UNIVERSITY OF HOUSTON
Campus Facilities Planning Committee
Agenda Item Description Form

1. ITEM: Roy G. Cullen Fire Safety Renovations

2. REQUESTING DEPARTMENT: Minor and Planned Projects (MPP)

3. CONTACT NAMES & PHONE NUMBERS: Barry Simmons (713-743-9073)

4. PRESENTER: Barry Simmons

5. RECOMMENDATION/ ACTION REQUESTED: It is recommended to enclose stairwells and create new exit to the exterior to address the State Fire Marshall Violation for the Life Safety of the occupants of the building.

6. SUMMARY:

The State Fire Marshal issued a Life Safety and Code Violation on 1/22/13 for the Roy G. Cullen Building. The Fire Protection Violation states that the 1st and 2nd Floors are unprotected vertical opening and lack of separation from remainder of building and discharge to the exterior at the level of discharge. The recommended remedy is to provide separation by adding walls and doors to create exit enclosures. Renovations of the building must be completed by 9/30/13.

The open stairs in this building does not meet the current Life Safety Code requirements for smoke compartments. This project scope includes building rated walls and doors to enclose the stairs to meet this requirement. A new exit from the west stair will be created to exit directly to the exterior on the first floor. Openings between the 1st and 2nd floors will also be enclosed to create separation between floors.

7. PROPOSED START DATE: 9/30/13 or TBD

8. SUPPORTING DOCUMENTATION:
   - Conceptual Plans showing scope of renovations.
   - Photograph/rendering of exterior of building that will be affected by creating new exit to the exterior.
ROY G. CULLEN BUILDING

PHOTO OF EXISTING NORTHWEST SIDE OF BUILDING
ROY G. CULLEN BUILDING

PROPOSED LOCATION OF NEW EXIT AT NORTHWEST SIDE OF BUILDING
UNIVERSITY of HOUSTON

Roy G Cullen Building (Building # 501)

Life/Safety Renovations – Type 3

July 20, 2012

FINAL REPORT

SHWGROUP
July 20, 2012

Barry Simmons, PE, PMP, CAPM
Project Manager
University of Houston
Facilities Management, Plant Operations
4211 Elgin Rm 122
Houston, TX 77204-1011

RE: Roy G Cullen Building (501)
Proposed Modifications to Address State Fire Marshall Office (SFMO) Violations

Dear Mr. Simmons:

Thank you for the opportunity to continue serving the University of Houston. We are pleased to report our findings and recommendations concerning the following State Fire Marshal Violations:

- **Item # 1** - Means of Egress Violation: Third floor common path of travel exceeds the 75 feet maximum limitation per Life Safety Code and has access to only one stair
- **Item # 2** - Means of Egress/Protection Violation: Open stairs between first and second floor create an unprotected vertical opening and lack required separation from remainder of building.

As part of our agreement with the University of Houston dated April 25, 2012 (Contract W270129), we have prepared concept-level documentation and pricing to assist UH with procurement of funds to address all above SFMO Violations. All documentation and recommendations were prepared through site visits and meetings with UH staff, including UH Fire Marshal’s Office. Included herein, please find the following:

- Description of each Violation with Proposed Revisions
- Drawings/Documents indicating Proposed Revisions
- Probable Costs for all Modifications (including possible hazardous material abatement and accessibility modifications)
- Existing Drawings (to assist with illustration of existing conditions)
- Photo Documentation of Existing Conditions

As noted above, thank you again for this opportunity. As always, if you have any questions concerning this report or any other item, please do not hesitate to call.

Sincerely,

SHW Group

Erin Joseph Machac, AIA
Senior Project Manager | Associate
1 – Overview and Scope of Work

2 – Scope of Work Documents (SHW Group)

3 – Statement of Probable Cost

Appendix A – Existing Condition Photos and Drawings
PROJECT DESCRIPTION

This project is to address Life Safety and Code Violations identified by the State Fire Marshal

Life Safety Violations Identified:

1. **Item # 1** - Means of Egress Violation: Third floor common path of travel exceeds the 75 feet maximum limitation per Life Safety Code and has access to only one stair
2. **Item # 2** - Means of Egress/Protection Violation: Open stairs between first and second floor create an unprotected vertical opening and lack required separation from remainder of building

Proposed Remedy:

1. **Item # 1** - Third floor stair is to be separated from the remainder of the building (third floor classroom) by the construction of a 2-hour rated enclosure/walls including fire rated door, frame and hardware
2. **Item # 2** - Stairs are to be separated from remainder of building by the provision (construction) of 2-hour rated enclosures/walls including fire rated doors, frame and hardware. Includes providing a protected means of egress (new hallway) to exterior.

