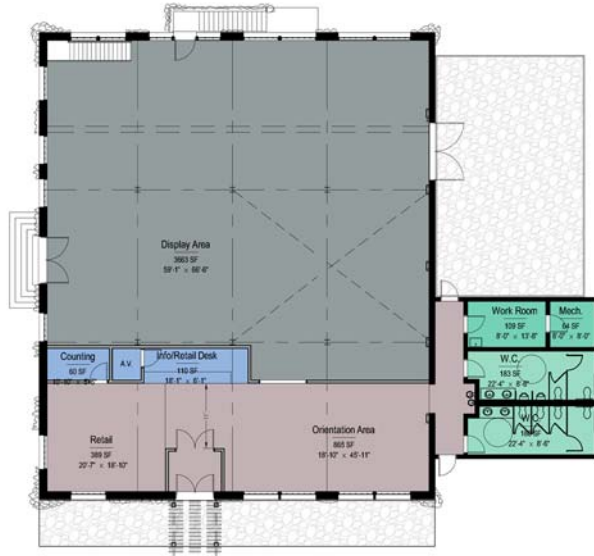


BUILDING CONCEPT



An early scheme without a large addition

PFAU LONG ARCHITECTURE

The building concept for the River Heritage Museum presented here offers an exciting opportunity to adaptively re-use the historic laundry building and make the “magic of the river” accessible to everyday visitors to the Park. The building concept respectfully rejuvenates this National Historic Register treasure and complements it with an exciting transparent addition that offers a view to the boats and an open invitation to visitors at the rim.

Museum Program

As a result of the feasibility work process, the building program required for the GCRHM was developed and refined with feedback along the way. It was determined that the museum should contain the following spaces:

1. Entry Area
2. Information Desk
3. GCA Store
4. Restrooms (near front door)
5. Orientation Gallery
6. Work Room/Counting Room
7. Theater for 50 people Max
8. Main Gallery
9. Storage
10. Mechanical Room
11. Outdoor Patio (future)

Early in the process, a layout of the existing boats over the space quickly determined that the existing footprint of the historic Laundry Building did not offer enough space for all the boats and their interpretive displays.

**GRAND CANYON RIVER HERITAGE MUSEUM
BUILDING CONCEPT - CONTINUED**



The existing west elevation of the Laundry Building

Schemes that limited the museum to the existing historic footprint were considered and one was presented at the mid-study review. Participants in the workshop selected a larger scheme that proposed a complimentary addition to the east of the historic structure, extending it towards the Powerhouse Building. This larger scheme allowed the incorporation of the video theater, which did not fit in the smaller footprint, and also included the desired Orientation Gallery that would allow the building to be used for events and gatherings at the Park.

This scheme was further developed to respond to feedback from the mid-study review, and sent around for further review by key stakeholders by email. The final building concept represented here reflects the input of the NPS, the CRF and the GCA who will operate the facility. The design team is grateful for all of the time that the reviewers and contributors to the effort spent with us to assure the success of this project.

Existing Laundry Building

The existing historic Laundry Building structure is 5,553 sf in size and will be adaptively re-used to form the core interpretive space for the boat collection. The work to the exterior of the building will involve the removal of non-contributory additions on the south, west and east building faces, and the restoration of historic fabric on the north, west and south facades (please refer to the historic preservation chapter of this report for greater detail).

The interior of this structure is industrial in character, having been the former laundry building, and as such offers a wide-open space ideal for boat display and interpretation. The work in this building will involve removing all interior partitions and a storage loft, none of which are original or historic in character, to open up

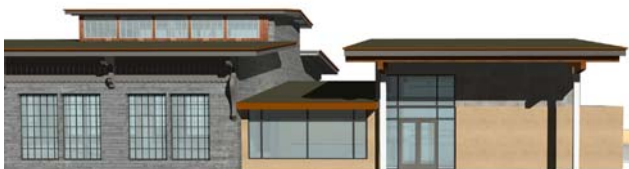


An interior view of the Laundry Building

**GRAND CANYON RIVER HERITAGE MUSEUM
BUILDING CONCEPT - CONTINUED**



Existing northwest corner of Laundry Building showing grade against window glass



South elevation showing the new covered entry porch

the floor plate. The resulting interpretive display area will encompass the entire floor of the Laundry Building and will be washed by daylight from the existing clerestory window above and restored windows (and site views) on three sides.

