



January 5, 2025

Cody Campbell  
Director of Multifamily Programs  
Texas Department of Housing and Community Affairs 221 E 11<sup>th</sup> Street  
Austin, Texas 78701

*Re: TDHCA Application 26104 - Travis Street Plaza Apartments - Request for Waiver  
Regarding Age Requirement*

Dear Mr. Campbell:

I am writing on behalf of the Applicant for Travis Street Plaza Apartments, an existing development located in Urban Region 6. The housing tax credit request is for 192 multifamily units, all of which will be affordable for the general population. In preparation for filing its pre-application, the Applicant requests an eligibility waiver of the age requirements for rehabilitation.

### **Background**

- The existing development received a \$1,325,820 housing tax credit award in July of 2010. This equates to \$6,905 in credits per unit.
- Total Development Costs were \$18,977,751. Construction costs were \$11,742,099.
- The LURA is dated August 28, 2006, and recorded October 24, 2006.
- Travis Street Plaza Apartments was placed in service December 31, 2012.
- There are no tax exemptions associated with Travis Street Plaza Apartments.
- The development suffers from manufacturing defaults and faulty construction as verified by multiple third parties and an independent Arbiter.

### **Request**

The current 2026 Qualified Allocation Plan precludes any rehabilitation that was placed in service on or after January 1, 2006 from being eligible to compete for 2026 tax credits. See the following excerpt from the QAP for ineligibility.

*(viii) Competitive Housing Tax Credit Applications that involve any existing Housing Tax Credit Development that has any building that placed in service on or after January 1, 2006, for its most recent award of Housing Tax Credits.*

The applicant is seeking a determination of eligibility for its Development Site, and a waiver if deemed applicable as permitted by §11.207. Waiver of Rules of the Qualified

Allocation Plan as follows.

- *The need for the waiver is **not within the control of the Applicant or is due to an overwhelming need.***
- *The waiver request must establish how, by granting the waiver, it better serves the policies and purposes articulated in Tex. Gov't Code §§2306.001, 2306.002, 2306.359, and 2306.6701, (which are general in nature and apply to the role of the Department and its programs, including the Housing Tax Credit program) than not granting the waiver.*

### **Merit**

Travis Street Plaza Apartments is a 9% LIHTC 2010 award placed in service at the end of 2012. The restriction listed above prevents the development from being eligible for rehabilitation funds this tax credit cycle. Despite this time constraint, the request has merit consistent with the approval conditions that justifies the Board's approval.

- The building contains defective windows and was built incorrectly by the General Contractor, at no fault of the owner or developer. Water penetration issues have been continuous and ongoing; left unresolved they will cause further damage to the building which impacts the ability of tenants to use the units and will likely result in increased vacancies which endangers the financing of the building.
- Allowing the Application to proceed will improve quality of life of 192 households. The attached assessments from Building Diagnostics and Capital Project Management show that the development needs significant work to repair manufacturing defects and faulty construction by the initial General Contractor.
- While 20 years is a reasonable round number, 20 is not necessarily consistent with the lifespan of all building products. Especially when initial construction was faulty and repeated water damage has occurred.
- Allowing rehabilitation to start in 2026, will be more cost effective and prevent additional issues from occurring.

### **Faulty Construction**

Water infiltration began to occur soon after construction completion and Travis Street Plaza LP (the owner) formally complained to the General Contractor in 2014. The General Contractor attempted remediation at that time, however these efforts were unsuccessful. Documentation includes proposals and invoices for water infiltration studies and repair work completed in 2014, 2015, 2018, and 2020, which are included as attachments. Travis Street Plaza LP successfully sued the General Contractor, with Arbitration completed and a judgment in the Owner's favor in 2022. A copy of the Judgment is attached.

A report from Engineering Diagnostics dated November 25, 2020 found extensive water damage and numerous faulty construction items. This report identifies specific defects – faulty

windows, a lack of construction control joints, a lack of drip screed, missing sealants, flaws in the installation of the water resistive barrier and flashing, and missing weeps above windows. Moisture penetration has not only destroyed areas around windows, but has impacted the stucco, metal siding, and HVAC systems, causing a ripple effect of increasingly costly damage.

An estimate of the cost to make all repairs in 2020 was \$3,250,000. This proposal came from a third party – Cotton Commercial - and was validated in the 2020 Engineering Diagnostics report. In fact, Engineering Diagnostics recommended **adding** to the budget for repairs to structural framing.

Capital Project Management, one of Texas' most esteemed construction management companies also evaluated the extent of repairs needed in 2021. In their expert opinion, to remedy the situation, the owner needs to remove the entire façade and all windows of the building. **Their independent estimate came to \$5,429,000** in repairs, which does not include additional costs such as hazardous material abatement, tenant relocation, or un-recouped costs to the owner for utilities, taxes and other operational costs.

### Summary

TDHCA is an organization that distributes tax credits to support Texans through **quality**, affordable housing. The Qualified Allocation Plan delineates eligibility of development sites and is a guideline to prevent misuse or appropriation of funds. Travis Street Plaza apartments furthers this mission by providing affordable housing to some of Houston's most vulnerable, including Veterans, persons with disabilities and formerly homeless individuals. As the condition of the building continues to decline, the lives of residents are negatively affected. It has become increasingly clear that delaying repairs will negatively impact operational income and expenses, habitability, and loss of affordable units.

The construction defects are in no way the fault of the owner or developer, as assessed by multiple third parties. The conditional clearly falls into the QAP outlined categories of "not in the control of the applicant" and "overwhelming need."

By granting a waiver to the Applicant, and should the rehabilitation be awarded tax credits, the purposes and policies stated in Texas Government Code §§2306.001, 2306.002, 2306.359, and 2306.6701 will be upheld and furthered. The Applicant respectfully requests a waiver based on the information provided.

We appreciate your time and consideration.



Sarah Andre  
Consultant to the Project

Exhibit A – Award of Arbiter

Exhibit B – Taylor Waterproofing Proposals for Services:

- Water Infiltration in Units 2014
- Water Infiltration Study 2015
- Window Repair 2018
- Cladding and Interior Repairs 2020 – Contains Extensive Photos

Exhibit C – Lawson Construction Invoices:

- Interior Repairs 2021

Exhibit D – Engineering/Building Diagnostics Proposals:

- Report of Findings 2020
- Remedial Design Services 2022
- Invoice for Repairs 2022

Exhibit E – Proposal for Repair from Cotton Commercial 2020

Exhibit F – Report from Capital Project Management, 2021



**AMERICAN ARBITRATION ASSOCIATION**  
**CONSTRUCTION INDUSTRY ARBITRATION TRIBUNAL**

**AAA Case No. 02-14-0002-3106**

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IN THE MATTER OF THE ARBITRATION BETWEEN:

**TRAVIS STREET PLAZA, L.P.**

CLAIMANT

and

**COMANCHE CONTRACTORS, L.P.**  
**CANTWELL-ANDERSON COMANCHE,**  
**LLC**

RESPONDENTS

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BEFORE ARBITRATOR:

**W. JERRY HOOVER, Esq.**

HOUSTON, TEXAS

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**AWARD OF ARBITRATOR**

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I, THE UNDERSIGNED ARBITRATOR in this matter, having been designated as the sole Arbitrator in accordance with the Regular procedures of the American Arbitration Association (AAA) Construction Industry Arbitration Rules, as amended, and the arbitration agreement entered into on behalf of the above-named parties dated August 15, 2011, and having been duly sworn and having heard the proofs, testimony and allegations of the parties, and after due consideration and deliberation of all the credible evidence and argument of counsel, hereby find and AWARD as follows:

The final evidentiary hearings in this matter between **TRAVIS STREET PLAZA, L.P.** (Claimant) and **COMANCHE CONTRACTORS, L.P. AND CANTWELL-ANDERSON COMANCHE, LLC** (Respondents), sometimes hereinafter referred to as the "Parties", were convened in-person at the AAA Houston offices as scheduled and agreed by the Parties, on August 22, 2022, in Houston, Texas. Claimant, **TRAVIS STREET PLAZA, L.P.** appeared with its lead counsel, William F. Morfey with the law firm of Spencer Fane, LLP and announced ready for Final Hearing. Respondent, **COMANCHE CONTRACTORS, L.P.** appeared with its lead counsel, Rocky

Feemster with the law firm Touchstone Bernays, and announced ready for Final Hearing. **CANTWELL-ANDERSON COMANCHE, LLC** was not represented by counsel at the Final Hearings. Thereafter, opening statements were heard by the Arbitrator. Witnesses were called and sworn, and all the witnesses presented testimony and evidence under oath. All testimony and exhibits offered, and not withdrawn, were admitted. Objections made to evidence from witnesses or documents or exhibits were considered by the Arbitrator, so that the objectionable material was given its appropriate weight, if any, but all was admitted. The proceedings were transcribed by court reporters working through ALVS Production each day of the Final Hearings, which transcripts became the official record of the hearings. The evidentiary hearings were concluded on August 26, 2022, after a total of five (5) days of Final Hearings.

Prior to adjourning the evidentiary hearings on August 26, 2022, each party confirmed to the Arbitrator that they had a full and fair opportunity to present their case in chief and/or defenses.

After the Final Hearings concluded, the hearings were officially closed by the AAA after all requested post-hearing submittals were timely filed by counsel. All of the evidence was considered and given the appropriate weight as determined by the Arbitrator. Considering the pleadings, the evidence, the arguments of counsel, both oral and written, and relevant Texas law, the Arbitrator further reasons, finds and AWARDS as follows:

### **BRIEF HISTORICAL FACTS**

Claimant Travis Street Plaza, L.P.'s ("TSP") claims arise from the construction of Travis Street Plaza Apartments ("the Apartments"), an affordable housing project located at 4500 Travis Street in Houston. TSP brought this arbitration against Respondents to recover damages for alleged construction defects at the Apartments. According to TSP, those construction defects have led to water infiltration and damage at the Apartments. TSP states claims against Comanche Contractors, LP ("Comanche") and Cantwell-Anderson Comanche, LLC ("CAC") for: (i) Breach of Warranty / Breach of Guarantee / Breach of Contract; (ii) Deceptive Trade Practices; (iii) Negligence; and (iv) Estoppel / Quasi Estoppel / Equitable Estoppel. Comanche raised various affirmative defenses including: (i) No privity of contract, nor is TSP an intended beneficiary; (ii) waiver; (iii) estoppel; (iv) acceptance and payment; (v) release; (vi) failure to mitigate; (vii) conditions precedent; (viii) failure to comply; (ix) contributory negligence; (x) damages caused by actions of other parties;

(xi) warranty exclusions; (xii) warranty expired; (xiii) waiver of consequential damages; (xiv) Comanche not responsible for damages from weather or fire; and (xv) one cannot seek DTPA damages for its own violations. Comanche also argued in the alternative and assuming a contractual relationship between Comanche and TSP a breach of contract cause of action.