Third Floor Stairs (to be enclosed)
BUILDING INFORMATION

The Roy G. Cullen building is a 45,729 square foot stone and glass building originally constructed in 1939. The primary functions of the building include classroom and administrative spaces for the College of Liberal Arts. The building has a below-grade basement and three upper floors. The third level is unoccupied other than one classroom, and is considered attic space by campus and occupants. The upper floor appears to have been abandoned some years ago and is in very poor condition, with convenience lighting and a fire alarm system.

According to all available documentation, and meetings with UH staff, the building underwent an addition shortly after construction, which added the western part of the building. Subsequent renovations have included MEP modifications and finish replacements. In 1992, the windows were replaced and at the same time exterior façade was sealed. In 2008, the building had an interior renovation on the first floor which included ceilings, floors, walls, lights and technology.
ROY GUSTAV CULLEN BUILDING

INDEX OF DRAWINGS

SCOPE OF WORK
ARCHITECTURAL
ITEM # 1: PROVIDE 2-HOUR WALL TO SEPARATE 3RD FLOOR STAIR FROM REMAINDER OF FLOOR.
ITEM # 2: PROVIDE 2-HOUR WALLS TO SEPARATE THE STAIRS FROM THE INTERIOR SPACES, CREATE HALLWAY TO ISOLATE WEST STAIR. ADD DOOR TO NORTH EXTERIOR FACE OF BUILDING.
MEP
REFER TO ME101, ME102, AND ME103 FOR MECHANICAL AND ELECTRICAL ADJUSTMENTS

ARCHITECTURAL
G001 COVER

TYPE # 3
D101 DEMO FIRST FLOOR PLAN
D102 DEMO SECOND FLOOR PLAN
A101 FIRST FLOOR
A102 SECOND FLOOR
A103 THIRD FLOOR PLAN

MEP
ME101 FIRST FLOOR M&E DEMO AND NEW WORK
ME102 SECOND FLOOR M&E DEMO AND NEW WORK
ME103 THIRD FLOOR M&E DEMO AND NEW WORK

PROJECT NAME: FIRE SAFETY RENOVATIONS
UNIVERSITY OF HOUSTON
4800 CALHOUN RD. HOUSTON TX 77004
PROJ NUMBER: 4412.006.00
SCALE: NTS
DATE: 07/20/12
REFERENCE SHEET: G001

NOT FOR BIDDING OR CONSTRUCTION
MECHANICAL AND ELECTRICAL FIRST FLOOR DEMOLITION PLAN
1/32" = 1'-0"

DESTRUCTION KEY NOTES:
1. RELOCATE ANY LIGHT FIXTURES OR ELECTRICAL DEVICES THAT MAY INTERFERENCE WITH THE CONSTRUCTION OF THE NEW STAIR WALLS: ENCLOSURE OR CORRIDOR.
2. RELOCATE EXISTING THERMOSTAT.
3. REMOVE EXISTING DIFFUSER AND ASSOCIATED DUCTWORK BACK TO MAIN AND CAP. RELOCATE MAIN AS NECESSARY TO BE OUTSIDE OF NEW STAIRWELL ENCLOSURE.
4. PERFORM PRECONSTRUCTION AIR BALANCE OF AREA INDICATED AND OF ASSOCIATED AIR HANDLING UNIT PRIOR TO THE START OF DEMOLITION.

MECHANICAL AND ELECTRICAL FIRST FLOOR NEW WORK PLAN
1/32" = 1'-0"

NEW CONSTRUCTION KEY NOTES:
1. PROVIDE A FIRE ALARM FULL STATION AT DOORS ALONG THE PATH OF EGRESS, AND TIE INTO THE EXISTING FIRE ALARM SYSTEM.
2. PROVIDE NEW LIGHTING AND EXIT SIGNAGE IN EXIT CORRIDOR TO PROVIDE 20 FC.
3. PROVIDE POWER TO MECHANICAL UNIT FOR EXIT CORRIDOR.
4. PROVIDE NEW EXIT SIGNAGE.
5. PROVIDE NEW ELECTRIC CABINET UNIT HEATER TO SERVE THE STAIR/Egress CORRIDOR.
6. RELOCATE EXISTING THERMOSTAT TO INSIDE ROOM 121.
7. REBALANCE ASSOCIATED AIR HANDLING UNIT TO PRECONSTRUCTION AIR FLOW MINUS CFM INDICATED AT KEY NOTE.
MECHANICAL AND ELECTRICAL SECOND FLOOR DEMOLITION PLAN

