

Options for Preservation  
and Repurposing of the  
**HISTORIC CITY OF CHEYENNE**  
**WATER WORKS WEST SIDE**  
**PUMPING STATION**  
Cheyenne, Wyoming



**EXECUTIVE SUMMARY**

The purpose of this report is to provide the City of Cheyenne with general information regarding the options for preservation of the existing City Water Works West Side Pumping Station (Pumphouse) and the estimated costs of those options.

**OPTIONS**

Based upon our research regarding the history of the building, and our observations of its existing condition, we believe that the building is an important historical asset and that it is appropriate to plan for the restoration and repurposing of the building. The Pumphouse has been recognized as a potential asset in the City’s West Edge project and has the potential to be a meaningful component of that project, or to be rehabilitated as a stand-alone project. In fact, if the building was leased to a private developer under a long-term lease arrangement, the rehabilitation project could be eligible for Federal Historic Preservation Tax Incentives.

Options for the building include:

- Mothball - preserve the building for future restoration and repurposing
- Shell - restore the shell of the building
- Partial Restoration - Restore the shell and the major interior portions readying the building for future repurposing for a use to be determined
- Full Restoration - Restore and repurpose the building anticipating it being repurposed for Public use as a multipurpose facility (events, meetings, etc.)

**ESTIMATED PROJECT COSTS**

Based upon current market conditions and construction costs, we estimate the costs of the above noted options to be:

- Mothball ..... \$361,715
- Shell ..... \$1,041,536
- Partial Restoration ..... \$1,441,232
- Full Restoration ..... \$2,124,330

**RECOMMENDATIONS**

We believe that the Pumphouse is one of the most important historic facilities owned by the City of Cheyenne and is worthy of investment of public funds for the purpose of its restoration and repurposing. We recommend that the City of Cheyenne, at the very least, allocate funds for the proper mothballing of the building. Furthermore, we believe that the City should actively explore options for the repurposing of the building and should allocate funds for its complete restoration as soon as possible.

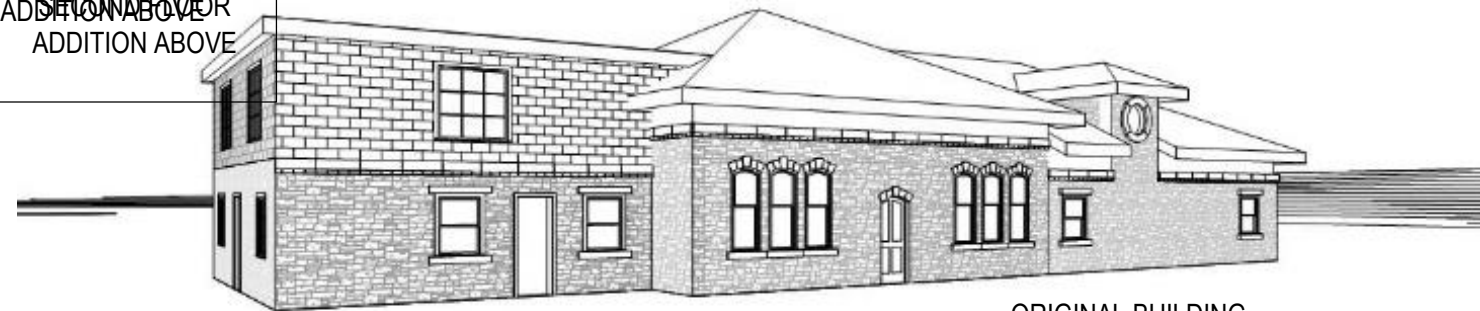




## TABLE OF CONTENTS

- EXECUTIVE SUMMARY
- DESCRIPTION OF EXISTING BUILDING
- PRESERVATION GUIDELINES
- PRELIMINARY PROJECT BUDGET SUMMARY
- APPENDICES
  - Scope of Work Matrix
  - Estimates of Probable Construction Costs
  - Preliminary Project Budgets

ORIGINAL BUILDING  
ORIGINAL BUILDING  
SECOND FLOOR  
ADDITION ABOVE  
ADDITION ABOVE



ORIGINAL BUILDING



EXISTING FIRST FLOOR PLAN

## DESCRIPTION OF THE EXISTING BUILDING

The Pumphouse was constructed in 1892<sup>1</sup> to provide additional water pressure to the growing Cheyenne community. The Pumphouse was in use until 1920, when other improvements to the City's water system rendered it no longer needed. From 1920 to 2015 the building was used by various City of Cheyenne Departments (streets, etc.). Since the building's intended use was curtailed in 1920, the building has seen several alterations and additions. Over that same period the building has been very poorly maintained. Deterioration of the building structure, due primarily to a lack of maintenance, has left the building in very poor condition. However, the historic fabric of the building is largely still present, and the building provides sufficient historical architectural evidence so that it is an excellent candidate for restoration and repurposing.

The Pumphouse is an example of Richardsonian Romanesque architecture, similar in many characteristics to Cheyenne's Historic Union Pacific Depot. Although of as of notable architectural design, the building has been determined to not currently be eligible for listing on the National Historic Register by the Wyoming State Historic Preservation Officer (SHPO). That determination is largely due to the alterations to the building over the past nearly one hundred years. Background for that determination can be found in the Architectural Survey entitled:

WYOMING CULTURAL PROPERTIES FORM (rev. 3.0 6/11/14)  
Address: 1504 Dillon Avenue, Cheyenne, WY  
Date: May 30, 2014  
Smithsonian #48LA1362  
Ron Sladek, Tatanka Historical Associates Inc.  
PO Box 1909  
Fort Collins, Colorado 80522

It should be noted however, that the conditions making the building ineligible for listing are, for the most part, reversible. The Wyoming State Historic Preservation Office (SHPO) has noted that, with consultation and careful planning and design, removal of the non-historic additions and alterations could make the building eligible for listing on the National Historic Register.

<sup>1</sup> WYOMING CULTURAL PROPERTIES FORM (rev. 3.0 6/11/14); Address: 1504 Dillon Avenue, Cheyenne, Wyoming; Date: May 30, 2014; Smithsonian #48LA1362; Ron Sladek, Tatanka Historical Associates Inc.; PO Box 1909, Fort Collins, Colorado 80522

Additionally, an examination of the building from a structural perspective has been performed by Robert D. Clary, P.E.P.C. Mr. Clary identified and documented numerous structural deficiencies in his report entitled:

STRUCTURAL INSPECTION REPORT  
Cheyenne Pump house Restoration  
1504 Dillon Ave Cheyenne, WY 82001  
For  
City of Cheyenne  
Special Projects Department  
2101 O'Neil Ave  
Cheyenne, WY 82001

The original building is 3,474 square feet and was a single story. A 796 square foot concrete masonry second floor addition was added to the north end of the building, as well as 375 square foot and 2,409 square foot additions to the east side of the building.



Figure 2 Aerial photo form Google Earth.



Figure 1 - Front of building





## RECOMMENDATIONS

The Pumphouse is one of the most important historic facilities owned by the City of Cheyenne. It is also, probably the most endangered historic structure in Cheyenne. Deferred maintenance, lack of security and abuse by vagrants put the building in jeopardy. The building is certainly worthy of investment of public funds for the purpose of its restoration and repurposing. We recommend that the City of Cheyenne, at the very least, allocate funds for the proper mothballing of the building. Furthermore, we believe that the City should actively explore options for the repurposing of the building, and should allocate funds for its complete restoration as soon as possible.

### Repurposing of the Pumphouse

The Pumphouse is situated near the starting point of the very first segment of the Greater Cheyenne Greenway along Crow Creek. At the time the Crow Creek Greenway was constructed members of the Greenway Technical Review Committee noted that the Pumphouse could be repurposed for a Greater Cheyenne Greenway Headquarters building. Such a facility could provide offices for Greenway staff, public meeting facilities, rental of bicycles, rollerblades, etc. for use on the greenway, as well as providing a place to refill water bottles, add air to bicycle tires and access to first aid.

### Other potential uses for the building include:

- Public meeting space
- Museum:
  - City of Cheyenne Municipal Water System History and Interpretation
  - Interpretive Center to be associated with the proposed West Edge wetlands area
- Public Education Facility
- Children's Activity Center
- Redevelopment by a private developer under a long-term lease arrangement with the City of Cheyenne\*:
  - Restaurant
  - Brew Pub
  - Daycare

*\*Note that, if the building were leased to a private developer, under a long-term lease arrangement, the rehabilitation project could be eligible for Federal Historic Preservation Tax Incentives.*

### Consultation:

One of the most important first steps in the Pumphouse project will be consultation with the Wyoming State Historic Preservation Office (SHPO) for:

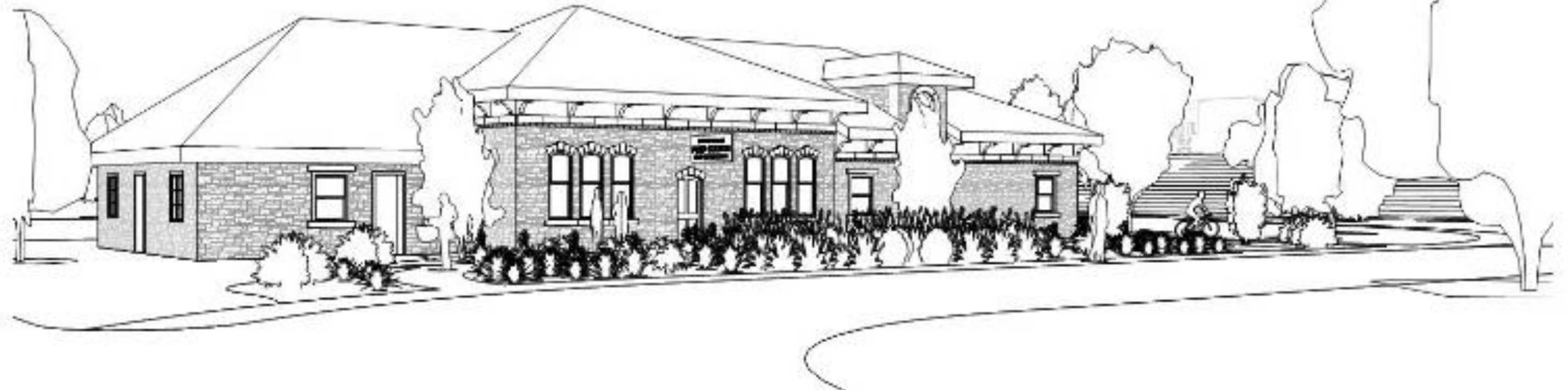
- input regarding the proposed work
- potential for the building to qualify for listing on the National Historic Register, and
- potential for rehabilitation work to qualify for Federal Historic Preservation Tax Incentives.

### Recommended Work:

Rehabilitation work should include:

- Removal of existing additions
- Reconstruction of the roof
- Preservation treatment of masonry
- Determination of and execution of any foundation repairs necessary
- Rehabilitation of all doors and windows
- Reconstruction of existing frieze and brackets
- Installation of roof drainage systems to move water away from the building
- Site grading to ensure proper drainage

ORIGINAL BUILDING WITH  
SECOND FLOOR ADDITION  
REMOVED AND ROOF REBUILT





## **PRESERVATION GUIDELINES**

The preservation and integrity of historic buildings is greatly determined by the quality of their ongoing maintenance and the manner in which repairs are performed. The following guidelines address the appropriate treatment of historic building fabric at the City of Cheyenne Pumphouse. These guidelines are consistent with the principles embodied in the Secretary of the Interior's Standards. When addressing maintenance and repair issues with historic building fabric, repair is always preferable to replacement, even if the repaired historic fabric has imperfections. When replacement is necessary, replacement should be in-kind, matching the historic materials in form, configuration, color, texture, and appearance. Preserving authentic historic building fabric is a high priority. Additional information on appropriate treatment of historic building materials is available in Preservation Briefs prepared by the National Park Service. An architect knowledgeable in the preservation and maintenance of historic buildings should be consulted by the City of Cheyenne prior to undertaking maintenance and repair work involving historic building materials on the Pumphouse.

Overall the Pumphouse is in poor general condition and has not been well maintained. Significant deterioration has taken place. Due to water infiltration, lack of enclosure, and damage inflicted by people using the building for shelter and other uses, the City of Cheyenne Pumphouse is in great danger of further loss of historic fabric, or even total loss of the structure.

- CONCRETE
- MASONRY
- WOOD
- ROOF AND DRAINAGE SYSTEMS
- DOORS AND WINDOWS

## MASONRY

Refer to PRESERVATION BRIEFS

1 - Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings

2 - Repointing Mortar Joints in Historic Masonry Buildings

6 - Dangers of Abrasive Cleaning to Historic Buildings

Sandstone is the most prominent and character-defining exterior building material of the Pumphouse. Brick has been used as the primary structural material, but it is a secondary material aesthetically.

### Sandstone

The City of Cheyenne's Pumphouse is constructed of load bearing brick masonry walls with sandstone veneer. The regionally quarried sandstone features a rough face and is laid in a random length 12 inch high course with stone sills and detailing.



Figure 3 Stone detail at area where Second Floor was added. Note non-historic concrete masonry units. Also note where flashing of the original roofing was let-in at the adjoining stone veneer.

### Brick

Brick has been used in the Pumphouse as a primary structural material of the exterior walls.

Early brick making technology produced bricks of varying quality. The quality of the brick used in historic buildings varies considerably, depending upon the materials used, shaping methods, firing quality, and other manufacturing considerations. The better quality bricks were used for exposed, exterior brick. In general, the brick used for the Pumphouse are of good structural quality. Like a loaf of bread, bricks have an outer crust and a softer inner material. Without the outer crust, the inner brick is vulnerable to rapid deterioration. Removal of the outer crust by harsh abrasive or chemical cleaning greatly reduces the durability of the original bricks. Brick functions best when laid with bricks of a similar type and with a mortar mix that is carefully matched to the brick type. It is important that brick masonry be protected from water infiltration through adequate roofing, flashing, and site drainage. Bricks are porous and can absorb moisture much like a sponge. Water infiltration can cause freeze/thaw damage to bricks in cold weather. Water from the ground can carry salts in solution into the masonry, which can cause internal stresses as the salts form during evaporation.

Waterproofing coatings are not recommended for brick masonry because they can trap water within the masonry rather than keeping it out. When used, masonry coatings should be breathable.

### Masonry Deterioration

The masonry materials used in Pumphouse is generally of good quality, however considerable deterioration was observed. Even though masonry is durable, proper care should be taken to ensure its long-term survival. Masonry maintenance is not just an aesthetic consideration but a structural one. As with all historic materials, frequent evaluation and careful maintenance can resolve minor problems before they become serious and require expensive repairs. Open masonry joints were the most common problem observed. Open joints are particularly dangerous because they allow water to enter the wall and then freeze in cold weather. When water freezes, it expands causing cracking of the masonry and providing more ways for water to enter. Deterioration due to water penetration often occurs around entranceways, where masonry projections are found. Such deterioration was observed around the Pumphouse.

Surface deterioration and delamination are also problems caused by water infiltration into masonry. Saturation of porous sandstone caused by water infiltration from above or from the ground can result in surface deterioration in which layers of stone flake away. Surface deterioration was seen in stone at several locations. Sandstone is particularly vulnerable to this condition because of its porous nature. Surface deterioration and delamination is also occurring in stone at the base of the Pumphouse. This condition is probably being caused by saturation and freeze/thaw cycles.

Efflorescence, a whitish stain on stone or brick that is the result of crystallized water-soluble salts, is often a sign of water saturation. Sodium, calcium, and magnesium chloride based deicing salts can damage entryway and foundation masonry, as well as doors and door frames. The salts are absorbed into the masonry with the water. As the masonry dries, the salt residue forms deep within or on the surface of the masonry causing internal stresses and damage. Masonry walls may be damaged by the corrosion of embedded metal elements and structural stresses. Embedded metal materials, such as steel angles, metal anchors, and through-wall pipes, will corrode in the presence of water. The expanding of corroding metal can have enough force to crack masonry joints and even stone or brick. The rusting of steel lintels over windows can lift and crack surrounding masonry and is called 'jacking.'

Inappropriate treatments and repairs can cause further masonry deterioration. Historic masonry is often repointed with modern hard, dense Portland cement mortars that were not available historically and which are inappropriate to the historic walls. The Portland cement mortars are often harder than the masonry. Masonry load-bearing walls are subject to daily and seasonal movement from differential thermal expansion/contraction and freeze/thaw cycles. Hard, dense Portland cement mortars are inflexible and do not allow for this movement, leading to cracking of the softer, more porous masonry.

Sealant should only be installed in masonry units located on wash surfaces, such as parapet tops, projecting water table and belt courses, and steps. Sealant should never be installed on vertical wall surfaces. Sealant will trap water within the masonry wall, forcing the water back into the masonry units. Any embedded metal anchors or reinforcing located within the wall will corrode and expand causing cracking. Structural problems, such as settlement, may shift an entire wall causing cracking through joints as well as through stone or brick units.

