaced during modification to comply with code?**

*Other than the few deficiencies noted in the Condition Survey, the existing electrical wiring should comply with current codes and not require replacement when the building is upgraded.*

**CODE ANALYSIS**

This code analysis has been accomplished using the following codes:

2003 International Building Code (IBC)  
 2003 International Fire Code (IFC)  
 Americans with Disabilities Act Accessibility Guidelines (ADAAG, accessibility guidelines)  
 City of Homer Municipal Codes (2005 Update)

**USE & OCCUPANCY CLASSIFICATION (IBC Chapter 3)**

Art Gallery

A-3 Occupancy

Section 302.1.1 Incidental Use Areas. Spaces that are incidental to the main occupancy shall be separated or protected, or both, in accordance with Table 302.1.1 or the building shall be classified as a mixed occupancy and comply with Section 302.3. Areas that are incidental to the main occupancy shall be classified in accordance with the main occupancy of the portion of the building in which the incidental use is located.

**Incidental Use Areas (IBC Table 302.1.1)**

|  |                                       |
|--|---------------------------------------|
| Furnace Rooms ( $\geq 400,000$ Btu/hr) | 1-hour enclosure / None if sprinkled. |
| Boiler Rooms (boiler > 15psi & 10 hp)  | 1-hour enclosure / None if sprinkled. |
| Storage Rooms (> 100 square feet)      | 1-hour enclosure / None if sprinkled. |

Section 302.2 Accessory Use Areas. A fire barrier shall be required to separate accessory use areas classified as incidental use areas in accordance with Section 302.1.1. Any other accessory use area shall not be required to be separated by a fire barrier provided the accessory use area occupies  $\leq 10$  percent of the area of the story in which it is located and does not exceed the tabular values in Table 503 for the allowable height or area for such a use.

**Occupancy****Required Separation (Table 302.3.2)**

A-3

No differing occupancies exist, therefore no separations are required.

**SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY (IBC Chapter 4)**

Not applicable.

**GENERAL BUILDING HEIGHTS AND AREAS (IBC Chapter 5)**

Table 503 allows for the Type VA to be 2 stories and 11,500 square feet in total area.

Section 504.2 Automatic Sprinkler System Increase. Allows the building to be increased in height by 20 feet or one story if an automatic sprinkler is installed.

Section 506.1 Area increase resulting from an automatic sprinkler system and building setbacks:  
 $11,500 \times 100\% \times 100\% = 46,000$  square feet total allowable area for a two-story building.

**TYPES OF CONSTRUCTION** (Chapter 6)

Section 602.5 Type V. Type V construction is that type of construction in which the structural elements, exterior walls and interior wall are of any materials permitted by this code.

**Fire-Resistance Rating Req. for Building Elements** (Table 601)

| Building Element                             | Type V-A      |
|--|---------------|
| Structural Frame                             | 1             |
| Bearing Walls (Exterior)                     | 1             |
| Bearing Walls (Interior)                     | 1             |
| Non-Bearing Walls (Exterior)                 | See Table 602 |
| Non-Bearing Walls (Interior)                 | 0             |
| Floors (Including supporting beams & joists) | 1             |
| Roofs (Including supporting beams & joists)  | 1             |

An approved automatic sprinkler system in accordance with 903.3.1.1 shall be allowed to substitute for 1-hour fire resistance-rated construction provided such system is not required by other provisions of the code.

**Fire-Resistance Rating Req. for Exterior Walls Based on Fire Separation Distance** (Table 602)

| Fire Separation Distance (ft) | Type of Const. | Occupancy Group (A-3) |
|-------------------------------|----------------|-----------------------|
| < 5-ft                        | V-B            | 1-hour                |
| ≥ 5-ft to < 10-ft             | V-B            | 1-hour                |
| ≥ 10-ft to < 30-ft            | V-B            | 1-hour                |
| ≥ 30-ft                       | V-B            | 0                     |

**FIRE-RESISTANCE-RATED CONSTRUCTION** (IBC Chapter 7)

## Exterior Walls (Section 704)

704.2 Projections. Cornices, eave overhangs, exterior balconies and similar architectural appendages extending beyond the floor area shall conform to the requirements of this section and 1406. Projections shall not extend beyond the distance determined by the following two methods, whichever results in the lesser projection:

- 1) A point one-third the distance to the lot line from an assumed vertical plane located where projected openings are required in accordance with Section 704.8.
- 2) More than 12-inches into areas where openings are prohibited.