The eastern façade of this structure is a blank concrete wall, devoid of any detail, originally intended to allow doubling of the Laundry Building's size. Several openings will be saw cut into this existing wall to provide linkages into the new building addition.

At the lower level of the existing building, are several rooms that are accessible by an internal stair or from the outside grade. They encompass about 1,207 sf of space. These rooms will be cleaned up, made weather tight and properly drained to mitigate the flooding that has occurred in the past. They will then be adapted to provide storage linked to the main level by the existing stair and a separate mechanical room accessible from outside. New retaining walls and drainage will be required outside these rooms to address the floor level (and exterior door) below grade and the existing windows at grade.

The existing painted surfaces within the historic building are likely to contain high levels of lead. Based on the team's experience with the Powerhouse Building, this paint will need to be scraped down to remove friable material and encapsulated by new paint throughout the existing building.

The total gross sf of the adaptively reused Laundry Building will be 6,760 gsf.

Building Addition

Roughly equal in size to the historic structure, the new addition has a simple roof form that mirrors the larger roof shape and slope of the Laundry Building.

GRAND CANYON RIVER HERITAGE MUSEUM
BUILDING CONCEPT - CONTINUED



View from the entry door towards the information desk and the orientation gallery.



View from the orientation area towards entry and the passage to the existing Laundry Building.

In between these two roofs is a lower roof, also sloped, that sets old and new apart and allows the addition to meet the historic building on the blank surface of the east wall. This lower roof also serves to reduce the size of the addition's roof so that it is hierarchically smaller than the original.

Under its new roof the structure of the addition is openly expressed, echoing the interior character of the Laundry Building. The simple wood beam structure of the roof is left exposed and the main wood beams that carry these loads extend out through the façade, echoing the historic corbels. Then in turn, these beams sit on steel columns and diagonal braces inside the space. These columns and braces are contemporary versions of the composite steel columns in the laundry building.

The primary public entry is on the south side of the building through a covered entry porch. This covered porch provides an identifiable place of entry to the museum, as well as a respite from the heat and a place for visitors to rest and reorient. Upon entering the building, there is a small entry zone with the information desk directly in front of you. Directly adjacent to this space are public restrooms and a drinking fountain, convenient to both entry and exit from the museum.

Once oriented, visitors will move past the information desk through to the 1729 sf orientation gallery beyond. This space will have introductory interpretive elements to frame the visitors experience in the museum, including a replica of the John Wesley Powell's Emma Dean from 1869. The space will also serve as an event space, being easily adapted to accommodate gatherings, lectures and special events. It will have a large expanse of glass looking out toward the Bright Angel Lodge and the rim beyond. Large glass doors lead onto the patio. Normally locked, the doors are sized to allow for the

GRAND CANYON RIVER HERITAGE MUSEUM
BUILDING CONCEPT - CONTINUED



A view from GCA store towards the orientation gallery and the outdoor patio beyond.

moving of boats in and out of the museum and can be opened for events. This glass facade also makes the Emma Dean replica visible from the rim and serves as an invitation for people to come over and experience the museum.

From this space visitors will then proceed through a passage to the boats and their interpretation located in the historic building. Along this passage visitors will have the opportunity to stop in the intimate 50-person theater for short films about the river. The staff work and counting room is also located off of this passage.

After circling through the boat interpretation area, visitors will exit by an opening on the south end of the east wall into a retail space. This retail space is visible from outside the building as well as adjacent to the information desk allowing the desk to double as the retail point of sale. In order to minimize staffing, this information/retail desk is designed to allow for a single staff person to maintain visual overlook throughout the new and historic building display areas, as well as the entry and retail areas.

The total gross square footage for the new addition is 4,061 s.f.

Outdoor Patio

A 2750 sf exterior patio space is provided outside the orientation space and connected with large glass doors. This space allows for exterior interpretive activities related to the GCRHM, such as temporary display of contemporary river crafts. It is also proposed to feature a more permanent large river craft, one of *Georgie's inflatables*, that can be seen from the rim to attract attention, and serve as something for kids to climb on once they arrive.

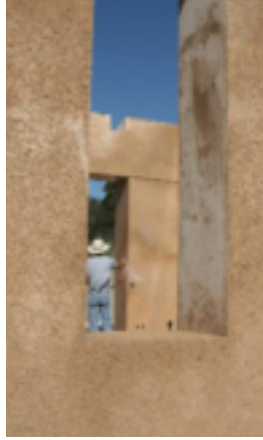


A view of the outdoor patio and the east elevation of building addition.