## Cracking

Cracking along the mortar joints or through masonry units is an indication that the masonry is in motion. Masonry cracks provide opportunities for moisture penetration which leads to further deterioration often due to expansion caused by freezing. If cracks or disrupted masonry are observed in a masonry wall, a structural engineer should be consulted to determine the cause and appropriate remedial treatments. The majority of structural problems can be prevented through proper inspection and preventive maintenance.

## Masonry Repair

Repairs to historic masonry should only be performed by craftsmen skilled in historic masonry preservation approaches and techniques. The type of masonry, the type and extent of damage, and the proposed methods of repair should be determined prior to beginning any work. It is important to understand that different types of masonry have different physical properties, weights and densities, and weathered surfaces. Detailed information on appropriate treatments for historic masonry can be found in the National Park Service series of Technical Preservation Briefs. It is best to consult an architect or other preservation professional before undertaking repair or repointing because appropriate work is important, not only for aesthetic reasons but also for the masonry's long-term stability and durability.

Masonry Repointing Repair of open or deteriorated mortar joints should be undertaken as soon as possible for the Pumphouse. Where open or deteriorated joints are observed are identified they should be repaired as soon as possible. Appropriate repointing using preservation techniques is critical to a historic masonry building's physical condition and plays a significant role in integrity and appearance. The City of Cheyenne should use masonry contractors with demonstrated experience in work with historic buildings; masons trained in new construction often lack expertise with historic masonry. The mortar mix is critical to masonry function and aesthetics and will vary according to the type of masonry. The composition of the new mortar should duplicate that of the original mortar mix as closely as possible. An historic mortar analysis can provide valuable information for characterizing the original mortar, particularly in matching the sand color, mineralogical content, and grain size, aggregate color, cement color, etc. However, mortar analysis will not necessarily be able to fully determine the actual original mix. The strength of the mortar is also important. The new mortar must be weaker and more permeable than the existing

masonry while achieving good bond with the masonry units. In historic masonry buildings, soft mortar joints are flexible enough to allow for the seasonal expansion and contraction of the wall. Modern buildings control this movement through expansion joints. If a historic masonry wall is pointed with a harder, less-flexible mortar, the masonry unit becomes the weakest link. The masonry, not the mortar joints, will crack, spall, or deteriorate as it absorbs the stress caused by seasonal changes and movement. If left unchecked, this masonry deterioration can result in structural failure of the wall. A custom mortar mix appropriate for historic masonry can be obtained using combined Portland cement and hydraulic lime-based mortars. Most masons are familiar with characteristics of hybrid mortars, which combine the quick set and strength of Portland cement with the flexibility and greater workability of hydraulic lime. The advantage of these hybrid mortars is that they are mixed and cured in a similar manner to modern Portland cements. Type N mortar mix is an industry standard general purpose mortar mix preferred for soft stone masonry. A type N mix is composed of 1 part Portland cement, 1 part lime and 6 parts sand and has a medium compressive strength. When a custom mortar mix is not being used, a standard type N mix may be acceptable.

Matching the color, texture, and appearance of the historic mortar is achieved through trial and error using test panels. Sand matching that of the historic mortar should be used. The mortar used in City of Cheyenne Pumphouse is rich in sand content and has a slightly grainy character. Iron oxide pigments may be added to test panels to match the color of historically pigmented mortars. Multiple test panels are usually needed to achieve the right color and texture match. Mortar should only be removed when it is absolutely necessary, such as when the mortar is unsound, cracked, eroded, or crumbling. Removal of mortar at all joints in an effort to achieve a uniform appearance is rarely necessary. Unsound mortar should be removed to a depth of 2.5 times the width of the joint, or to sound mortar, whichever is greater. Work should be performed using hand-held, nonpower tools. Power tools such as masonry saws can easily damage masonry. In some circumstances, a thin saw cut may be run down the center of a horizontal joint with the remainder removed by hand. However, masonry saws should never be used on vertical joints. This work should only be attempted by skilled preservation masons.

New work should match historic mortar joints in color, texture, joint size, profile tooling, and any decorative details, such as penciling. Where necessary, voids in bedding mortar must be packed with new mortar, and then repointed to prevent face loading of the masonry and consequent spalling. Masons should achieve visual continuity between surviving historic material and new patches. Mask grouting is the practice of applying a skim topcoat of mortar over existing joints and is essentially a cosmetic fix. Not only does it hide any underlying existing mortar problems, it changes the appearance of the entire building. This practice should be avoided.

## Sealants

Waterproof building sealants should only be applied to joints in horizontal wash surfaces at parapet caps, sills, watertables, projecting cornices, and steps. These joints are particularly prone to water penetration. Proper sealant installation involves installation of a foam backer rod with the correct diameter for the size of the joint. Sealant must be installed against the backer rod, forming a concave joint between the masonry units. Flush sealant joints that do not have a concave shape have been improperly installed. Do not allow sealants to overlap the outside face of the masonry, as it will cause the sealants to fail prematurely. Do not use sealant in joints on vertical wall surfaces because it will trap moisture within the wall and lead to deterioration.

## Crack Repair

Cracks in masonry should be properly diagnosed before undertaking any repair work. Cracks caused by structural stresses should be investigated by a structural engineer to determine their cause and appropriate remedial repairs. Any underlying structural problems must be addressed before performing repairs. Cracking from a one-time event, such as small-scale settlement, may require a cementitious mortar or grout repair. Cracking through masonry joints should be repaired by repointing the affected joints. Cracking through masonry units may require the installation of reinforcement and a cementitious patch or grout repair. Long, deep cracks in a masonry unit may be patched using a knife-grade patching compound to prevent further moisture penetration. The visual impact of such a repair should be minimized by using a colored mortar that is similar to the color of the masonry being patched. Not all cracks in masonry require repair. Cracks may simply be a part of the natural weathering process for some stone masonry. Small, hairline cracks on vertical surfaces of stone masonry should not be repaired unless they are deep enough to allow water to infiltrate into the masonry

wall. However, such cracking on horizontal wash surfaces should be patched with a knife-grade patching compound to prevent water infiltration.

#### *Patching*

Small pieces of masonry lost through spalling or delamination can be repaired with a cementitious patching compound that matches the color and hardness of the primary masonry. Proprietary patching compounds must only be installed by trained masons. Many manufacturers offer training courses and product certification for masons. Commercially available patching compounds can be either Portland cement-based or natural hydraulic lime-based. It is important to choose a patching compound that is compatible with the compressive and flexural strengths and permeability characteristics of the masonry to be repaired. Damaged areas of masonry that are too large to patch may be repaired by installation of a masonry Dutchman. In this procedure, the deteriorated portion of the masonry is cut away and a new piece of masonry (the Dutchman) is installed to match the existing. Dutchman repair is a much more durable repair than a cementitious patch repair. A cementitious patch may need to be replaced after 10-15 years, while a properly-installed Dutchman should last as long as the masonry itself. Dutchman repairs require skill to install correctly and should not be attempted by inexperienced personnel. Fine masonry details exposed to the weather at some locations such as over entranceways, have experienced some chipping and spalling. It may be advisable to leave these details as-is. Repairs may not hold up to the severe conditions that caused the chipping in the first place.

#### *Consolidation*

Consolidation is a common remedy for surface disintegration in silicate-based masonry such as sandstone masonry. At the Pumphouse, surface deterioration has been a systemic problem. Commercially-available consolidants are not appropriate for masonry containing a calcium carbonate binder, such as limestone. Consolidation should only be considered in situations where the masonry is friable (prone to crumbling) and exhibits surface disintegration. Consolidation works on a microscopic level to strengthen cohesion between grains. Consolidation is not appropriate for delamination, spalling, or large-scale cracking. If the masonry type and deterioration warrants consolidation, the first step is to characterize the masonry through petrographic analysis and materials characterization. Testing is performed in a laboratory to investigate how the consolidant treatment affects the physical

characteristics of the stone. It is also important to investigate how effectively the masonry takes up the consolidant treatment. Consolidants must not be used if the masonry is adversely affected or if the consolidant is not properly absorbed. If laboratory testing determines that the consolidant is well-absorbed by the masonry and does not significantly alter its physical characteristics, then the consolidant should be tested in field mockups. Consolidation is an irreversible treatment and should not be undertaken by unskilled personnel or without proper laboratory and field testing.

#### *Masonry Cleaning*

In considering the cleaning of historic masonry, evaluate the historic material, the type of soiling, the reason for cleaning, and the cleaning method. Cleaning should be undertaken only where dirt or other material obscures significant architectural features, or is causing, or has the potential to cause, damage to masonry. Cleaning methods should be carefully selected to do the job without harming the historic material. It is also important to repoint deteriorated mortar joints prior to cleaning to ensure that water does not penetrate the wall during cleaning. Cleaning treatments fall into three general categories: water-based, chemical, and mechanical methods. Water-based methods include pressurized water spray, heated water treatments, and mist-spray. Chemical methods involve the use of soaps, detergents, acidic and basic cleaners, and biocidal treatments in a variety of gels, liquids, pastes, and poultices. Mechanical cleaning methods include the use of tools, such as brushes, scrapers, and specialized rotating and laser-based cleaning equipment. It is possible to combine treatments for the best results, such as combining mild mechanical methods with low-pressure water spray. The preservation approach is to always employ the gentlest cleaning method starting with low-pressure water and natural bristle brushes. Water pressure should be no stronger than 150-200 pounds per square inch (psi). High-pressure water spray can damage masonry surfaces and drive moisture into cracks and joints. Several cycles of mist-spray can be effective in removing some black gypsum crusts with minimal scrubbing. Any cleaning method using water should not occur when the temperature will fall below 50 degrees Fahrenheit for three days after cleaning. Chemical treatments should be approached with great caution because they can cause irreversible damage. Chemical cleaners should be chosen by a knowledgeable professional who understands the type and condition of the masonry material to be cleaned. They should never be applied by unskilled personnel. Understanding the physical properties of the masonry and type of soiling in question is a vital first step before proposing or

testing any chemical cleaners. If chemicals must be used, test panels should be prepared and carefully evaluated to avoid over cleaning. Abrasive sandblasting should never be used on historic masonry because it is irreversible and extremely damaging. Sandblasting accelerates deterioration of historic masonry materials and has a profound negative impact on a building's historic character. Sandblasting removes the hard, protective surface of the masonry, especially brick, and breaks mortar joints, leading to moisture penetration.

## WOOD

Refer to PRESERVATION BRIEFS

- 1 - Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings
- 2 - Repointing Mortar Joints in Historic Masonry Buildings
- 6 - Dangers of Abrasive Cleaning to Historic Buildings

Wood is used as a structural roof component in the City of Cheyenne's historic Pumphouse. Wood was also used as trim and decorative elements at the frieze at the top of the masonry walls. Interior structural framing, floors, and stairs are also constructed of wood.

### *Deterioration of Wood*

The most prevalent problem affecting exterior architectural woodwork is water penetration from poorly maintained roof, flashing, and site drainage systems. This can be seen at various wood elements, including cornices, frieze elements, brackets, soffits, wood cladding, etc. Water penetration can lead to wood rot and insect infestation. The ease with which wood can be used to form features and decorative details and its exposed location on building exterior make it naturally susceptible to weathering and deterioration. The complex design and execution of wood details creates opportunities for damage from water, air, and insects. The condition of wood elements is highly dependent upon the extent and quality of regular maintenance. Without routine inspection and prompt remedial action, wood deterioration will accelerate rapidly on both the interior and exterior. Early detection and repair avoids more extensive and costly repair later. Unfortunately, once they have deteriorated, wood details are often removed rather than repaired or replaced. Historic craftsmanship was based upon the uses and characteristics of different wood species. In rehabilitation and repair projects, replacement wood should match the historic materials. Availability, cost, and quality, however, are also important considerations in the selection of wood species. For instance, old-growth white pine was used extensively for structural framing historically and was much denser than the white pine available today. Cedar, on the other hand, was not available historically, but is now preferable for use in wood detailing that will be exposed to the elements because of its resistance to weathering.



Figure 4 Frieze and bracket detail.

### *Wood Repair*

Repair work should be carefully planned to have the least physical impact on historic wood. Any cleaning should be undertaken using careful, non-abrasive techniques. High-pressure blasting using either water or abrasives is very damaging and should never be used. Painting and caulking of exterior woodwork is the primary means of its protection from weathering. Painted surfaces should be well-maintained. In general, use an alkyd primer coat and two coats of latex finish paint on wood surfaces, according to the manufacturers' instructions. As with all historic features, damaged sections should be replaced in-kind to match the historic feature and material and its visual and physical qualities, duplicating its size, shape, texture, and detail. Rotted wood should be removed and replaced, especially if it is structural. It is usually not necessary, however, to remove an entire wood element that has limited areas of rot. Wood elements should not be removed for minor defects of appearance. Retaining authentic historic building fabric is a higher priority and more important to a building's historic integrity than a defect free appearance. When deteriorated wood does need to be replaced, the deteriorated portion of the wood element can be selectively removed and a wood Dutchman installed as a patch in the original wood feature. For structural elements, a structural engineer should be consulted to determine the nature and extent of the repair required. In areas of significant or ornamental wood elements, commercially available epoxy consolidants can be used to give strength to the existing wood. Consolidants can also eliminate the need to remove original historic wood elements.

The installation of vinyl or aluminum siding materials on historic buildings is not an appropriate preservation treatment. Vinyl and aluminum materials seriously alter the historic appearance and character of a building by removing or covering important details such as cornice, window and door trim, and wood siding. Vinyl and aluminum siding materials are also problematic because they are not maintenance free as frequently advertised. Colors and finishes fade over time, crack and warp, and are frequently changed or discontinued. The cost of periodic vinyl or aluminum siding replacement is more expensive than the cost of maintaining historic wood. The use of fiber cement composite materials such as Hardi Board for painted wood features and siding is an acceptable treatment because of the appearance and longevity of the material and because it can be cut, assembled, and worked much like wood. Materials must be used in accordance with manufacturer's instructions and procedures.

## ROOFS

Roof systems are the most important building element in the overall protection of a historic building and should have the highest priority in building maintenance. Roofs not only keep water out of a building's interior, they keep water from penetrating and damaging exterior walls and structural members. Providing a weather-tight roof and properly functioning drainage system is critical to the preservation of historic buildings and should be addressed before any other concern. The essential function of any roof system is to prevent water infiltration. Although each roofing material requires its own level of maintenance and repair, the roof and its component parts, including its structure, sheathing, gutters, flashing, and drains, should be approached as one system. The failure of one component of this system can cause extensive damage and deterioration elsewhere.



Figure 5 Note metal shingles under asphalt shingles.

## ROOF AND DRAINAGE SYSTEMS

Refer to PRESERVATION BRIEF 4 - Roofing for Historic Buildings

The Pumphouse has hip roofs.

### *Roof Maintenance and Repair*

Continued and ongoing maintenance is the most effective means of preventing serious problems resulting from the deterioration of roof and drainage systems. Failure to effectively control and conduct water from roofs and away from buildings can cause multiple and expensive deterioration problems in masonry walls as well as in concrete, steel, and wood structural components. Roofs should be thoroughly inspected at least once a year. Roof drainage systems should be evaluated holistically as an architectural, landscape, and civil engineering issue. Inspections should review how water flows on the roofs, is conducted to the ground, and carried away from the building.

Flashing is a continuous metal barrier that seals vulnerable roof joints. Flashing is used to bridge gaps between dissimilar materials, especially those with different rates of expansion, and/or incompatible profiles. Flashing prevents water from infiltrating the building at corners, ridges, valleys, or other changes in plane that are prone to separation, including joints between an original building and additions. Flashing is particularly important at roof parapets to prevent water from entering masonry walls. Repair or replacement of deteriorated flashing should be part of routine preventive maintenance. In the inspection of flashing, small holes or pinholes can be a sign of trouble in addition to obvious flaws such as cracks or corrosion. The repair of roofs that are a visible part of the building's character should be executed in-kind to match historic conditions, including materials and workmanship. Significant materials should be replaced to match the historic materials. For example, copper gutters should be replaced with copper, and galvanized with galvanized. The gutter profiles and mounting system should be consistent with the historic versions. When in-kind replacement is not feasible, replacement materials should match the visual and physical characteristics of the historic roof system.

At the Pumphouse, it appears that the historic roofing may have been metal shingles, and has been replaced and overlain with asphalt shingles. While this is an acceptable treatment, it would be preferable, when the roof is reconstructed or the roofing is replaced, to replace these roofs with similar metal shingles, which has a longer life and a more appropriate appearance for this historic building. The use of synthetic slate could also be considered.

Snow guards should be installed on all sloping roofs above the eaves and up the lower portion of the roof to prevent snow and ice from falling on pedestrians. Follow manufacturer's instructions with respect to placement and spacing.

Historic gutters and downspouts should be replaced in-kind to match historic visual qualities including materials, profiles, and details. Replacement gutters should not alter the character of the building's eaves and architectural detailing.



## DOORS AND WINDOWS

Refer to PRESERVATION BRIEF 9 - The Repair of Historic Wooden Windows

Doors and windows are some of the primary character-defining features of historic buildings. Original doors and windows should be preserved and maintained whenever possible. The original doors on the Pumphouse were made of wood with a limited amount of glass, if any. They were heavy, well-built and constructed of harder and heavier wood than is commonly in use today. The environmental effects of constant use and exposure, however, undoubtedly led to severe wear. Most of the windows in the Pumphouse are wood double hung windows. Historic wood double hung windows were usually of high quality and when maintained can have a long and useful life. Thermal efficiency can be improved through the installation weatherstripping and storm windows, preferably on the interior.