The contractual deal structure between the parties was somewhat complex as the Apartment's construction was financed in part from the City of Houston's (COH) housing community development and from an investor in Low-Income Housing Tax Credits. The timing of naming the General Contractor for the project was frustrated due to the COH's qualification requirements for minority-owned businesses of an owner-builder for this type of project. Ultimately, the entity Cantwell-Anderson Comanche, LLC was formed with 100 per cent pass-through of the construction contract and all obligations to Comanche as the General Contractor. CAC did not receive compensation for serving as a contractor.

TSP complained of moisture intrusion into the Apartments soon after construction, and documented same by letter dated August 29, 2014 to Comanche, as well as several subsequent email threads regarding TSP's concerns about exterior water penetration. Comanche sent a letter to TSP dated December 19, 2014 acknowledging receipt of these complaints, and stated in part ... "By way of this letter we acknowledge Travis Street Plaza's concerns and guarantee that should these issues or others are determined to be caused from faulty workmanship Comanche will remedy the issue."

This arbitration was filed thereafter on December 31, 2014, however, an abatement in the case ensued not long after the arbitration was filed. After efforts to remedy the construction defect issues were not addressed to the satisfaction of TSP, the arbitration proceedings were re-initiated through the AAA which led to the aforementioned Final Hearings on the merits.

## **FINDINGS**

I find by a preponderance of the credible evidence in this case the following:

- 1) TSP is a third-party beneficiary of the CAC-Comanche contract as the evidence proved that CAC and Comanche intended to secure a benefit to TSP and entered into the contract

directly for TSP's benefit. It was clear that CAC and Comanche intended for TSP to have third-party beneficiary status.

- 2) The deal structure as between the Parties put Comanche's role as the General Contractor with all relationships that inures to a General Contractor in a construction industry case to include the subcontracting of bids, the procurement of the bonds and the supervision and execution of the construction work.

- 3) **Comanche breached the contract.** Construction defects existed at the Apartments. Comanche's experts conceded that construction defects were present at the Apartments. Under the General Conditions of the contract, Comanche warranted that the materials and equipment furnished would be of good quality and that the work would meet the requirements of the contract and be free of defects. TSP suffered damages as a result of Comanche's breach and should be compensated as set forth below for the reasonable costs to remediate and repair.

- 4) **Breach of Warranty.** Comanche issued warranties to TSP including guarantees of workmanship and materials and stated in writing its responsibility for any construction defects on the Apartments. The Contractor's Warranty in Section 3.5 of the General Conditions, which is a warranty from the Contractor to the Owner, is a warranty from Comanche to TSP. Those warranties had not expired as TSP gave Comanche notice of construction defects within one year of Substantial Completion. I find that Comanche breached its express warranty to TSP. TSP suffered damages as a result of Comanche's breach and should be compensated as set forth below for the reasonable costs to remediate and repair.

- 5) Mitigation of Damages: Comanche did not fully establish or prove its mitigation affirmative defense, however, this arbitrator has taken into consideration in his damages analysis the fact that TSP undertook no significant work to repair issues identified and recommended by its own expert in 2015. This delay in addressing certain water intrusion issues by TSP may have enhanced the overall level of damages Claimant is currently seeking in its claims against Comanche.

- 6) DTPA Claims: The DTPA was not intended to apply to commercial transactions exceeding \$500,000 in consideration. TSA's DTPA claim against Comanche is therefore exempted from the DTPA.

- 7) Negligence: Respondents owed a duty to Claimant to construct the Apartments in a non-negligent manner. Respondents breached that duty causing injury which the Claimant should be compensated for as set forth below.
- 8) Estoppel/Quasi Estoppel/Equitable Estoppel: Respondent Comanche warranted to Claimant that all materials and workmanship would be free of defects for a period of one year from substantial completion. Respondent Comanche also made a promise to Claimant guaranteeing that it would remedy any construction defects caused by Comanche. Claimant reasonably and substantially relied on the warranty and promise to its detriment, and such reliance was foreseeable by Respondent Comanche. Justice in this matter may be achieved by enforcing Comanche's warranty and promise, and awarding damages as set forth herein.
- 9) Comanche's Breach of Contract claim: I do not find that Comanche's Breach of Contract claim is meritable.
- 10) TSP's Damages Estimates: I find that TSP is not entitled to the full amount of damages as estimated by its experts, as a "full repair" of the Apartments is flawed due to their reliance on an assumption that construction defect problems in the Apartments were systemic. TSP did not prove by a preponderance of the evidence that the problems in the building were in fact systemic. Thus an award for recladding the entire building is not supported or justified, however, TSP did suffer some damages to the interior and exterior of the building, and should be compensated accordingly. Furthermore, ample evidence was found justifying the costs of repair to the Apartments' HVAC system. For the record, this arbitrator did not consider any costs for the replacement of the windows as previously stipulated by the Parties. Lastly, in reviewing damages related to this case, no consideration was given to any design defects applicable to the Apartments. It should be noted that TSP's own expert asserted that the percentage of difficulties at the building could be allocated to no more than 65% to construction problems.

## **DAMAGES**

Based on the findings above, the awarded damages can be broken down as follows:

### **I) REPAIRS**

A) Repairs previously performed at the Apartments:

- 1) Framing repairs (Lawson Constr.) \$33,840.00
- 2) Design of framing repair (Building Diagnostics) \$3,500
- 3) Framing repairs (Cotton) \$13,192.29
- 4) Repairs in Apartments (Juan Garcia) \$4,470
- 5) Repairs for leakage (Taylor Waterproofing) \$1,394.26

Total repairs previously performed: \$56,396.55

B) Repairs to be done:

- 1) Repair of HVAC units: \$307,200
- 2) Repair of Apartments (Interior & Exterior): \$476,000

Total repairs to be done: \$783,200

**TOTAL DAMAGES: \$839,596.55**

**II) PRE-AWARD INTEREST:** The abatement of the AAA arbitration in this matter ended on August 25, 2017, thus Pre-Award Interest shall be calculated as follows:

$\$839,596.55 \times 5.5\% \times 5 \text{ years} = \underline{\$230,889.00}$

**III) EXPERT FEES: \$327,281.00**

**IV) ATTORNEY'S FEES: \$501,691.00**

TOTAL Damages, Pre-Award Interest, Expert Fees and Attorney's Fees to be Awarded to Claimant Travis Street Plaza, L.P. = **\$1,899,457.55**

## **AWARD**

**IT IS HEREBY ORDERED, ADJUDGED AND DECREED THAT RESPONDENTS, COMANCHE CONTRATORS, L.P. AND CANTWELL-ANDERSON COMANCHE, LLC SHALL, JOINTLY AND SEVERALLY, PAY TO CLAIMANT, TRAVIS STREET PLAZA, L.P., THE TOTAL SUM OF ONE MILLION EIGHT HUNDRED NINETY-NINE THOUSAND FOUR HUNDRED FIFTY-SEVEN AND 55/100 DOLLARS (\$1,899,457.55).**



**Post-Award Interest**

Claimant is entitled to recover post-Award interest on the total amount of this Award at the rate of five and one-half percent (5.5%) per annum, compounded annually, commencing thirty (30) days from the date of this Award until it is paid in full.

**AAA Fees/Arbitrator Compensation**

The administrative fees and expenses of the American Arbitration Association totaling \$16,000.00 shall be borne as incurred, and the compensation and expenses of the Arbitrator totaling \$50,674.00 shall be borne as incurred by the Parties.

**CONCLUSION**

This Award of Arbitrator is in full and final settlement of all claims, counterclaims and defenses that have been brought or may have been brought by any of the Parties against any of the other Parties with respect to the subject matter making the basis of the claims or counterclaims in this arbitration and all claims, counterclaims, motions or other relief not expressly granted herein are hereby DENIED. This Award of Arbitrator is intended to dispose of all claims, counterclaims and Parties to this arbitration.

SIGNED this 23<sup>rd</sup> day of November, 2022

By: W. Jerry Hoover  
W. JERRY HOOVER, Arbitrator



# Taylor Waterproofing Plus, Inc.

October 17, 2014

Mr. Peter Postlmayr  
**TRAVIS STREET PLAZA, LP**  
414 South Marengo Ave.  
Pasadena, CA 91101  
Mobile: 310/877.8909  
Email: [ppostlmayr@cantwell-anderson.com](mailto:ppostlmayr@cantwell-anderson.com)

Subject: **Leakage at Units 2236,2234 and 4500 Travis Street / Houston, TX**

Dear Mr. Postlmayr:

Taylor Waterproofing Plus, Inc. proposes to furnish labor, material and equipment to complete the following scope of work:

## SCOPE OF WORK:

Water appears to be entering through open sealant joint at base of brick wall and extends over to metal sheeting at elevator. We suggest sealing this joint as follows:

- Remove existing sealant from joint by hand held razor and scraping method (grinding not included).
- Thoroughly clean all residue from cavity.
- Prime side of joint using masonry primer.
- Install an open cell backer rod under 20% compression to ensure an even depth and to avoid three-sided adhesion.
- Install a bead of Sonneborn NP2, a multi-part epoxidized sealant and tool to a smooth professional finish
- Water Test at completion of work

## PRICE

**\$1,288.00 Plus Tax**

**Exclusions:** Please refer to Taylor Waterproofing's Standard Statement excluding Mold Abatement (see attached).

**Please Note:** All sealant work carries Taylor Waterproofing Standard 1 year Written Warranty unless otherwise specified (available upon request).  
Standard Taylor Waterproofing's terms and conditions apply.  
Pricing is based on work being performed during regular business hours.  
Proposal is good for 30 days from date on proposal.  
Quote is based on a mutually agreeable contract.

If I can be of further assistance, please feel free to give me a call.

