



Public Works
Planning & Development Services Division
<http://www.utah.gov/pmn/index.html>

Board of Adjustment Public Meeting Agenda August 10, 2011 1:00 P.M.

THE MEETING WILL BE HELD IN THE COUNTY COUNCIL CHAMBERS, COUNTY GOVERNMENT CENTER, MAIN FLOOR, ROOM #N1100, 2001 SOUTH STATE STREET.
ANY QUESTIONS, CALL 468-2000

REASONABLE ACCOMMODATIONS FOR INDIVIDUALS WITH DISABILITIES WILL BE PROVIDED UPON REQUEST. FOR ASSISTANCE, PLEASE CALL 468-2120 OR 468-2351: TDD 468-3600.

The purpose of the Board of Adjustment Meeting is to allow the Board to hear applicant and public comment, as well as agency and staff recommendations, prior to making a decision on BOA applications filed with Salt Lake County.

The Board of Adjustment shall: act as an appeal authority for zoning decisions applying this title as provided in Section 19.92.050 and conditional use decisions by a planning commission; hear and decide the special exceptions to the terms of the zoning ordinance set forth in Section 19.92.060; hear and decide variances from the terms of the zoning ordinance; and, hear and decide applications for the expansion or modification of nonconforming uses.

THERE WILL BE NO FIELD TRIP FOR THIS MONTH'S MEETING

Public Hearing Items – 1:00 PM

25885 –Brady Morris is requesting a Variance to the maximum height limit of 30 feet in the Foothills and Canyons Overlay Zone (FCOZ) to a height of 39 feet for a new building at the LDS Storage Vault site located at 5051 E. Little Cottonwood Canyon Road.
Zone: FR-20 (Forestry and Recreation) Community Council: Granite
Planner: Jim Nakamura/Curtis Woodward

Adjournment

Rules of Conduct for the Board of Adjustment Meeting

First: Applications will be introduced by a Staff Member.

Second: The applicant will be allowed up to 15 minutes to make their presentation.

Third: Person's in favor of the application will be invited to speak.

Fourth: Person's opposed to the application will be invited to speak.

Fifth: The applicant will be allowed 5 minutes to provide concluding statements.

- Speakers will be called to the podium by the Chairman.
- Because the meeting minutes are recorded it is important for each speaker to state their name and address prior to making any comments.
- All comments should be directed to the Board Members, not to the Staff or to members of the audience.
- For items where there are several people wishing to speak, the Chairman may impose a time limit, usually 2 minutes per person, or 5 minutes for a group spokesperson.
- After the hearing is closed, the discussion will be limited to the Board Members and the Staff.



STAFF REPORT

Executive Summary									
Hearing Body:	Board of Adjustment								
Meeting Date and Time:	Wednesday, August 10, 2011	01:00 PM	File No:	2	5	8	8	5	
Applicant Name:	Brady Morris	Request:	Variance						
Description:	Building Height								
Location:	5081 E Little Cottonwood Canyon								
Zone:	FR-20 Forestry & Recreation	Any Zoning Conditions?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>			
Staff Recommendation:	Approval with Conditions								
Planner:	Jim Nakamura/Curtis Woodward								

1.0 BACKGROUND

1.1 Summary

The Applicant is requesting a height variance from thirty (30) feet to thirty nine (39) feet for the construction of the new building. The current zoning designation for the property is FR-20 (Forestry/Recreation), and it also lies within the Foothill Canyon Overlay Zone (FCOZ). The maximum building height in the FR-20 zone is thirty (30) feet.

Chapter 19.76.200 (Supplementary & Qualifying) in the zoning ordinance describes a height exception for public or semi-public utility buildings. It states that this type of structure can have height above the maximum height listed in the zone if it is needed for the functionality of the building. Though this application is not for a public or semi-public structure, it can be related to this section of the ordinance because the increased height of the structure is needed for functionality of the building.

The location of the property is near the base of Little Cottonwood Canyon and is 43 acres in size. The property is currently being used for underground record storage vaults for the LDS church, which is listed as a conditional use in the zone. The applicant has submitted their evaluation and explanation of the five criteria that are required by ordinance for granting a variance which is added to this staff report.

The intent of the new building is primarily to provide for the mechanical system which services the underground vault storage area. With the majority of the records being converted to electronic form, climate control is key for protection from the elements. The current mechanical system does not allow for air to flow freely enough to provide this.