They are in good condition, and it is important that these windows be preserved when the building is rehabilitated.

Replacement with new metal windows with thermal breaks and insulated glass may be deemed necessary to improve performance while assuring that windows remain easy to open. Operable windows are necessary for ventilation during good weather. Operable windows are an important part of a sustainable environmental approach.

### Doors

Doors are more than functional entryways; they are important architectural elements and contribute to the character of a historic building.

**Where it is at all possible, original frames, doors, trim and hardware should be restored rather than replaced. Refer to Wood Repair for related information.**

Doors are subject to intense wear from exposure to the weather and constant use. Periodic inspections are important to ensure that doors are operating properly and hung correctly to avoid failure at hinges or other hardware. Push plates and kick plates protect the finishes of wood doors in these vulnerable areas. Wood and metal doors are also damaged by moisture which causes wood rot and corrosion. Deicing salts can cause damage to wood finishes and dramatically accelerate the rate of corrosion. Historic doors often feature door hardware, transoms (operable or fixed sash over

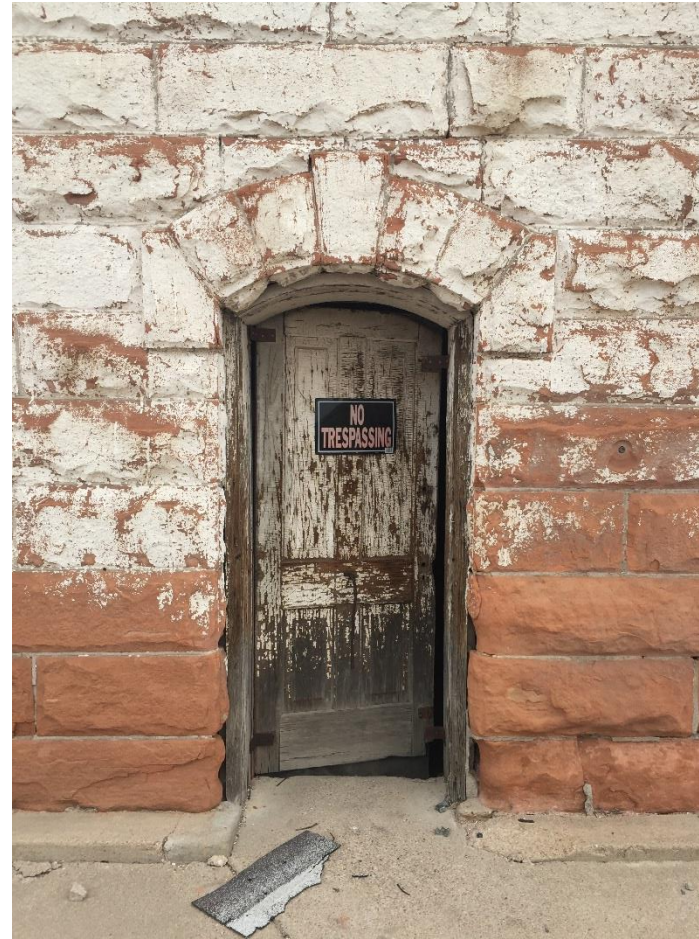


Figure 6 Original door.

doors), sidelights (vertical or fixed ribbon windows flanking a door), trim, thresholds, and steps. Wood doors can be refinished to repair scratches or worn areas. Typically, wood doors would be finished with an oil varnish, though modern polyurethane based varnishes are more common today. It is important to match the original finish of the wood doors in both color and gloss level and to retain the original design intent. High gloss levels are inappropriate for new finishes. Missing elements of historic doors should be replaced in-kind, and the door's original size, profile, and configuration should be preserved. Glazed entry features such as transoms, sidelights, and partially glazed doors should also be retained, repaired, or replaced-in-kind. In some situations, improved weather-stripping around door frames can increase energy efficiency and help protect a door's historic features.

Deteriorated doors that are beyond repair should be replaced in-kind, to match the original in materials, design, visual qualities, and size. Replacement with doors replicating the historic appearance would be preferred if historic conditions are well documented. If not, sympathetic contemporary doors would be appropriate.

Retrofitting for emergency egress and fire-safety should be done in a manner that preserves the door's historic features. Many state building codes have special provisions for historic buildings; these should be fully explored before alterations occur. Fire-retardant coatings, other means of egress, areas of refuge, rated partitions, and other measures allowable under life safety codes can avoid the need to remove a significant historic door.



Figure 7 Original window opening.

### Windows

Historic windows are critical aesthetic elements of a building. Proper treatment of windows is extremely important in retaining historical integrity. Both fenestration patterns and the configuration of individual windows are character-defining features that contribute to a building's design, proportion, and rhythm. Historically, light and ventilation were important to building use and performance before electric service and artificial air conditioning became commonplace. Windows were designed to maximize interior natural light. Natural ventilation remains important today, as mentioned above. Windows placed on opposite sides of a building or room allow cross-breezes to circulate fresh air to inside spaces.

Where it is at all possible, original frames, sashes and trim should be restored rather than replaced. Refer to Wood Repair for related information.

Storm windows can be used to help achieve increased thermal efficiency at historic windows without removing historic materials and features. Interior storm windows are available and help to maintain the appearance of the exterior façade. In addition, inexpensive and reversible magnetic storms can be removed in warm weather so that windows can open. Permanent interior storms are more appropriate for institutional buildings. Interior storm windows should be installed with air-tight gaskets, ventilating holes, and/or removable clips to avoid condensation damage to wood or steel sash. Where interior storms are used, sufficient ventilation must be provided at the historic prime sash to avoid moisture condensation that will damage the historic unit.

Where restoration of existing windows is determined to be completely unfeasible, replacement windows should match historic windows in appearance, character, and use and should preserve the overall visual character of the historic building. Replacement windows should match the historic shapes, widths, thicknesses, and configurations of the stiles, rails, mullions, and muntins of the historic windows being replaced. Window configuration and operation, whether fixed, double hung, casement, awning, or hopper, should be the same as the historic window. Use of insulated glass is acceptable, but the use of applied muntins, and especially use of embedded muntins between insulated glass panes, is not appropriate.

**PRELIMINARY PROJECT BUDGET SUMMARY**

Following is a summary of the Preliminary Project Budgets for the various options analyzed as part of this report. This information is derived from the Preliminary Project Budgets which can be found in the Appendices of this Report.

		MOTHBALL		SHELL ONLY		PARTIAL RENOVATION		FULL RENOVATION Including Site Improvements	
<b>OFF-SITE INFRASTRUCTURE</b>			\$0		\$20,000		\$20,000		\$30,000
<b>SITE CONSTRUCTION</b>			\$10,000		\$40,000		\$50,000		\$395,000
<b>BUILDING CONSTRUCTION OR RENOVATION</b>			\$166,954		\$448,698		\$637,986		\$637,986
<b>CONSTRUCTION FEES AND INFLATION</b>			\$56,056		\$161,147		\$224,277		\$561,636
<b>DESIGN AND CONSTRUCTION CONTINGENCY</b>		20%	\$46,602	20%	\$133,969	20%	\$186,453	20%	\$279,944
<b>TOTAL SITE AND BUILDING CONSTRUCTION COST</b>					<b>\$279,613</b>		<b>\$803,814</b>		<b>\$1,118,716</b>
<b>FURNISHINGS, FIXTURES, AND EQUIPMENT (FF&amp;E)</b>			\$0		\$0		\$0		\$0
<b>FF&amp;E INFLATION</b>			\$0		\$0		\$0		\$0
<b>FF&amp;E CONTINGENCY</b>		0%	\$0	0%	\$0	0%	\$0	0%	\$0
<b>TOTAL FF&amp;E COST</b>					<b>\$0</b>		<b>\$0</b>		<b>\$0</b>
<b>MUNICIPAL FEES</b>	BOPU, etc.		\$3,117		\$25,464		\$25,464		\$25,464
<b>DESIGN AND PLANNING FEES</b>			\$43,107		\$136,046		\$198,467		\$282,941
<b>LEED DESIGN AND REGISTRATION FEES</b>			\$0		\$0		\$0		\$0
<b>OTHER PROFESSIONAL SERVICE FEES</b>	Specialty Inspections, etc.		\$16,765		\$21,135		\$22,560		\$25,097
<b>OWNER'S OTHER PROJECT RELATED EXPENSES</b>	Moving, telephone, etc.		\$0		\$0		\$0		\$0
<b>FEES &amp; EXPENSES ESCALATION</b>			\$0		\$0		\$0		\$0
<b>FEES &amp; EXPENSES CONTINGENCY</b>		3%	\$1,890	3%	\$5,479	3%	\$7,395	3%	\$10,005
<b>TOTAL FEES &amp; EXPENSES COST</b>					<b>\$64,878</b>		<b>\$188,125</b>		<b>\$253,885</b>
<b>OWNER'S PROJECT CONTINGENCY</b>		5%		5%	<b>\$17,225</b>	5%	<b>\$49,597</b>	5%	<b>\$68,630</b>
<b>TOTAL PROJECT BUDGET</b>					<b>\$361,715</b>		<b>\$1,041,536</b>		<b>\$2,124,330</b>
It is recognized that neither the Architect nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's or Subcontractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from any Estimates of Probable Construction or Renovation Cost or any evaluation prepared by the Architect.									
All Estimates anticipate a 2017.03.15 Bid Date.									
<b>Total Contingency</b>			\$65,716		\$189,045		\$262,478		\$391,108





## APPENDICES

- Scope of Work Matrix
- Estimates of Probable Construction Costs
- Preliminary Project Budgets



SCOPE OF WORK MATRIX

		MOTHBALL	SHELL	PARTIAL	FULL
<b>A Substructure</b>					
A1030	New Slab on Grade			X	X
Misc.	Miscellaneous Foundation Repair	Limited	Limited	Limited	Limited
<b>B Shell</b>					
B1020	Roof Reconstruction		X	X	X
B2020	Repair/Replace Exterior Windows		X	X	X
B2030	Repair/Replace Exterior Doors		X	X	X
B3010	Make Roof Weathertight	X			
Misc.	Replace Roofing		X	X	X
Misc.	Infill Wall Openings	X	X	X	X
Misc.	Reconstruct Brackets, Fascia, etc.		X	X	X
Misc.	Miscellaneous Repairs	X	X	X	X
<b>C Interiors</b>					
C1010	Partitions			X	X
C1020	Interior Doors			X	X
C1030	Toilet partitions			X	X
C3010	Wall Finishes			X	X
C3020	Floor Finishes			X	X
C3030	Ceiling Finishes			X	X
<b>D Services</b>					
D2010	Plumbing Fixtures			X	X
D2020	Domestic Water Distribution			X	X
D3050	Terminal & Package Units		X	X	X
D4010	Sprinklers		X	X	X
D5010	Electrical Service/Distribution		X	X	X
D5020	Lighting and Branch Wiring		Limited	X	X
D5030	Communications and Security		Limited	X	X
<b>E Equipment &amp; Furnishings</b>					
<b>F Special Construction</b>					
<b>G Building Sitework</b>				Limited	X





**ESTIMATES OF PROBABLE CONSTRUCTION COSTS**

Estimates of Probable Construction Costs have been prepared to establish the anticipated cost per square foot. Separate costs have been established for each of the options. Additional cost factors are set in the PRELIMINARY PROJECT BUDGET for each option. Note that Contractors Fees, Architectural Fees and contingencies are not included in these estimates. Those fees and costs are added to the raw construction cost in the PRELIMINARY PROJECT BUDGET.

MOTHBALL		Square Foot Cost Estimate Report		Date:	3/22/2016
Estimate Name:	City Water Works West Side Pumping Station - square foot				
	City of Cheyenne				
	Cheyenne , Wyoming , 82001				
Building Type:	Town Hall, 1 Story with Brick Veneer / Wood Frame				
Location:	NATIONAL AVERAGE				
Story Count:	1				
Story Height (L.F.):	12				
Floor Area (S.F.):	3747				
Labor Type:	OPN				
Basement Included:	No				
Data Release:	Year 2016	Costs are derived from a building model with basic components.			
Cost Per Square Foot:	\$101.88	Scope differences and market conditions can cause costs to vary significantly.			
Building Cost:	\$381,729.85	** Area entered is outside the range recommended by RSMeans.			
			% of Total	Cost Per S.F.	Cost
<b>A Substructure</b>			<b>5.01%</b>	<b>5.1</b>	<b>15,000.00</b>
<b>A1030</b>	<b>Slab on Grade</b>			<b>5.1</b>	<b>0.00</b>
	Slab on grade, 4" thick, non industrial, reinforced			5.1	0.00
	<b>Miscellaneous Foundation Repair</b>				<b>15,000.00</b>
<b>B Shell</b>			<b>18.52%</b>	<b>18.87</b>	<b>60,512.58</b>
<b>B1020</b>	<b>Roof Construction</b>			<b>3.53</b>	<b>0.00</b>
	Wood roof, flat rafter, 2" x 10", 16" O.C.			3.53	0.00
<b>B2020</b>	<b>Exterior Windows</b>			<b>7.56</b>	<b>0.00</b>
	Windows, wood, double hung, insulated glass, 3'-0" x 5'-6"			7.56	0.00
<b>B2030</b>	<b>Exterior Doors</b>			<b>3.64</b>	<b>0.00</b>
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			0.31	0.00
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			1.81	0.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			1	0.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			0.51	0.00
<b>B3010</b>	<b>Roof Coverings</b>			<b>4.14</b>	<b>15,512.58</b>
	Metal roofing, aluminum, shingles, colors, 3" min slope, .020 "thick, 0.4 PSF			4.14	15,512.58
	<b>Infill Wall</b>				<b>30,000.00</b>
	<b>Reconstruct Brackets, Fascia, etc.</b>				<b>0.00</b>
	<b>Miscellaneous Repairs</b>				<b>15,000.00</b>

<b>C Interiors</b>		20.48%	20.86	0.00
<b>C1010</b>	<b>Partitions</b>		<b>5.62</b>	<b>0.00</b>
	Wood partition, 5/8" fire rated gypsum board face, 5/8" fire rated gypsum board base, 2x4 @ 16", 5/8" fire rated gypsum board opposite face, no insulation		2.65	0.00
	1/2" fire rated gypsum board, taped & finished, painted on metal furring		2.97	0.00
<b>C1020</b>	<b>Interior Doors</b>		<b>3.38</b>	<b>0.00</b>
	Door, single leaf, wood frame, 3'-0" x 7'-0" x 1-3/8", paneled pine		3.38	0.00
<b>C1030</b>	<b>Fittings</b>		<b>0.6</b>	<b>0.00</b>
	Toilet partitions, cubicles, floor and ceiling anchored, plastic laminate		0.6	0.00
<b>C3010</b>	<b>Wall Finishes</b>		<b>1.38</b>	<b>0.00</b>
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		0.68	0.00
	Ceramic tile, thin set, 4-1/4" x 4-1/4"		0.7	0.00
<b>C3020</b>	<b>Floor Finishes</b>		<b>5.78</b>	<b>0.00</b>
	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 35 oz		3.47	0.00
	Vinyl, composition tile, maximum		0.39	0.00
	Tile, porcelain type, maximum		1.91	0.00
<b>C3030</b>	<b>Ceiling Finishes</b>		<b>4.11</b>	<b>0.00</b>
	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish, 1" x 3" wood, 16" OC furring, wood support		4.11	0.00
<b>D Services</b>		56.00%	<b>57.05</b>	<b>0.00</b>
<b>D2010</b>	<b>Plumbing Fixtures</b>		<b>4.57</b>	<b>0.00</b>
	Water closet, vitreous china, bowl only with flush valve, wall hung		2.63	0.00
	Urinal, vitreous china, wall hung		0.19	0
	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval		0.61	0.00
	Kitchen sink w/trim, countertop, PE on CI, 24" x 21", single bowl		0.21	0
	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard		0.42	0.00
	Water cooler, electric, wall hung, 8.2 GPH		0.24	0
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH		0.29	0.00
<b>D2020</b>	<b>Domestic Water Distribution</b>		<b>4.89</b>	<b>0.00</b>
	Gas fired water heater, commercial, 100< F rise, 95 MBH input, 86 GPH		4.89	0.00
<b>D3050</b>	<b>Terminal &amp; Package Units</b>		<b>10.68</b>	<b>0.00</b>
	Self-contained, air cooled unit, offices, 5,000 SF, 15.83 ton		10.68	0.00
<b>D4010</b>	<b>Sprinklers</b>		<b>4.93</b>	<b>0.00</b>
	Dry pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF		4.93	0.00
<b>D4020</b>	<b>Standpipes</b>		<b>0.78</b>	<b>0.00</b>
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor		0.78	0.00

<b>D5010</b>	<b>Electrical Service/Distribution</b>			<b>11.35</b>	<b>0.00</b>
	Underground service installation, includes excavation, backfill, and compaction, 100' length, 4' depth, 3 phase, 4 wire, 277/480 volts, 600 A			5.15	0.00
	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A			1.95	0.00
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 600 A			4.25	0.00
<b>D5020</b>	<b>Lighting and Branch Wiring</b>			<b>16.83</b>	<b>0.00</b>
	Receptacles incl plate, box, conduit, wire, 16.5 per 1000 SF, 2.0 watts per SF			3.37	0.00
	Wall switches, 2.5 per 1000 SF			0.56	0.00
	Miscellaneous power, 1.2 watts			0.32	0.00
	Central air conditioning power, 6 watts			0.82	0.00
	Fluorescent fixtures, type C, 23 fixtures per 1000 SF			11.76	0.00
<b>D5030</b>	<b>Communications and Security</b>			<b>3.02</b>	<b>0.00</b>
	Communication and alarm systems, fire detection, addressable, 25 detectors, includes outlets, boxes, conduit and wire			0.88	0.00
	Fire alarm command center, addressable without voice, excl. wire & conduit			0.54	0.00
	Internet wiring, 8 data/voice outlets per 1000 S.F.			1.6	0.00
<b>E Equipment &amp; Furnishings</b>			<b>0%</b>	<b>0</b>	<b>0</b>
<b>E1090</b>	<b>Other Equipment</b>			<b>0</b>	<b>0</b>
<b>F Special Construction</b>			<b>0%</b>	<b>0</b>	<b>0</b>
<b>G Building Sitework</b>			<b>0%</b>	<b>0</b>	<b>0</b>
<b>SubTotal</b>			<b>100%</b>	<b>\$101.88</b>	<b>\$75,512.58</b>
<b>Contractor Fees (General Conditions,Overhead,Profit)</b>			<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Architectural Fees</b>			<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>User Fees</b>			<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Building Cost</b>				<b>\$101.88</b>	<b>\$75,512.58</b>
**** Indicates Assemblies or Components have been customized.					