**GRAND CANYON RIVER HERITAGE MUSEUM
BUILDING CONCEPT - CONTINUED**



Pisé Installation



Pisé Wall

This space can also be used for special events to spill outside in favorable weather. It should be noted that construction of the space might need to be done incrementally, depending on when the intended relocation of the existing power switch station takes place.

Building Materials

The materials of the new addition were chosen carefully for compatibility with the existing historic structure and for their durability and sustainable qualities. The key building materials are as follows:

Pisé' (Pneumatically Impacted Stabilized Earth) Exterior Walls: New solid earthen material walls form the base for the building and relate in color and texture to the existing masonry walls on the historic building. These are made using a sustainable concrete like material called Pisé' which is made from 80% native dirt (from just outside the park) and 20% cement. These walls are formed using sprayed gunnite technology and troweled smooth on one side to minimize formwork.

Wood Exterior Siding: Above the Pisé' base, the exterior walls will be vertical wood cedar planks painted to match the wood elements on the historic structure.

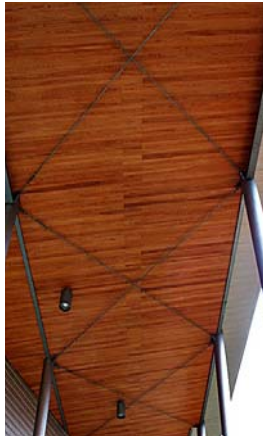
Colored Concrete Floors: In order to level out the chopped up floor surface of the historic structure, a new colored concrete topping slab will be poured over this surface and continue into the addition.

Structural Steel: All new structural steel elements will be painted with low VOC paint, to match the character of the existing repainted steel in the historic Laundry building.

Interior Wood: All interior wood elements will be left natural wood with a low VOC coating for protection.



Wood Siding



Cedar Ceiling

**GRAND CANYON RIVER HERITAGE MUSEUM
BUILDING CONCEPT - CONTINUED**



Aerial view of a bridge over the RR tracks near the Power House building from the 2004 Village Interpretive Center concept plan.

ADA Compliance

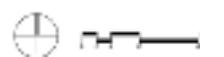
Since the addition allows the entire footprint of public spaces for the GCRHM to be on one level ADA compliance and universal access are assured throughout the building. Creating a single level also eliminates a possible elevator that was suggested in the original RFP, allowing these resources to be translated to usable space in the building.

However it should be pointed out that, as the work of this study was limited to 5 feet outside the building, future work will need to include additional scope to provide ADA parking spaces and the required ADA site access elements. Among these, consideration should be given to providing a pedestrian bridge from the rim to this area as shown in the 2004 Village Interpretive Center concept plan, as well as provision for a bus stop in close proximity to the new facility.