SCALE: 1/32" = 1'-0"

DESTRUCTION KEY NOTES:
1. RELOCATE LIGHT FIXTURES OR ELECTRICAL DEVICES THAT MAY INTERFERE WITH THE CONSTRUCTION OF THE NEW STAIR WALLS ENCLOSURE.
2. REMOVE EXISTING DIFFUSERS SERVING STAIRWELL AREA BACK TO MAIN AND CAP.
3. PERFORM PRECONSTRUCTION AIR BALANCE OF AREA INDICATED AND ASSOCIATED AIR HANDLING UNIT PRIOR TO START OF DEMOLITION.

MECHANICAL AND ELECTRICAL SECOND FLOOR NEW WORK PLAN

SCALE: 1/32" = 1'-0"

NEW CONSTRUCTION KEY NOTES:
1. PROVIDE A FIRE ALARM FULL STATION AT DOORS ALONG THE PATH OF EGRESS, AND TIE INTO THE EXISTING FIRE ALARM SYSTEM.
2. PROVIDE NEW EXIT SIGNAGE AT DOORS.
3. REBALANCE ASSOCIATED AIR HANDLING UNIT TO PRECONSTRUCTION AIRFLOW MINUS ANTICIPATED AIRFLOW INDICATED AT NOTE.

UP

131.22 sf

DIFFUSERS
APPROX. 2300 CFM

APPROX. 180 CFM

EDH

EDH
DEMOLITION KEY NOTES:
1. RELOCATE LIGHT FIXTURES OR ELECTRICAL DEVICES THAT MAY INTERFERE WITH THE CONSTRUCTION OF THE NEW STAIR WALLS/ENCLOSURE.
2. RELOCATE EXISTING DIFFUSERS TO OUTSIDE OF NEW STAIRWELL AREA.
3. PERFORM PRECONSTRUCTION AIR BALANCE OF AREA INDICATED AND ASSOCIATED AIR HANDLING UNIT PRIOR TO START OF DEMOLITION.

NEW CONSTRUCTION KEY NOTES:
1. PROVIDE A FIRE ALARM PULL STATION AT DOORS, ALONG THE PATH OF EGRESS, AND TIE INTO THE EXISTING FIRE ALARM SYSTEM.
2. PROVIDE NEW EXIT SIGNAGE AT DOORS.
3. REWORK LIGHTING CIRCUITRY FOR THREE LIGHTS IN NEW STAIRWAY ENCLOSURE.
4. REBALANCE RELOCATED DIFFUSERS TO PRECONSTRUCTION AIRFLOW.
COST BREAKDOWN

The outline costs below represent the building modifications/revisions reflected in tab 2 (Scope of Work Documents), including possible hazardous material abatement and accessibility revisions. As these costs are conceptual at this time, additional budget information is provided by CCM Construction Services LLC to reflect a range of costs associated with the anticipated scope of work. Mechanical and Electrical cost detail is also provided.

Item #1 – Separate Third Floor Stairs

1. 3rd Floor – Enclose Stair, Add Door* $12,960 (approx. 216sf @ 60/sf)
   *Includes $6,900 for MEP
2. Subtotal $18,144 (includes 40% Mark-Up)

Hazardous Material Abatement:

3. 3rd Floor – Enclose Stairs $1,554 (approx. 259sf @ 6/sf)
4. Subtotal $2,331 (includes 50% Contingency)

5. Total Project Cost (TPC) $20,475

Item #2 – Separate Stairs at All Floor Levels, Exit to Exterior

1. 1st and 2nd Floor - Enclose Stairs*
   Location A $66,420 (approx. 1,107sf @ 60/sf)
   Location B $89,550 (approx. 1,194sf @ 75/sf)
   *Includes $37,240 for MEP
2. Subtotal $218,358 (Includes 40% Mark-Up)

Hazardous Material Abatement:

3. 1st and 2nd Floor – Enclose Stairs $16,567 (approx. 2,761sf @ 6/sf)
4. Subtotal $24,851 (includes 50% Contingency)

Accessibility:

5. Modifications to Ground Floor Restrooms $95,590 (approx. 869sf @$110/sf)
6. Subtotal $133,826 (Includes 40% Mark-Up)

7. Total Project Cost (TPC) $377,035

Note: Mark-Up includes contingency, GC’s overhead/profit, permits and bond
## University of Houston

Building #501 - Roy Gustav Cullen Building

Item #3 Scope of Work - Estimated Costs

### FIRST FLOOR

<table>
<thead>
<tr>
<th>UniFormat</th>
<th>Description</th>
<th>Qty</th>
<th>UM</th>
<th>Unit Cost</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1010</td>
<td>New Interior Partition, Rated</td>
<td>2,520</td>
<td>SF</td>
<td>$5.00</td>
<td>$12,600</td>
</tr>
<tr>
<td>C1020</td>
<td>Door, 6x7 (PR), Wood, Rated, or Similar</td>
<td>1</td>
<td>EA</td>
<td>$3,600.00</td>
<td>$3,600</td>
</tr>
<tr>
<td>C1020</td>
<td>Door, 6x7, AL/GL, or Similar</td>
<td>1</td>
<td>EA</td>
<td>$6,000.00</td>
<td>$6,000</td>
</tr>
<tr>
<td>C1030</td>
<td>Handrail, at Ramp</td>
<td>67</td>
<td>LF</td>
<td>$50.00</td>
<td>$3,350</td>
</tr>
<tr>
<td>C1030</td>
<td>New Ramp, 5'-6&quot;-6'-0&quot; Wide</td>
<td>36</td>
<td>LF</td>
<td>$75.00</td>
<td>$2,700</td>
</tr>
<tr>
<td>C1030</td>
<td>Stone Stairs, Platform, Walls, March Existing Finish, 9'-0&quot; x 10'-0&quot;</td>
<td>1</td>
<td>EA</td>
<td>$4,000.00</td>
<td>$4,000</td>
</tr>
<tr>
<td>C3010</td>
<td>Rework Wall Finishes, Patch</td>
<td>3,720</td>
<td>SF</td>
<td>$2.50</td>
<td>$9,300</td>
</tr>
<tr>
<td>C3020</td>
<td>Rework Floor Finishes</td>
<td>2,331</td>
<td>SF</td>
<td>$8.00</td>
<td>$18,648</td>
</tr>
<tr>
<td>D3090</td>
<td>Pre-Construction Air Balance on Area</td>
<td>1,932</td>
<td>SF</td>
<td>$0.75</td>
<td>$1,449</td>
</tr>
<tr>
<td>D3090</td>
<td>Provide New Electric Cabinet Heater to Serve Stair/Egress Corridor</td>
<td>1</td>
<td>EA</td>
<td>$2,000.00</td>
<td>$2,000</td>
</tr>
<tr>
<td>D3090</td>
<td>Rebalance Associated AHU</td>
<td>2</td>
<td>EA</td>
<td>$1,500.00</td>
<td>$3,000</td>
</tr>
<tr>
<td>D3090</td>
<td>Relocate Existing Thermostat</td>
<td>1</td>
<td>EA</td>
<td>$300.00</td>
<td>$300</td>
</tr>
<tr>
<td>D5020</td>
<td>Provide New Exit Signage, Recircuit Lighting</td>
<td>2</td>
<td>EA</td>
<td>$400.00</td>
<td>$800</td>
</tr>
<tr>
<td>D5020</td>
<td>Provide New Lighting in Exit Corridor</td>
<td>1</td>
<td>LS</td>
<td>$1,600.00</td>
<td>$1,600</td>
</tr>
<tr>
<td>D5020</td>
<td>Provide Power to Mechanical Unit, at Exit Corridor</td>
<td>1</td>
<td>EA</td>
<td>$600.00</td>
<td>$600</td>
</tr>
<tr>
<td>D5020</td>
<td>Relocate Existing Light Fixtures and Electrical Devices, This Area</td>
<td>1,932</td>
<td>SF</td>
<td>$4.00</td>
<td>$7,728</td>
</tr>
<tr>
<td>D5030c</td>
<td>Provide Fire Alarm Pull Station at Doors, Tie to Existing System</td>
<td>2</td>
<td>EA</td>
<td>$450.00</td>
<td>$900</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Ceiling, Lights, Diffusers</td>
<td>824</td>
<td>SF</td>
<td>$2.00</td>
<td>$1,648</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Exterior Wall for New Door, 6x7</td>
<td>1</td>
<td>EA</td>
<td>$750.00</td>
<td>$750</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Furdown or Similar</td>
<td>12</td>
<td>LF</td>
<td>$8.00</td>
<td>$96</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Interior Door, say 3x7 or Similar</td>
<td>4</td>
<td>EA</td>
<td>$100.00</td>
<td>$400</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Interior Partition</td>
<td>650</td>
<td>SF</td>
<td>$3.00</td>
<td>$1,950</td>
</tr>
<tr>
<td>G1021a</td>
<td>Temporary Partitions, Dust Control (Large Area)</td>
<td>1</td>
<td>EA</td>
<td>$1,200.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>G1021a</td>
<td>Temporary Partitions, Dust Control (Small Area)</td>
<td>1</td>
<td>EA</td>
<td>$600.00</td>
<td>$600</td>
</tr>
<tr>
<td>G1021b</td>
<td>Remove Existing Supply Diffuser w/Flex Duct, Cap Ductwork</td>
<td>4</td>
<td>EA</td>
<td>$75.00</td>
<td>$300</td>
</tr>
</tbody>
</table>