Respectfully submitted,

*William O Herring*

William O. Herring  
Vice-President

Accepted By: 

Date: 10/30/2014

WH/tb

P.O. Box 16069 • Houston, TX 77222-6069  
Telephone: (713) 691-1430  
Fax: (713) 699-5766





# Taylor Waterproofing Plus, Inc.

## **POLICY on MOLD & MILDEW**

Taylor Waterproofing Plus, Inc. are Roofing/Waterproofing Contractors and Roofing/Waterproofing Service Providers. We take responsibility for furnishing the labor component in installing new roofing/waterproofing construction, and roofing/waterproofing maintenance services. We do NOT accept responsibility for environmental impact issues such as mold and mildew assessment or remediation. We are NOT an environmental services company and do not carry the necessary licensing, insurances, permitting, or specially trained technicians and hygienists to perform this type of work. Please consult with a specialist for assistance with any of these environmental issues.

Furthermore, Taylor Waterproofing Plus, Inc. does not assume responsibility for any pre-existing mold or mildew problems in buildings that we may be commissioned to work on, nor do we assume added responsibility for mold or mildew conditions that may develop in buildings or facilities that we may have performed roofing/waterproofing services work on for our customers.

No employee of our firm(s) is authorized to vary this disclaimer and any questions concerning this policy should be directed to:

Taylor Waterproofing Plus, Inc.  
P.O. Box 16069  
Houston, TX 77222-6069  
713 691-1430



# Taylor Waterproofing Plus, Inc.

January 15, 2015

Travis Street Plaza, LP  
414 S. Marengo  
Pasadena, CA 91101  
Ph: 310/568-9100  
Email: [ppostlmayr@cantwell-anderson.com](mailto:ppostlmayr@cantwell-anderson.com)

Subject: 4500 Travis- **Water Infiltration Investigation**  
Houston, Texas  
Building Diagnostics Project No. 842-3905-AOI

Assistance with water infiltration study and cladding excavations, see Request for Proposal No. 1 dated January 7, 2015:

Proposed Contract Time Fifteen (15) Days (including excavation repairs)

## Description

Excavate and repair stucco and EIFS trim	\$ 850.00	Lump Sum
Excavate and repair metal siding	\$ 1,530.00	Lump Sum
Excavate and repair thin-brick masonry	\$ 930.00	Lump Sum
Excavate and repair cement board siding	\$ 815.00	Lump Sum
Excavate and repair interior finishes	\$ 3,300.00	Lump Sum
Miscellaneous, access and mobilization, etc.	\$ 2,850.00	Lump Sum
Total- LUMP SUM	\$10,275.00	

## Standard Unit Rates for any Additional Authorized Work

Labor (Journeyman Mechanic)	\$ 48.50	Per hour
Labor (Other Mechanics)	\$ 48.50	Per hour
Mark-up on Materials	20	Percent
Overhead and Profit (Mark-up on Subs)	15	Percent

**Exclusions:** Please refer to Taylor Waterproofing Standard Statement excluding Mold Abatement (see attached).  
**Please Note:** All sealant work carries Taylor Waterproofing's Standard Written Warranty unless otherwise specified (available upon request).  
Standard Taylor Waterproofing's terms and conditions apply.  
Price is based on work being performed during regular business hours.  
Proposal is good for 30 days from date on proposal.

If I can be of further assistance, please feel free to contact me.

Respectfully submitted,

Accepted by: 

*William O. Herring*

Date: 1-20-2015

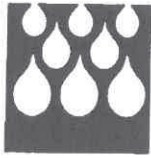
William O. Herring  
Vice-President

WH/tb

PO BOX 16069 ~ Houston TX 77222

Telephone: 713-691-1430

Fax: 713-699-5766



# Taylor Waterproofing Plus, Inc.

**Exclusions:** Please refer to Taylor Waterproofing Standard Statement excluding Mold Abatement (see attached).

**Please Note:** All sealant work carries Taylor Waterproofing's Standard Written Warranty unless otherwise specified (available upon request).

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Price is based on work being performed during regular business hours.

Proposal is good for 30 days from date on proposal.

If I can be of further assistance, please feel free to contact me.

Respectfully submitted,

Accepted by: \_\_\_\_\_

*William O. Herring*

Date: \_\_\_\_\_

William O. Herring  
Vice-President

WH/tb

P.O. Box 16069 • Houston, TX 77222-6069  
Telephone: (713) 691-1430  
Fax: (713) 699-5766



# Taylor Waterproofing Plus, Inc.

June 12, 2018

Mr. Peter Postlmayr  
**TRAVIS STREET PLAZA, LP**  
414 South Marengo Avenue  
Pasadena, CA 91101  
Main: 310 568 9100  
Mbl: 310 877 8909  
Email: [ppostlmayr@cantwell-anderson.com](mailto:ppostlmayr@cantwell-anderson.com)

Subject: **Water Test/Repair at Five (5) Different Window Types / 4500 Travis,  
Houston, Texas**

Dear Mr. Postlmayr:

We are pricing repairing, water testing/investigate leakage at Five (5) locations that would be considered "typical" of the ongoing window leakage problems.

<u><b>WINDOWS WITH HARDI PLANK</b></u>	<b>\$7,981.00 Each, Plus Tax</b>
<u><b>WINDOWS WITH BRICK</b></u>	<b>\$8,823.00 Each, Plus Tax</b>
<u><b>WINDOWS WITH METAL PANEL</b></u>	<b>\$5,538.00 Each, Plus Tax</b>
<u><b>WINDOWS WITH STUCCO</b></u>	<b>\$7,185.00 Each, Plus Tax</b>
<u><b>WINDOWS WITH FLAT HARDI PLANK IN CENTER</b></u>	<b>\$7,981.00 Each, Plus Tax</b>

Our process would be to isolate one (1) type window from each category above, remove the exterior siding, wrap window perimeter with W.R. Meadows 12" wide, 40 mil air shield "peel and stick" using Mel-Prime VOC primer and W.R. Meadows liquid mastic.

Taylor Waterproofing Plus, Inc. will water test each window prior to enclosing.

**TOTAL PROJECT FOR FIVE (5) WINDOWS:                      \$37,508.00 Plus Tax**

**NOTES:** We will be using an eighty-five foot (85') lift with a jib extension. We have allowed five (5) days per location. If, for any reason, the lift needs to be in one position for further review, inspection or testing by Others, an additional fee of **\$1,381.00** (plus tax) will be charged per day, with approval from Cantwell-Anderson. Any persons not employed by Taylor Waterproofing must sign and Equipment Liability Release Form.

We are not pricing windows on the elevated Plaza side at this time as built-up tube/frame scaffolding would be necessary. We can price additional costs should that become necessary for further review.

We do not have any pricing for an independent Structural Engineer or Consultant. That must be an independent contract from Taylor Waterproofing Plus Inc.

P.O. Box 16069 • Houston, TX 77222-6069  
Telephone: (713) 691-1430  
Fax: (713) 699-5766



# Taylor Waterproofing Plus, Inc.

**Exclusions:** Please refer to Taylor Waterproofing's Standard Statement excluding Mold Abatement (see attached).

**Please Note:** All sealant work carries Taylor Waterproofing Standard 1 year Written Warranty unless otherwise specified (available upon request).  
Standard Taylor Waterproofing's terms and conditions apply.  
Pricing is based on work being performed during regular business hours.  
Proposal is good for 30 days from date on proposal.  
Quote is based on a mutually agreeable contract.

If I can be of further assistance, please feel free to give me a call.

Respectfully submitted,

*William O Herring*

William O. Herring  
Vice-President

4500 Travis, LLC, Its' General Partner

Accepted By: 

Peter Postlmayr, Manager

Date: June 13, 2018

WH/tb

*For our phone conversation, all location will be returned to  
A finished condition consistent with the condition prior to work  
being performed.*



P.O. Box 16069 • Houston, TX 77222-6069

Telephone: (713) 691-1430

Fax: (713) 699-5766



# Taylor Waterproofing Plus, Inc.

## **POLICY on MOLD & MILDEW**

Taylor Waterproofing Plus, Inc. are Roofing/Waterproofing Contractors and Roofing/Waterproofing Service Providers. We take responsibility for furnishing the labor component in installing new roofing/waterproofing construction, and roofing/waterproofing maintenance services. We do NOT accept responsibility for environmental impact issues such as mold and mildew assessment or remediation. We are NOT an environmental services company and do not carry the necessary licensing, insurances, permitting, or specially trained technicians and hygienists to perform this type of work. Please consult with a specialist for assistance with any of these environmental issues.

Furthermore, Taylor Waterproofing Plus, Inc. does not assume responsibility for any pre-existing mold or mildew problems in buildings that we may be commissioned to work on, nor do we assume added responsibility for mold or mildew conditions that may develop in buildings or facilities that we may have performed roofing/waterproofing services work on for our customers.

No employee of our firm(s) is authorized to vary this disclaimer and any questions concerning this policy should be directed to:

Taylor Waterproofing Plus, Inc.  
P.O. Box 16069  
Houston, TX 77222-6069  
713 691-1430

P.O. Box 16069 • Houston, TX 77222-6069  
Telephone: (713) 691-1430  
Fax: (713) 699-5766





# Taylor Waterproofing Plus, Inc.

July 17, 2020

Mr. Edward S. Breeze  
**Engineering Diagnostics**  
1200 Smith Street Suite 1600  
Houston, TX 77002  
Phone: 713.353-8832  
Email: [ebreeze@buildingdx.com](mailto:ebreeze@buildingdx.com)

Subject: **Project No. B42-3905-A06\_4500 Travis Field Work Evaluation.**

Dear Mr. Breeze,

Taylor Waterproofing Plus, Inc. proposes to supply labor, material and equipment to complete the following scope of work: *During Normal Business Hours.*

## **4500 TRAVIS COMPLEXES** *(Field work assistance)*

- Provide 2 workers for normal shifts including tools and materials for normal repairs.
- Provide scaffolding up to 5 sections high at 1 location for up to 2 days. Area will be large enough to erect a free-standing self-contained scaffolding
- Provide 80' boom equipment for a single shift to perform visual inspection at elevated heights.
- Remove cladding at 4 locations accessible by ladder or foot 16" x 16"
- Remove and repair 4 interior locations and paint from corner to corner once repair is complete.
- Remove a single window assembly for visual inspection. Replace after inspection is complete

**Budgetary Price: \$15,748.00 plus Tax**

**Exclusions:** All Gutters will be removed by others. If TWP is required to remove and replace the gutters all required labor, material and equipment owner agrees to pay all associated costs. Areas located within 10' of Primary or Secondary power sources will be isolated by Owner or are excluded from this proposal. Please refer to Taylor Waterproofing Standard Statement excluding Mold Abatement (see attached).

**Please Note:** All sealant work carries Taylor Waterproofing's Standard Written Warranty unless otherwise specified (available upon request).  
Standard Taylor Waterproofing's terms and conditions apply.  
Price is based on work being performed during regular business hours.  
Proposal is good for 30 days from date on proposal.

