Alta Community Center For Town of Alta

EMA Architects October 1, 2003

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Acknowledgements

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Alta Community Enrichment Committee

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We also would like to thank the many individuals who have taken time to participate in workshop discussion and in the design charrette conducted to determine the use of this facility. These are the people that care about the facility because they care about the place in which they live and the people that live with them.

Purpose

This information is provided to the reader to understand the basis behind a proposal for revisions and additions to an existing building within the town of Alta, Utah. The purpose for these facility revisions can simply be listed as a series of functional issues that need to be solved but at the core of this project is a need to provide a place that will help people with common ideals towards building a stronger and more complete sense of "community". This project hopes to provide a place that helps this town of individuals form a common sense of identity by providing a place where they can come together to become enriched by each other. The facility is proposed to improve the quality of life for those that have chosen to reside within this abundant canyon by developing a flexible building that offers benefits for all town residents.

Process

Over the past several years sessions have been held with residents and city staff to begin a dialogue on the value of building community as a method to improve the quality of life for the residents of Alta City. For this to happen ACE (Alta Community Enrichment), derived grant funds to begin to understand what the needs might be for a community center. From the receipt of the grant EMA Architects was employed to further this process.

For the architectural team this process and planning effort began with a review of video tapes developed in discussion sessions held with residents and stakeholders in the town of Alta. These early tapes documented thoughts and ideas that individuals have had about creating a place where multiple activities can occur. The process of building community has begun in these informal discussions. A recurrent theme seen on the tapes is the need for a place that will act in the capacity of town center.

The design team has started this current effort by reviewing the existing space simultaneously with conducting interviews and forums with key individuals and city residents. The purpose of these interviews is to better understand the relationships between needed and desired functions and to subsequently derive a building program and design that reflect needs of those that will use the facility. Once the needs and the relationships are understood a vision can be developed.

Following group and individual meetings a design charette was conducted to bring thoughts to paper in the form of diagrams that began to relate the types of space and function that might be included and then to demonstrate the relationship of spaces. This was considered in context of the existing land studied for this proposal and in context of the existing building and surrounding site limitations and opportunities. From these studies a proposed design solution has been derived that expresses a mixed use facility that utilizes the same location as the existing building it is intended to replace.

Alta, Utah

Located at the uppermost and eastern end of Little Cottonwood Canyon the town of Alta is home to 361 permanent residents. During peak season the town may contain as many as 2,500 individuals due the increase in seasonal employees and an increase to usage of overnight facilities.

Alta's most dominating physical aspect is the surrounding mountain terrain and the elevation at which the town occurs. The terrain offers world class skiing and summer hiking opportunities within the rugged peaks of the Wasatch mountain range east of Salt Lake City. This geographical rareness serves to bring many individuals to this town as a destination during summer and winter months.

Though Alta was originally formed for mining and timber resource extraction it now exists for those that find solace and strength from the surrounding natural beauty and outdoor opportunities. With this in common the residents share a common bond of respect for the natural world unlike many other small communities. They lack however a place – a place that offers room to physically come together to participate in activities that will create a thriving and interdependent community. There are several privately owned rooms in the town but each have limitations that diffuse the opportunities for creating the sense of community sought for with this project.

Alta does not now have a town center in any provincial sense. For many suburban communities "town centers" are formed around retail strip malls. For these areas forming (or reforming as the case may be) a town center has been a process of reclaiming their identity from anonymous malls and highway interchanges that separate groups of people. Fortunately the residents of Alta have not had to fight this sort of battle. This community of people has very little "undoing" to accomplish. The barriers that must be hurdled for this t own to thrive are unique.

The land designation has physical and legal parameters. These include the fact that slope and avalanche pathways are crucial to consider when placing any structure in this area. The land for this proposed facility is leased by the Federal Government to the town. That lease expires in one year. There is a high level of sensitivity to the natural environment by the Government that oversees the leases and by those that reside at Alta. Consideration of existing landscape is important. The impact of the facility over a long period of time must be carefully examined. The impacts of snow and ice are monumental and will derive designs unique to this microclimate.

Existing Facility

The existing facility is a two-story structure with the post office and vehicle storage areas on the lower level and an open multi-use space and apartment on the upper level occurring above the vehicle bays. The building was cut into the hillside north of the canyon access roadway. There is an unstable rock escarpment immediately north of the structure. The placement of the building with little regard for permanently stabilizing the site may pose future hazards to the existing structure. (see below)

Three sides of building are paved to the edge of the facility. Expansion towards the south is not feasible as the canyon road is within eight feet of portions of the building. In fact, the current entrance on the south side of the building causes individuals to enter within close proximity to traffic going down the canyon. There is currently no entrance to the building from the east as this area serves to catch snow from a sloping roof surface.