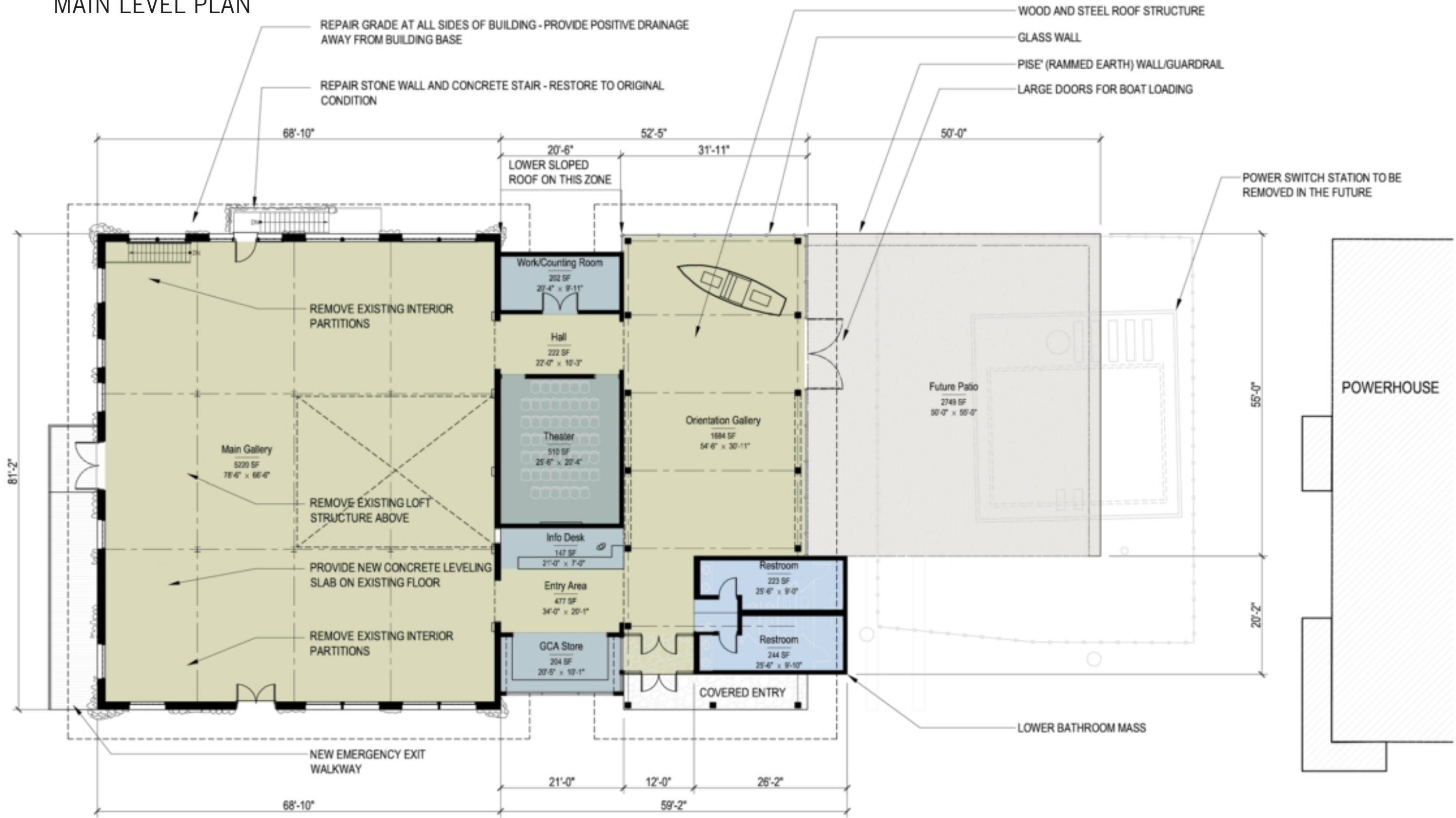
Sustainability

Given its potential importance as a landmark destination in the Park, this study has targeted a high level of environmental stewardship for this project, and envisions opportunities for the building to be an educational tool for visitors to learn about its sustainable systems, materials and strategies. This study targets a LEED gold level of compliance. Please refer to the MEP and Sustainability Concept section for details about this strategy.