2.0 ANALYSIS

2.1 Applicable Ordinances

Section 19.92.040.B.1. of the Zoning Ordinance establishes five criteria to be used in evaluating requests for variances. The Board of Adjustment must find that all five of these criteria have been met before granting approval of a variance. Staff suggests the following analysis based upon a review of the five criteria:

Criteria Met		Variance Criteria and Evaluation
YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<i>a. Literal Enforcement of the zoning ordinance would cause an unreasonable hardship for the applicant that is not necessary to carry out the general purpose of the zoning ordinance.</i>
		Discussion: Section 19.92.040.B.2. of the Zoning Ordinance clarifies what is meant by “hardship” by stating that a hardship must be located on or associated with the property, is a result of circumstances peculiar to the property, and the hardship may not be either self-imposed or economic. The maximum height, 30' in the FR-20 Zone, severely limits the applicant's ability to modernize the Vault Facility. The buildable area of the site is very small, and the rockfall hazard in this area eliminates the option of housing mechanical equipment on the roof or outdoors. Therefore, the building must contain a third floor to house this equipment, which causes the building to exceed the height limit.
YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<i>b. There are special circumstances attached to the property that do not generally apply to other properties in the same district.</i>
		Discussion: Record vaults that are carved into granite mountainsides present unique ventilation and maintenance issues. Rockfall and avalanche path issues unique to this site further limit the options available to the property owners. In essence, the unique nature of the facility, combined with natural geologic hazards, present a unique circumstance that does not generally apply to other properties in the same district.
YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<i>c. Granting the variance is essential to the enjoyment of a substantial property right possessed by other properties in the same district.</i>
		Discussion: The ability to provide adequate ventilation and safety features for those who use the site is essential to the continued use of the property. This variance is needed to help meet the future needs of the use on the site.
YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<i>d. The variance will not substantially affect the general plan and will not be contrary to the public interest.</i>
		Discussion: The proposed work on the site will enable the modernization of an existing facility. This ultimately results in the need for fewer employees on site, which will reduce overall impact on the canyons. This is consistent with the general plan of the canyons and is not contrary to the public interest.
YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<i>e. The spirit of the zoning ordinance is observed and substantial justice done.</i>
		Discussion: FCOZ standards were applied in the design of the building and the site. The

	design is intended to fit the contours of the site, and to blend in with surrounding land forms. The applicant has shown a desire to follow the requirements of FCOZ to the maximum extent feasible, and thus the spirit of the ordinance is observed.
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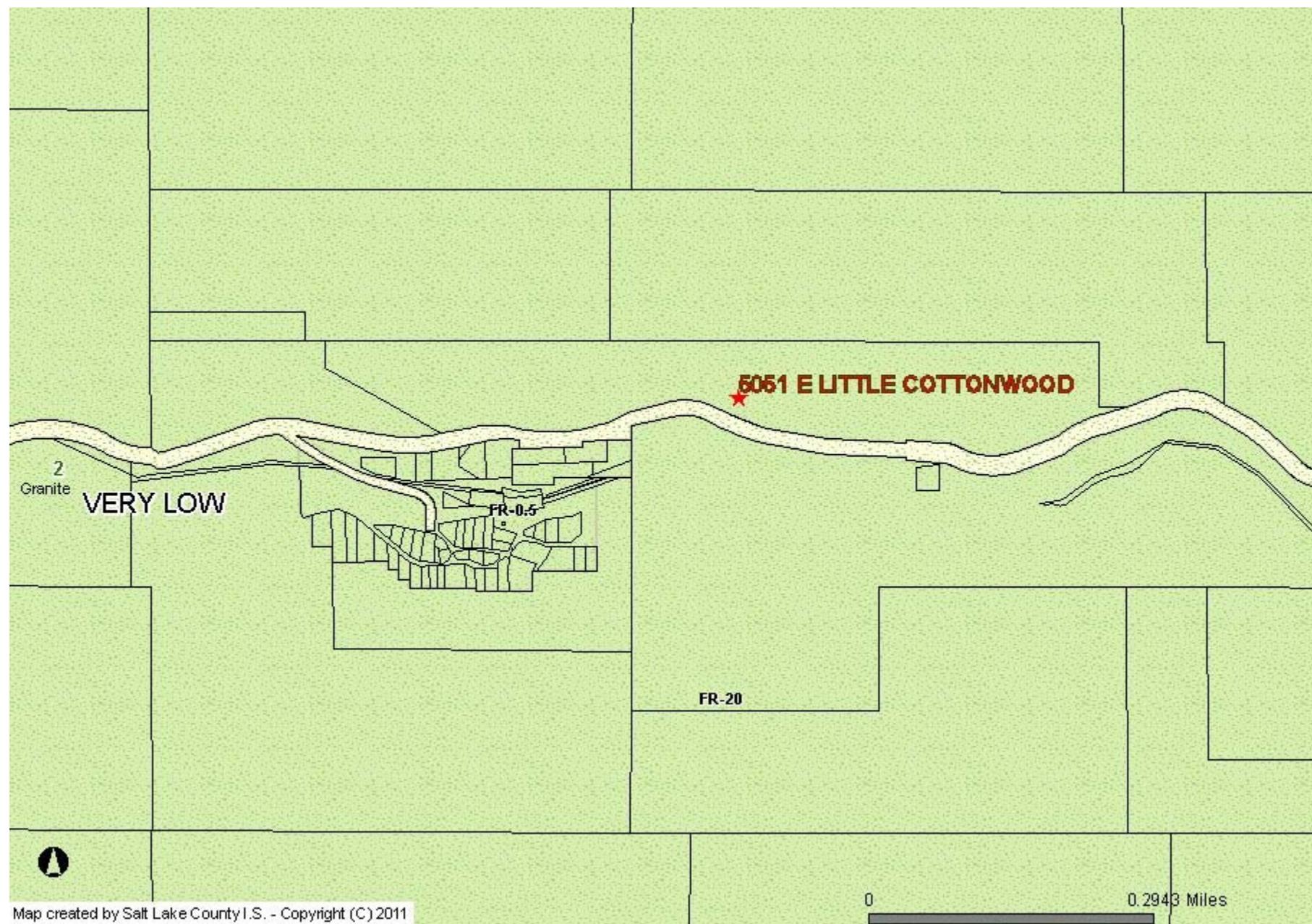
3.0 STAFF RECOMMENDATION