A portion of the building is finished with wood siding. Overall the proportions and appearance of the building are poor. As a community center, a place where people can gather and cross pathways, the building is affrontive and difficult to use. The lower level is largely dominated by three large bay garages facing the main roadway. Access to the upper level multi-use space is accomplished via a long set of narrow stairs wrapping around the post office space. Disabled access is poorly delivered via a rail mounted chair mounted to the wall adjacent to the stairway. There are numerous barriers to the disabled throughout the building. There is presently not an approved accessible route meeting current code guidelines into the building from the parking area to the east.

Tear down or Renovate?

One of the baseline decisions in designing a facility for this site is to conclude whether it makes more sense to renovate the existing structure or to tear down and begin again. The design team reviewed the existing structure and determined that at the very least the uppermost floor level and the two wood frame end additions should be removed. The structure of the original portion of the building is concrete. This form of construction is generally considered stoutly built and is more able to sustain the heavy snow loads and lateral avalanche loads than other types of construction such as stick framing or lightweight steel. A specific force was not ascertained as part of this report as extensive investigations to determine the interior steel reinforcing was not conducted. The concrete shell structure that forms the vehicle containment zone may be able to be retained.

The north or back side of the existing concrete shell structure does not appear to be properly sealed from water penetration. To correct this problem material will need to be removed from the north side of the building and new membrane waterproofing will need to be added with proper drainage away from the foundation line of the building.

The decision to save the original concrete portion of the building is contingent somewhat on the work that may be done on the north side of the structure. If it is found that it is economical to salvage this shell it will be. If it is found that it will cost more to save this portion of building it will come down. The decision is based upon several undetermined factors that will become apparent in the next phase of design. The cost of demolition and removal of construction material will need to be configured in this analysis.

This proposed facility will be done in context of the existing facility currently housing city functions. These functions include open flexible space for a variety of events and programs including a contract post office, small apartment for a Fire Service employee, Vehicle storage area, cubicle office space, single public restroom and library function within the open space. The existing facilities are not suitable for the activities of the town's population. There are accessibility issues that hinder some from participating and functional issues that restrict good utilization of the space. The post office is crowded and not conducive to promoting interaction between residents. The building is poorly presented as a valuable community asset in the present configuration. The building requires alteration and expansion to fill the expressed needs of those that have participated in planning sessions thus far.

It is understood that the site study area includes the existing multi-use building and the surrounding site area. The existing structure is built upon leased and permitted Forest Service property. Expansion upon this building footprint will require approvals with the Federal agency. As part of this study other sites may be open for discussion though appropriation might cause the project considerable delay.

Photographs

Building Program

Following multiple sessions with town representatives a program was assembled to provide a beginning for design concepts. A program serves to designate the types of spaces that are important to include in the building and begins to establish the important spatial adjacencies for each space to be included. The program was the result of discussions, interviews and open meetings with town residents.

In part the program was also determined by the limitations of the site. A draft version of the program was first presented at the beginning of an open meeting design session in January of 2003. From comments received and from the design limitations a revised program has been provided below. After the program was provided a series of colored relationship diagrams indicating proximity to each building function was provided. From that study design options were provided and revised to provide current schematic plans, elevations and a proposed perspective of the planned structure.

Library	769	SF
- Internet access kiosks - (4) with (4) future potential		
- Book Storage -		
- Periodicals - racks only considered		
- Reading area - (10) individuals with overflow adjacent		
Kitchen - Light food prep. and serving only	129	SF
Education Area	1,283	SF
- Classrooms (2)		
- Education storage and prep. area		
Post Office	554	SF
- Public Lobby/ Box access area		
- Mail distribution area		
- Storage area		
Public restrooms	403	SF
Vehicle storage/maintenance area	1,248	SF
Large Group Multi-use area - to accommodate 125 persons	1,574	SF
- A/V storage area		
Art Display area	350	SF
Historical Artifact Display/Document area	164	SF
A.C.E. Office area - Office zone	250	SF
Alta City Information Office	237	SF
Janitor's closet - Building Storage	354	SF
Fire Services Apartment	622	SF
Total Net Area	7,937	SF

Building Storage, stairways, elevator ,etc	2,967 SF
Total Building Area Existing Total Gross SF	10,904 SF 3,885 SF