SHELL		Square Foot Cost Estimate Report		Date:	3/22/2016
Estimate Name:	City Water Works West Side Pumping Station - square foot				
	City of Cheyenne				
	Cheyenne , Wyoming , 82001				
Building Type:	Town Hall, 1 Story with Brick Veneer / Wood Frame				
Location:	NATIONAL AVERAGE				
Story Count:	1				
Story Height (L.F.):	12				
Floor Area (S.F.):	3747				
Labor Type:	OPN				
Basement Included:	No				
Data Release:	Year 2016				Costs are derived from a building model with basic components.
Cost Per Square Foot:	\$101.88				Scope differences and market conditions can cause costs to vary significantly.
Building Cost:	\$381,729.85				** Area entered is outside the range recommended by RSMeans.
			% of Total	Cost Per S.F.	Cost
<b>A Substructure</b>			5.01%	5.1	15,000.00
<b>A1030</b>	<b>Slab on Grade</b>			5.1	0.00
	Slab on grade, 4" thick, non industrial, reinforced			5.1	0.00
	<b>Miscellaneous Foundation Repair</b>				15,000.00
<b>B Shell</b>			18.52%	18.87	130,693.64
<b>B1020</b>	<b>Roof Construction</b>			3.53	13,226.91
	Wood roof, flat rafter, 2" x 10", 16" O.C.			3.53	13,226.91
<b>B2020</b>	<b>Exterior Windows</b>			7.56	28,314.78
	Windows, wood, double hung, insulated glass, 3'-0" x 5'-6"			7.56	28,314.78
<b>B2030</b>	<b>Exterior Doors</b>			3.64	13,639.37
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			0.31	1,158.18
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			1.81	6,800.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			1	3,760.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			0.51	1,921.19
<b>B3010</b>	<b>Roof Coverings</b>			4.14	15,512.58
	Metal roofing, aluminum, shingles, colors, 3" min slope, .020 "thick, 0.4 PSF			4.14	15,512.58
	<b>Infill Wall</b>				30,000.00
	<b>Reconstruct Brackets, Fascia, etc.</b>				15,000.00
	<b>Miscellaneous Repairs</b>				15,000.00

C Interiors		20.48%	20.86	0.00
<b>C1010</b>	<b>Partitions</b>		5.62	0.00
	Wood partition, 5/8" fire rated gypsum board face, 5/8" fire rated gypsum board base, 2x4 @ 16", 5/8" fire rated gypsum board opposite face, no insulation		2.65	0.00
	1/2" fire rated gypsum board, taped & finished, painted on metal furring		2.97	0.00
<b>C1020</b>	<b>Interior Doors</b>		3.38	0.00
	Door, single leaf, wood frame, 3'-0" x 7'-0" x 1-3/8", paneled pine		3.38	0.00
<b>C1030</b>	<b>Fittings</b>		0.6	0.00
	Toilet partitions, cubicles, floor and ceiling anchored, plastic laminate		0.6	0.00
<b>C3010</b>	<b>Wall Finishes</b>		1.38	0.00
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		0.68	0.00
	Ceramic tile, thin set, 4-1/4" x 4-1/4"		0.7	0.00
<b>C3020</b>	<b>Floor Finishes</b>		5.78	0.00
	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 35 oz		3.47	0.00
	Vinyl, composition tile, maximum		0.39	0.00
	Tile, porcelain type, maximum		1.91	0.00
<b>C3030</b>	<b>Ceiling Finishes</b>		4.11	0.00
	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish, 1" x 3" wood, 16" OC furring, wood support		4.11	0.00
<b>D Services</b>		56.00%	57.05	121,748.55
<b>D2010</b>	<b>Plumbing Fixtures</b>		4.57	0.00
	Water closet, vitreous china, bowl only with flush valve, wall hung		2.63	0.00
	Urinal, vitreous china, wall hung		0.19	0
	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval		0.61	0.00
	Kitchen sink w/trim, countertop, PE on CI, 24" x 21", single bowl		0.21	0
	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard		0.42	0.00
	Water cooler, electric, wall hung, 8.2 GPH		0.24	0
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH		0.29	0.00
<b>D2020</b>	<b>Domestic Water Distribution</b>		4.89	0.00
	Gas fired water heater, commercial, 100< F rise, 95 MBH input, 86 GPH		4.89	0.00
<b>D3050</b>	<b>Terminal &amp; Package Units</b>		10.68	40,017.96
	Self-contained, air cooled unit, offices, 5,000 SF, 15.83 ton		10.68	40,017.96
<b>D4010</b>	<b>Sprinklers</b>		4.93	18,472.71
	Dry pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF		4.93	18,472.71
<b>D4020</b>	<b>Standpipes</b>		0.78	2,903.93
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor		0.78	2,903.93
<b>D5010</b>	<b>Electrical Service/Distribution</b>		11.35	42,535.00

	Underground service installation, includes excavation, backfill, and compaction, 100' length, 4' depth, 3 phase, 4 wire, 277/480 volts, 600 A		5.15	19,285.00
	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A		1.95	7,325.00
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 600 A		4.25	15,925.00
<b>D5020</b>	<b>Lighting and Branch Wiring</b>		<b>16.83</b>	<b>12,500.00</b>
	Receptacles incl plate, box, conduit, wire, 16.5 per 1000 SF, 2.0 watts per SF		3.37	2,000.00
	Wall switches, 2.5 per 1000 SF		0.56	500.00
	Miscellaneous power, 1.2 watts		0.32	0.00
	Central air conditioning power, 6 watts		0.82	0.00
	Fluorescent fixtures, type C, 23 fixtures per 1000 SF		11.76	10,000.00
<b>D5030</b>	<b>Communications and Security</b>		<b>3.02</b>	<b>5,318.95</b>
	Communication and alarm systems, fire detection, addressable, 25 detectors, includes outlets, boxes, conduit and wire		0.88	3,300.68
	Fire alarm command center, addressable without voice, excl. wire & conduit		0.54	2,018.27
	Internet wiring, 8 data/voice outlets per 1000 S.F.		1.6	0.00
<b>E Equipment &amp; Furnishings</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>E1090</b>	<b>Other Equipment</b>		<b>0</b>	<b>0</b>
<b>F Special Construction</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>G Building Sitework</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>SubTotal</b>		<b>100%</b>	<b>\$101.88</b>	<b>\$267,442.19</b>
<b>Contractor Fees (General Conditions,Overhead,Profit)</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Architectural Fees</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>User Fees</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Building Cost</b>			<b>\$101.88</b>	<b>\$267,442.19</b>
**** Indicates Assemblies or Components have been customized.				

PARTIAL Square Foot Cost Estimate Report		Date:	3/22/2016		
Estimate Name:	City Water Works West Side Pumping Station - square foot				
	City of Cheyenne				
	Cheyenne , Wyoming , 82001				
Building Type:	Town Hall, 1 Story with Brick Veneer / Wood Frame				
Location:	NATIONAL AVERAGE				
Story Count:	1				
Story Height (L.F.):	12				
Floor Area (S.F.):	3747				
Labor Type:	OPN				
Basement Included:	No				
Data Release:	Year 2016	Costs are derived from a building model with basic components.			
Cost Per Square Foot:	\$101.88	Scope differences and market conditions can cause costs to vary significantly.			
Building Cost:	\$381,729.85	** Area entered is outside the range recommended by RSMMeans.			
			% of Total	Cost Per S.F.	Cost
<b>A Substructure</b>			<b>5.01%</b>	<b>5.1</b>	<b>34,109.70</b>
<b>A1030</b>	<b>Slab on Grade</b>			<b>5.1</b>	<b>19,109.70</b>
	Slab on grade, 4" thick, non industrial, reinforced			5.1	19,109.70
	<b>Miscellaneous Foundation Repair</b>				<b>15,000.00</b>
<b>B Shell</b>			<b>18.52%</b>	<b>18.87</b>	<b>130,693.64</b>
<b>B1020</b>	<b>Roof Construction</b>			<b>3.53</b>	<b>13,226.91</b>
	Wood roof, flat rafter, 2" x 10", 16" O.C.			3.53	13,226.91
<b>B2020</b>	<b>Exterior Windows</b>			<b>7.56</b>	<b>28,314.78</b>
	Windows, wood, double hung, insulated glass, 3'-0" x 5'-6"			7.56	28,314.78
<b>B2030</b>	<b>Exterior Doors</b>			<b>3.64</b>	<b>13,639.37</b>
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			0.31	1,158.18
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			1.81	6,800.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			1	3,760.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			0.51	1,921.19
<b>B3010</b>	<b>Roof Coverings</b>			<b>4.14</b>	<b>15,512.58</b>
	Metal roofing, aluminum, shingles, colors, 3" min slope, .020 "thick, 0.4 PSF			4.14	15,512.58
	<b>Infill Wall</b>				<b>30,000.00</b>
	<b>Reconstruct Brackets, Fascia, etc.</b>				<b>15,000.00</b>
	<b>Miscellaneous Repairs</b>				<b>15,000.00</b>

<b>C Interiors</b>		<b>20.48%</b>	<b>20.86</b>	<b>78,167.13</b>
<b>C1010</b>	<b>Partitions</b>		<b>5.62</b>	<b>21,042.75</b>
	Wood partition, 5/8" fire rated gypsum board face, 5/8" fire rated gypsum board base, 2x4 @ 16", 5/8" fire rated gypsum board opposite face, no insulation		2.65	15,000.00
	1/2" fire rated gypsum board, taped & finished, painted on metal furring		2.97	11,113.20
<b>C1020</b>	<b>Interior Doors</b>		<b>3.38</b>	<b>12,646.13</b>
	Door, single leaf, wood frame, 3'-0" x 7'-0" x 1-3/8", paneled pine		3.38	12,646.13
<b>C1030</b>	<b>Fittings</b>		<b>0.6</b>	<b>2,264.55</b>
	Toilet partitions, cubicles, floor and ceiling anchored, plastic laminate		0.6	2,264.55
<b>C3010</b>	<b>Wall Finishes</b>		<b>1.38</b>	<b>5,170.86</b>
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		0.68	2,562.95
	Ceramic tile, thin set, 4-1/4" x 4-1/4"		0.7	2,607.91
<b>C3020</b>	<b>Floor Finishes</b>		<b>5.78</b>	<b>21,642.67</b>
	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 35 oz		3.47	13,009.58
	Vinyl, composition tile, maximum		0.39	1,466.95
	Tile, porcelain type, maximum		1.91	7,166.14
<b>C3030</b>	<b>Ceiling Finishes</b>		<b>4.11</b>	<b>15,400.17</b>
	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish, 1" x 3" wood, 16" OC furring, wood support		4.11	15,400.17
<b>D Services</b>		<b>56.00%</b>	<b>57.05</b>	<b>213,759.38</b>
<b>D2010</b>	<b>Plumbing Fixtures</b>		<b>4.57</b>	<b>17,135.23</b>
	Water closet, vitreous china, bowl only with flush valve, wall hung		2.63	9,847.12
	Urinal, vitreous china, wall hung		0.19	696.94
	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval		0.61	2,270.68
	Kitchen sink w/trim, countertop, PE on CI, 24" x 21", single bowl		0.21	788.28
	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard		0.42	1,556.88
	Water cooler, electric, wall hung, 8.2 GPH		0.24	896.47
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH		0.29	1,078.86
<b>D2020</b>	<b>Domestic Water Distribution</b>		<b>4.89</b>	<b>18,331.50</b>
	Gas fired water heater, commercial, 100< F rise, 95 MBH input, 86 GPH		4.89	18,331.50
<b>D3050</b>	<b>Terminal &amp; Package Units</b>		<b>10.68</b>	<b>40,017.96</b>
	Self-contained, air cooled unit, offices, 5,000 SF, 15.83 ton		10.68	40,017.96
<b>D4010</b>	<b>Sprinklers</b>		<b>4.93</b>	<b>18,472.71</b>
	Dry pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF		4.93	18,472.71
<b>D4020</b>	<b>Standpipes</b>		<b>0.78</b>	<b>2,903.93</b>
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor		0.78	2,903.93

<b>D5010</b>	<b>Electrical Service/Distribution</b>		<b>11.35</b>	<b>42,535.00</b>
	Underground service installation, includes excavation, backfill, and compaction, 100' length, 4' depth, 3 phase, 4 wire, 277/480 volts, 600 A		5.15	19,285.00
	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A		1.95	7,325.00
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 600 A		4.25	15,925.00
<b>D5020</b>	<b>Lighting and Branch Wiring</b>		<b>16.83</b>	<b>63,058.27</b>
	Receptacles incl plate, box, conduit, wire, 16.5 per 1000 SF, 2.0 watts per SF		3.37	12,631.89
	Wall switches, 2.5 per 1000 SF		0.56	2,098.32
	Miscellaneous power, 1.2 watts		0.32	1,199.04
	Central air conditioning power, 6 watts		0.82	3,064.30
	Fluorescent fixtures, type C, 23 fixtures per 1000 SF		11.76	44,064.72
<b>D5030</b>	<b>Communications and Security</b>		<b>3.02</b>	<b>11,304.78</b>
	Communication and alarm systems, fire detection, addressable, 25 detectors, includes outlets, boxes, conduit and wire		0.88	3,300.68
	Fire alarm command center, addressable without voice, excl. wire & conduit		0.54	2,018.27
	Internet wiring, 8 data/voice outlets per 1000 S.F.		1.6	5,985.83
<b>E Equipment &amp; Furnishings</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>E1090</b>	<b>Other Equipment</b>		<b>0</b>	<b>0</b>
<b>F Special Construction</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>G Building Sitework</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>SubTotal</b>		<b>100%</b>	<b>\$101.88</b>	<b>\$456,729.85</b>
<b>Contractor Fees (General Conditions,Overhead,Profit)</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Architectural Fees</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>User Fees</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Building Cost</b>			<b>\$101.88</b>	<b>\$456,729.85</b>
**** Indicates Assemblies or Components have been customized.				