3.1 Staff recommends APPROVAL of the proposed Variance with the following conditions:

- 1) An application for conditional use approval in the Foothills and Canyons Overlay zone must be approved prior to commencement of construction. All other requirements of the Foothills and Canyons Overlay Zone apply.
- 2) It is noted for the record that the area designated for construction is composed of man made slopes (the slopes were created during the original construction). Therefore, though they exceed 30% on the slope analysis, a variance will not be required to disturb this area.

3.2 Reasons for Recommendation

- 1) A qualifying hardship has been established by the applicant.
- 2) The request is consistent with the purposes of the Zoning Ordinance.
- 3) This request meets the five criteria necessary for a variance.
- 4) The structure complies with all other regulatory requirements within the zone.





Dear Board of Adjustment members,

We are requesting that the height restrictions identified for the FR-20 zone, with in the FCOZ zone be relaxed to allow a new building of 37' from lowest grade to the top of parapet to be granted. A 30' building height is permitted, because of the very constrained nature of the site and the special nature of the operation we hope that 7' extension should be allowed.

The intended use of the proposed building is primarily to provide for the mechanical service to the underground archive space. The existing site is constrained by a variety of factors that prevent the same amount of program space from being spread across a lower building with a smaller footprint.

The Site is constrained by the following limitations:

- The site is constrained by 3 large boulders on the East side that support a large volume of earth. The south side area is the access road, maintaining a 26' fire access lane limits the new building footprint. The West side is by the existing underground portal access doors and by an area know to have a substantial risk for very large rock falls. Because of these existing site constraints we feel that the area that is practical for building is limited in foot print that will fit the building program. We have tried to follow the spirit of the zoning regulations and step the building elevation back where practical to reduce the visual presence.
- The existing grade changes 11'-0" from the southeast corner of the building to the northwest. The lowest level is the most practical for employee entrance, and the west side of the 2nd level is the only location that is grade allows for the truck, garage and salt vehicle access. The mechanical equipment must be located on the top level, so that it will have enough intake and exhaust air ventilation to dissipate the substantial heat and humidity generated in the facility operation.
- In a building in most other locations the mechanical equipment would be located on a roof top and enclosed with a metal screen wall. However in this location the rock fall hazard requires that the mechanical/ electrical equipment need to be protected by a roof assembly. Damage to the mechanical equipment could be catastrophic to the operation of the facility. The roof assembly to protect the equipment in adds 17' – 21' feet to the building height. Without this protection the equipment and the records inside would be jeopardized.
- All mechanical ventilation must pass air from one side to another to avoid short cycling. Because the north side of the building is restricted as a air way by the mountain, the other natural ventilation path is from west to east, the east side exhaust requires additional height to account for the existing grade height on the east side of the building.