704.2.2 Type V Construction. Projections from wall shall be of any approved material.

704.2.3 Combustible Projections. Combustible projects located where openings are not permitted or where protected openings is required shall be of at least 1-hour fire-resistance-rated construction.

704.5 Fire-Resistance Ratings. Exterior walls shall be fire-resistance rated in accordance with Table 601 and 602. The fire-resistance rating of exterior walls with a fire separation distance of greater than 5-ft shall be rated for exposure to fire from the inside. The fire-resistance rating of exterior walls with a fire separation distance of 5-ft or less shall be rated for exposure to fire from both sides.



704.11 Parapets. Parapets shall be provided on exterior walls of buildings.

Exceptions: A parapet need not be provided on an exterior wall where any of the following conditions exist:

- 1) The wall is not required to be fire-resistance rated in accordance with Table 602 because of fire separation distance.
- 2) The building has an area of not more than 1,000 square feet on any floor.

707.2 Shaft enclosure required. Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this section.

Exceptions:

- 3) A shaft enclosure is not required for penetrations by pipe, tube, conduit, wire, cable, and vents protected in accordance with Section 712.4.
- 7) In other than Groups I-2 and I-3, a shaft enclosure is not required for a floor opening that complies with the following:
  - 7.1 Does not connect more than two stories.
  - 7.2 Is not part of the required means of egress system except as permitted in Section 1019.1.
  - 7.3 Is not concealed within the building construction.
  - 7.4 Is not open to a corridor in Group I and R occupancies.
  - 7.5 Is not open to a corridor on nonsprinklered floors in any occupancy.
  - 7.6 Is separated from floor openings serving other floors by construction conforming to required shaft enclosures.

719.1 Insulation and materials, including facings, such as vapor retarders and vapor-permeable membranes. Similar coverings and all layers of single and multi-layer reflective foil insulations shall comply with the requirements of this section.

Exceptions: 2. Foam plastic insulation shall comply with Chapter 26.

## **INTERIOR FINISHES (IBC Chapter 8)**

801.1 Scope. Provisions of this chapter shall govern the use of materials used as interior finishes, trim and decorative materials.

801.1.1 Interior Finishes. These provisions shall limit the allowable flame spread and smoke development based on location and occupancy classification.

Exceptions:

- 1) Materials having a thickness less than 0.036-inch applied directly to the surface of walls or ceilings.
- 2) *Exception speaks to structure for Type IV Construction.*

801.2 Application. Combustible materials shall be permitted to be used as finish for walls, ceilings, floors and other interior surfaces of buildings.

803.1 General. Interior wall and ceiling finishes shall be classified in accordance with ASTM E 84. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-development indexes.

Class A: Flame spread 0-25; smoke-developed 0-450.

Class B: Flame spread 26-75; smoke-developed 0-450.

Class C: Flame spread 76-200; smoke-developed 0-450.

803.2 Interior Wall or Ceiling Finishes Other Than Textiles. Interior wall or ceiling finishes, other than textiles, shall be permitted to be tested in accordance with NFPA 286.

803.3 Stability. Interior finish materials regulated by this chapter shall be applied or otherwise fastened in such a manner that such materials will not readily become detached where subject to room temperatures of 200°F for not less than 30-minutes.