FULL		Square Foot Cost Estimate Report		Date:	3/22/2016
Estimate Name:	City Water Works West Side Pumping Station - square foot				
	City of Cheyenne				
	Cheyenne , Wyoming , 82001				
Building Type:	Town Hall, 1 Story with Brick Veneer / Wood Frame				
Location:	NATIONAL AVERAGE				
Story Count:	1				
Story Height (L.F.):	12				
Floor Area (S.F.):	3747				
Labor Type:	OPN				
Basement Included:	No				
Data Release:	Year 2016	Costs are derived from a building model with basic components.			
Cost Per Square Foot:	\$101.88	Scope differences and market conditions can cause costs to vary significantly.			
Building Cost:	\$381,729.85	** Area entered is outside the range recommended by RSMeans.			
			% of Total	Cost Per S.F.	Cost
<b>A Substructure</b>			5.01%	5.1	34,109.70
<b>A1030</b>	<b>Slab on Grade</b>			5.1	19,109.70
	Slab on grade, 4" thick, non industrial, reinforced			5.1	19,109.70
	<b>Miscellaneous Foundation Repair</b>				15,000.00
<b>B Shell</b>			18.52%	18.87	130,693.64
<b>B1020</b>	<b>Roof Construction</b>			3.53	13,226.91
	Wood roof, flat rafter, 2" x 10", 16" O.C.			3.53	13,226.91
<b>B2020</b>	<b>Exterior Windows</b>			7.56	28,314.78
	Windows, wood, double hung, insulated glass, 3'-0" x 5'-6"			7.56	28,314.78
<b>B2030</b>	<b>Exterior Doors</b>			3.64	13,639.37
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			0.31	1,158.18
	Door, aluminum & glass, with transom, narrow stile, hardware, 3'-0" x 10'-0" opening			1.81	6,800.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			1	3,760.00
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening			0.51	1,921.19
<b>B3010</b>	<b>Roof Coverings</b>			4.14	15,512.58
	Metal roofing, aluminum, shingles, colors, 3" min slope, .020 "thick, 0.4 PSF			4.14	15,512.58
	<b>Infill Wall</b>				30,000.00
	<b>Reconstruct Brackets, Fascia, etc.</b>				15,000.00
	<b>Miscellaneous Repairs</b>				15,000.00

C Interiors		20.48%	20.86	78,167.13
<b>C1010</b>	<b>Partitions</b>		5.62	21,042.75
	Wood partition, 5/8" fire rated gypsum board face, 5/8" fire rated gypsum board base, 2x4 @ 16", 5/8" fire rated gypsum board opposite face, no insulation		2.65	15,000.00
	1/2" fire rated gypsum board, taped & finished, painted on metal furring		2.97	11,113.20
<b>C1020</b>	<b>Interior Doors</b>		3.38	12,646.13
	Door, single leaf, wood frame, 3'-0" x 7'-0" x 1-3/8", paneled pine		3.38	12,646.13
<b>C1030</b>	<b>Fittings</b>		0.6	2,264.55
	Toilet partitions, cubicles, floor and ceiling anchored, plastic laminate		0.6	2,264.55
<b>C3010</b>	<b>Wall Finishes</b>		1.38	5,170.86
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats		0.68	2,562.95
	Ceramic tile, thin set, 4-1/4" x 4-1/4"		0.7	2,607.91
<b>C3020</b>	<b>Floor Finishes</b>		5.78	21,642.67
	Carpet tile, nylon, fusion bonded, 18" x 18" or 24" x 24", 35 oz		3.47	13,009.58
	Vinyl, composition tile, maximum		0.39	1,466.95
	Tile, porcelain type, maximum		1.91	7,166.14
<b>C3030</b>	<b>Ceiling Finishes</b>		4.11	15,400.17
	Gypsum board ceilings, 5/8" fire rated gypsum board, painted and textured finish, 1" x 3" wood, 16" OC furring, wood support		4.11	15,400.17
<b>D Services</b>		56.00%	57.05	213,759.38
<b>D2010</b>	<b>Plumbing Fixtures</b>		4.57	17,135.23
	Water closet, vitreous china, bowl only with flush valve, wall hung		2.63	9,847.12
	Urinal, vitreous china, wall hung		0.19	696.94
	Lavatory w/trim, vanity top, PE on CI, 19" x 16" oval		0.61	2,270.68
	Kitchen sink w/trim, countertop, PE on CI, 24" x 21", single bowl		0.21	788.28
	Service sink w/trim, PE on CI, corner floor, 28" x 28", w/rim guard		0.42	1,556.88
	Water cooler, electric, wall hung, 8.2 GPH		0.24	896.47
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH		0.29	1,078.86
<b>D2020</b>	<b>Domestic Water Distribution</b>		4.89	18,331.50
	Gas fired water heater, commercial, 100< F rise, 95 MBH input, 86 GPH		4.89	18,331.50
<b>D3050</b>	<b>Terminal &amp; Package Units</b>		10.68	40,017.96
	Self-contained, air cooled unit, offices, 5,000 SF, 15.83 ton		10.68	40,017.96
<b>D4010</b>	<b>Sprinklers</b>		4.93	18,472.71
	Dry pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF		4.93	18,472.71
<b>D4020</b>	<b>Standpipes</b>		0.78	2,903.93
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor		0.78	2,903.93





<b>D5010</b>	<b>Electrical Service/Distribution</b>		<b>11.35</b>	<b>42,535.00</b>
	Underground service installation, includes excavation, backfill, and compaction, 100' length, 4' depth, 3 phase, 4 wire, 277/480 volts, 600 A		5.15	19,285.00
	Feeder installation 600 V, including RGS conduit and XHHW wire, 600 A		1.95	7,325.00
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 600 A		4.25	15,925.00
<b>D5020</b>	<b>Lighting and Branch Wiring</b>		<b>16.83</b>	<b>63,058.27</b>
	Receptacles incl plate, box, conduit, wire, 16.5 per 1000 SF, 2.0 watts per SF		3.37	12,631.89
	Wall switches, 2.5 per 1000 SF		0.56	2,098.32
	Miscellaneous power, 1.2 watts		0.32	1,199.04
	Central air conditioning power, 6 watts		0.82	3,064.30
	Fluorescent fixtures, type C, 23 fixtures per 1000 SF		11.76	44,064.72
<b>D5030</b>	<b>Communications and Security</b>		<b>3.02</b>	<b>11,304.78</b>
	Communication and alarm systems, fire detection, addressable, 25 detectors, includes outlets, boxes, conduit and wire		0.88	3,300.68
	Fire alarm command center, addressable without voice, excl. wire & conduit		0.54	2,018.27
	Internet wiring, 8 data/voice outlets per 1000 S.F.		1.6	5,985.83
<b>E Equipment &amp; Furnishings</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>E1090</b>	<b>Other Equipment</b>		<b>0</b>	<b>0</b>
<b>F Special Construction</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>G Building Sitework</b>		<b>0%</b>	<b>0</b>	<b>0</b>
<b>SubTotal</b>		<b>100%</b>	<b>\$101.88</b>	<b>\$456,729.85</b>
<b>Contractor Fees (General Conditions,Overhead,Profit)</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Architectural Fees</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>User Fees</b>		<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Building Cost</b>			<b>\$101.88</b>	<b>\$456,729.85</b>
**** Indicates Assemblies or Components have been customized.				



## PRELIMINARY PROJECT BUDGETS

Preliminary Project Budgets have been prepared using the anticipated cost per square foot for each option to establish an overall project budget that included not only construction cost but also includes fees, etc.

## GENERAL DESCRIPTION

The following project budget form synthesizes square foot and cost data from previous exercises and compiles the projected costs for the project.

## CELL COLOR

Some of the cells in the following spreadsheet have been colored to indicate certain characteristics. Yellow cells indicate values that are inserted. Blue cells indicated calculated values. Green cells indicate values derived from a linked source elsewhere.

## OFF-SITE INFRASTRUCTURE

The off-site infrastructure section of the budget attempts to account for project related costs outside the limits of the Owner's property. These costs may include construction of utilities, streets and roads, etc.

## SITE CONSTRUCTION

The site construction section of the project budget breaks down the site preparation and improvement costs associated with the project. For purposes of this budget, a cost based upon a percentage of the building construction cost has been used. The percentage factor is derived from the previous cost per square foot analysis.

## BUILDING CONSTRUCTION

The building construction section of the budget brings forward the building size previously determined in the 5 Year Master Plan, and applies the Cost Per Square Foot factors derived from the Cost Per Square Foot Averages noted previously.

## CONSTRUCTION FEES AND CONTINGENCY

Building construction projects are generally managed by a general contractor. The General Contractor's overhead and profit percentage on a project of this nature is generally in the range of 20 percent (20%) of the subtotal of the cost of the off-site, on-site, and building construction items. In addition to the General Contractor's Overhead and Profit, this section of the budget includes a construction contingency factor. The construction contingency is intended to cover portions of the project that, due to the level of completed design and other factors, may not be completely understood or accounted for. As the project progresses and the design is completed to greater in greater detail, this factor will be decreased in subsequent estimates.

## FURNISHINGS FIXTURES AND EQUIPMENT

Most buildings are not useful without furnishings and other equipment. On some projects furnishings from the owners existing facility are relocated to the new facility. This section of the budgets allows us to account for the most common types of furnishings and equipment necessary on a building of this type.

## MUNICIPAL FEES

The local municipality and the various agencies having jurisdiction over the project impose fees for various approval and planning processes. This section of the budget attempts to account for those fees.

## DESIGN AND PLANNING FEES

The design and planning fees section of the budget form breaks down the anticipated cost of the architecture and engineering fees, interior design fees, etc.

## OTHER PROFESSIONAL SERVICES

Projects sometimes involve a variety of other necessary professional services and this section attempts to account for those items.

## OWNERS OTHER PROJECT RELATED COSTS

This section breaks down land acquisition as well as expenses that are generally outside the General Contractor's contract.

## PROJECT CONTINGENCY

The project contingency is added to the subtotal of all of the costs as a buffer against currently unforeseen components of the project.

## INFLATION / ESCALATION

The costs noted previously are based upon 2017 dollars. The escalation factors used are national indices.

**MOTHBALL**

ITEM										LINE ITEM BUDGET	ITEM SUBTOTAL	NOTES
<b>1. OFF-SITE INFRASTRUCTURE</b>											<b>\$0</b>	assumes none
1.1	Utility Extensions									\$0		allowance
1.2	Water & Sanitary Sewer Main Extensions									\$0		allowance
1.3	Street System Improvements									\$0		assumes none
	.1 ???									\$0		
1.4	Site Improvements									\$0		
	0.1 Landscaping											
	0.1 ???									\$0		estimate
<b>2. SITE CONSTRUCTION</b>											<b>\$10,000</b>	
2.0	General									\$0		
2.1	Demolition											
	.3 Existing Improvements (paving, curb& gutter, etc.)									\$0		assumes none
2.2	Hazardous Material Abatement									\$0		
	.1 Petroleum Contaminated Soil									\$0		assumes none
	.2 TCE									\$0		assumes none
	.3 Asbestos									\$0		assumes none
	.4 Lead									\$5,000		allowance
	.5 Mercury									\$0		assumes none
2.3	Earthwork									\$0		additional allowance for portion not covered elsewhere
	.1 Grading									\$10,000		
2.4	Utilities									\$0		
	0.1 Water									\$0		allowance
	0.2 Sewer									\$0		allowance
	0.3 Grease Trap									\$0		assumes none
	0.4 Electrical									\$0		assumes revenue offset for CLF&P
	0.5 Natural Gas									\$0		assumes revenue offset for CLF&P
2.5	Roads & Paving									\$0		
	0.1 Parking Lot and Walks									\$0		allowance
	0.2 Fire Access Roads											
	0.1 North									\$0		allowance
	0.2 East									\$0		assumes none
2.6	Site Improvements									\$0		
	0.1 Landscaping									\$0		assumes none
	0.1 Allowance									\$0		assumes none
	0.2 Irrigation									\$0		allowance
	0.3 Concrete Apron											
<b>3. BUILDING CONSTRUCTION AND RENOVATION</b>											<b>\$166,954</b>	
3.1	New Construction and Renovation											
	0.0 Demolition											
	0.1 Renovation											
	0.1 First Floor											Demo and Repoint
	0.2 New Construction											
	0.1 First Floor											
										- @	\$91,442	
										- @	\$75,513	
3.2	Alternates											
	1		???							no	\$0	\$0
	2		???							no	\$0	\$0
	3		???							no	\$0	\$0
3.3	Allowances											
	1		???							no	\$0	\$0

<b>4 INDIRECT COSTS</b>											
4.1 OFF-SITE, SITE & BUILDING CONSTRUCTION AND RENOVATION SUBTOTAL											\$176,954
4.2 INDIRECT COSTS											\$26,543
0.1 General Conditions											11.50%
0.2 Building Permit Fee											0.50%
0.3 City, County & State Sales Taxes											0.00%
0.4 Builder's Risk Insurance											1.00%
0.5 Umbrella & General Liability Insurance											1.00%
0.6 Performance & Payment Bonds											1.00%
4.3 SUBTOTAL DIRECT & INDIRECT COSTS											\$203,498
4.4 General Contractor's Overhead & Profit											\$20,350
4.5 SUBTOTAL WITH GC O&P											\$223,847
4.8 Inflation											<b>DCD Cost Factor</b>
.1 Current Date											3/22/2016
.2 Anticipated Bid Date											3/15/2017
											@ 0.0%
											533
											557
											4.50%
											4.50%
											\$9,163
											\$0
											\$0
											@ 0.0%
											per year for 0.98 year(s) = 0.00%
SUBTOTAL WITH INFLATION											\$233,011
4.6 Design and Construction Contingency											\$46,602
<b>5. TOTAL BUILDING CONSTRUCTION COST</b>											<b>\$279,613</b>
											Construction Cost including Site Work (with contingency) =
<b>6. FURNISHINGS, FIXTURES, AND EQUIPMENT (FF&amp;E)</b>											\$0 allowance
<i>Movable furniture, fixtures or other equipment that have no permanent connection to the structure of a building or utilities.</i>											
6.1 Furnishings											\$0 allowance
.1 ??? tables, chairs, table & chair carts											\$0 included above
.2 ??? shelves, display equipment											\$0 included above
.3 ??? desks, chairs, workstations, files, tables											\$0 included above
6.2 Fixtures											\$0 included above
6.3 Equipment											\$0 included above
.1 Office Equipment											\$0 included above
.2 ???											\$0 included above
.3 ???											\$0 allowance
<b>7. FF&amp;E INFLATION AND CONTINGENCY</b>											
7.1 FF&E SUBTOTAL											\$0
7.2 Inflation											@ 0.0%
											per year for 1.48 year(s) = 0.00%
7.3 SUBTOTAL WITH INFLATION											\$0
7.4 Contingency											@ 0.00%
<b>8. TOTAL FF&amp;E COST</b>											<b>\$0</b>
											\$0 assumes bid 1 year after construction bid
											\$0 Expected Bid
											\$0

MOTHBALL

9. MUNICIPAL FEES										\$3,117	paid directly by Owner
9.1 Utility Tap Fees											
0.1 Water Tap Fee										\$0	
	0.1 1" Tap Size	Domestic Water Supply		0	@	\$265	=	\$0		fees for 2016	
	0.2 2" Tap Size	Domestic Water Supply		0	@	\$285	=	\$0		fees for 2016	
	0.3 6" Tap Size	Domestic Water Supply		0	@	\$3,473	=	\$0		fees for 2016	
	0.3 8" Tap Size	Fire Suppression System Supply		0	@	\$4,218	=	\$0		fees for 2016	
0.2 Sewer Tap Fee										\$0	
	0.1 All Sizes			0	@	\$108	=	\$0		fees for 2016	
9.2 Utility Development Fees											
0.1 Water System Development Fee										\$0	
	0.1 1" Tap Size	Domestic Water Supply		0	@	\$17,949	=	\$0		fees for 2016	
	0.2 2" Tap Size	Domestic Water Supply		0	@	\$57,287	=	\$0		fees for 2016	
	0.3 Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4	Domestic Water Supply	4	0	@	\$2,749	=	\$0	fees for 2016	
		Next 8	Domestic Water Supply	8	0	@	\$1,832	=	\$0	fees for 2016	
		Next 52	Domestic Water Supply	0	0	@	\$1,132	=	\$0	fees for 2016	
0.2 Sewer System Development Fee										\$0	
	0.1 1" Tap Size			0	@	\$4,025	=	\$0		fees for 2016	
	0.2 2" Tap Size			0	@	\$12,846	=	\$0		fees for 2016	
	0.3 Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4		4	0	@	\$755	=	\$0	fees for 2016	
		Next 8		8	0	@	\$549	=	\$0	fees for 2016	
		Next 52		0	0	@	\$331	=	\$0	fees for 2016	
9.3 Water Service Credits										\$0	
	0.1 Commercial/Industrial		Lot	Address	Size						
					3/4	0	@	(\$6,853)	=	\$0	
					1 1/2	0	@	(\$35,791)	=	\$0	
					2	0	@	(\$57,287)	=	\$0	
					4	0	@	(\$269,701)	=	\$0	
9.3 Non-City Agency Review and Permitting Fees										\$0	assumes none
9.4 City/County Planning Approval Fees											
	.1 Board Approval				Charges Fee?	no		\$125		\$0	assumes none
	.2 Variances				Charges Fee?	no		\$100		\$0	assumes none
	.3 Site Plan Review				Charges Fee?	yes		\$100		\$100	
	.4 Platting Fee				Charges Fee?	no		\$150		\$0	assumes none
	.5 Vacation				Charges Fee?	no		\$150		\$0	assumes none
9.5 Plan Review Fees											
	.1 Wyoming Department of Fire Prevention & Electrical Safety				Charges Fee?	no				\$0	not applicable
	.2 City of Cheyenne				Charges Fee?	yes				\$3,017	
	.3 Laramie County Health				Charges Fee?	no		\$50		\$0	not applicable
9.6 National Park Service Tax Credit Application Fee										\$0	not applicable