Building Design Process



Several goals were established during the schematic design phase for the facility. These include:

- 1. Flexibility Design a building that allows for multiple uses. Incompatible uses within the building should be carefully considered.
- 2 Building Footprint To the greatest extent feasible the building expansion should minimize impact beyond the boundaries of the existing facility to avoid negative impacts to land to the north.
- 3 Natural Light & Views The building should take advantage, where appropriate, of the expansive views. Natural light will be utilized in all occupied spaces.
- 4 Energy conservation Careful thought to local climate, orientation and to building materials should be emphasized.
- 5 Snow removal Solutions should consider removal of extreme snow and ice conditions.
- 6 Aesthetics The building needs to reflect the individual character of the place it is built and the people for whom it will be built. The goal is to provide a solution that is a product of it's own time and place while not sacrificing building function.

Design goals established above have been addressed in a solution that places the building roughly within a rectangle created by inscribing the existing building. The building projects towards the north at the central section at the upper two levels to solve problems with the existing slope against the building. This projection also was done to create more space for large group meeting space on the third level and more classroom support space on the mezzanine level.

There are two full levels provided with a partial mezzanine level occurring east and west of the large vehicle storage bays. The total area of the building is 10,904 SF. This represents an increase of 7,019 SF over what currently exists. The building footprint increases by 2,096 SF in the current proposed design through claiming space on the north side of the west stairway addition and space on the north side of the pose office and stairway addition.

Drawings are included indicating design solutions for the project. Exterior elevations indicate several materials including architectural concrete, resinimpregnated wood panels, metal panels and commercial grade aluminum framed window systems. The back side of the building facing north will be abutted into the hillside and waterproof wall systems will be provided along with subgrade drainage. In so doing the existing scarred hillsides will be removed from view as the building will retain the earth on this side of the building.

Drawings Included:

Main Level Floor Plan Mezzanine Level Floor Plan Upper Level Floor Plan East / West Building Elevations South Building Elevation Perspective Rendering

A cost estimate is included in this report following the drawings.

Construction Phase - Contractual Options

For any given project the classic issues that the Owner must carefully consider are:

- > Budget
- > Schedule
- Quality

Construction teams will often repeat the adage that it's possible to get two of the three on a good project but a rare feat to achieve all three factors. You do not often achieve low cost, quick turnaround and high quality. There is certainly truth to this. The strategy selected for organizing the construction needs to be understood as it will affect any given project. There is no universally "right" way for all projects. Strategies are dependent upon several factors. This section is designed to explain the major forms of engaging a contractor including pros and cons.

The most often used forms of contract in today's market include:

- A. Design Bid Build
- B. General Contractor Negotiated Price
- C. Construction Management At-Risk with a G.M.P.
- D. Construction Management Cost Plus
- E. Design/Build

Each of the suggested forms of contracting are discussed below.

A. Design - Bid - Build

Depending on market conditions this is often used to achieve the most advantageous cost for any given project. The method of achieving the finished facility is sequential in nature. First the design work is completed, then put to an open bid market to qualified or bondable General Contractors and then finally a General Contractor is selected generally on the basis of low bid to perform construction activities. The contract is established based with a fixed price with the documents being incorporated into the terminology of the final contract. Any changes to the contract amount are processed using "change order" method to the contract.

Advantages of this commonly used method are that the subcontractor market is well saturated with exposure. For that reason the prices received are low in

comparison to other methods of construction. During the market conditions of the mid 1990's when most contractors were very busy this method lost some of it's luster as inflation ruled the day as opposed to negotiated bids with General Contractors. In the current market there is ample supply of those subcontractors willing to bid for the work.

Disadvantages include that the low bidding contractor is often times the group that perhaps made the largest mistake in taking off their prices. The process of construction can turn litigious when Contractors are squeezed tight even though it was their original price provided for contract. Changes made to the contract are often returned high. It is often left to the architect to negotiate a fair price usually with some level of dispute. Costs returned for change orders are seldom as low as those offered in a competitive situation. In the most recent market many subcontractors have taken projects for little profit in order to keep going due to the shortage of work. When difficult circumstances arise there is little room for margin and risk going out of business. This leaves the General Contractor responsible for the work and fixed on a price.

Despite the potential hazards this method is the most often used method of contracting in the market. If the GC is selected in a two stage format – the first stage being a pre-qualification stage followed by a bid restricted to 4-5 General Contractors then much of the risk can be taken out of the process. Financial strength can be reviewed as well as ability to complete similar work prior to submitting costs.