Table 803.5 Interior Wall & Ceiling Finish Requirements by Occupancy

| Group | Non-Sprinklered                    |  |                         |                |                |                        |
|-------|------------------------------------|--|-------------------------|----------------|----------------|------------------------|
|       | Vertical Exits & Exit Passage-ways | Exit Access Corridors & Other Exitways | Rooms & Enclosed Spaces | Vertical Exits | Exit Corridors | Room & Enclosed Spaces |
| A-3   | B                                  | B                                      | C                       | A              | A              | C                      |

803.8 Insulation. Thermal and acoustical insulation shall comply with Section 719.

### **FIRE PROTECTION SYSTEMS (IBC Chapter 9)**

903.2.10 All Occupancies Except Groups R-3 and U. An automatic sprinkler system shall be installed in the locations set forth in Section 903.2.10.1 through 903.10.1.3.

903.2.10.1 Stories and Basements Without Openings. An automatic sprinkler system shall be installed throughout every story or basement of all buildings where the floor area exceeds 1,500 SF and where there is not provided at least one of the following types of exterior wall openings:

- 1) Openings below grade that lead directly to ground level by an exterior stairway. . . or ramp . . .
- 2) Openings entirely above the adjoining ground level totaling at least 20 square feet in each 50 linear feet, or fraction, of exterior wall in the story on least one side. Fire extinguishers shall be installed in accordance with the Fire Code.

903.2.10.1.1 Opening Dimensions and Access. Openings shall have a minimum dimension of not less than 30-inches. Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that fire fighting or rescue cannot be accomplished from the exterior.

903.3.1 Standards. Sprinkler systems shall be designed and installed in accordance with Section 903.1.1, 903.3.1.2 or 903.3.1.3.

903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, sprinklers shall be installed throughout in accordance with NFPA 12 except as provided in Section 903.3.1.1.1.

903.3.1.1.1 Exempt locations. Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, or fire-resistance-rated construction or contains electrical equipment.

- 1) Any room where the application of water or flame and water, constitutes a serious life or fire hazard.
- 2) Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the building official.

#### Portable Fire Extinguishers (906)

906.1 General. Portable fire extinguishers shall be provided in occupancies and locations as required by the International Fire Code (IFC).

**EXISTING REQUIREMENTS (IBC Chapter 10)****Egress Width (1005)**

Exit Capacity with Sprinkler System (Minimum inches, Table 1005.1)

| Stairways<br>(OLx0.2) | Other Exit Elements<br>(OLx0.15)      |
|-----------------------|---------------------------------------|
| 24.8"                 | 18.6" (32" min. see Section 1008.1.1) |

**Means of Egress illumination (1006)**

1006.1 Illumination Required. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress occupied.

**Accessible Means of Egress (1007)****Doors, Gates and Trunstiles (1008)**

1008.1.1 Sizes of Doors. The minimum width of each door opening shall be sufficient for the occupant load and shall provide a clear width of not less than 32-inches.

1008.1.1.1 Projections Into Clear Widths. There shall not be projections into the required clear width lower than 34-inches above the floor or ground. Projections into the clear opening width between 34 and 80-inches above the floor or ground shall no exceed 4-inches.

1008.1.2 Door Swing. Egress doors shall be side-hinged swinging.

Exceptions: 1) Private garages, office areas, factory and storage areas with an occupant load of 10 or less.

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons.

1008.1.6 Thresholds. Thresholds at doorways shall no exceed 0.50-inch in height for other than sliding doors. Raised thresholds and floor level changes greater than 0.25-inch at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal.

1008.1.8 Door Operations. Except as specifically permitted by this section egress doors shall be readily openable from the egress side with the use of key or special knowledge.

1008.1.8.6 Delayed egress locks. Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with delayed egress lock before entering an exit.

**Stairway and Handrails (1009)**

1009.1 Stairway Width. The width of stairways shall be determined as specified in Section 1005.1 but such width shall not be less than 44 inches.

Exception: 1) Stairways servicing an occupant load of 50 or less shall have a width of not less than 36 inches.

## Condition Survey

1009.3 Stair treads and risers. Stair riser heights shall be 7 inches maximum and 4 inches minimum. Stair tread depths shall be 11 inches minimum. The riser height shall be measured vertically between the leading edges of adjacent treads.