If I can be of further assistance, please feel free to give me a call.

Respectfully submitted, Travis Street Plaza, LP, by 4500 Travis, LLC it's GP

David J. Hoevker

Accepted by: Peter W. Postlmayr, Manager

Date: August 25th, 2020

David J. Hoevker

Based on Ed Breeze and David Hoevker text on July 21, 2020, This proposal covers 2 days of excavation and repair, if a third day is required, add \$1,500 to cover labor and equipment.

P.O. Box 16069 • Houston, TX 77222-6069  
Telephone: (713) 691-1430  
Fax: (713) 699-5766



2. Make all checks payable to Lawson Construction & Builders, Inc.
3. Please include the invoice number on your check.
4. 5% Fee applied after 30 days.
5. Liens to be issued after 60 days.



STATE OF TEXAS )  
)  
COUNTY OF HARRIS )

WAIVER OF LIEN  
  
(Release)  
SUBCONTRACTOR  
Construction Period from 12/01/2021 to 12/31/2021

To Whom It May Concern:

WHEREAS, the undersigned

Lawson Construction & Builders, Inc.  
38 Parker Rd.  
Houston, TX 77076

(Contractor)

has been employed by

Cloud Break Communities

(Owner)

FOR:

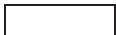
Unit #5544 Interior Repairs

of the premises known as

4500 Travis  
Houston, TX 77002

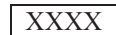
to furnish Labor, materials, insurance and other requirements necessary for the completion of Prop. No. 021-7521 as detailed in Invoice Number 021-8456 for the above said premises.

NOW, THEREFORE, the undersigned, for and in consideration of the sum of Sixteen thousand nine hundred twenty dollars and 00/100 (\$ 16,920.00) and other good and valuable considerations, the receipt where of is hereby acknowledged by the undersigned, does waive and



Partial Payment

Release to the extent of the above indicated amount

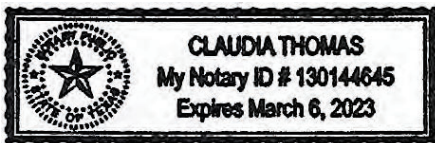


Full

Release any and all  
Payment

lien or claim or right to lien under the statutes of this State relating to mechanics' liens, with respect to and on the above described premises and the improvements thereon, and on the material, fixtures, apparatus or machinery furnished during the period mentioned above, and on the moneys or other considerations due or to become due from the owner, on account of labor, services, material, fixtures, apparatus or machinery heretofore furnished, or which may be furnished at any time hereafter, by the undersigned, to or on account of the said contractor of the said Owner, for the above described premises.

ATTEST




Notary Public in and for HARRIS County, Texas

My commission expires March 6, 2023  
Subscribed and sworn before me the 23<sup>rd</sup> day  
of December, 2021

Dated this 23<sup>rd</sup> day of December 2021

Lawson Construction & Builders, Inc.

(Name of Sole Ownership, Corporation or Partnership)

  
Signature of Sole Ownership or of Authorized Representative of Corporation

Robert W. Lawson



Claudia E. Thomas



# Engineering Diagnostics

**Corporate Office:**  
**327 Congress Avenue, Suite 630**  
**Austin, Texas 78701**  
**(512) 474-0400**  
[www.BuildingDX.com](http://www.BuildingDX.com)  
***"The Durability Experts"***

November 25, 2020

Cloudbreak Communities  
414 S. Marengo Avenue  
Pasadena, California 91101

Attention: Mr. Peter W. Postlmayr  
Director of Land Development

Subject: **REPORT OF FINDINGS**  
Cause NO.: AAA Case Number: #02-14-0002-3106  
4500 Travis Street, Houston, Texas  
Engineering Diagnostics Project No. B42-3905-A06

Engineering Diagnostics is pleased to present this report of our findings regarding water infiltration at 4500 Travis Street in Houston, Texas (the Project). This work was performed in substantial accordance with our proposal dated April 1, 2020. This report supplements our PowerPoint presentation dated February 2, 2015 and our Report of Findings dated January 5, 2018 and October 4, 2018; we stand by our opinions stated in these reports.

The Project is a 5-story multi-family residential building providing affordable housing to veterans. The building was constructed in 2012 and contains 192 residential units. The building is clad with metal panels, stucco, thin brick veneer (TBV), and cement board siding, with insulated glass unit (IGU) punched window openings. The roof consists of a single-ply TPO membrane. There are many offsets and changes in plane (vertical and horizontal) in the wall cladding.

We performed the following services for this project:

- Visited the Project on October 29 and 30, 2020 to conduct destructive testing of the cladding and water testing in general conformance with ASTM E2128 *Standard Guide for Evaluating Water Leakage of Building Walls*<sup>1</sup>, except a vacuum chamber was not erected. We documented our findings with field notes and photographs.
- Researched pertinent literature, codes, and standards.
- Reviewed the documents that were provided to us, including the following documents that are discussed below:
  - **Cotton Proposal.** Travis Street Plaza Proposal prepared by Cotton Commercial USA (Cotton) dated November 15, 2018.

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<sup>1</sup> This industry standard published by ASTM International is available here: [www.astm.org/Standards/E2128.htm](http://www.astm.org/Standards/E2128.htm)

- **DeSimone Report:** Preliminary Building Envelope Evaluation Report by DeSimone Consulting Engineers dated March 2, 2020, prepared on behalf of the Respondent Comanche Contractors, LP.
- **Ross Report:** AAA Case No. 01-14-0002-3106; Travis Street Plaza, L.P. v. Cantwell-Anderson Comanche, LLC and Comanche Contractors, LP by Bill Ross, P.E.-Construction Management Consultant dated December 17, 2018, prepared on behalf of the Respondent Comanche Contractors, LP.

## CONCLUSIONS

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1. We visited the Project on October 29 and 30, 2020 to conduct testing. We selected locations from previous studies of known leak locations to provide data-rich conditions (not random). The objective of this approach is qualitative, purposeful, and intended to address the question of why, how, and to what extent a building leaks.<sup>2</sup>

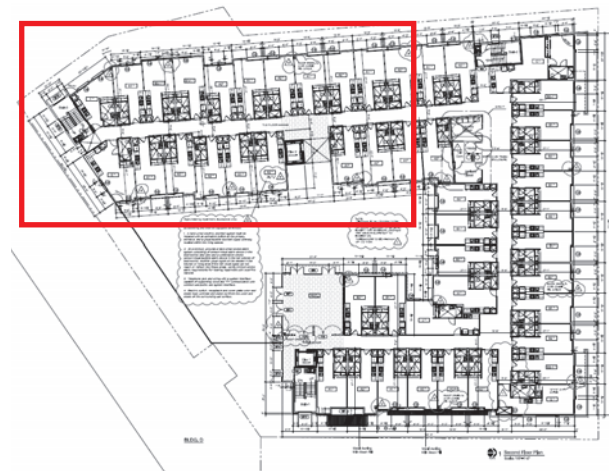


Figure 1.

The typical residential level floor plan (Levels 2 to 5) from Detail 1/A2.2 of drawings prepared by Togawa Smith, Martin, Residential, Inc. (TSMR) dated Rev 8. September 6, 2012.

The area in the red box is enlarged below on the 2<sup>nd</sup> floor plan.

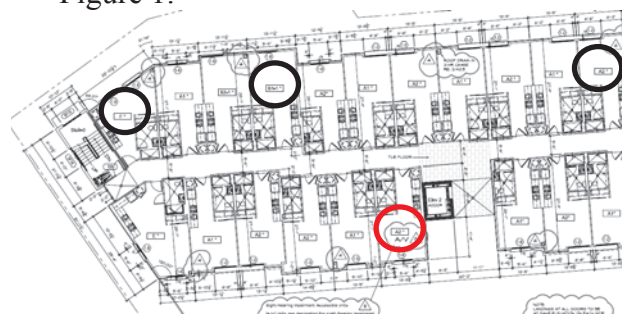


Figure 2.

On the west wing of the building, we tested the following units.

- 2229
- 2243
- 2248
- 3336 (above 2236, circled in red)

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<sup>2</sup> Houghton, L.L., and Murphy, C.R., "Qualitative Sampling of the Building Envelope for Water Leakage," *Journal of ASTM International*, Vol 4, No. 9, paper ID JAI100815, 2007



Figure 3.

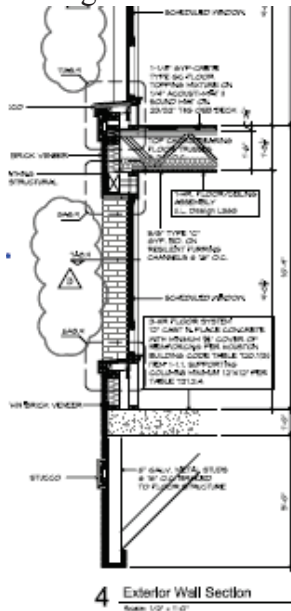


Figure 4.



Figure 5.

The window of Unit 2229 is circled.

We did not reproduced leakage at Unit 2229 during water testing. We directed water at the spandrel area and sill of the 3<sup>rd</sup> floor windows.

TSMR's wall section 4/A8.3 shows that the wall transitions from a single wood-framed wall on Level 3 to a double wood-framed wall on Level 2.

When we removed interior gypsum finishes, we could not see to the outer wood-framed cavity.

This photograph shows the thickness of the wall section of Unit 2229.

The insulated glass unit (IGU) spacer has failed and bowed inward (arrow). In our opinion, this represents a manufacturing defect of the window assembly and their supplied IGU.



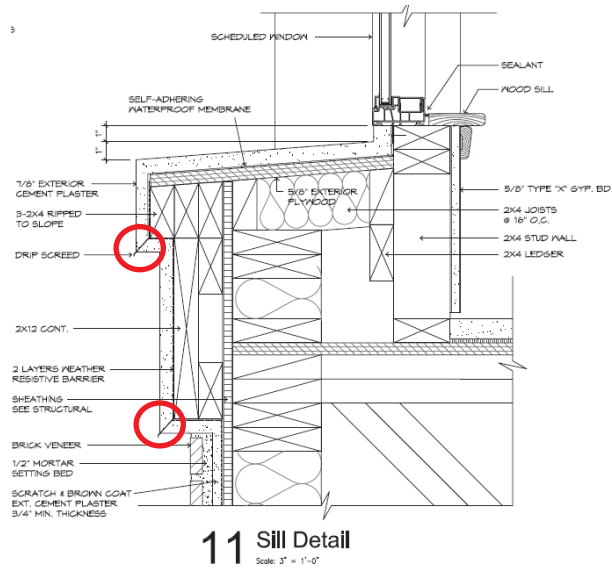


Figure 6.