10. DESIGN AND PLANNING FEES										\$43,107	
10.1	Civil Engineering										
	Off-Site Infrastructure Engineering Fee				@	15.00%	of item 1 above,		\$0		refer to architectural fees
	Site Construction Engineering Fee				@	15.00%	of item 2 above,		\$2,380		refer to architectural fees
	Traffic Study								\$0		allowance
	Drainage Study								\$0		assumes none
10.2	Architecture Fees										
	.1 Basic Services:										includes Structural, Mechanical & Electrical Engineering
	.1 Architecture and Engineering Fees				@	15.00%	of item 3.1 above,		\$39,727		
	.2 Interior Design Fees										
		0.1	Color Selections						\$0		included in Architectural Fees
		0.2	Preparation of Color Board(s)		1	@	\$500		\$500		
		0.3	FFE Design, Procurement & Installation Administration			@	15.00%	of item 6.1 above,	\$0		with contingency & inflation
	.2 Additional Services:										
	.1 Glasshouse Consultant								\$0		assumes none
	.2 Cost Estimating Consultant								\$0		assumes none
	.3 Programming								\$0		assumes none
	.4 Zoning Processing Assistance								\$0		assumes none
	.5 Acoustics / Audio Consultant								\$0		assumes none
	.6 Computer Technology Consultant			5000					\$0		assumes none
	.7 Kitchen Consultant								\$0		assumes none
	.8 Landscape Architect								\$0		assumes none
	.9 Value Engineering								\$0		assumes none
	.10 Construction Consultant								\$0		assumes none
	.11 Miscellaneous								\$0		assumes none
	.12 Historical Building Services								\$0		assumes none
	.13 Scale Model								\$0		assumes none
	.14 Digital Model								\$0		assumes none
	.15 Renderings								\$0		assumes none
	.16 LEED								\$0		not included
		0.1	Architectural - Additional Services						\$0		not included
		0.2	Civil Engineering - Additional Services						\$0		not included
		0.3	Mechanical Engineering - Additional Services						\$0		not included
		0.4	Electrical Engineering - Additional Services						\$0		not included
		0.5	Landscape Architecture - Additional Services						\$0		not included
		0.6	Daylighting Consultant						\$0		not included
		0.7	Energy Modeling Consultant						\$0		not included
		0.8	LEED Documentation						\$0		not included
	.17 Post-Contract Services										
		0.1	Maintenance and Operation Program Services						\$0		allowance, if required
		0.2	Start-up Assistance						\$0		allowance, if required
		0.3	Record Drawing Services						\$0		allowance, if required
		0.4	Warranty Review								
		0.1	6th Month Inspection						\$0		allowance
		0.2	11th Month Inspection						\$0		allowance
10.4	Additional Errors & Omissions Insurance										
	.1 Project Insurance				@	1.50%	of items 10.4 above,		\$0		assumes none
	.2 Increase Aggregate								\$0		assumes none
10.5	Reimbursable Expenses								\$500		allowance [3]



MOTHBALL

<b>11. OTHER PROFESSIONAL SERVICES</b>										\$16,765	
11.1	Environmental Investigations									\$0	assumes none
	.1 Phase I									\$0	assumes none
	.2 Phase II									\$0	assumes none
11.2	Geotechnical Investigation									\$0	assumes none
11.3	Land Survey Fees									\$0	assumes none
11.4	Hazardous Material Testing									\$0	assumes none
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$0	assumes none
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.5	Hazardous Material Abatement Design									\$0	assumes none
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$5,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.6	Hazardous Material Abatement									\$0	assumes none
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$10,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.7	Printing of Bid Document	10	sets @	\$50	per set =					\$500	allowance
11.8	Web-Based Project Collaboration Software									\$0	allowance
11.9	Construction Material Testing Fees				@	0.45%	of items 5 above,			\$1,265	allowance [2]
11.10	Specialty Inspections									\$0	
	.1 Fabricators	IBC 1704.2								\$0	assumes none
	.2 Steel	IBC 1704.3								\$0	assumes none
	.3 Concrete	IBC 1704.4								\$0	refer to Construction Material testing
	.4 Masonry	IBC 1704.5								\$0	assumes none
	.5 Wood	IBC 1704.6								\$0	assumes none
	.6 Soils	IBC 1704.7								\$0	refer to Construction Material testing
	.7 Pile Foundations	IBC 1704.8								\$0	assumes none
	.8 Pier Foundations	IBC 1704.9								\$0	assumes none
	.9 Wall Panels and Veneers (Seismic Category E or F only)	IBC 1704.10								\$0	assumes none
	.10 Sprayed Fire Resistant materials	IBC 1704.11								\$0	assumes none
	.11 EIFS	IBC 1704.12								\$0	assumes none
	.12 Smoke Control	IBC 1704.14								\$0	assumes none
11.11	LEED									\$0	not included
	.1 Registration Fee									\$0	not included
	.2 Certification Fee									\$0	not included
11.12	Commissioning Consultant									\$0	assumes none
11.13	Owner's Legal Counsel	0	hours @	\$250	per hour					\$0	not applicable
11.14	Owner's Construction Representative	0	time @	\$0	per month for	18.00	month(s)			\$0	assumes none
<b>12. OWNER'S OTHER PROJECT RELATED COSTS</b>										\$0	
12.1	Land Acquisition									\$0	not applicable
12.2	Property Sale									\$0	not applicable
12.5	Moving Expenses									\$0	allowance
12.6	Telephone System									\$0	allowance
12.7	Security System									\$0	allowance
12.8	Data System									\$0	allowance
12.9	Advertisement for Bids									\$0	allowance





<b>13. FEES AND EXPENSES</b>										\$0	
13.1	ITEMS 9-12 SUBTOTAL									\$62,988	
13.2	Inflation	@	0.0%	per year for	0.98	year(s)	=	0.00%		\$0	not applicable
13.3	TOTAL ITEMS 9-12									\$62,988	
13.4	Fees and Expenses Contingency						@	3.00%		\$1,890	
13.5	TOTAL FEES AND EXPENSES									\$64,878	
<b>14. PROJECT COST SUBTOTAL</b>										<b>\$344,490</b>	
14.1	TOTAL BUILDING CONSTRUCTION COST									\$279,613	
14.2	TOTAL FF&E COST									\$0	
14.3	TOTAL FEES AND EXPENSES									\$64,878	
15.	OWNER'S PROJECT CONTINGENCY						@	5.00%		\$17,225	
<b>16. TOTAL PROJECT BUDGET</b>										<b>\$361,715</b>	
<b>GENERAL NOTES:</b>											
A	It is recognized that neither the Architect nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's or Subcontractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from any Estimates of Probable Construction or Renovation Cost or any evaluation prepared by the Architect.										
<b>GENERAL NOTES:</b>											
1	Architecture and Engineering Fees for Basic Services include the Architect, and the Structural, Mechanical, and Electrical Engineers.										
2	Construction Material Testing Fees (soil compaction and concrete) are generally 0.6% of the Building Construction Cost.										
3	Generally 1% to 5% of the Basic Services Fee.										

SHELL

ITEM										LINE ITEM BUDGET	ITEM SUBTOTAL	NOTES
<b>1. OFF-SITE INFRASTRUCTURE</b>											\$20,000	assumes none
1.1	Utility Extensions									\$10,000		allowance
1.2	Water & Sanitary Sewer Main Extensions									\$10,000		allowance
1.3	Street System Improvements									\$0		assumes none
	.1 ???									\$0		
1.4	Site Improvements									\$0		
	0.1 Landscaping									\$0		
	0.1 ???									\$0		estimate
<b>2. SITE CONSTRUCTION</b>											\$40,000	
2.0	General									\$0		
2.1	Demolition											
	.3 Existing Improvements (paving, curb& gutter, etc.)									\$10,000		assumes none
2.2	Hazardous Material Abatement									\$0		
	.1 Petroleum Contaminated Soil									\$0		assumes none
	.2 TCE									\$0		assumes none
	.3 Asbestos									\$0		assumes none
	.4 Lead									\$5,000		allowance
	.5 Mercury									\$0		assumes none
2.3	Earthwork									\$0		additional allowance for portion not covered elsewhere
	.1 Grading									\$10,000		
2.4	Utilities									\$20,000		
	0.1 Water									\$10,000		allowance
	0.2 Sewer									\$10,000		allowance
	0.3 Grease Trap									\$0		assumes none
	0.4 Electrical									\$0		assumes revenue offset for CLF&P
	0.5 Natural Gas									\$0		assumes revenue offset for CLF&P
2.5	Roads & Paving									\$0		
	0.1 Parking Lot and Walks									\$0		allowance
	0.2 Fire Access Roads											
	0.1 North									\$0		allowance
	0.2 East									\$0		assumes none
2.6	Site Improvements									\$0		
	0.1 Landscaping									\$0		assumes none
	0.1 Allowance									\$0		assumes none
	0.2 Irrigation									\$0		allowance
	0.3 Concrete Apron											
<b>3. BUILDING CONSTRUCTION AND RENOVATION</b>											\$448,698	
3.1	New Construction and Renovation											
	0.0 Demolition											
	0.1 Renovation											
	0.1 First Floor											Demo and Repoint
										-	@	
											\$181,256	
	0.2 New Construction											
	0.1 First Floor											
										-	@	
											\$267,442	
3.2	Alternates											
	1		???							no	\$0	\$0
	2		???							no	\$0	\$0
	3		???							no	\$0	\$0
3.3	Allowances											
	1		???							no	\$0	\$0



<b>4</b>	<b>INDIRECT COSTS</b>													
	4.1 OFF-SITE, SITE & BUILDING CONSTRUCTION AND RENOVATION SUBTOTAL											\$508,698		
	4.2 INDIRECT COSTS					@	15.00%					\$76,305		
	0.1 General Conditions						11.50%							
	0.2 Building Permit Fee						0.50%							
	0.3 City, County & State Sales Taxes						0.00%							
	0.4 Builder's Risk Insurance						1.00%							
	0.5 Umbrella & General Liability Insurance						1.00%							
	0.6 Performance & Payment Bonds						1.00%							
	4.3 SUBTOTAL DIRECT & INDIRECT COSTS									@	10.00%	\$585,003		
	4.4 General Contractor's Overhead & Profit											\$58,500		
	4.5 SUBTOTAL WITH GC O&P											\$643,503		
	4.8 Inflation													
							<b>DCD Cost Factor</b>							
	.1 Current Date		3/22/2016		533		4.50%				4.50%	\$26,342		
	.2 Anticipated Bid Date		3/15/2017		557							\$0		
					@	0.0%		per year for	0.98	year(s)	=	0.00%	\$0	
	SUBTOTAL WITH INFLATION											\$669,845		
	4.6 Design and Construction Contingency								@	20.00%		\$133,969		
<b>5.</b>	<b>TOTAL BUILDING CONSTRUCTION COST</b>											<b>\$803,814</b>	Construction Cost including Site Work (with contingency) =	
<b>6.</b>	<b>FURNISHINGS, FIXTURES, AND EQUIPMENT (FF&amp;E)</b>											\$0	allowance	
	<i>Movable furniture, fixtures or other equipment that have no permanent connection to the structure of a building or utilities.</i>													
	6.1 Furnishings											\$0	allowance	
	.1 ???											\$0	included above	
	.2 ???											\$0	included above	
	.3 ???											\$0	included above	
	6.2 Fixtures											\$0	included above	
	6.3 Equipment											\$0	included above	
	.1 Office Equipment											\$0	included above	
	.2 ???											\$0	included above	
	.3 ???											\$0	allowance	
<b>7.</b>	<b>FF&amp;E INFLATION AND CONTINGENCY</b>											\$0		
	7.1 FF&E SUBTOTAL											\$0		
	7.2 Inflation					@	0.0%	per year for	1.48	year(s)	=	0.00%	\$0	assumes bid 1 year after construction bid
	7.3 SUBTOTAL WITH INFLATION											\$0	Expected Bid	
	7.4 Contingency								@	0.00%		\$0		
<b>8.</b>	<b>TOTAL FF&amp;E COST</b>											<b>\$0</b>		

SHELL

9. MUNICIPAL FEES										\$25,464	paid directly by Owner
9.1 Utility Tap Fees											
0.1 Water Tap Fee										\$265	
	0.1 1" Tap Size	Domestic Water Supply		1	@	\$265	=	\$265		fees for 2016	
	0.2 2" Tap Size	Domestic Water Supply		0	@	\$285	=	\$0		fees for 2016	
	0.3 6" Tap Size	Domestic Water Supply		0	@	\$3,473	=	\$0		fees for 2016	
	0.3 8" Tap Size	Fire Suppression System Supply		0	@	\$4,218	=	\$0		fees for 2016	
0.2 Sewer Tap Fee										\$108	
	0.1 All Sizes			1	@	\$108	=	\$108		fees for 2016	
9.2 Utility Development Fees											
0.1 Water System Development Fee										\$17,949	
	0.1 1" Tap Size	Domestic Water Supply		1	@	\$17,949	=	\$17,949		fees for 2016	
	0.2 2" Tap Size	Domestic Water Supply		0	@	\$57,287	=	\$0		fees for 2016	
	0.3 Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4	Domestic Water Supply	4	0	@	\$2,749	=	\$0	fees for 2016	
		Next 8	Domestic Water Supply	8	0	@	\$1,832	=	\$0	fees for 2016	
		Next 52	Domestic Water Supply	0	0	@	\$1,132	=	\$0	fees for 2016	
0.2 Sewer System Development Fee										\$4,025	
	0.1 1" Tap Size			1	@	\$4,025	=	\$4,025		fees for 2016	
	0.2 2" Tap Size			0	@	\$12,846	=	\$0		fees for 2016	
	0.3 Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4		4	0	@	\$755	=	\$0	fees for 2016	
		Next 8		8	0	@	\$549	=	\$0	fees for 2016	
		Next 52		0	0	@	\$331	=	\$0	fees for 2016	
9.3 Water Service Credits										\$0	
	0.1 Commercial/Industrial		Lot	Address	Size						
					3/4	0	@	(\$6,853)	=	\$0	
					1 1/2	0	@	(\$35,791)	=	\$0	
					2	0	@	(\$57,287)	=	\$0	
					4	0	@	(\$269,701)	=	\$0	
9.3 Non-City Agency Review and Permitting Rees										\$0	assumes none
9.4 City/County Planning Approval Fees											
	.1 Board Approval						Charges Fee?	no	\$125	\$0	assumes none
	.2 Variances						Charges Fee?	no	\$100	\$0	assumes none
	.3 Site Plan Review						Charges Fee?	yes	\$100	\$100	
	.4 Platting Fee						Charges Fee?	no	\$150	\$0	assumes none
	.5 Vacation						Charges Fee?	no	\$150	\$0	assumes none
9.5 Plan Review Fees											
	.1 Wyoming Department of Fire Prevention & Electrical Safety						Charges Fee?	no		\$0	not applicable
	.2 City of Cheyenne						Charges Fee?	yes		\$3,017	
	.3 Laramie County Health						Charges Fee?	no	\$50	\$0	not applicable
9.6 National Park Service Tax Credit Application Fee										\$0	not applicable



10. DESIGN AND PLANNING FEES										\$136,046	
10.1	Civil Engineering										
	Off-Site Infrastructure Engineering Fee				@	15.00%	of item 1 above,		\$4,759		refer to architectural fees
	Site Construction Engineering Fee				@	15.00%	of item 2 above,		\$9,518		refer to architectural fees
	Traffic Study								\$0		allowance
	Drainage Study								\$3,000		allowance
10.2	Architecture Fees										
	.1 Basic Services:										includes Structural, Mechanical & Electrical Engineering
	.1 Architecture and Engineering Fees				@	15.00%	of item 3.1 above,		\$106,769		
	.2 Interior Design Fees										
		0.1	Color Selections						\$0		included in Architectural Fees
		0.2	Preparation of Color Board(s)		1	@	\$500		\$500		
		0.3	FFE Design, Procurement & Installation Administration			@	15.00%	of item 6.1 above,	\$0		with contingency & inflation
	.2 Additional Services:										
	.1 Glasshouse Consultant								\$0		assumes none
	.2 Cost Estimating Consultant								\$0		assumes none
	.3 Programming								\$0		assumes none
	.4 Zoning Processing Assistance								\$1,500		allowance
	.5 Acoustics / Audio Consultant								\$0		assumes none
	.6 Computer Technology Consultant			5000					\$0		assumes none
	.7 Kitchen Consultant								\$0		assumes none
	.8 Landscape Architect								\$0		assumes none
	.9 Value Engineering								\$0		assumes none
	.10 Construction Consultant								\$0		assumes none
	.11 Miscellaneous								\$0		assumes none
	.12 Historical Building Services								\$0		assumes none
	.13 Scale Model								\$0		assumes none
	.14 Digital Model								\$0		assumes none
	.15 Renderings								\$0		assumes none
	.16 LEED								\$0		not included
		0.1	Architectural - Additional Services						\$0		not included
		0.2	Civil Engineering - Additional Services						\$0		not included
		0.3	Mechanical Engineering - Additional Services						\$0		not included
		0.4	Electrical Engineering - Additional Services						\$0		not included
		0.5	Landscape Architecture - Additional Services						\$0		not included
		0.6	Daylighting Consultant						\$0		not included
		0.7	Energy Modeling Consultant						\$0		not included
		0.8	LEED Documentation						\$0		not included
	.17 Post-Contract Services										
		0.1	Maintenance and Operation Program Services						\$0		allowance, if required
		0.2	Start-up Assistance						\$0		allowance, if required
		0.3	Record Drawing Services						\$5,000		allowance, if required
		0.4	Warranty Review								
		0.1	6th Month Inspection						\$1,500		allowance
		0.2	11th Month Inspection						\$1,500		allowance
10.4	Additional Errors & Omissions Insurance										
	.1 Project Insurance				@	1.50%	of items 10.4 above,		\$0		assumes none
	.2 Increase Aggregate								\$0		assumes none
10.5	Reimbursable Expenses								\$2,000		allowance [3]