1009.11 Handrails. Stairways shall have handrails on each side.

## Exit Signage (1011)

1011.1 Where Required. Exception (1) does not require an exit sign in a room or area that requires only one exit.

## Occupant Load (1004)

Table 1004.1.2 Occupant Load Factors (square feet per person)

|   |   |
|---|---|
| Library Reading Room (Galleries)          | 4,500 GSF                                     |
| Business Area (Offices)                   | 1,200 GSF                                     |
| Library Staff Area (Collections, Library) | 1,070 GSF                                     |
| Accessory Storage Areas Mechanical Rooms  | 1,060 GSF                                     |
| Occupant Load Calculations                |   |
| Galleries                                 | 90 Occupants (4,500 SF/50 SF/Occ.=90 Occ.)    |
| Business                                  | 12 Occupants (1,200 SF/100 SF/Occ.=12 Occ.)   |
| Collections                               | 11 Occupants (1,070 SF/100 SF/Occ.=10.7 Occ.) |
| Accessory                                 | 11 Occupants (1,060 SF/300 SF/Occ.=10.6 Occ.) |
| Total                                     | 124 Occupants                                 |

## Guards (1012)

1012.1 Where Required. Guards shall be located along open-side walking surfaces, mezzanines, industrial equipment platforms, stairways, ramps, and landings which are located more than 30-inches above the floor or grade below.

1012.2 Height. Guards shall form a protective barrier not less than 42-inches high, measured vertically above the leading edge of the tread, adjacent walking surface or adjacent seatboard.

1012.3 Opening Limitations. Open guards shall have balusters or ornamental patterns such that 4-inch diameter sphere cannot pass through any opening up to a height of 34-inches. From a height of 34-inches to 42-inches above the adjacent walking surfaces an 8-inches diameter sphere shall not pass.

- Exceptions:
- 1) The triangular openings formed by the riser, tread and bottom rail at the open side of a stairway shall be a maximum size such that a sphere of 6-inches in diameter shall not pass.
  - 3) In areas which are not open to the public within occupancies in Group S, balusters, horizontal intermediate rails or other construction shall not permit a sphere with a diameter of 21-inches to pass through any opening.

## Exit Access (1013)

1013.2 Egress Through Intervening Spaces. Egress from a room of space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy and provide a discernable path of egress travel to an exit.

1013.3 Common Path of Travel. The common path of travel shall not exceed 75-feet.

Exit and Exit Access Doorways (1014)

1014.1 Exit or exit access doorways required. Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:

- 1) The occupant load of the space exceeds the values in Table 1014.1.
- 2) The common path of egress travel exceeds the limitations of Section 1013.3.
- 3) Where required by Section 1014.3, 1014.4 and 1014.5.

Table 1014.1 Spaces with One Means of Egress

| Occupancy | Maximum Occupant Load |
|-----------|-----------------------|
| A-3       | 50 Occupants          |

1014.2 Exit or exit access doorway arrangement. Required exits shall be located in a manner that makes their availability obvious. Exits shall be unobstructed at all times. Exit and exit access doorways shall be arranged in accordance with Sections 1014.2.1 and 1014.2.2.

1014.2.1 Two exits or exit access doorway. Where two exits or exit access doorways are required from any portion of the exit access, the exit doors or exit access doorways shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between exit doors or exit access doorways. Interlocking or scissor stairs shall be counted as one exit stairway.

1014.3 Boiler, Incinerator and Furnace Rooms. 2 exits are required if the area is over 500 SF and any fuel fired equipment exceeds 400,000 BTU input capacity.

Exit Access Travel Distance (1015)

1015.1 Travel Distance Limitations. Exits shall be so located on each story such that the maximum length of exit access travel, measured from the most remote point within a story to the entrance to an exit along the natural and unobstructed path of egress travel, shall not exceed the distances given in Table 1015.1.

Table 1015.1 Exit Access Travel Distance

| Occupancy | w/Sprinkler System |
|-----------|--------------------|
| A         | 250                |

Exits (1017)

1017.2 Exterior Exit Doors. Buildings or structures used for human occupancy shall have at least one exterior door that meets the requirements of Section 1008.1.1.