Figure 7.

TSMR's Detail 11/A8.9 represents the sill at Level 3, above Unit 2229. The detail identifies drip screeds at the stucco offset edges (circles).

We observed no drip screed installed at the stucco offsets as shown in TSMR's Drawings and required by the building code and its incorporated standard ASTM C926. In our opinion, this represents a construction defect.

We observed cracks in the stucco cladding at the ledge. The cracking is likely the result of no construction control joints or expansion joints in the stucco bands. Joints are also not provided in the TBV, which is adhered by stucco.

We also observed efflorescence<sup>3</sup> on the TBV (arrow).

The joints are not shown in the TSMR architectural drawings. However, the TSMR Project Manual and the 2006 International Building Code (IBC) require control joints to comply with ASTM C1063, *Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster*.<sup>4</sup>

TSMR's Project Manual (page 09220-7, paragraph 3.4-A.3.b) states, "Distance between Control Joints: Not to exceed 18 feet in either direction or a length-to-width ratio of 2-1/2 to 1." In our opinion, the lack of control joints contributes to water behind the cladding materials and is a construction defect.

<sup>3</sup> *Failure Mechanisms in Building Construction*, edited by David H. Nicastro, P.E., ASCE Press, 1994: "Efflorescence. Salt accumulation (usually white) on the surface of a building material by drying or evaporation of the water from a salt-laden solution. Efflorescence most commonly consists of calcium and carbon sulfate and chlorides on the surface of masonry. The source is often unhydrated lime, which reacts with water and atmospheric carbon dioxide to form calcium carbonate and calcium sulfate. Efflorescence is generally not harmful, but can be unsightly."

<sup>4</sup> This industry standard published by ASTM International is available here: [www.astm.org/Standards/C1063.htm](http://www.astm.org/Standards/C1063.htm)



Figure 8.

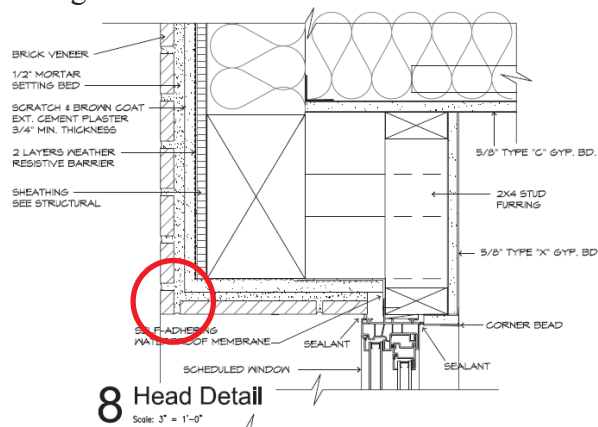


Figure 9.



Figure 10.

We excavated the stucco at the lower offset and found water-damaged wood framing in the concealed cavity. This water appears to be permeating the stucco and becoming trapped at the change in plane because of the lack of a drip screed.

TSMR's Detail 8/A8.9 represents the windows head at Unit 2229. The detail does not include a weep path for water behind the TBV and stucco (circle) at the window head as required by IBC 2006 and its incorporated standard, ASTM C926, *Standard Specification for Application of Portland Cement-Based Plaster*<sup>5</sup>.

We were unable to see this condition from the interior because of a window header (not shown in this detail).

We excavated the TBV and stucco at the head of Unit 2229. We observed water-damaged wood framing in the concealed cavity. This water appears to be permeating the TBV and stucco and becoming trapped at the change in plane because of the lack of a drip screed.

<sup>5</sup> This industry standard published by ASTM International is available here: [www.astm.org/Standards/C926.htm](http://www.astm.org/Standards/C926.htm)



Figure 11.

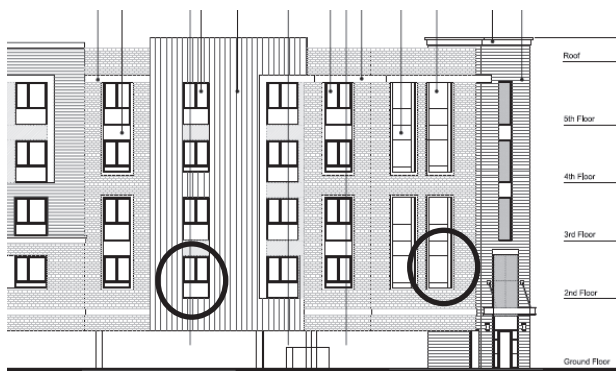


Figure 12.



Figure 13.

The window assemblies contain a weep from the intermediate horizontal rail that is inside the window glazing. Window systems typically direct water from the glazing cavity to the exterior of the building. Here, water drips from the weep and splashes out of the sill extrusion at the bottom of the window.

We observed this manufacturing defect during our earlier studies. In 2016, the manufacturer installed pre-formed seals over some of these weeps, but the work was not comprehensive. We observed no seals at the window weep covers in Unit 2229.

TSMR's Detail 1/A7.2 (partial) shows the locations of Tests 2243 (left) and 2248 (right).

We reproduced leakage at Unit 2243 by water testing in general conformance with ASTM E2128. We directed water at the spandrel area and sill of the 3<sup>rd</sup> floor windows.

We reproduced leaks at observed distress at the window head within 2 minutes of testing.



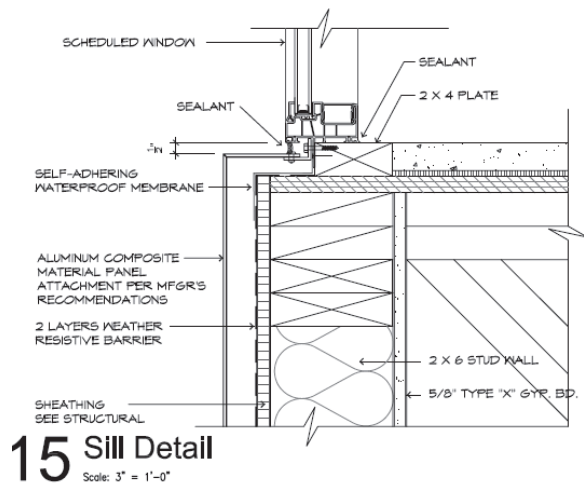


Figure 14.



Figure 15.



Figure 16.

TSMR's Detail 15/A8.8 shows the sill of the 3<sup>rd</sup> floor windows, above Unit 2243. The cladding at this location consists of fiber cement board (FCB) siding, not the aluminum composite panels shown in the detail.

We observed the as-built sill projection to contain unsealed joints. We observed failed sealant at the corners.

We removed the panel to observe the concealed wall conditions. We found wrinkles and tears in the water-resistive barrier (WRB), consistent with our 2018 study. We observed water-damaged wood through the holes in the WRB. In our opinion, these conditions represent construction defects and resultant damage.



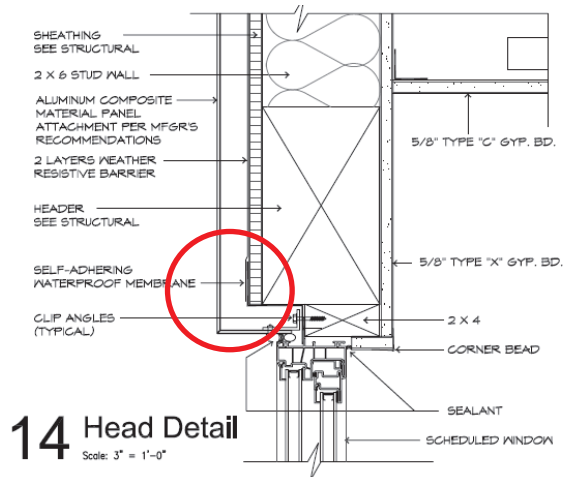


Figure 17.

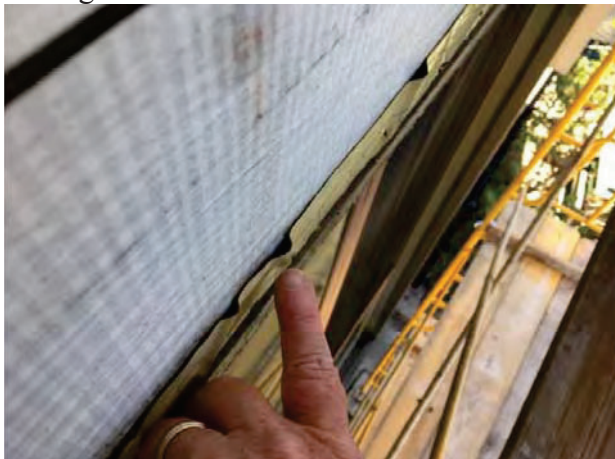


Figure 18.



Figure 19.

TSMR's Detail 14/A8.8 shows the head of the 2<sup>nd</sup> floor windows, at Unit 2243. The cladding at this location consists of FCB siding, not the aluminum composite panels shown in the detail.

TSMR detailed the WRB to lap over the window perimeter flashing at the face of the sheathing (circle), which is the proper sequence for shingling.

We observed the window head flashing to be reverse-lapped and to contain "fishmouths" of un-adhered and wrinkled membrane that allow water to migrate behind the WRB. In our opinion, these conditions represent construction defects.

No weeps were installed above the window head.



Figure 20.

We observed the window head flashing was cut and separated, with a gap at the back corner. In our opinion, these conditions represent construction defects.



Figure 21.

Following removal of the exterior siding, we observed daylight through the framing above the head of the window indicating the WRB is not continuous.



Figure 22.

See comments on interior weeps above.  
We observed the pre-formed seals at the interior weep below the intermediate horizontal mullion. This seal was not effective in blocking water from dripping during the water test.



Figure 23.



Figure 24.



Figure 25.

TSMR's Detail 1/A7.2 (partial) shows the locations of Tests 2243 (left) and 2248 (right).

The window of Unit 2248 is circled.

We did not reproduce leakage at Unit 2248 during water testing. We directed water at the spandrel area between the windows and at the vent adjacent to the windows.

This photograph shows the window sill of Unit 2248.

The IGU spacer has failed and bowed inward (arrows). In our opinion, this represents a manufacturing defect of the window assembly and their supplied IGU.