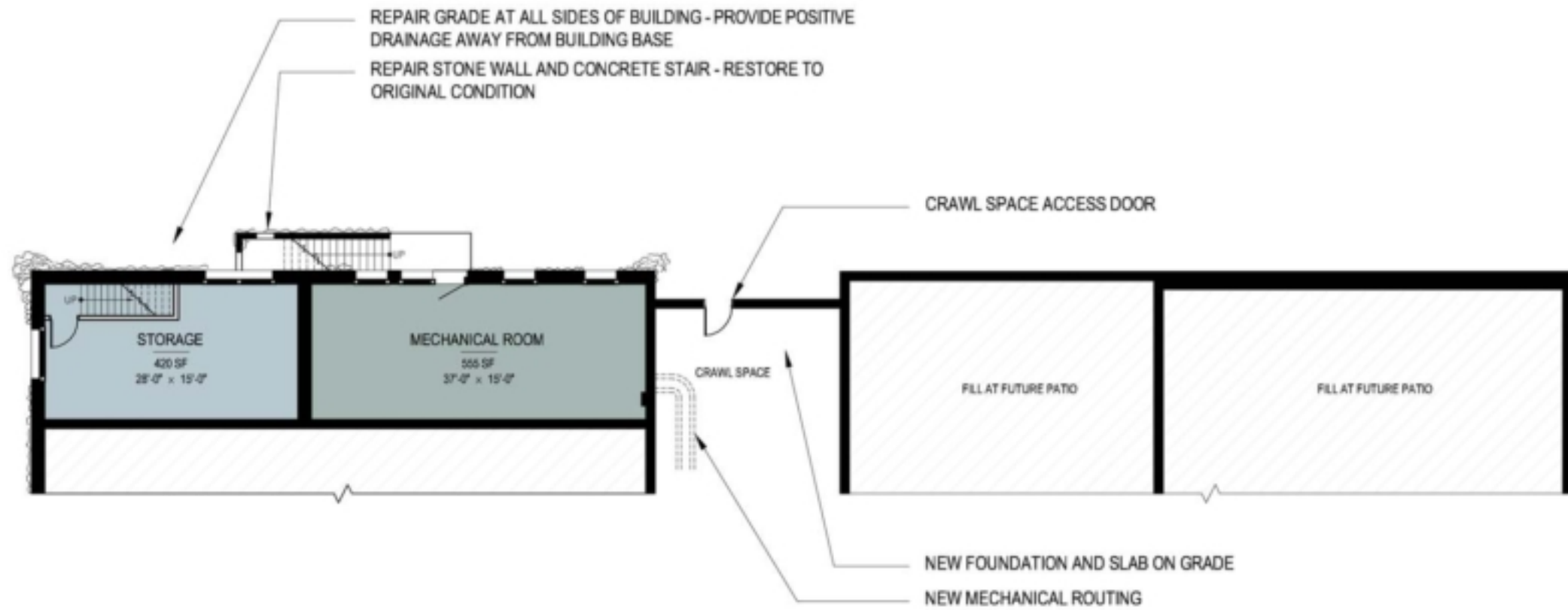
GRAND CANYON RIVER HERITAGE MUSEUM
SITE PLAN



GRAND CANYON RIVER HERITAGE MUSEUM
 MAIN LEVEL PLAN



GRAND CANYON RIVER HERITAGE MUSEUM
LOWER LEVEL PLAN



BUILDING INFORMATION

EXISTING BUILDING RENOVATION:
MAIN GALLERY. 5553 S.F.

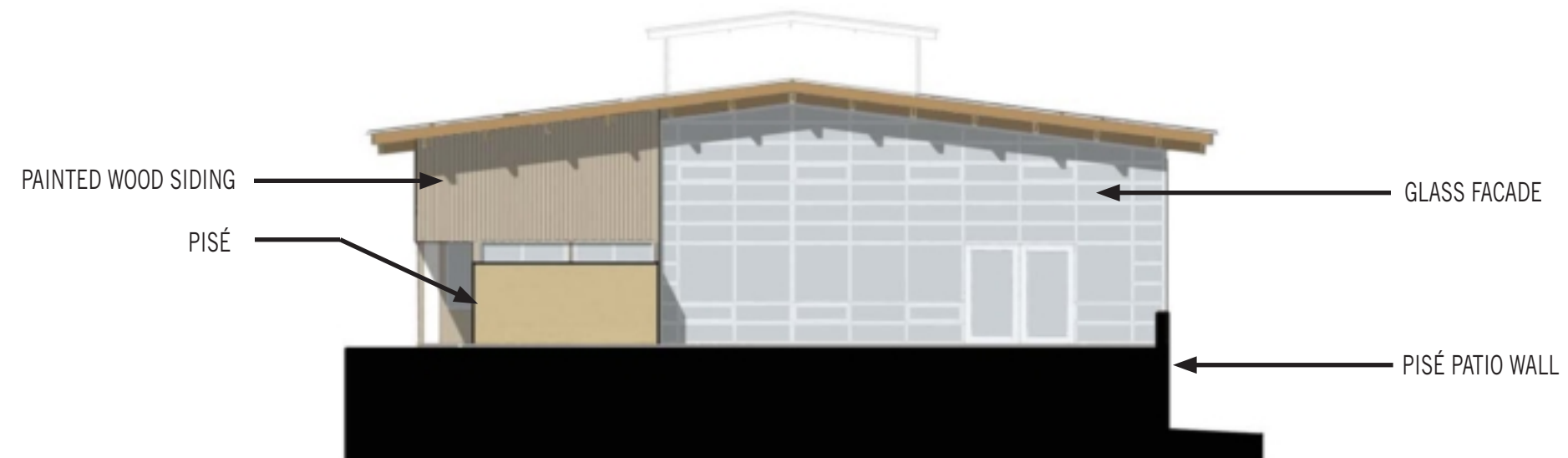
LOWER LEVEL
STORAGE & MECHANICAL ROOM 1207 S.F.
TOTAL GROSS s.f. 6760 S.F.

ADDITIONAL TO BUILDING:
GSA STORE 219 S.F.
RESTROOMS 528 S.F.
WORK/COUNTING ROOM. 215 S.F.
ORINATION GALLERY 1729 S.F.
THEATER 510 S.F.
ENTRY AREA 477 S.F.
INFO & SUPPORT AREAS 383 S.F.