1017.2.1 Detailed Requirements. Exterior exit doors shall comply with the applicable requirements of Section 1008.1.

1017.2.2 Arrangement. Exterior exit doors shall lead directly to the exit discharge or the public way.

Number of Exits (1018)

Table 1018.1 Minimum Number of Exits for Occupant Load

| Occupancy Load | Minimum Number of Exits |
|----------------|-------------------------|
| 1-500          | 2                       |

Vertical Exit Enclosures (1019)

1019.1 Enclosures Required. Interior exit stairways and interior ramps shall be enclosed with fire barriers. Exit enclosures shall have a fire-resistance rating of not less than 2-hours where connecting

four stories or more and not less than 1-hour where connecting less than four stories. The number of stories connected by the shaft enclosure shall include any basements but not mezzanines. An exit enclosure shall be constructed as fire barriers in accordance with Section 706.

#### Exit Discharge (1023)

1023.1 General. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not reenter the building.

1023.6 Access to a Public Way. The exit discharge shall provide a direct and unobstructed access to a public way.

### **BUILDING ACCESSIBILITY (IBC Chapter 11)**

1103.1 Where Required. Buildings and structures, including their associated sites and facilities shall be accessible to persons with disabilities.

1103.2.3 Employee work areas. Spaces and elements within employee work areas shall only be required to comply with Sections 907.9.1.1, 1007 and 1104.3.1 and shall be designed and constructed so that individuals with disabilities can approach, enter and exit the work area. Work areas, or portions of work areas, that are less than 150 square feet in area and elevated 7 inches or more above the ground or finish floor where the elevation is essential to the function of the space shall be exempt from all requirements.

1104.3 Connected Spaces. When a building or portion of a building, is required to be accessible, an accessible route shall be provided to each portion of the building, to accessible building entrances connecting accessible pedestrian walkways and public ways.

1109.2 Toilet and Bathing Facilities. Toilet rooms and bathing facilities shall be accessible. Where floor level is not required to be connected by accessible route, the only toilet rooms or bathing facilities provided within the facility shall not be located on the inaccessible floor.

1109.13 Controls, Operating Mechanisms and Hardware.

Exceptions: 1) Operable parts that are intended for use only by service or maintenance personnel shall not be required to be accessible.

1110.1 Signs. Required accessible elements shall be identified by the international symbol of accessibility at the following locations:

- 1) Accessible parking spaces required by 1106.1 except where the total number of spaces provided is four or less.
- 2) Accessible passenger loading zones.
- 5) Accessible entrances where not all entrances are accessible.
- 7) Unisex toilet and bathing rooms.

### **INTERIOR ENVIRONMENT (IBC Chapter 12)**

1210.1 Floors. In other than dwelling units, toilet and bathing room floors shall have a smooth, hard, nonabsorbent surface that extends upward onto the walls at least 6-inches.

1210.2 Walls. Walls within 2-ft of urinals and water closets shall have a smooth, hard, nonabsorbent surface, to a height of 4-ft above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

- Exceptions:
- 1) Dwelling units and sleeping units.
  - 2) Toilet rooms that are not accessible to the public and which have not more than one water closet.

### **ROOF ASSEMBLIES AND ROOFTOP STRUCTURES (IBC Chapter 15)**

1505.1 General. Roof assemblies shall be divided into defined roof classes. Class A, B, and C roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D 2898. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the construction of the building.

#### **Minimum Roof Covering Classification of Types of Construction**

| Type VA | Roof Covering Class B |
|---------|-----------------------|
|---------|-----------------------|

1505.3 Class B Roof Assemblies. Class B roof assemblies are those effective against moderate fire-test exposure. Class B roof assemblies and roof coverings shall be listed and identified as Class B by an approved agency.

### **PLUMBING FIXTURE REQUIREMENTS (IBC Chapter 29)**

The A-3 occupancy listed in Table 2901.1 Minimum Number of Required Plumbing Facilities is not in Compliance with Uniform Plumbing Code, UPC will govern.