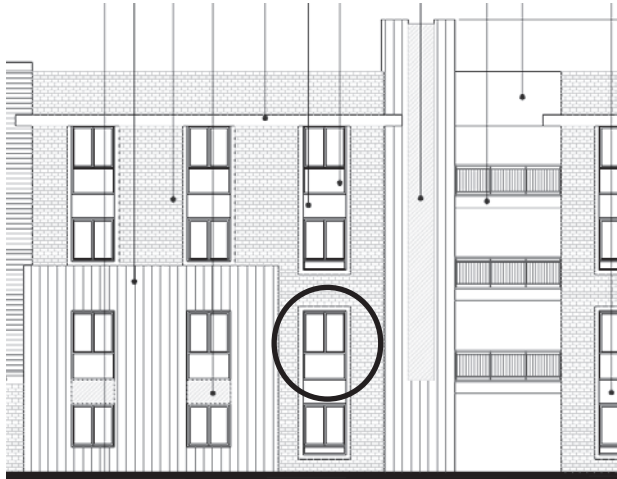


Figure 26.



Figure 27.



Figure 28.

TSMR's Detail 3/A7.3 (partial) shows the location of Unit 3336, facing the courtyard.

The window of Unit 3336 is circled.

We reproduced leakage at Units 3336 and 4436 by water testing in general conformance with ASTM E2128. We directed water at the spandrel area and sill of the 4<sup>th</sup> floor windows.

We observed leakage in Units 3336 and 4436 during testing. The overspray from the testing was above the intermediate horizontal, and water ran into the operable slider track.

See comments on interior weeps above.

We observed the pre-formed seals at the interior weep below the intermediate horizontal mullion. This seal was not effective in blocking water from dripping during the water test.

At approximately 10 minutes into the testing, water began dripping from the Unit 3336 south window jamb and the window head.



Figure 29.

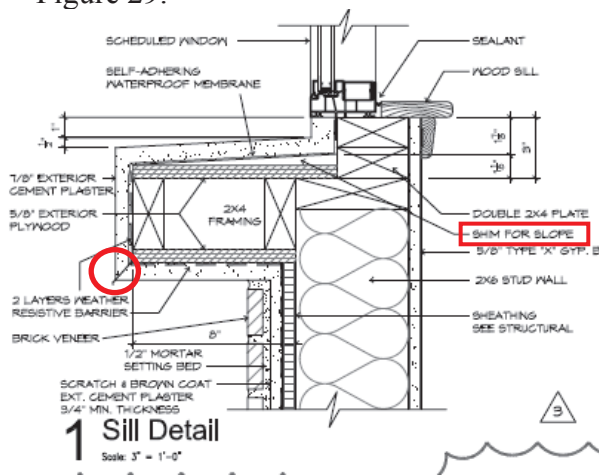


Figure 30.



Figure 31.

This photograph shows the window sill of Unit 4336.

The IGU spacer has failed and bowed inward (arrow). In our opinion, this represents a manufacturing defect of the window assembly and their supplied IGU.

TSMR's Detail 1/A8.8 shows the sill of the 4<sup>th</sup> floor windows. The detail shows a shim (rectangle) to slope the waterproofing on the stucco extension toward the exterior. It also shows a drip screed at the exterior edge of the stucco consistent with the details above (circle).

We observed no slope or shim in the structure below the self-adhered membrane and no drip screed at the outer lower edge of the stucco extension. In our opinion, these deviations from the design are construction defects.

Water-damaged wood was found in the excavation.



Figure 32.

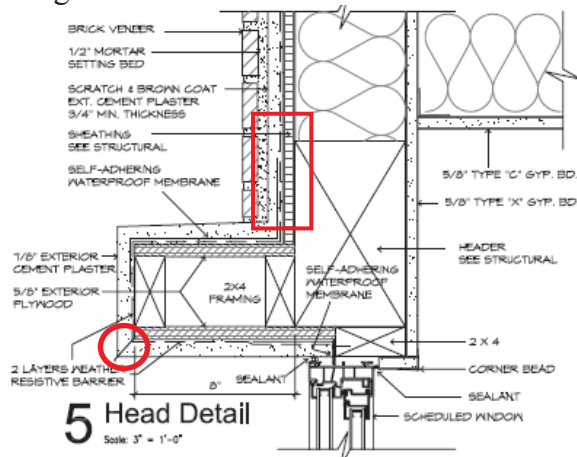


Figure 33.

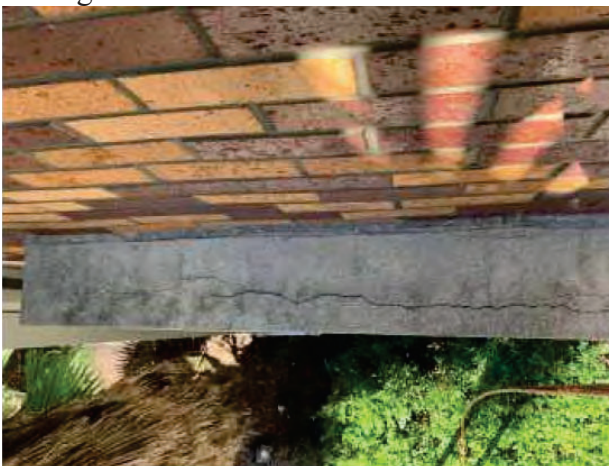


Figure 34.

We observed corroded stucco edge accessories at the sill of the 4<sup>th</sup> floor window from water trapped within the stucco.

TSMR's Detail 5/A8.8 shows the head of the 3<sup>rd</sup> floor windows. The detail does not include slope in the decking supporting the horizontal stucco. The detail shows a drip screed at the exterior edge of the stucco consistent with the details above (circle). The detail does not show a weep path for the TBV and stucco above the band. The detail also shows a reverse lap in the self-adhered membrane layering above the band (rectangle).

We observed cracks in the stucco band when viewed from above.





Figure 35.

This spirit level shows the stucco band sloping toward the building. As water migrates through the stucco, it will become trapped on the self-adhered membrane, eventually resulting in water seepage<sup>6</sup>.



Figure 36.

We observed no drip screed in the outer edge of the stucco band and no weeps in the base of the TBV above the stucco band. We observed a fillet bead of sealant between the TBV and the stucco band.



Figure 37.

We observed rust stains on the top and bottom of the ledge outer edges indicating corrosion of the metal lath from moisture trapped within the stucco.

---

<sup>6</sup> [Membrane Seepage](#) by David H. Nicastro, P.E., The Construction Specifier, September 2019.



Figure 38.

We observed rotten wood behind the stucco band at the 3<sup>rd</sup> floor head.



Figure 39.

We observed numerous areas of failed and unsealed joints between wall cladding materials. Many of the joints are too narrow to seal and do not comply with TMSR's Drawings for joint width. Undersized joints contribute to premature failure by not accommodating joint movement.

We reviewed the reports by DeSimone Report and the Ross Report and we did not find any items in our current study that change the opinions presented in our previous report except as noted below.

## **REPAIR SCOPE AND COST**

---

2. The Project experiences leakage at multiple locations from defects in the windows, the stucco, and the water resistive barrier (WRB) behind the stucco, masonry, and siding.
3. We observed as-built details that will trap water throughout the building envelope, and evidence that water has already become trapped. At many locations, water can enter the systems through normal openings and defects, but additional defects prevent it from exiting. The bottom of the stucco and TBV does not contain weeps or is sealed to the adjacent materials rather than being flashed to the exterior at ledges as required by codes and standards.
4. Because of the double-walled construction, water may not be detected after it percolates through the outermost components, remaining hidden within the wall cavity. We found concealed water damage in our excavations.



5. Water placed into operable window units during our testing leaked through interior weep holes, bypassing the manufacturer's attempted remedy in the same weep holes.
6. The WRB behind the stucco is a single layer of wrap with an additional layer of felt paper, which is a marginal system when perfectly installed on vertical walls. Additional self-adhered flashing is used at the windows and ledges but is punctured by the stucco lath fasteners. It is not surprising that several of the known leaks occur below these stucco shelves. We observed reverse laps and voids in the WRB and flashings.
7. Our water testing confirmed that there are breaches in the WRB, with leaks occurring in less than 5 minutes after spraying water on the stucco. For water to leak to the interior, it has to migrate past both the visible exterior finishes and the concealed waterproofing and drainage layers.
8. In addition, we observed rust leaching from stucco at some ledges, indicating that trapped water is corroding the metal lath and accessories. Continued water infiltration can be expected to accelerate the corrosion, causing disintegration of the lath and fasteners that secure the stucco to the framing. Deterioration of wood framing was also observed inside the building.
9. We recommend implementing comprehensive repairs to arrest the current leaks, to repair the current damage, and to prevent further deterioration of the materials. Our article *Four Ways to Fix a Problem*<sup>7</sup> compares different repair approaches. In our opinion, the appropriate scope for the Project is – Level 3: Comprehensive External Remedy. Specifically, we recommend the following scope of repairs.
  - a. Windows and flashing:
    - i. In this study and in our previous studies, we found the windows leak from the interior weeps, causing a splash in the sill below, and from the horizontal-to-vertical mullion intersections. The shape of the mullions does not allow effective wet-sealing. In addition, wet-sealing would make the units inoperable. Therefore, we recommend replacing the windows.
    - ii. As noted in our previous studies, we observed fogged, stained, and water-filled IGUs. We also observed numerous lites with displaced spacers. These conditions would be addressed by the window replacement.
    - iii. We reproduced leaks by directing water at the perimeter cladding of the windows, confirming defects in the WRB and the flashing integration with the windows. These conditions would be addressed by the window replacement.
  - b. Stucco and TBV:
    - i. Our water testing confirmed that there are breaches in the WRB, with leaks occurring after spraying water on the stucco and TBV. For water to leak to the interior, it has to migrate past both the visible exterior finishes and the concealed waterproofing and drainage layers.

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<sup>7</sup> [\*Four Ways to Fix a Problem\*](#), by David H. Nicastro, P.E., The Construction Specifier, May 2015.