The existing facility has some ongoing safety concerns that has influenced the need for the facility upgrades including:

- Facility Egress, The existing building egress is through an active dock space. This is not an acceptable egress path; the new building will include an internal stair to exit occupants through a new 1st level lobby.
- The upper service apron has a history of boulder and ice falling in this lot, as a result access to this area is generally restricted to the maintenance personnel in protective gear. This makes this level unsuitable for parking by general employees. This risk also makes this space inappropriate as a building location.
- The grade around the south end of the existing garage building is steep. There has been a history of slip and fall injuries in the winter months, and it would not comply with accessibility regulations so it was decided that the entry need to be on the lowest level on the south side nearest the parking area. If an outside entrance were not required here then this level could be partially below grade, which would reduce the height

Other factors that have driven the building size:

- The building program is about as small as it can be made to accommodate the needs of the owner. One of the main drivers of this project are to remove functions from the underground archive that are a potential source of fire/ smoke or other airborne contaminants, including food storage, food preparation employee break spaces, most major mechanical equipment, vehicle storage/ maintenance, and maintenance shop Operations.
- The break room on the 3rd level is placed in a location to allow employee meetings and lunches. This space is needed to be on the upper level to provide for 2 means of egress that is required because of the anticipated occupant load. The space is large enough that a 2nd means of egress is required, the 1 of the required exits is to grade behind the building, and the other is to the main egress stair.. The restroom on the floor below is sized to meet the building code plumbing requirements of the break room.
- The operation and computerized data storage generate a large amount of heat and require very specific environmental conditions. The existing mechanical systems are not operating properly because the air does not move freely enough to effectively remove the heat from inside the existing portal. The mechanical equipment must be protected from damaging rock, ice and snows. To get enough ventilation the entry building is arranged to intake air from the west and exhausts it to the east, the size of the intake and exhaust louvers is set by the mechanical equipment requirements. In order to ventilate the mechanical space the louvers on the east must be above the top of the existing entrance tunnel, which is 14'-6" above the main level or 25'6" above the lowest level. The roof of the building is



designed with a 4'-6" thick protective assembly to reduce the risk of damage to the facility from rock and ice.

- The elevation of the existing tunnel and the majority of the facility is 5856', the floors must be level to allow for moving forklift and other large loads. Therefore the second level must equal the tunnel elevation and the floor to floor heights of the 1st and 3rd levels are set based on the clearance of the second floor.
- The floor to floor height in the facility is 12' with cast in place concrete structure. The Beams will be approximately 24" deep to support the mechanical equipment and the high roof loads. As a result only 10' is left for lights, electrical/mechanical distribution, ceilings, and sprinklers.

In regard to the 5 criteria that must be met to grant a variance, we have prepared the following comments to address why this project deserve special consideration.

- a. The 30' height restriction would create a hardship for the building operations; the plans for facility modernization would be severely limited because there is not other area on the site that can accommodate the ventilation requirements.
- b. There are several special circumstances in this project that deserve special consideration.
 - a. The majority of the buildings in this zoning are not commercial buildings, the heavy reinforcing and substantial nature of this facility requires much larger structural members than would be found in residential or light commercial structures.
 - b. The one of a kind nature of the records stored require mission critical power and mechanical systems.
 - c. The seismic capacity of this facility to survive and operate through an earthquake and or landslide events is important to the church and other institutions.
- c. The variance is essential to the continued use and investment in the site. The Church has operated in the existing facility since 1961 and not expanded the exterior building since 1968. The new building will allow operations to proceed into the foreseeable future.
- d. Granting this height variance will not be contrary to the existing zoning, the building is isolated from the surrounding buildings and properties. Relaxing the criteria for this project would not be a cause to relax the requirements in other conditions, because the vault site is so unique in the constraints that exist. The highly specialized nature of the vault operation is not likely to be found elsewhere in the area.
- e. The spirit of the zoning is respected; the guidelines in the FCOZ guidelines were respected in the design of the building. One of the prime interests of this project



is to provide a low profile building that would not attract attention from the public or surrounding land owner.

With this project the church desires to maintain the same very low profile presence in the canyon that they have in the past. This project will allow the facility to consolidate some of the onsite storage into one building. The existing site lighting will be improved, to improve security and reduce the visual presence in the canyon.