### **CITY OF HOMER MUNICIPAL CODE (2005 Update)**

#### **ZONING**

Zoning District: Developed portion of this site is zoned "Central Business District". The north west portion of the site is zoned "Urban Residential".

Minimum Lot Size: 6,000 square feet

Set Backs: Building shall be set back 20 feet from all dedicated right of ways.

Exception: Commercial building shall be set back 5 feet from all other lot boundary lines, except the minimum setback shall be 2 feet from all other boundary lines when fire walls are provided....

Building Height: Maximum building height shall be 35 feet.

Lot Coverage: No lot shall contain more than 8,000 square feet.

#### **Landscape Requirements:**

##### **A. Buffers**

- (i) 3 feet minimum along all lot lines where setbacks permit; except where a single use is contiguous across common lot lines...
- (ii) 15 feet minimum from the top of the bank of any defined drainage channel or stream.

**B. Parking Lots**

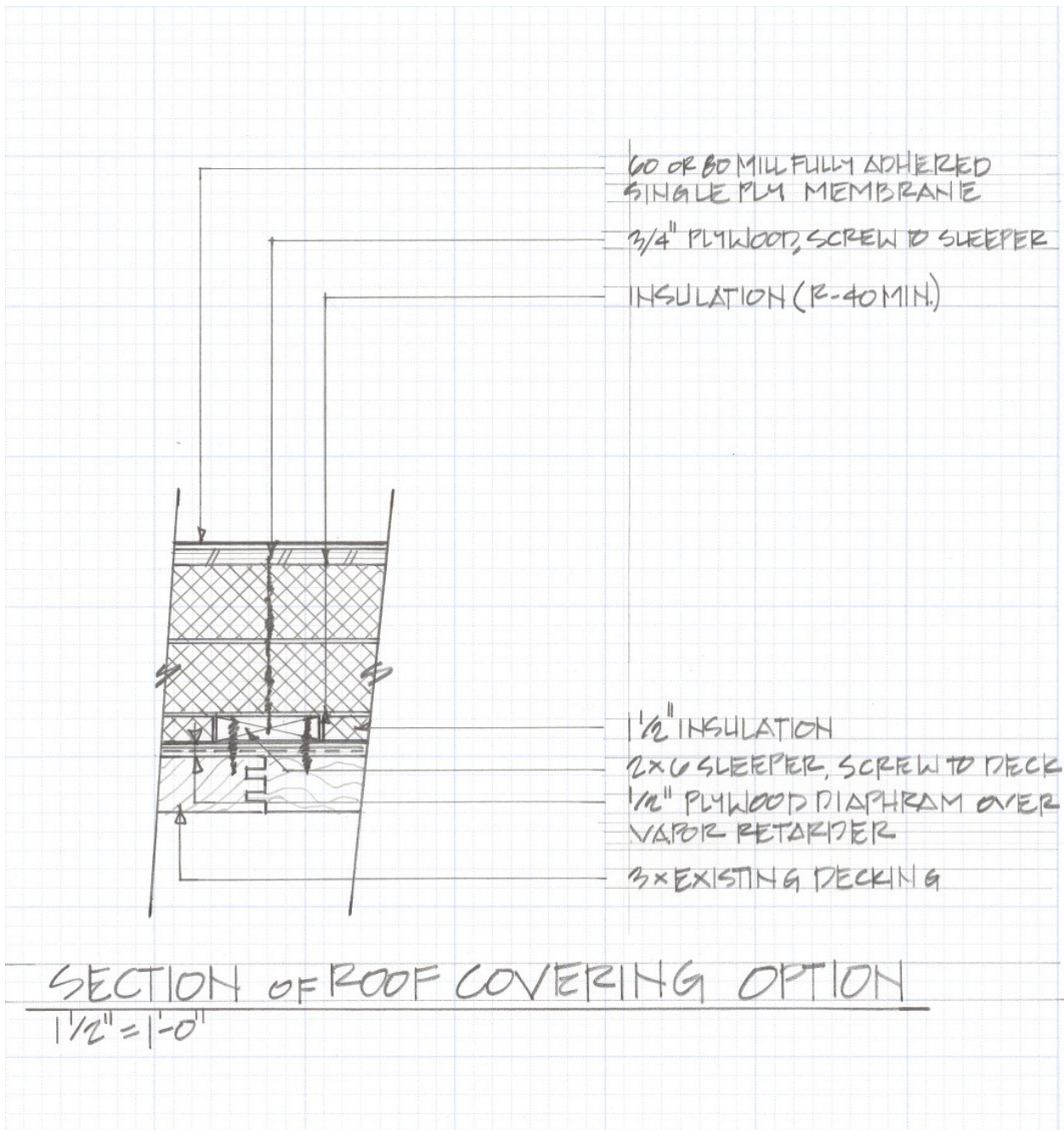
- (i) A minimum of 10% of the parking area of parking lots with 24 spaces or more shall be landscaped in islands, dividers or a combination of the two.
- (ii) Parking lots with 24 spaces or more will have a minimum 10 foot landscape buffer adjacent to road right of ways.
- (iii) Parking lots with one single loaded or one double loaded aisle that have a 15 foot minimum landscape buffer adjacent to road right of ways are excluded from the requirements of (i) above.