- ii. In our October 4, 2018 report we recommended replacement of the WRB because of construction defects. We confirmed similar construction defects in in this study. It is possible that during remedial construction some areas may be found to be salvageable without replacement.
    - iii. Our previous recommendations included covering the stucco ledges with a metal flashing. Based on our observation of extensive framing deterioration, we recommend coring the stucco ledges and repairing any wood damage found before installing the metal flashing.
  - c. FCB Siding
    - i. We recommend inspection of the WRB and sheathing during window replacement. Where water damage is discovered, the repair area should be extended until undamaged materials are encountered.
    - ii. We recommend installing though-wall flashing at the transitions between dissimilar cladding materials.
  - d. Metal Panels
    - i. In our opinion, the sheathing behind the metal panels is the least likely to be damaged by water. We recommend inspection of the WRB and sheathing during window replacement. Where water damage is discovered, the repair area should be extended until undamaged materials are encountered.
  - e. Exhaust Vents
    - i. In our previous studies, we observed exhaust vent covers that were not flashed and were not connected to the ducts. We recommend removing the cladding and reconstructing the vents and flashing to close these penetrations.
- 10. The Cotton Proposal estimates \$3.25M to replace all cladding, repair waterproofing and sheathing, and repair interior gypsum board. In our opinion, this represents the reasonable cost of necessary repairs. Alternative repair strategies that include core sampling could potentially limit some of the work items.
  - a. The Cotton Proposal does not provide a breakdown of the unit costs for the individual work items. We compared the square footage of the exterior with the square footage of similar projects and find the repair costs to be competitive.
  - b. The Cotton Proposal excludes structural framing; this cost would need to be added. We recommend budgeting an additional \$50,000 as the reasonable and necessary cost to repair an estimated 25 percent of the framing at the eyebrows.
  - c. In our opinion, these costs can be allocated to the responsible parties based on defects within wall types as follows:
    - i. Window manufacturing issues: 15%
    - ii. Design issues: 20%.
    - iii. Construction Defects: 65%

## **STANDARD REPORT LIMITATIONS**

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This report is the rendering of a professional service, the essence of which entails professional judgment, opinion, and/or skill. This report is for the exclusive use of the client; except with express permission from Building Diagnostics, Inc. (BDI), no other party may rely on it. All information contained in or disclosed by this report is considered by BDI to be confidential and proprietary information. This report shall not be reproduced or transmitted, in whole or in part, on paper or electronically, except with express permission from BDI.

This report is intended to provide a general overview of the information and conditions observed at the Project at the time of our site visit(s). A comprehensive study was not conducted to identify, document, and evaluate every existing defect or deficiency, nor every building code, accessibility, or life safety violation. In some cases, additional study may be required to fully evaluate deficiencies noted. The opinions and recommendations in this report should not be construed in any way to constitute a representation, warranty, or guarantee regarding the current or future performance of any system identified.

The opinions and recommendations presented are based on observations, a review of available documents as previously noted, and discussions with personnel familiar with the Project. Unless specifically discussed in this report, no calculations have been performed to determine the adequacy of the Project's original design. It is possible that defects and/or deficiencies exist that were not readily accessible or visible, or that were inadvertently overlooked. In addition, other problems that were not evident at the time of the assessment may develop over time.

Our opinions of probable construction cost (if any) for the recommended work are preliminary, order-of-magnitude estimates in today's dollars (not adjusted for inflation or present value) based on conceptual remedial procedures for Projects of similar construction. They do not include mobilization, over-time, or after-hours work, unless otherwise stated. These cost estimates are professional opinions, which we typically base on published data, discussions with local contractors, and/or our past experience. Total repair quantities used to develop opinions of cost are typically based on an extrapolation of quantities of visible distress in representative areas of the Project. The repair quantities should be representative of the magnitude of repairs required; however, in restoration work, concealed deterioration often results in greater repair quantities than indicated by visible distress. These cost estimates should not be interpreted as being a bid, nor an offer to perform the work. Repairs to specific elevations or segmenting the work would likely result in a higher unit cost and mobilization fees. Detailed design services are recommended to obtain firm pricing from contractors. Actual bids based on detailed remedial designs may be either higher or lower than our opinions of cost; we have no control over contractors' methods of pricing labor, equipment, and materials. Professional fees associated with the design and monitoring of the recommended work are not included unless otherwise stated.

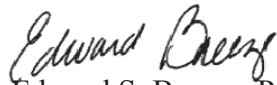
## CLOSING

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Thank you for the opportunity to serve as your consultant. We will follow up with you soon on this report.

Sincerely,

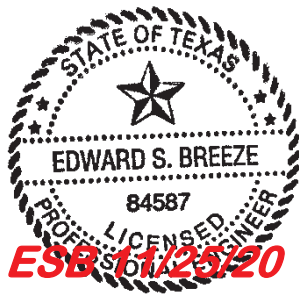
Building Diagnostics, Inc. d/b/a  
**ENGINEERING DIAGNOSTICS**



Edward S. Breeze, P.E.  
Principal Engineer



David H. Nicastro, P.E.  
Chief Executive Officer



This document contains an electronically-applied seal  
authorized on the date imprinted over the seal by  
Edward S, Breeze, Texas P.E. #84587.  
Texas Cert. of Reg. No. F-10471



# Building Diagnostics

327 Congress Avenue, Suite 630

Austin, Texas 78701

(512) 474-0400

[www.BuildingDX.com](http://www.BuildingDX.com)

***"The Durability Experts"***

April 22, 2022

Travis Street Plaza, LP  
4500 Travis Street  
Houston, Texas 77002

Attention: Mr. Peter Postlmayr  
Director of Land Development

Subject: **PROPOSAL TO PROVIDE CONSULTING SERVICES**  
Stack 39 Repair Design  
4500 Travis Street, Houston, Texas  
Building Diagnostics Project No. B42-3905-A08

Building Diagnostics is pleased to submit this proposal for remedial design services for Stack 39 at 4500 Travis in Houston, Texas. This proposal was requested by Mr. Steve Wellnitz during a meeting with our engineer, Mr. Edward Breeze.

## **S U M M A R Y   O F   P R O P O S A L**

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**Proposed Approach:** Phase 1 – Study, design, and competitive bidding.  
Phase 2 – Contract administration and construction monitoring.

**Proposed Fee:** Phase 1 – Lump Sum \$14,900.00 (not including contractor cost)  
Phase 2 – Negotiable; to be determined after selection of contractor and remedial scope. We recommend budgeting \$8,000 per month. We estimate the construction duration will exceed 3 months.

**Proposed Schedule:** Phase 1 – We will endeavor to issue the design documents within 5 weeks after receiving written authorization. Bidding is expected to take 3 additional weeks.  
Phase 2 – Determined by contractor.

**Deliverables:** Phase 1 – Bidding documents and transmittal report. Provide recommendation of award at completion of the bidding process.

***Consultants Specializing in Durable Performance of Buildings and Materials***



## BACKGROUND INFORMATION

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The following pertinent project information that we relied on to prepare this proposal (Background Information) was obtained from Mr. Wellnitz and our observations at the site. The 4500 Travis Street building is a 5-story multi-family residential building providing affordable housing to veterans. We are familiar with the property, having performed previous and on-going consulting services.

The building was constructed in 2012 and contains 192 residential units. The building is clad with metal panels, Portland cement plaster (stucco), adhered masonry veneer, and cement board siding, with insulated glass units (IGUs) in punched window openings. There are many offsets and changes in plane (vertical and horizontal) for the wall cladding. The roof consists of a single-ply thermoplastic polyolefin (TPO) membrane.



Photograph No. 1.

Additional water damage has been discovered at the interiors of Units 2239, 3339, and 4439 (Stack 39). The investigation of leak source(s) is ongoing. Portions of the floor truss top chord, wood studs and floor plates at these units have deteriorated and require repair before installation of the decking, wall, and finishes. The replacement of damaged stud framing will require that portions of the exterior wall cladding be demolished and reconstructed for this stack.

## SCOPE OF SERVICES

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We understand that you would like to retain Building Diagnostics to provide remedial study, design, bidding, and monitoring services for the conditions outlined above. Specifically, we propose to perform the following services:

### **Phase 1 – Study, Design, and Bidding**

1. **Drawing Review.** We will review available and pertinent construction drawings to determine the design intent of the framing and the cladding transitions at these units.
2. **Study.** We will perform a “walk-through” visual survey of the units in Stack 39 to observe general compliance of the existing structure with the structural drawings, and to document existing conditions that could adversely affect the load capacity and waterproofing. We will document our findings with field notes and photographs.
3. **Calculations.** We will perform limited structural calculations to determine the likely capacity of the existing components in the load path, based on our observations, measurements, and assumed material properties.

- a. This study does not include destructive or non-destructive testing nor material testing to determine in situ strength of materials, nor destructive observation of the structural members to confirm information shown on the structural drawings.
4. **Evaluation.** We will evaluate our findings to hypothesize sources of water infiltration, based on leak locations, related building features, and our observations of the existing conditions.
5. **Design.** We will finalize our design concepts for the remedial work, and select products and installation methods.
  - a. It may not be possible to closely match the appearance of the existing adhered masonry veneer (AMV). We will provide recommendations for accommodating the partial replacement appearance, such as using accent bands in a contrasting color.
6. **Bidding Documents.** Once the scope of work is confirmed, we will prepare bidding documents, including EJCDC standard agreement (stipulated price) and general conditions, supplementary conditions, bid form, instructions to bidders, specifications, and drawings.
7. **Bidding.** We will issue the bidding documents to at least 3 mutually-acceptable contractors. We will convene and lead a pre-bid meeting with the bidders and you. During bidding, we will issue addenda as necessary to address bidders' questions and to provide supplementary design information.
8. **Bid Tabulation.** After receiving bids, we will review and tabulate them.
9. **Report.** We will prepare a report documenting our findings, conclusions, recommendations, and the decisions that culminated in the design presented in the bidding documents.
  - a. Our report will include our Standard Report Limitations (copy attached).
  - b. This report will include our recommendation for the award of a contract to the successful bidder.

Our philosophy is that competitive bidding is an "elimination round", to select the contractor who offers the best price and time to complete the defined scope of work. Subsequently, the contractor, designer, and owner should negotiate the final scope of work, contract price, and contract time. The design process continues through award of a contract to the successful bidder, and throughout construction as we assist the contractor to address unforeseeable conditions.

## **Phase 2 – Contract Administration and Construction Monitoring**

Building Diagnostics' policy is to perform design services only for clients who will allow us to follow through with a reasonable amount of on-site monitoring during implementation. While the contract documents may be thorough, it is essential to follow through during construction with designer involvement to observe the quality and progress of the implemented work; to observe compliance with the design intent and the contract documents; and to investigate and adjust the design to accommodate existing conditions that are discovered during construction.

Specifically, we propose to perform the following construction monitoring and contract administration services during construction:

1. **Contract Award.** After choosing a successful bidder, we will complete the contract documents and forward them to the contractor for signature. We will have the contractor

forward the signed contract documents to you. We will provide a standard EJCDC notice to proceed to you to sign and issue to the contractor when the contract documents have been fully executed and distributed; this will start the Contract Time.