B. General Contractor - Negotiated Price

Sometimes used in private sector work but seldom used for public sector work this method allows the owner to choose a General Contractor based upon whatever criteria they deem important – sometimes simply a relationship – and then work out a fair price. The architect can be helpful to demonstrate to the Owner what a fair price would be for any given work. The method allows the General Contractor to choose their own subcontractors, often time familiar to the GC. This can be an advantage as the GC may have a high level of trust with a subcontractor thereby reducing risk. The reduction in risk however is often times done for the GC, not the Owner.

The advantage of this method could include schedule advantage if the architect releases early bid packages. This implies that earthwork, utilities, footings and foundations may precede other bid packages thereby allowing the contractor to move the start date forward for the construction phase. This method though also implies risk in that early decisions must be lived with through-out the project.

The greatest disadvantage of this method of construction is the risk of being over-charged as there is little competitive process. For unsuspecting owners this can be a huge disadvantage when coupled with an unscrupulous GC. This method of construction is often used to construct single-family housing projects. The stories of rampant cost over-runs are usually associated with this method of Contract and seldom used for public projects because of the lack of accountability.

C. Construction Management At-Risk with a G.M.P.

This method implies that a company will be brought in as manager with a fixed budget established and a requirement that the cost not exceed this amount. In it's pure form this is an agency that really acts as a CM all of the time and not as a General Contractor with a different shingle on the door. The Salt Lake Public Library and Salt Palace projects were built by hiring an individual who is a CM and cost estimator but never a GC. This individual then acts as the Owners representative to guide the Architectural and Construction Contracts. This method is used primarily for larger projects. It offers the advantage of having a knowledgeable individual act in some circumstances as a helpful mediator and agent of the owner. This method is seldom used on projects under \$5,000,000 because of the extra layer of cost and redundancy for smaller projects. A pure CM will seldom operate in an at-risk position.

Many times General Contractors will tout their services as Construction Managers. This method is one that a fixed budget is established early on but the project is not defined in its final form. The CM is responsible only to <u>not</u> exceed the budget. It is not apparent though what will be built for that budget until the design is complete. This method of contracting often times places the architect and contractor in a more synergistic relationship. There are schedule advantages to this method as it allows the CM/GC to begin once initial bid packages are completed.

There are however, several cost disadvantages. In this region CM/GC firms often self-perform the concrete work for the project. It is difficult to provide to the Owner competitive bids for this aspect of the work and has in most cases led to highly inflated costs for self-performed work. This can be substantial disadvantage to a building made of concrete. The other equally large disadvantage is that the CM will not attract the same set of bidding subcontractors and therefore will not have the same coverage – costs will be higher for the project than in a situation in which the market is saturated. A good rule of thumb is that this method will cost 12-15% higher than competitive bid with an array of pre-approved GC's.

This method though can lessen the prospect for litigation often associated with construction projects. The CM/GC tends to be in less of an adversarial relationship with the Owner and Architect because the cost and scope can be reviewed and compared with the needs of the documents. In a competitive bid situation described in "A" above bids are received at one time and a tremendous amount of last minute information tends to arrive at the GC's doorstep with little time for review. Numbers are simply plugged into spreadsheets and the information is all sorted out after the fact.

D. Construction Management - Cost Plus

Similar to the above described method a Construction Manager (CM) will take the role of guiding the project through to completion. That may be an individual or a GC acting as a CM. Contracts are let out to subcontractors as the project proceeds but no real cost control mechanisms are in place. For small projects this can be translated into what is known in the industry as "time and material" projects. The Contractor simply comes in to do the work and bills for materials and a fixed cost for labor rate.

This method is often used when repeat projects are to be accomplished but offers very high risk to owners that are building one-of-a-kind buildings as there is little control over the budget and little incentive for a one-time contractor to keep the cost low. This is not a reasonable option for publicly funded projects.

E. Design/Build

The design/build strategy emerged in Utah during the early 1990's in a much larger form than previously used. The method implies that the GC and the Architect are part of the same contract. Usually due to the bonding capacity of the GC the architect acts in a manner subordinate to the GC. Fixed costs for defined scopes are not often used as design has not begun at the beginning of this sort of contractual relationship. It can though, be an advantage to the owner in terms of schedule. Rapid progress is possible using this method. A strategy used by some owners is to fix the final budget and pay competing firms to provide design solutions for this price and see who provides the most value.