- **Total - Direct Cost**: $85,519
- **Add Mark-Ups (Contingency, GCs/Overhead/Profit, Permits, Bond)**: 50.0% $42,760
- **Total - Cost w/Mark-Ups**: $128,279
- **Approximate Area of Work**: 1,489 SF Cost/SF $86.15

### SECOND FLOOR

<table>
<thead>
<tr>
<th>UniFormat</th>
<th>Description</th>
<th>Qty</th>
<th>UM</th>
<th>Unit Cost</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1010</td>
<td>New Interior Partition, Rated</td>
<td>2,025</td>
<td>SF</td>
<td>$5.00</td>
<td>$10,125</td>
</tr>
<tr>
<td>C1020</td>
<td>Door, 6x7 (PR), Wood, Rated, or Similar</td>
<td>3</td>
<td>PR</td>
<td>$3,600.00</td>
<td>$10,800</td>
</tr>
<tr>
<td>C3010</td>
<td>Rework Wall Finishes, Patch</td>
<td>4,845</td>
<td>SF</td>
<td>$2.00</td>
<td>$9,690</td>
</tr>
<tr>
<td>C3020</td>
<td>Rework Floor and Ceiling Finishes for New Layout</td>
<td>1,590</td>
<td>SF</td>
<td>$8.00</td>
<td>$12,720</td>
</tr>
<tr>
<td>D3090</td>
<td>Pre-Construction Air Balance on Area</td>
<td>1,681</td>
<td>SF</td>
<td>$0.50</td>
<td>$841</td>
</tr>
<tr>
<td>D3090</td>
<td>Rebalance Associated AHU</td>
<td>2</td>
<td>EA</td>
<td>$750.00</td>
<td>$1,500</td>
</tr>
<tr>
<td>D5020</td>
<td>Provide New Exit Signage, Recircuit Lighting</td>
<td>2</td>
<td>EA</td>
<td>$400.00</td>
<td>$800</td>
</tr>
<tr>
<td>D5020</td>
<td>Relocate Existing Light Fixtures and Electrical Devices, This Area</td>
<td>1,681</td>
<td>SF</td>
<td>$4.00</td>
<td>$6,724</td>
</tr>
<tr>
<td>D5030c</td>
<td>Provide Fire Alarm Pull Station at Doors, Tie to Existing System</td>
<td>2</td>
<td>EA</td>
<td>$450.00</td>
<td>$900</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Ceiling, Lights, Diffusers</td>
<td>458</td>
<td>SF</td>
<td>$2.00</td>
<td>$916</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Interior Handrail</td>
<td>57</td>
<td>LF</td>
<td>$20.00</td>
<td>$1,140</td>
</tr>
<tr>
<td>G1021a</td>
<td>Demo Interior Partition</td>
<td>710</td>
<td>SF</td>
<td>$3.00</td>
<td>$2,130</td>
</tr>
<tr>
<td>G1021a</td>
<td>Temporary Partitions, Dust Control (Large Area)</td>
<td>1</td>
<td>EA</td>
<td>$1,000.00</td>
<td>$1,000</td>
</tr>
<tr>
<td>G1021a</td>
<td>Temporary Partitions, Dust Control (Small Area)</td>
<td>1</td>
<td>EA</td>
<td>$600.00</td>
<td>$600</td>
</tr>
<tr>
<td>G1021b</td>
<td>Remove Supply/Return Diffusers w/Flex Duct, Cap Ductwork, Clean/SFR</td>
<td>1,681</td>
<td>SF</td>
<td>$0.50</td>
<td>$841</td>
</tr>
</tbody>
</table>