**PARKING AND LOADING FACILITIES**

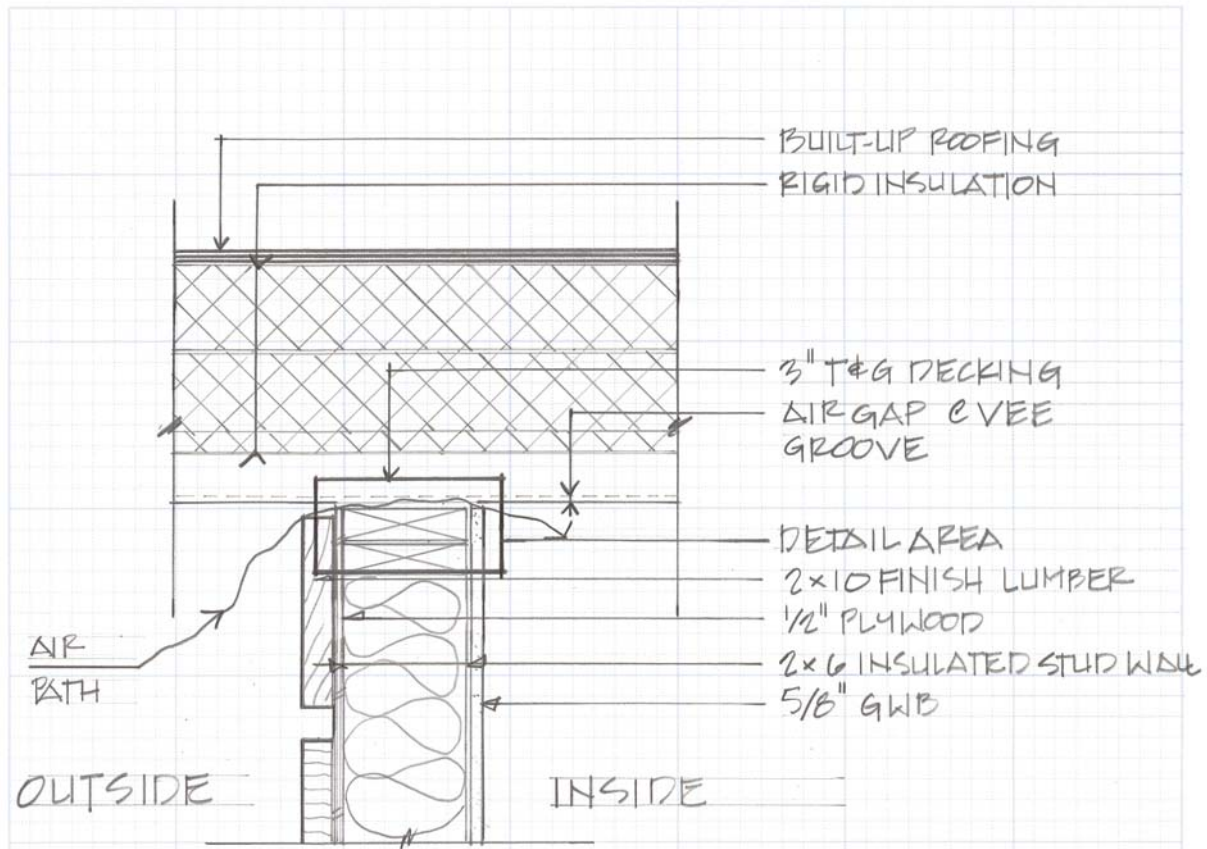
Section 7.12.020 of the Homer Municipal Code does not list uses similar to a museum in the identified uses/parking allocation list. A telephone conversation with Beth McKibben of the Homer Planning Department concluded with an approach that would view other community plans for museum parking requirements, weigh those requirements against the recently adopted Homer Library parking allocation of 56 stalls for the 16,800 square foot, 224 occupant library building. That being projected onto the Museum project it is expected that based on the Museum's occupant load of 114 occupants there would be 29 parking stalls required. Based on the enclosed building area of 10,780 square feet there would be 36 parking stalls required. The actual "requirement" will need to be negotiated with the planning department when further development occurs. There are currently 47 parking stalls on site. This number does not accommodate the current visitor parking need. Fifty additional parking stalls will the Museum.