Owners have found that cost goals can be met using this method, schedules are often times able to be advanced but the quality of the projects often are poor. Defining the level of quality and finish at the schematic or pre-schematic phase is very difficult and finishes tend to be cheap and not built to last. Because of the subordinate contractual relationship of the architect the check and balance aspect of the architect and contractor is not used. It is required that the architect bring

up issues regarding health, safety and welfare but issues of quality are seldom stressed.

This approach to building is often used by private developers when constructing commodity styled buildings for the open market. A high level of control is given to the GC in these cases often times at the expense of durability and longevity of the structure and finish level of the project. He State of Utah employed this method for a time but found that State standards were being circumnavigated. This method has fallenout of favor for many state departments.

Recommendations:

Time and schedule are critical for the Alta Community Center. The schedule though is not driven by a rapidly approaching move-in date but rather by a short season. In cases where the schedule is short but due to seasonal changes it becomes more necessary to instead have the documents prepared and ready to go for bid at the right time of year to allow the contractor to begin as soon as the weather permits. This does not imply any method of contracting over another.

We would recommend that Alta utilize the Design-Bid-Build method but employ a two stage approach. This would require that potential GC's provide an outline describing who they would assign to the project as manager and superintendent, provide a company brochure of past projects, current references and financial strength of the company perhaps with some explanation on approach. The Town would then reduce the submissions to 3-5 and then competitively bid the project. It is a method used on many other projects through-out the state and nation and allows input to be exchanged prior to committing to price.

If timed right the contractor can be under contract at specifically the right time to begin as soon as weather breaks. This implies that other things happen prior to this beginning point. They include:

Bonding certificates secured and final contract signed. Jurisdictional review and buildings permits, impact fees. Preparation for demolition and some demolition activities. Shop Drawings for steel reinforcing and structural steel. Final concrete mix design reviewed. Electrical Shop drawings reviewed. Radiant piping schematics and shops approved. Utility connections verified.

These activities, if taken care of in advance of breaking ground will permit the contractor to move quickly. It may prove that other construction methods be used such as pre-cast concrete. These materials can be constructed ahead of the ground breaking as well.

We would recommend that a discussion with the Town's building committee occur to review the options described above with specific application to the Town of Alta.

Estimated Schedule

Alta is a unique location to erect a structure due to the climatic conditions that exist at the upper sections of Little Cottonwood Canyon. The season is substantially short compared to the Salt Lake Valley. For this reason methods should be examined that permit the structure to be erected quickly and efficiently. This may include manufacturing as many products to form enclosure ahead of the installation date as possible. Panelization – the practice of factory assembling portions of the wall and roof enclosures ahead of the installation date – would be a good application for this specific project. This may include concrete panel construction. Cast-in-place concrete would be difficult due to the short season and long cure times required for large concrete pours.

Members of the building committee have raised the issue that this type of construction may cause the decision of whether to leave remaining or tear down the existing building to be made in favor of tearing the original building out completely. If a system such as panelized pre-cast panels are employed it would most probably cost more to leave the existing Concrete masonry walls in place than to remove them and start with new walls designed to transfer seismic loads from floor and roof planes.

We believe that by employing the best strategies for assembling the new structure that the project can be enclosed within the short building season typical to Alta, Utah. Finishes and other building systems required for the interior can be accomplished once the weather changes. Overall the project as now designed would take 8-9 months to complete from start of construction.

The contract with the General Contractor will include a statement that the building shall be completed in 'x' amount of calendar days. Any time beyond this point will be charged liquidated damages. Open ended construction periods are to be avoided.

Project Funding

Projects in today's public environment require unique funding sources. It has become more of the norm to mix private and public funds to assure financial success. The Alta Community Center will perhaps approach this project with the same strategy – to form relationships with several key private funding sources and to derive some funds from government grants.

Community governments are seldom in a position from a knowledge base to raise these sorts of funds using staff members. It is more often the case that boards be formed that can utilize the services of private fund-raisers to derive foundation and other private grants and contributions. In this specific case it might be a coalition of interested entities such as the Alta Community Enrichment board and other interested individuals that might form a fund raising board whose specific short-term mission is to come together to raise project finances.

For this type of board to form it is typical to choose prominent members of the community from whom a lead gift might be asked and given and then to name those individuals as Chair and Co-Chair of this committee. From this sort of platform incentive has been creative when they address a letter to other potential project sponsors.

The decision must also be made about the merits of employing a private fund raising individual or company to assist in the efforts. There are national companies and local companies from which to choose. The national companies lack perspective of the local giving environment. If a project would attract national attention more than local funding then it may make more sense to utilize the services of someone who can operate in this capacity. We would suspect though that most of the funds for this project will be collected locally. For this reason local fund-raisers may instead be given preference. Typically these groups bring strategy, history and knowledge to the committee to link potential funders to the project.