<b>11. OTHER PROFESSIONAL SERVICES</b>										\$21,135	
11.1	Environmental Investigations									\$0	assumes none
	.1 Phase I									\$0	assumes none
	.2 Phase II									\$0	assumes none
11.2	Geotechnical Investigation									\$0	assumes none
11.3	Land Survey Fees									\$0	assumes none
11.4	Hazardous Material Testing										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$0	assumes none
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.5	Hazardous Material Abatement Design										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$5,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.6	Hazardous Material Abatement										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$10,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.7	Printing of Bid Document	10	sets @	\$150	per set =					\$1,500	allowance
11.8	Web-Based Project Collaboration Software									\$1,000	allowance
11.9	Construction Material Testing Fees				@	0.45%	of items 5 above,			\$3,635	allowance [2]
11.10	Specialty Inspections									\$0	
	.1 Fabricators	IBC 1704.2								\$0	assumes none
	.2 Steel	IBC 1704.3								\$0	assumes none
	.3 Concrete	IBC 1704.4								\$0	refer to Construction Material testing
	.4 Masonry	IBC 1704.5								\$0	assumes none
	.5 Wood	IBC 1704.6								\$0	assumes none
	.6 Soils	IBC 1704.7								\$0	refer to Construction Material testing
	.7 Pile Foundations	IBC 1704.8								\$0	assumes none
	.8 Pier Foundations	IBC 1704.9								\$0	assumes none
	.9 Wall Panels and Veneers (Seismic Category E or F only)	IBC 1704.10								\$0	assumes none
	.10 Sprayed Fire Resistant materials	IBC 1704.11								\$0	assumes none
	.11 EIFS	IBC 1704.12								\$0	assumes none
	.12 Smoke Control	IBC 1704.14								\$0	assumes none
11.11	LEED									\$0	not included
	.1 Registration Fee									\$0	not included
	.2 Certification Fee									\$0	not included
11.12	Commissioning Consultant									\$0	assumes none
11.13	Owner's Legal Counsel	0	hours @	\$250	per hour					\$0	not applicable
11.14	Owner's Construction Representative	0	time @	\$0	per month for	18.00	month(s)			\$0	assumes none
<b>12. OWNER'S OTHER PROJECT RELATED COSTS</b>										\$0	
12.1	Land Acquisition									\$0	not applicable
12.2	Property Sale									\$0	not applicable
12.5	Moving Expenses									\$0	allowance
12.6	Telephone System									\$0	allowance
12.7	Security System									\$0	allowance
12.8	Data System									\$0	allowance
12.9	Advertisement for Bids									\$0	allowance

<b>13. FEES AND EXPENSES</b>								\$0		
13.1	ITEMS 9-12 SUBTOTAL							\$182,645		
13.2	Inflation	@	0.0%	per year for	0.98	year(s)	=	0.00%	\$0	not applicable
13.3	TOTAL ITEMS 9-12							\$182,645		
13.4	Fees and Expenses Contingency						@	3.00%	\$5,479	
13.5	TOTAL FEES AND EXPENSES							\$188,125		
<b>14. PROJECT COST SUBTOTAL</b>								<b>\$991,939</b>		
<b>14.1 TOTAL BUILDING CONSTRUCTION COST</b>								\$803,814		
<b>14.2 TOTAL FF&amp;E COST</b>								\$0		
<b>14.3 TOTAL FEES AND EXPENSES</b>								\$188,125		
<b>15. OWNER'S PROJECT CONTINGENCY</b>								@	5.00%	\$49,597
<b>16. TOTAL PROJECT BUDGET</b>								<b>\$1,041,536</b>		
<b>GENERAL NOTES:</b>										
A It is recognized that neither the Architect nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's or Subcontractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from any Estimates of Probable Construction or Renovation Cost or any evaluation prepared by the Architect.										
<b>GENERAL NOTES:</b>										
1 Architecture and Engineering Fees for Basic Services include the Architect, and the Structural, Mechanical, and Electrical Engineers.										
2 Construction Material Testing Fees (soil compaction and concrete) are generally 0.6% of the Building Construction Cost.										
3 Generally 1% to 5% of the Basic Services Fee.										

PARTIAL

ITEM	LINE ITEM BUDGET	ITEM SUBTOTAL	NOTES
<b>1. OFF-SITE INFRASTRUCTURE</b>		<b>\$20,000</b>	
1.1 Utility Extensions	\$10,000		assumes none
1.2 Water & Sanitary Sewer Main Extensions	\$10,000		allowance
1.3 Street System Improvements	\$0		allowance
.1 ???	\$0		assumes none
1.4 Site Improvements	\$0		
0.1 Landscaping	\$0		
0.1 ???	\$0		estimate
<b>2. SITE CONSTRUCTION</b>		<b>\$50,000</b>	
2.0 General	\$0		
2.1 Demolition			
.3 Existing Improvements (paving, curb& gutter, etc.)	\$10,000		assumes none
2.2 Hazardous Material Abatement	\$0		
.1 Petroleum Contaminated Soil	\$0		assumes none
.2 TCE	\$0		assumes none
.3 Asbestos	\$0		assumes none
.4 Lead	\$5,000		allowance
.5 Mercury	\$0		assumes none
2.3 Earthwork	\$0		additional allowance for portion not covered elsewhere
.1 Grading	\$10,000		
2.4 Utilities	\$20,000		
0.1 Water	\$10,000		allowance
0.2 Sewer	\$10,000		allowance
0.3 Grease Trap	\$0		assumes none
0.4 Electrical	\$0		assumes revenue offset for CLF&P
0.5 Natural Gas	\$0		assumes revenue offset for CLF&P
2.5 Roads & Paving	\$0		
0.1 Parking Lot and Walks	\$0		allowance
0.2 Fire Access Roads			
0.1 North	\$0		allowance
0.2 East	\$0		assumes none
2.6 Site Improvements	\$10,000		
0.1 Landscaping	\$0		assumes none
0.1 Allowance	\$0		assumes none
0.2 Irrigation	\$10,000		allowance
0.3 Concrete Apron			
<b>3. BUILDING CONSTRUCTION AND RENOVATION</b>		<b>\$637,986</b>	
3.1 New Construction and Renovation			
0.0 Demolition			
0.1 Renovation			
0.1 First Floor	Demo and Repoint		
-	@	\$181,256	
0.2 New Construction			
0.1 First Floor			
-	@	\$456,730	
3.2 Alternates			
1	???	no	\$0
2	???	no	\$0
3	???	no	\$0
3.3 Allowances			
1	???	no	\$0





<b>4 INDIRECT COSTS</b>													
4.1	OFF-SITE, SITE & BUILDING CONSTRUCTION AND RENOVATION SUBTOTAL										\$707,986		
4.2	INDIRECT COSTS					@	15.00%				\$106,198		
0.1	General Conditions				11.50%								
0.2	Building Permit Fee				0.50%								
0.3	City, County & State Sales Taxes				0.00%								
0.4	Builder's Risk Insurance				1.00%								
0.5	Umbrella & General Liability Insurance				1.00%								
0.6	Performance & Payment Bonds				1.00%								
4.3	SUBTOTAL DIRECT & INDIRECT COSTS										\$814,184		
4.4	General Contractor's Overhead & Profit					@	10.00%				\$81,418		
4.5	SUBTOTAL WITH GC O&P										\$895,602		
4.8	Inflation												
					<b>DCD Cost Factor</b>								
.1	Current Date	3/22/2016			533		4.50%			4.50%	\$36,661		
.2	Anticipated Bid Date	3/15/2017			557						\$0		
					@	0.0%	per year for	0.98	year(s)	=	0.00%	\$0	
	SUBTOTAL WITH INFLATION										\$932,264		
4.6	Design and Construction Contingency					@	20.00%				\$186,453		
<b>5. TOTAL BUILDING CONSTRUCTION COST</b>											<b>\$1,118,716</b>	Construction Cost including Site Work (with contingency) =	
6.	<b>FURNISHINGS, FIXTURES, AND EQUIPMENT (FF&amp;E)</b>										\$0	allowance	
	<i>Movable furniture, fixtures or other equipment that have no permanent connection to the structure of a building or utilities.</i>												
6.1	Furnishings										\$0	allowance	
.1	???	tables, chairs, table & chair carts									\$0	included above	
.2	???	shelves, display equipment									\$0	included above	
.3	???	desks, chairs, workstations, files, tables									\$0	included above	
6.2	Fixtures										\$0	included above	
6.3	Equipment										\$0	included above	
.1	Office Equipment										\$0	included above	
.2	???										\$0	included above	
.3	???										\$0	allowance	
7.	<b>FF&amp;E INFLATION AND CONTINGENCY</b>												
7.1	FF&E SUBTOTAL										\$0		
7.2	Inflation				@	0.0%	per year for	1.48	year(s)	=	0.00%	\$0	assumes bid 1 year after construction bid
7.3	SUBTOTAL WITH INFLATION										\$0	Expected Bid	
7.4	Contingency					@	0.00%				\$0		
<b>8. TOTAL FF&amp;E COST</b>											<b>\$0</b>		

PARTIAL

9. MUNICIPAL FEES										\$25,464	paid directly by Owner
9.1 Utility Tap Fees											
0.1 Water Tap Fee										\$265	
	0.1 1" Tap Size	Domestic Water Supply		1	@	\$265	=	\$265		fees for 2016	
	0.2 2" Tap Size	Domestic Water Supply		0	@	\$285	=	\$0		fees for 2016	
	0.3 6" Tap Size	Domestic Water Supply		0	@	\$3,473	=	\$0		fees for 2016	
	0.3 8" Tap Size	Fire Suppression System Supply		0	@	\$4,218	=	\$0		fees for 2016	
0.2 Sewer Tap Fee										\$108	
	0.1 All Sizes			1	@	\$108	=	\$108		fees for 2016	
9.2 Utility Development Fees											
0.1 Water System Development Fee										\$17,949	
	0.1 1" Tap Size	Domestic Water Supply		1	@	\$17,949	=	\$17,949		fees for 2016	
	0.2 2" Tap Size	Domestic Water Supply		0	@	\$57,287	=	\$0		fees for 2016	
	0.3 Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4	Domestic Water Supply	4	0	@	\$2,749	=	\$0	fees for 2016	
		Next 8	Domestic Water Supply	8	0	@	\$1,832	=	\$0	fees for 2016	
		Next 52	Domestic Water Supply	0	0	@	\$1,132	=	\$0	fees for 2016	
0.2 Sewer System Development Fee										\$4,025	
	0.1 1" Tap Size			1	@	\$4,025	=	\$4,025		fees for 2016	
	0.2 2" Tap Size			0	@	\$12,846	=	\$0		fees for 2016	
	0.3 Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4		4	0	@	\$755	=	\$0	fees for 2016	
		Next 8		8	0	@	\$549	=	\$0	fees for 2016	
		Next 52		0	0	@	\$331	=	\$0	fees for 2016	
9.3 Water Service Credits										\$0	
	0.1 Commercial/Industrial		Lot	Address	Size						
					3/4	0	@	(\$6,853)	=	\$0	
					1 1/2	0	@	(\$35,791)	=	\$0	
					2	0	@	(\$57,287)	=	\$0	
					4	0	@	(\$269,701)	=	\$0	
9.3 Non-City Agency Review and Permitting Fees										\$0	assumes none
9.4 City/County Planning Approval Fees											
	.1 Board Approval				Charges Fee?	no		\$125		\$0	assumes none
	.2 Variances				Charges Fee?	no		\$100		\$0	assumes none
	.3 Site Plan Review				Charges Fee?	yes		\$100		\$100	
	.4 Platting Fee				Charges Fee?	no		\$150		\$0	assumes none
	.5 Vacation				Charges Fee?	no		\$150		\$0	assumes none
9.5 Plan Review Fees											
	.1 Wyoming Department of Fire Prevention & Electrical Safety				Charges Fee?	no				\$0	not applicable
	.2 City of Cheyenne				Charges Fee?	yes				\$3,017	
	.3 Laramie County Health				Charges Fee?	no		\$50		\$0	not applicable
9.6 National Park Service Tax Credit Application Fee										\$0	not applicable



10. DESIGN AND PLANNING FEES										\$198,467	
10.1	Civil Engineering										
	Off-Site Infrastructure Engineering Fee				@	15.00%	of item 1 above,		\$4,759		refer to architectural fees
	Site Construction Engineering Fee				@	15.00%	of item 2 above,		\$11,898		refer to architectural fees
	Traffic Study								\$0		allowance
	Drainage Study								\$3,000		allowance
10.2	Architecture Fees										
	.1 Basic Services:										includes Structural, Mechanical & Electrical Engineering
	.1 Architecture and Engineering Fees				@	15.00%	of item 3.1 above,		\$151,811		
	.2 Interior Design Fees								\$0		included in Architectural Fees
		0.1	Color Selections						\$0		
		0.2	Preparation of Color Board(s)		1	@	\$500		\$500		
		0.3	FFE Design, Procurement & Installation Administration			@	15.00%	of item 6.1 above,	\$0		with contingency & inflation
	.2 Additional Services:										
	.1 Glasshouse Consultant								\$0		assumes none
	.2 Cost Estimating Consultant								\$0		assumes none
	.3 Programming								\$0		assumes none
	.4 Zoning Processing Assistance								\$1,500		allowance
	.5 Acoustics / Audio Consultant								\$0		assumes none
	.6 Computer Technology Consultant								\$5,000		assumes none
	.7 Kitchen Consultant								\$0		assumes none
	.8 Landscape Architect								\$0		assumes none
	.9 Value Engineering								\$0		assumes none
	.10 Construction Consultant								\$0		assumes none
	.11 Miscellaneous								\$0		assumes none
	.12 Historical Building Services								\$0		assumes none
	.13 Scale Model								\$0		assumes none
	.14 Digital Model								\$0		assumes none
	.15 Renderings								\$0		assumes none
	.16 LEED								\$0		not included
		0.1	Architectural - Additional Services						\$0		not included
		0.2	Civil Engineering - Additional Services						\$0		not included
		0.3	Mechanical Engineering - Additional Services						\$0		not included
		0.4	Electrical Engineering - Additional Services						\$0		not included
		0.5	Landscape Architecture - Additional Services						\$0		not included
		0.6	Daylighting Consultant						\$0		not included
		0.7	Energy Modeling Consultant						\$0		not included
		0.8	LEED Documentation						\$0		not included
	.17 Post-Contract Services										
		0.1	Maintenance and Operation Program Services						\$5,000		allowance, if required
		0.2	Start-up Assistance						\$5,000		allowance, if required
		0.3	Record Drawing Services						\$5,000		allowance, if required
		0.4	Warranty Review								
		0.1	6th Month Inspection						\$1,500		allowance
		0.2	11th Month Inspection						\$1,500		allowance
10.4	Additional Errors & Omissions Insurance										
	.1 Project Insurance				@	1.50%	of items 10.4 above,		\$0		assumes none
	.2 Increase Aggregate								\$0		assumes none
10.5	Reimbursable Expenses								\$2,000		allowance [3]



PARTIAL

<b>11. OTHER PROFESSIONAL SERVICES</b>										\$22,560	
11.1	Environmental Investigations									\$0	assumes none
	.1 Phase I									\$0	assumes none
	.2 Phase II									\$0	assumes none
11.2	Geotechnical Investigation									\$0	assumes none
11.3	Land Survey Fees									\$0	assumes none
11.4	Hazardous Material Testing										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$0	assumes none
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.5	Hazardous Material Abatement Design										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$5,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.6	Hazardous Material Abatement										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$10,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.7	Printing of Bid Document	10	sets @	\$150	per set =					\$1,500	allowance
11.8	Web-Based Project Collaboration Software									\$1,000	allowance
11.9	Construction Material Testing Fees				@	0.45%	of items 5 above,			\$5,060	allowance [2]
11.10	Specialty Inspections									\$0	
	.1 Fabricators	IBC 1704.2								\$0	assumes none
	.2 Steel	IBC 1704.3								\$0	assumes none
	.3 Concrete	IBC 1704.4								\$0	refer to Construction Material testing
	.4 Masonry	IBC 1704.5								\$0	assumes none
	.5 Wood	IBC 1704.6								\$0	assumes none
	.6 Soils	IBC 1704.7								\$0	refer to Construction Material testing
	.7 Pile Foundations	IBC 1704.8								\$0	assumes none
	.8 Pier Foundations	IBC 1704.9								\$0	assumes none
	.9 Wall Panels and Veneers (Seismic Category E or F only)	IBC 1704.10								\$0	assumes none
	.10 Sprayed Fire Resistant materials	IBC 1704.11								\$0	assumes none
	.11 EIFS	IBC 1704.12								\$0	assumes none
	.12 Smoke Control	IBC 1704.14								\$0	assumes none
11.11	LEED									\$0	not included
	.1 Registration Fee									\$0	not included
	.2 Certification Fee									\$0	not included
11.12	Commissioning Consultant									\$0	assumes none
11.13	Owner's Legal Counsel	0	hours @	\$250	per hour					\$0	not applicable
11.14	Owner's Construction Representative	0	time @	\$0	per month for	18.00	month(s)			\$0	assumes none
<b>12. OWNER'S OTHER PROJECT RELATED COSTS</b>										\$0	
12.1	Land Acquisition									\$0	not applicable
12.2	Property Sale									\$0	not applicable
12.5	Moving Expenses									\$0	allowance
12.6	Telephone System									\$0	allowance
12.7	Security System									\$0	allowance
12.8	Data System									\$0	allowance
12.9	Advertisement for Bids									\$0	allowance



<b>13. FEES AND EXPENSES</b>										\$0	
13.1	ITEMS 9-12 SUBTOTAL									\$246,491	
13.2	Inflation	@	0.0%	per year for	0.98	year(s)	=	0.00%		\$0	not applicable
13.3	TOTAL ITEMS 9-12									\$246,491	
13.4	Fees and Expenses Contingency						@	3.00%		\$7,395	
13.5	TOTAL FEES AND EXPENSES									\$253,885	
<b>14. PROJECT COST SUBTOTAL</b>										<b>\$1,372,602</b>	
14.1	TOTAL BUILDING CONSTRUCTION COST									\$1,118,716	
14.2	TOTAL FF&E COST									\$0	
14.3	TOTAL FEES AND EXPENSES									\$253,885	
15.	OWNER'S PROJECT CONTINGENCY						@	5.00%		\$68,630	
<b>16. TOTAL PROJECT BUDGET</b>										<b>\$1,441,232</b>	
<b>GENERAL NOTES:</b>											
A	It is recognized that neither the Architect nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's or Subcontractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from any Estimates of Probable Construction or Renovation Cost or any evaluation prepared by the Architect.										
<b>GENERAL NOTES:</b>											
1	Architecture and Engineering Fees for Basic Services include the Architect, and the Structural, Mechanical, and Electrical Engineers.										
2	Construction Material Testing Fees (soil compaction and concrete) are generally 0.6% of the Building Construction Cost.										
3	Generally 1% to 5% of the Basic Services Fee.										