Thank you for your consideration,

Sincerely,

A handwritten signature in black ink, appearing to read "Kerry L. Knott".

Kerry L. Knott AIA

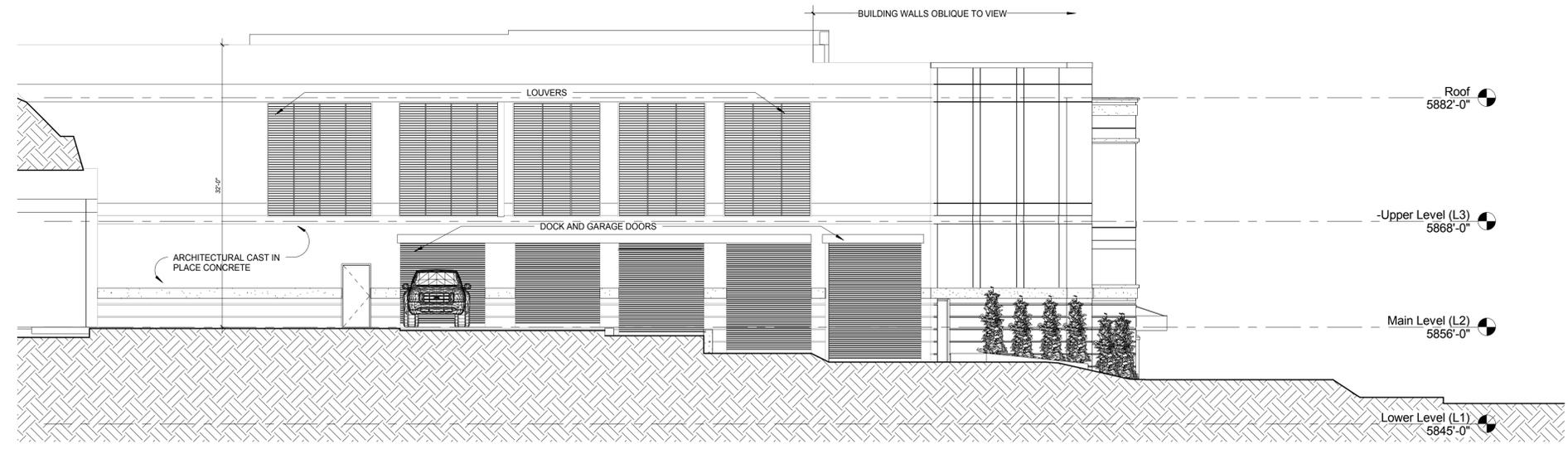
CLIENT:
GRANITE MOUNTAIN RECORDS VAULT
RENOVATION/ EXPANSION
 5081 E. LITTLE COTTONWOOD CANYON ROAD
 SALT LAKE COUNTY, UT