Requests for money should be well researched. The ability to give, the timing of the "ask" and the method of asking should all be known prior to making the request. Often times no funds are obtained by either asking for an amount beyond the capacity of the potential funder or what may be worse, asking for too little because homework was not thoroughly done to understand the ability of an individual or foundation to give. Fundraisers will work for a fixed fee or for a percentage – it is recommended to ask what the advantages and disadvantages are of those that you will consider. For the most part fixed fees are best if tied to a success platform of some level.

It has been our experience that hiring fundraisers will give a committee of people solid guidance and understanding about how to successfully raise monies for a project. They save time and increase the overall amount of money raised and will be able to suggest the sequence of asking for money. Is it best to raise the public funds first or behind the lead private gifts? Fundraisers can be project specific in answering these questions.

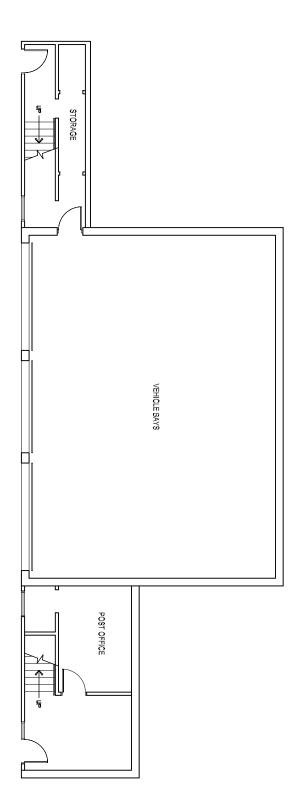
We would highly recommend that the committee engage these agencies to review options before deciding on a direction to begin the fund raising stage. It is important however to plan such that one strategy is chosen because it is very difficult to go back and make requests at a later date with new leadership in front of a campaign.

TOWN OF ALTA COMMUNITY CENTER

ALTA, UTAH

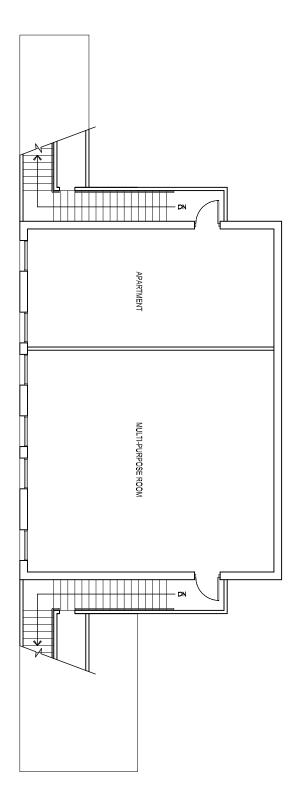






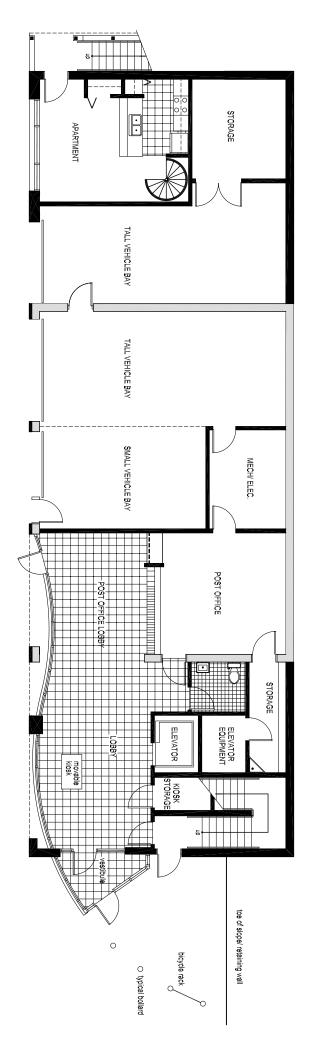
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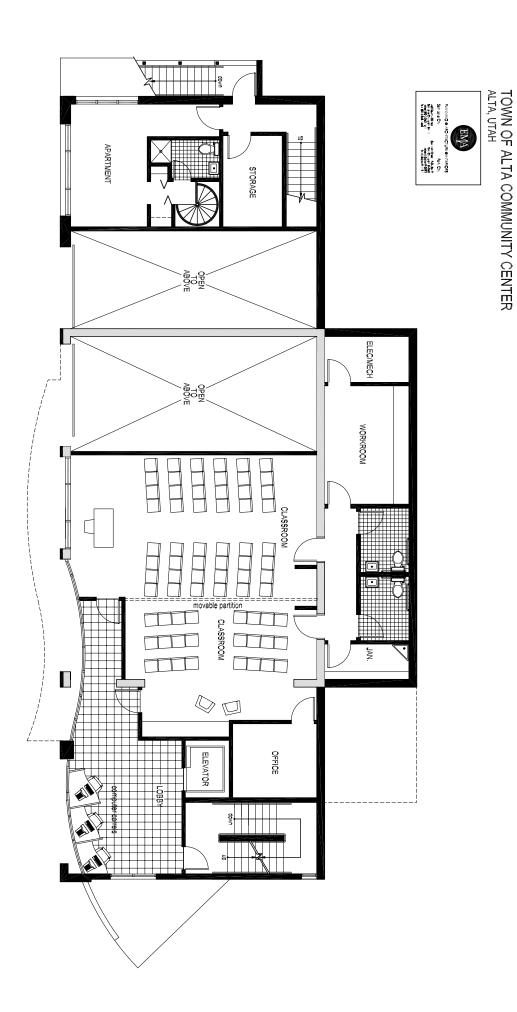