- **Total - Direct Cost**: $60,726
- **Add Mark-Ups (Contingency, GCs/Overhead/Profit, Permits, Bond)**: 50.0% $30,363
- **Total - Cost w/Mark-Ups**: $91,089
- **Approximate Area of Work**: 1,590 SF Cost/SF $57.29
### University of Houston

**Building #501 - Roy Gustav Cullen Building**  
**Item #3 Scope of Work - Estimated Costs**

<table>
<thead>
<tr>
<th>UnifFormat</th>
<th>Description</th>
<th>Qty</th>
<th>UM</th>
<th>Unit Cost</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1010</td>
<td>Partitions New Interior Partition, Rated</td>
<td>480</td>
<td>SF</td>
<td>$5.00</td>
<td>$2,400</td>
</tr>
<tr>
<td>C3010</td>
<td>Wall Finishes Rework Wall Finishes, Patch</td>
<td>1,215</td>
<td>SF</td>
<td>$2.00</td>
<td>$2,430</td>
</tr>
<tr>
<td>C3020</td>
<td>Floor Finishes Rework Floor and Ceiling Finishes for New Layout</td>
<td>484</td>
<td>SF</td>
<td>$5.00</td>
<td>$2,420</td>
</tr>
<tr>
<td>D3090</td>
<td>Other HVAC Systems &amp; Equipment Pre-Construction Air Balance on Area</td>
<td>1,173</td>
<td>SF</td>
<td>$0.50</td>
<td>$587</td>
</tr>
<tr>
<td>D3090</td>
<td>Other HVAC Systems &amp; Equipment Rebalance Associated AHU</td>
<td>1</td>
<td>EA</td>
<td>$500.00</td>
<td>$500</td>
</tr>
<tr>
<td>D5020</td>
<td>Lighting and Branch Wiring Provide New Exit Signage, Recircuit Lighting</td>
<td>1</td>
<td>EA</td>
<td>$400.00</td>
<td>$400</td>
</tr>
<tr>
<td>D5020</td>
<td>Lighting and Branch Wiring Relocate Existing Light Fixtures and Electrical Devices, This Area</td>
<td>1,173</td>
<td>SF</td>
<td>$0.75</td>
<td>$880</td>
</tr>
<tr>
<td>D5020</td>
<td>Lighting and Branch Wiring Rework Lighting Circuitry for Light Fixture</td>
<td>3</td>
<td>EA</td>
<td>$275.00</td>
<td>$825</td>
</tr>
<tr>
<td>D5030c</td>
<td>Fire Alarm Provide Fire Alarm Pull Station at Doors, Tie to Existing System</td>
<td>1</td>
<td>EA</td>
<td>$450.00</td>
<td>$450</td>
</tr>
<tr>
<td>G1021a</td>
<td>Building Demolition Temporary Partitions, Dust Control (Small Area)</td>
<td>1</td>
<td>EA</td>
<td>$600.00</td>
<td>$600</td>
</tr>
<tr>
<td>G1021b</td>
<td>Mechanical Demo Remove Supply/Return Diffusers w/Flex Duct, Cap Ductwork, Clean/SFR</td>
<td>1,173</td>
<td>SF</td>
<td>$0.50</td>
<td>$587</td>
</tr>
</tbody>
</table>

**Total - Direct Cost**

$12,078

**Add Mark-Ups (Contingency, GCs/Overhead/Profit, Permits, Bond)**

50.0%  

**Total - Cost w/Mark-Ups**

$18,117

**Approximate Area of Work**

484 | Cost/SF | $37.43

---

Prepared by: CCM Construction Services, LLC  
(214-556-4510)  
Page 8 of 10  
7/23/2012
Existing Conditions Photos and Drawings – A