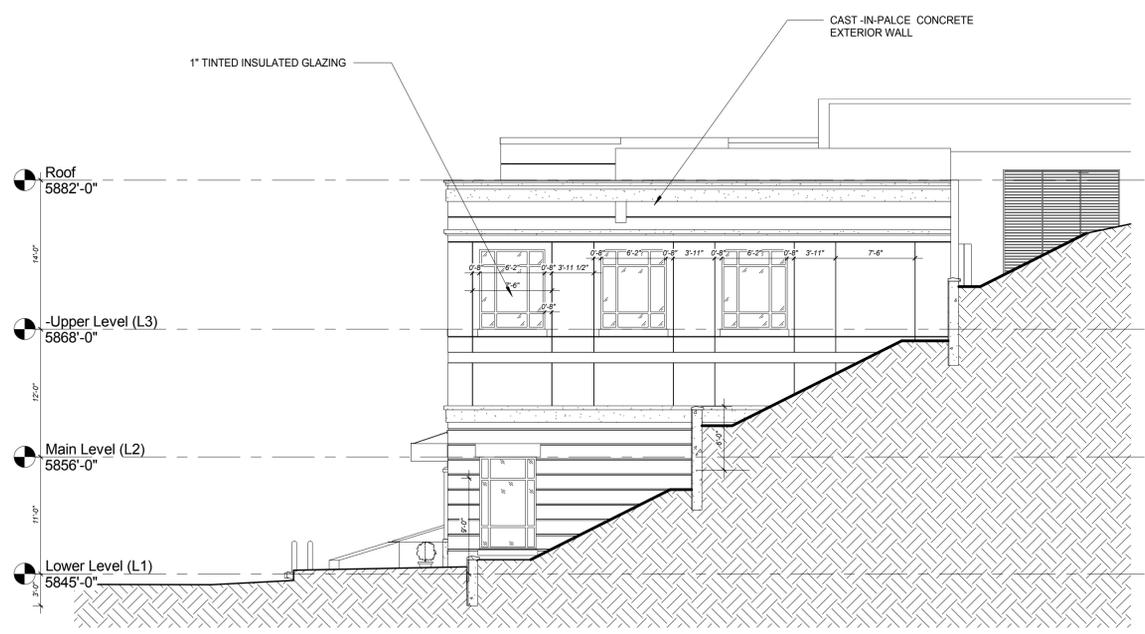
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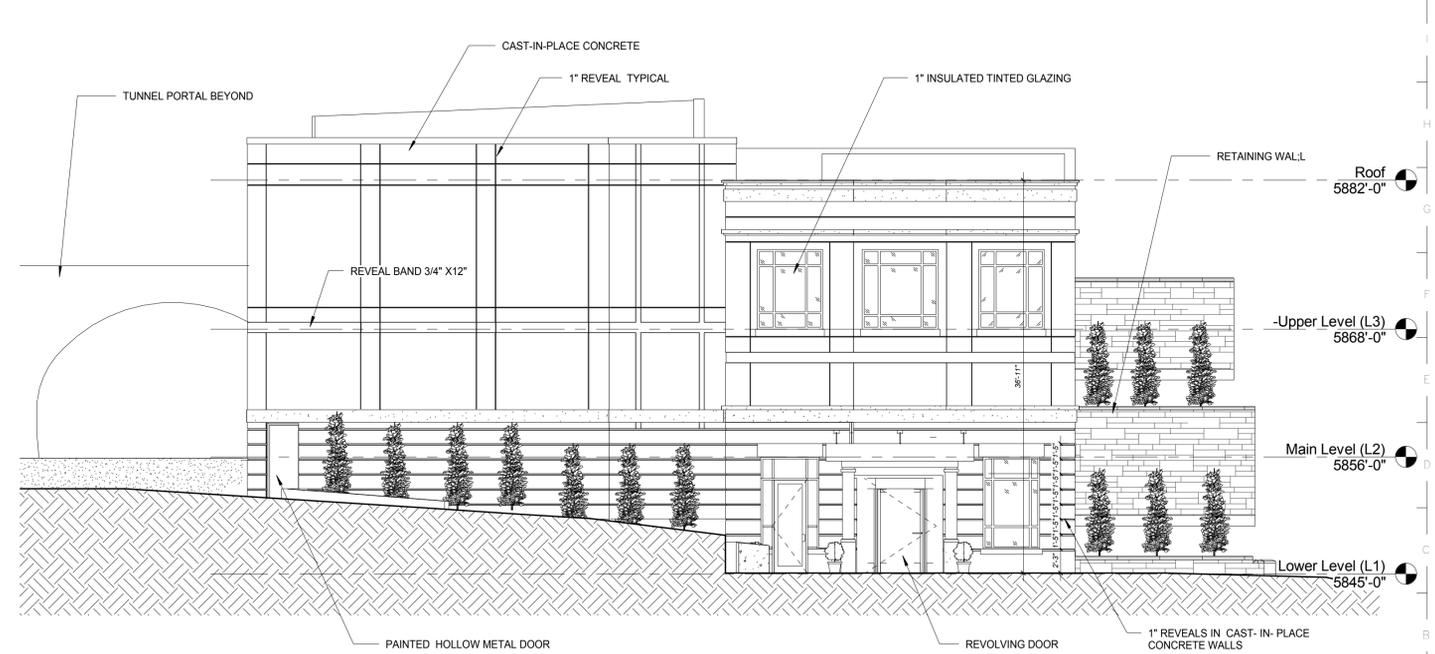
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② BUILDING ELEVATION - WEST
 1/8" = 1'-0"



③ BUILDING ELEVATION - EAST FACE
 1/8" = 1'-0"



① BUILDING ELEVATION - SOUTH
 1/8" = 1'-0"

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SEAL:

REVISIONS:

ISSUE DATE:	7/6/11
REASON FOR ISSUE:	DD Review
PROJECT NUMBER:	10-089
PROJECT PHASE:	DD
SHEET TITLE:	Elevations

SHEET NUMBER:
A401