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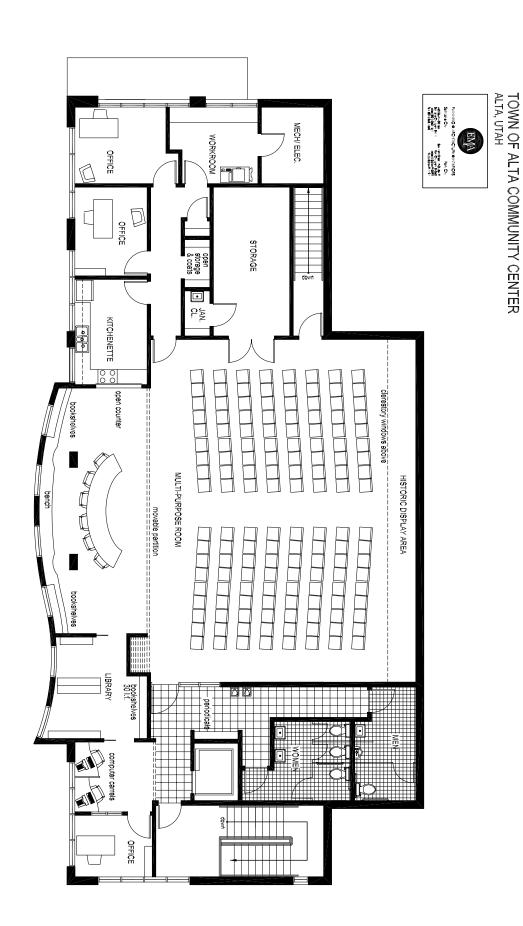




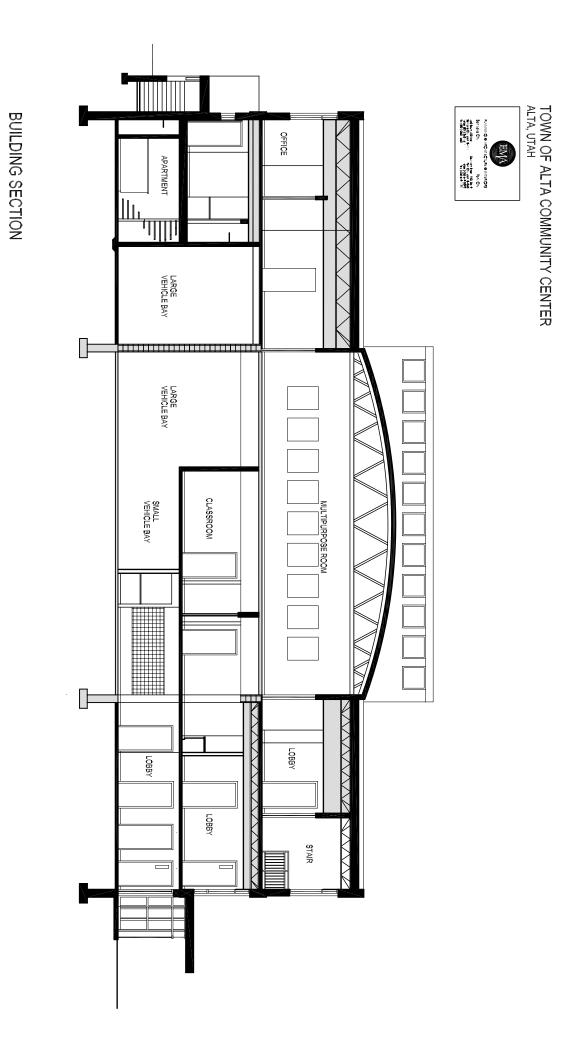
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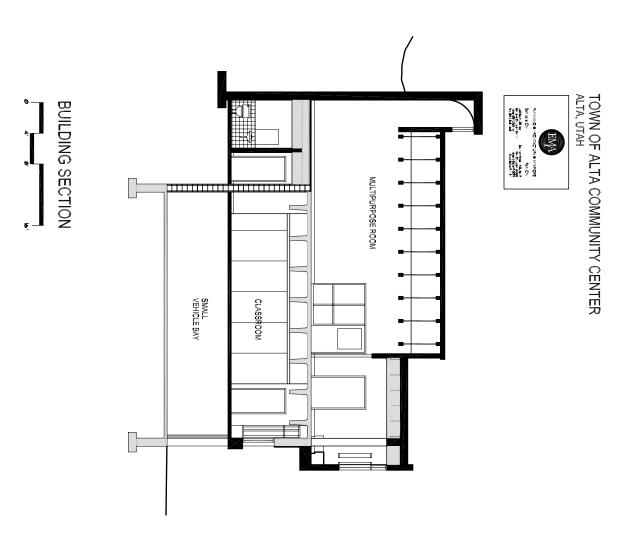