ITEM	LINE ITEM BUDGET	ITEM SUBTOTAL	NOTES
<b>1. OFF-SITE INFRASTRUCTURE</b>		\$30,000	assumes none
1.1 Utility Extensions	\$10,000		allowance
1.2 Water & Sanitary Sewer Main Extensions	\$10,000		allowance
1.3 Street System Improvements	\$0		assumes none
.1 ???	\$0		
1.4 Site Improvements	\$10,000		
0.1 Landscaping			
0.1 ???	\$10,000		allowance
<b>2. SITE CONSTRUCTION</b>		\$395,000	
2.0 General	\$0		
2.1 Demolition			
.3 Existing Improvements (paving, curb& gutter, etc.)	\$10,000		allowance
2.2 Hazardous Material Abatement	\$0		
.1 Petroleum Contaminated Soil	\$0		assumes none
.2 TCE	\$0		assumes none
.3 Asbestos	\$0		assumes none
.4 Lead	\$5,000		allowance
.5 Mercury	\$0		assumes none
2.3 Earthwork	\$0		additional allowance for portion not covered elsewhere
.1 Grading	\$10,000		
2.4 Utilities	\$20,000		
0.1 Water	\$10,000		allowance
0.2 Sewer	\$10,000		allowance
0.3 Grease Trap	\$0		assumes none
0.4 Electrical	\$0		assumes revenue offset for CLF&P
0.5 Natural Gas	\$0		assumes revenue offset for CLF&P
2.5 Roads & Paving	\$250,000		
0.1 Parking Lot and Walks	\$250,000		allowance
0.2 Fire Access Roads			
0.1 North	\$0		allowance
0.2 East	\$0		assumes none
2.6 Site Improvements	\$105,000		
0.1 Landscaping	\$0		assumes none
0.1 Allowance	\$75,000		allowance
0.2 Irrigation	\$30,000		allowance
0.3 Concrete Apron			
<b>3. BUILDING CONSTRUCTION AND RENOVATION</b>		\$637,986	
3.1 New Construction and Renovation			
0.0 Demolition			
0.1 Renovation			Demo and Repoint
0.1 First Floor			
0.2 New Construction			
0.1 First Floor			
3.2 Alternates			
1	???		no \$0 \$0
2	???		no \$0 \$0
3	???		no \$0 \$0
3.3 Allowances			
1	???		no \$0 \$0

4 INDIRECT COSTS																
4.1	OFF-SITE, SITE & BUILDING CONSTRUCTION AND RENOVATION SUBTOTAL															\$1,062,986
4.2	INDIRECT COSTS					@	15.00%									\$159,448
0.1	General Conditions				11.50%											
0.2	Building Permit Fee				0.50%											
0.3	City, County & State Sales Taxes				0.00%											
0.4	Builder's Risk Insurance				1.00%											
0.5	Umbrella & General Liability Insurance				1.00%											
0.6	Performance & Payment Bonds				1.00%											
4.3	SUBTOTAL DIRECT & INDIRECT COSTS					@	10.00%									\$1,222,434
4.4	General Contractor's Overhead & Profit					@	10.00%									\$122,243
4.5	SUBTOTAL WITH GC O&P															\$1,344,677
4.8	Inflation															
.1	Current Date	3/22/2016	533	4.50%							4.50%					\$55,044
.2	Anticipated Bid Date	3/15/2017	557													\$0
						@	0.0%	per year for	0.98	year(s)	=	0.00%				\$0
	SUBTOTAL WITH INFLATION															\$1,399,721
4.6	Design and Construction Contingency					@	20.00%									\$279,944
<b>5. TOTAL BUILDING CONSTRUCTION COST</b>																<b>\$1,679,665</b>
													Construction Cost including Site Work (with contingency) =			
<b>6. FURNISHINGS, FIXTURES, AND EQUIPMENT (FF&amp;E)</b>																
Movable furniture, fixtures or other equipment that have no permanent connection to the structure of a building or utilities.																
6.1	Furnishings														\$0	allowance
.1	???	tables, chairs, table & chair carts													\$0	included above
.2	???	shelves, display equipment													\$0	included above
.3	???	desks, chairs, workstations, files, tables													\$0	included above
6.2	Fixtures														\$0	included above
6.3	Equipment														\$0	included above
.1	Office Equipment														\$0	included above
.2	???														\$0	included above
.3	???														\$0	allowance
<b>7. FF&amp;E INFLATION AND CONTINGENCY</b>																
7.1	FF&E SUBTOTAL															\$0
7.2	Inflation					@	0.0%	per year for	1.48	year(s)	=	0.00%				\$0
													\$0 assumes bid 1 year after construction bid			
7.3	SUBTOTAL WITH INFLATION															\$0
													\$0 Expected Bid			
7.4	Contingency					@	0.00%									\$0
<b>8. TOTAL FF&amp;E COST</b>																
													<b>\$0</b>			



9. MUNICIPAL FEES										\$25,464	paid directly by Owner
9.1 Utility Tap Fees											
0.1 Water Tap Fee										\$265	
0.1	1" Tap Size	Domestic Water Supply			1	@	\$265	=	\$265	fees for 2016	
0.2	2" Tap Size	Domestic Water Supply			0	@	\$285	=	\$0	fees for 2016	
0.3	6" Tap Size	Domestic Water Supply			0	@	\$3,473	=	\$0	fees for 2016	
0.3	8" Tap Size	Fire Suppression System Supply			0	@	\$4,218	=	\$0	fees for 2016	
0.2 Sewer Tap Fee										\$108	
0.1	All Sizes				1	@	\$108	=	\$108	fees for 2016	
9.2 Utility Development Fees											
0.1 Water System Development Fee										\$17,949	
0.1	1" Tap Size	Domestic Water Supply			1	@	\$17,949	=	\$17,949	fees for 2016	
0.2	2" Tap Size	Domestic Water Supply			0	@	\$57,287	=	\$0	fees for 2016	
0.3	Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4	Domestic Water Supply	4	0	@	\$2,749	=	\$0	fees for 2016	
		Next 8	Domestic Water Supply	8	0	@	\$1,832	=	\$0	fees for 2016	
		Next 52	Domestic Water Supply	0	0	@	\$1,132	=	\$0	fees for 2016	
0.2 Sewer System Development Fee										\$4,025	
0.1	1" Tap Size				1	@	\$4,025	=	\$4,025	fees for 2016	
0.2	2" Tap Size				0	@	\$12,846	=	\$0	fees for 2016	
0.3	Multi-Family or a Multi-Unit Complex									fees for 2016	
		First 4		4	0	@	\$755	=	\$0	fees for 2016	
		Next 8		8	0	@	\$549	=	\$0	fees for 2016	
		Next 52		0	0	@	\$331	=	\$0	fees for 2016	
9.3 Water Service Credits										\$0	
0.1	Commercial/Industrial	Lot	Address	Size							
				3/4	0	@	(\$6,853)	=	\$0		
				1 1/2	0	@	(\$35,791)	=	\$0		
				2	0	@	(\$57,287)	=	\$0		
				4	0	@	(\$269,701)	=	\$0		
9.3 Non-City Agency Review and Permitting Rees										\$0	assumes none
9.4 City/County Planning Approval Fees											
	.1	Board Approval					Charges Fee?	no	\$125	\$0	assumes none
	.2	Variances					Charges Fee?	no	\$100	\$0	assumes none
	.3	Site Plan Review					Charges Fee?	yes	\$100	\$100	
	.4	Platting Fee					Charges Fee?	no	\$150	\$0	assumes none
	.5	Vacation					Charges Fee?	no	\$150	\$0	assumes none
9.5 Plan Review Fees											
	.1	Wyoming Department of Fire Prevention & Electrical Safety					Charges Fee?	no		\$0	not applicable
	.2	City of Cheyenne					Charges Fee?	yes		\$3,017	
	.3	Laramie County Health					Charges Fee?	no	\$50	\$0	not applicable
9.6 National Park Service Tax Credit Application Fee										\$0	not applicable





10. DESIGN AND PLANNING FEES										\$282,941	
10.1	Civil Engineering										
	Off-Site Infrastructure Engineering Fee				@	15.00%	of item 1 above,		\$7,139		refer to architectural fees
	Site Construction Engineering Fee				@	15.00%	of item 2 above,		\$93,991		refer to architectural fees
	Traffic Study								\$0		allowance
	Drainage Study								\$3,000		allowance
10.2	Architecture Fees										
	.1 Basic Services:										includes Structural, Mechanical & Electrical Engineering
	.1 Architecture and Engineering Fees				@	15.00%	of item 3.1 above,		\$151,811		
	.2 Interior Design Fees										
		0.1	Color Selections						\$0		included in Architectural Fees
		0.2	Preparation of Color Board(s)		1	@	\$500		\$500		
		0.3	FFE Design, Procurement & Installation Administration			@	15.00%	of item 6.1 above,	\$0		with contingency & inflation
	.2 Additional Services:										
	.1 Glasshouse Consultant								\$0		assumes none
	.2 Cost Estimating Consultant								\$0		assumes none
	.3 Programming								\$0		assumes none
	.4 Zoning Processing Assistance								\$1,500		allowance
	.5 Acoustics / Audio Consultant								\$0		assumes none
	.6 Computer Technology Consultant								\$5,000		assumes none
	.7 Kitchen Consultant								\$0		assumes none
	.8 Landscape Architect								\$0		assumes none
	.9 Value Engineering								\$0		assumes none
	.10 Construction Consultant								\$0		assumes none
	.11 Miscellaneous								\$0		assumes none
	.12 Historical Building Services								\$0		assumes none
	.13 Scale Model								\$0		assumes none
	.14 Digital Model								\$0		assumes none
	.15 Renderings								\$0		assumes none
	.16 LEED								\$0		not included
		0.1	Architectural - Additional Services						\$0		not included
		0.2	Civil Engineering - Additional Services						\$0		not included
		0.3	Mechanical Engineering - Additional Services						\$0		not included
		0.4	Electrical Engineering - Additional Services						\$0		not included
		0.5	Landscape Architecture - Additional Services						\$0		not included
		0.6	Daylighting Consultant						\$0		not included
		0.7	Energy Modeling Consultant						\$0		not included
		0.8	LEED Documentation						\$0		not included
	.17 Post-Contract Services										
		0.1	Maintenance and Operation Program Services						\$5,000		allowance, if required
		0.2	Start-up Assistance						\$5,000		allowance, if required
		0.3	Record Drawing Services						\$5,000		allowance, if required
		0.4	Warranty Review								
		0.1	6th Month Inspection						\$1,500		allowance
		0.2	11th Month Inspection						\$1,500		allowance
10.4	Additional Errors & Omissions Insurance										
	.1 Project Insurance				@	1.50%	of items 10.4 above,		\$0		assumes none
	.2 Increase Aggregate								\$0		assumes none
10.5	Reimbursable Expenses								\$2,000		allowance [3]



<b>11. OTHER PROFESSIONAL SERVICES</b>										\$25,097	
11.1	Environmental Investigations									\$0	assumes none
	.1 Phase I									\$0	assumes none
	.2 Phase II									\$0	assumes none
11.2	Geotechnical Investigation									\$0	assumes none
11.3	Land Survey Fees									\$0	assumes none
11.4	Hazardous Material Testing										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$0	assumes none
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.5	Hazardous Material Abatement Design										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$5,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.6	Hazardous Material Abatement										
	.1 Petroleum Contaminated Soil									\$0	assumes none
	.2 TCE									\$0	assumes none
	.3 Asbestos									\$10,000	allowance
	.4 Lead									\$0	assumes none
	.5 Mercury									\$0	assumes none
11.7	Printing of Bid Document	10	sets @	\$150	per set =					\$1,500	allowance
11.8	Web-Based Project Collaboration Software									\$1,000	allowance
11.9	Construction Material Testing Fees									\$7,597	allowance [2]
11.10	Specialty Inspections									\$0	
	.1 Fabricators	IBC 1704.2								\$0	assumes none
	.2 Steel	IBC 1704.3								\$0	assumes none
	.3 Concrete	IBC 1704.4								\$0	refer to Construction Material testing
	.4 Masonry	IBC 1704.5								\$0	assumes none
	.5 Wood	IBC 1704.6								\$0	assumes none
	.6 Soils	IBC 1704.7								\$0	refer to Construction Material testing
	.7 Pile Foundations	IBC 1704.8								\$0	assumes none
	.8 Pier Foundations	IBC 1704.9								\$0	assumes none
	.9 Wall Panels and Veneers (Seismic Category E or F only)	IBC 1704.10								\$0	assumes none
	.10 Sprayed Fire Resistant materials	IBC 1704.11								\$0	assumes none
	.11 EIFS	IBC 1704.12								\$0	assumes none
	.12 Smoke Control	IBC 1704.14								\$0	assumes none
11.11	LEED									\$0	not included
	.1 Registration Fee									\$0	not included
	.2 Certification Fee									\$0	not included
11.12	Commissioning Consultant									\$0	assumes none
11.13	Owner's Legal Counsel	0	hours @	\$250	per hour					\$0	not applicable
11.14	Owner's Construction Representative	0	time @	\$0	per month for	18.00	month(s)			\$0	assumes none
<b>12. OWNER'S OTHER PROJECT RELATED COSTS</b>										\$0	
12.1	Land Acquisition									\$0	not applicable
12.2	Property Sale									\$0	not applicable
12.5	Moving Expenses									\$0	allowance
12.6	Telephone System									\$0	allowance
12.7	Security System									\$0	allowance
12.8	Data System									\$0	allowance
12.9	Advertisement for Bids									\$0	allowance

<b>13. FEES AND EXPENSES</b>											\$0
13.1 ITEMS 9-12 SUBTOTAL											\$333,501
13.2 Inflation	@	0.0%	per year for	0.98	year(s)	=	0.00%				\$0
13.3 TOTAL ITEMS 9-12											\$333,501
13.4 Fees and Expenses Contingency							@	3.00%			\$10,005
13.5 TOTAL FEES AND EXPENSES											\$343,506
<b>14. PROJECT COST SUBTOTAL</b>											<b>\$2,023,172</b>
14.1 TOTAL BUILDING CONSTRUCTION COST											\$1,679,665
14.2 TOTAL FF&E COST											\$0
14.3 TOTAL FEES AND EXPENSES											\$343,506
<b>15. OWNER'S PROJECT CONTINGENCY</b>							@	5.00%			\$101,159
<b>16. TOTAL PROJECT BUDGET</b>											<b>\$2,124,330</b>
<b>GENERAL NOTES:</b>											
A	It is recognized that neither the Architect nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's or Subcontractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from any Estimates of Probable Construction or Renovation Cost or any evaluation prepared by the Architect.										
<b>GENERAL NOTES:</b>											
1	Architecture and Engineering Fees for Basic Services include the Architect, and the Structural, Mechanical, and Electrical Engineers.										
2	Construction Material Testing Fees (soil compaction and concrete) are generally 0.6% of the Building Construction Cost.										
3	Generally 1% to 5% of the Basic Services Fee.										