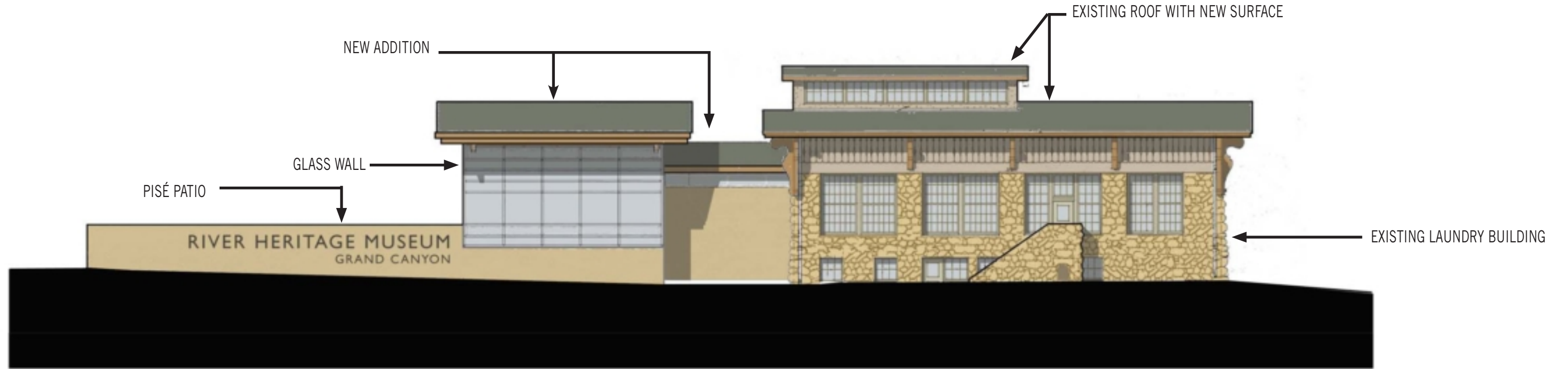
TOTAL GROSS: 4061 S.F.

EXTERIOR PAVING (FUTURE) 2750 S.F.

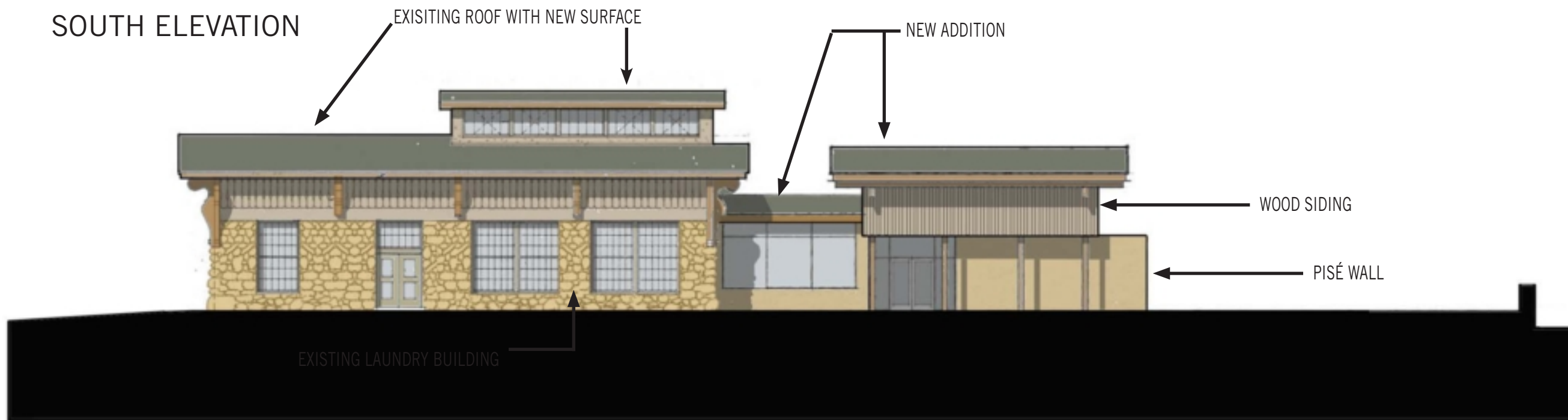
EAST ELEVATION (NEW ADDITION)



GRAND CANYON RIVER HERITAGE MUSEUM
NORTH ELEVATION



SOUTH ELEVATION



GRAND CANYON RIVER HERITAGE MUSEUM
EXTERIOR RENDERING