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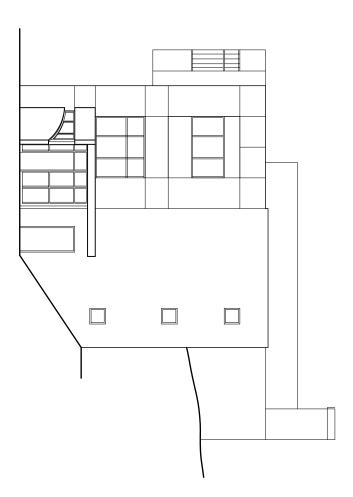


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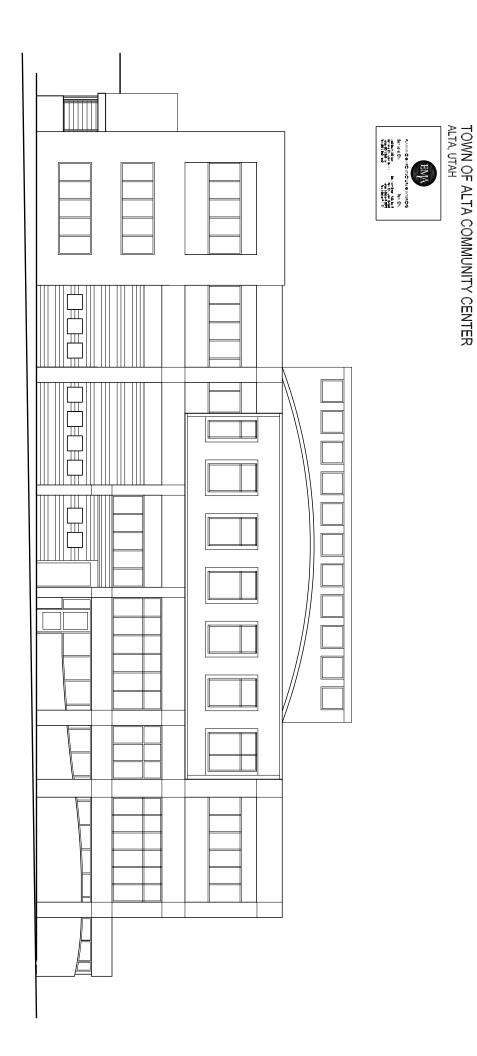






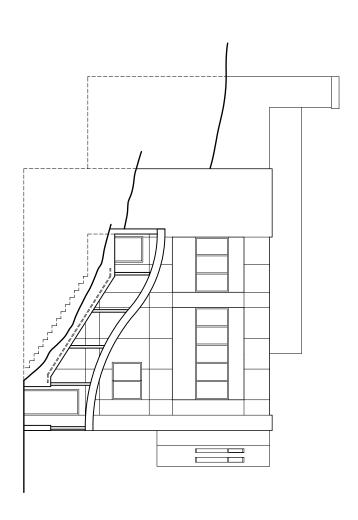






SOUTH ELEVATION





WEST ELEVATION