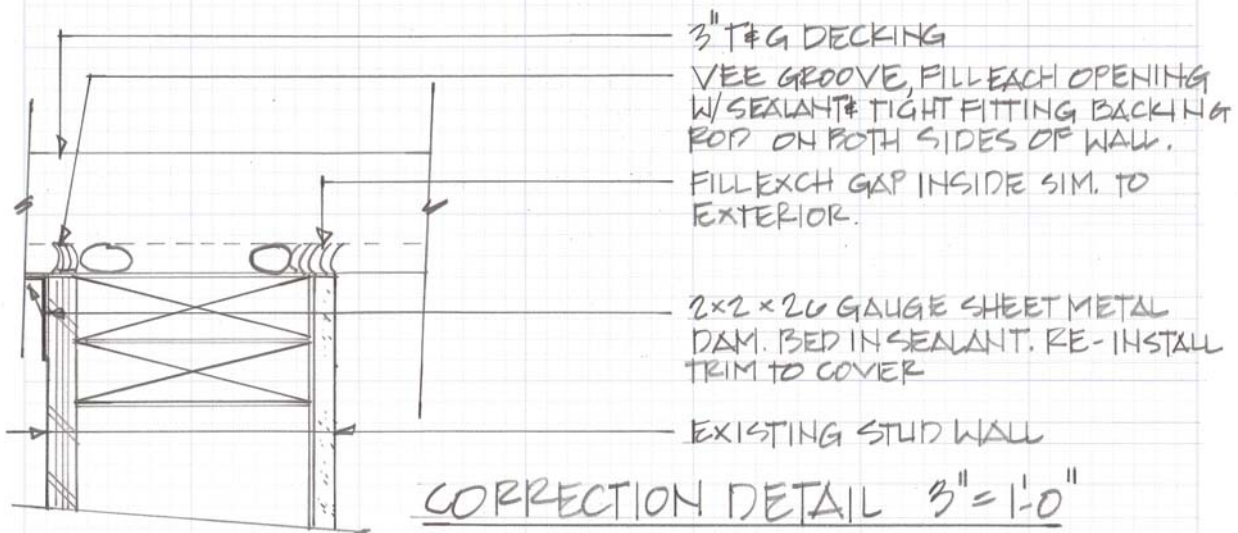
Roof Covering Detail  
Figure 1



Wall to Soffit Detail  
Figure 2



EXISTING CONSTRUCTION 1/2" = 1'-0"





**PRATT MUSEUM SITE**