2. **Pre-Construction Meeting.** We will convene a pre-construction meeting with you and the contractor. We will email a summary of action items from this and subsequent meetings (in lieu of formal meeting minutes).
3. **Construction Progress Meetings.** We will convene regularly scheduled construction progress meetings with you and the contractor at the site, typically once per week.
4. **Submittal Review.** We will review the contractor's submittals for compliance with the contract documents, including schedule, shop drawings, product data, samples, and progress payment applications, and, if required, change order requests. We will forward the reviewed copies to you with our recommendation for disposition of each.
5. **Payment Application Review.** We will review the contractor's payment applications and will submit them to you with our recommendations.
  - a. Our review of payment applications is for general compliance with the contract documents using a standard checklist. We are not qualified to comment on the appropriateness of sales tax, lien waiver text, or similar legal issues; we merely check whether the information submitted by the contractor complies with the established procedures for this project.
  - b. On the contractor's applications for payment, we will apply the following label over the similar text at the lower right corner of the standard AIA G702 form:

**ENGINEER'S RECOMMENDATION FOR PAYMENT**

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, Engineer states to Owner that to the best of Engineer's knowledge, information, and belief, the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and Contractor is entitled to payment of the AMOUNT RECOMMENDED.

**AMOUNT RECOMMENDED** ----- \$ \_\_\_\_\_

*(Attach explanation if Amount Recommended differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the Amount Recommended.)*

**ENGINEER:** Building Diagnostics, Inc.

By: \_\_\_\_\_ Date: \_\_\_\_\_

6. **Periodic Monitoring.** During construction, we will periodically monitor the work to observe general compliance with the contract documents and the design intent. Site visits will be performed at intervals appropriate to the various stages of construction to observe the general progress and quality of the work. We will prepare a hand-written report after each site visit.
  - a. We will also perform the tests (or observe tests performed by the contractor) included in the contract documents. We will perform sealant adhesion testing in general accordance with ASTM C1521, Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant.
7. **Additional Study and Design.** If existing conditions are discovered during construction that differ substantially from the expected conditions, we will investigate those conditions and design additional remedies to accommodate them.

- a. We will notify you before you incur any additional charge for such services, if those services require a substantial increase in our involvement beyond the routine processing of field information. Typically, if such changes require submitting a Request for Pricing to the contractor, then you should also expect that we will request compensation for the additional study and design services.
8. **Progress Reports.** We will submit a brief, standardized summary email to you at key intervals during the project, transmitting the contractor's payment applications with our recommendations.
9. **Completion.** At substantial completion, we will prepare a punch list of items for the contractor to remedy. After completion of those items, we will perform a final review and prepare a brief final report describing field decisions made during the work and the expected performance of the completed system, and warranty and maintenance instructions.

## **PROFESSIONAL FEES**

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We will perform the design and bidding services outlined above (Phase 1) for the lump sum fee stated on Page 1, through recommendation of award of a contract to a successful bidder.

The amount of monitoring we recommend and the amount that is valuable to you will depend on the contractor selected and the final scope and schedule of the remedial work. Therefore, it is difficult to predict the overall cost of monitoring until after receipt of bids. We will confirm a mutually-acceptable budget for Phase 2 (contract administration and construction monitoring) before awarding a contract to one of the bidders.

Typically, we perform services for a lump sum fee, including reports, reimbursable expenses, subcontractor costs, and incidental related consulting fees. Building Diagnostics is committed to a policy of *No Hassles*; our fees are firm quotations, payable at the conclusion of the authorized services, or in reasonable installments during the course of longer projects. For design projects, our policy is to submit 1 invoice for our services when the design documents are issued; although additional professional services are rendered after issuing the design, the majority of the personnel time is spent prior to issuing the documents. Our fee quotations are based on the following unit rates:

### **Schedule of Fees**

Administrative Services, per hour .....	\$100.00
Technician or Document Manager, per hour .....	\$125.00
Sr. Technician; Staff Engineer or Consultant, per hour ....	\$175.00
Project Engineer or Manager, per hour .....	\$225.00
Senior Engineer or Consultant, per hour .....	\$300.00
Principal, per hour .....	\$375.00
Corporate Officer, per hour .....	\$400.00
Vehicle Mileage, per mile .....	\$0.65
Document Indexing, per page .....	\$0.50
Reimbursable Expense, multiplier .....	1.1 x

If utilized on a project, other personnel charge at rates commensurate with their experience. Overtime is charged at 1.5 times the rates shown above for hourly “non-exempt” personnel working on 1 task for more than 8 hours in 1 day or more than 40 hours in 1 week. Time posted to a task includes portal-to-portal travel where applicable. Special equipment and software use are charged at appropriate hourly or daily rates.

## **SCHEDULE**

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We will commence work on this project within 1 week after receiving your written authorization to proceed (the Authorization Date). We will perform our services with due and reasonable diligence consistent with sound professional practices; accordingly, while we cannot state with certainty when we will issue the deliverables, we anticipate issuing them within the number of calendar weeks after the Authorization Date stated on Page 1 in the Summary of Proposal. Bidding is expected to take an additional 3 weeks. If you have other scheduling constraints, please notify us and we will endeavor to accommodate them.

## **AUTHORIZATION**

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We propose to perform the services outlined above under the terms and conditions of our existing Agreement signed by Client on November 17, 2021. That Agreement is incorporated herein by reference; if you are not certain what Agreement is referenced, please request a copy. To authorize us to perform the proposed services, please sign and return 1 copy of the attached Task Authorization Sheet.

## **CLOSING**

---

We look forward to continuing to serve as your facilities consultant. If we can be of service, please do not hesitate to call. We will call you soon to follow up on this proposal.

Sincerely,

**BUILDING DIAGNOSTICS, INC.**



Edward S. Breeze, P.E.  
Principal Engineer



David H. Nicastro, P.E.  
Chief Executive Officer

CC: William E. Morfey, Spencer Fane, LLP





# Building Diagnostics

327 Congress Avenue, Suite 630

Austin, Texas 78701

(512) 474-0400

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***"The Durability Experts"***

The following Standard Report Limitations will be included as a material part of our report.

## **STANDARD REPORT LIMITATIONS**

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This report is the rendering of a professional service, the essence of which entails professional judgment, opinion, and/or skill. This report is for the exclusive use of the client; except with express permission from Building Diagnostics, Inc. (BDI), no other party may rely on it. All information contained in or disclosed by this report is considered by BDI to be confidential and proprietary information. This report shall not be reproduced or transmitted, in whole or in part, on paper or electronically, except with express permission from BDI.

This report is intended to provide a general overview of the information and conditions observed at the Project at the time of our site visit(s). A comprehensive study was not conducted to identify, document, and evaluate every existing defect or deficiency, nor every building code, accessibility, or life safety violation. In some cases, additional study may be required to fully evaluate deficiencies noted. The opinions and recommendations in this report should not be construed in any way to constitute a representation, warranty, or guarantee regarding the current or future performance of any system identified.

The opinions and recommendations presented are based on observations, a review of available documents as previously noted, and discussions with personnel familiar with the Project. Unless specifically discussed in this report, no calculations have been performed to determine the adequacy of the Project's original design. It is possible that defects and/or deficiencies exist that were not readily accessible or visible, or that were inadvertently overlooked. In addition, other problems that were not evident at the time of the assessment may develop over time.

Our opinions of probable construction cost (if any) for the recommended work are preliminary, order-of-magnitude estimates in today's dollars (not adjusted for inflation or present value) based on conceptual remedial procedures for buildings of similar construction. They do not include mobilization, over-time, or after-hours work, unless otherwise stated. These cost estimates are professional opinions, which we typically base on published data, discussions with local contractors, and/or our past experience. Total repair quantities used to develop opinions of cost are typically based on an extrapolation of quantities of visible distress in representative areas of the property. The repair quantities should be representative of the magnitude of repairs required; however, in restoration work, concealed deterioration often results in greater repair quantities than indicated by visible distress. These cost estimates should not be interpreted as being a bid, nor an offer to perform the work. Repairs to specific elevations or segmenting the work would likely result in a higher unit cost and mobilization fees. Detailed design services are recommended to obtain firm pricing from contractors. Actual bids based on detailed remedial designs may be either higher or lower than our opinions of cost; we have no control over contractors' methods of pricing labor, equipment, and materials. Professional fees associated with the design and monitoring of the recommended work are not included unless otherwise stated.

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## Task Authorization Sheet

This Task Number: B42-3905-A09

Work Performed Under Master Agreement No.: B42-3905-A06

Referenced Agreement Signed by Client (Date): April 8, 2020

Site: 4500 Travis Street, Houston, Texas

**Task Description:** Design and Bidding of structural and waterproofing repairs to Stack 39. See proposal dated April 15, 2022.

**Additional Information Attached?** ☒ Yes ☐ No

**Fee:** Lump sum \$14,900.00.

**Deadlines/Schedule:** Issue design documents and report within 5 weeks after receiving written authorization.

## Authorization

**Building Diagnostics, Inc.**

A handwritten signature in cursive script that reads "Edward Breeze".

Signature

Edward S. Breeze, P.E.

Printed Name

April 22, 2022

Date

**4500 Travis Street, LLC General Partner  
for Travis Street Plaza, LP**

A handwritten signature in cursive script that reads "Steven Wellnitz".

Signature

Steven C Wellnitz

Printed Name

09/23/2022

Date

***Consultants Specializing in Durable Performance of Buildings and Materials***



# Building Diagnostics

327 Congress Avenue, Suite 630  
Austin, Texas 78701  
(512) 474-0400

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A Texas Corporation

Taxpayer ID 26-2245612

**INVOICE NUMBER:** B42-3905-A09-10572

Project Name: **4500 Travis Street Stack 39 Repair**  
Design and Monitoring  
4500 Travis St., Houston, Texas

Invoice Issued Date: October 7, 2022

Past Due Date: November 6, 2022 (Service charges accrue from Invoice Issued Date above if payment is received later than the Past Due Date.)

Charge To: Peter W. Postlmayr  
Cloudbreak Communities  
414 S. Marengo Avenue  
Pasadena, California 91101

Make Payment To: Building Diagnostics, Inc.  
327 Congress Avenue, Suite 630  
Austin, Texas 78701

Wire Transfer Instructions: Bank Name: Frost Bank  
Routing Number: 114 000 093  
Account Number: 591 401 432  
SWIFT CODE: FRSTUS44

Amount Due: \$ **14,000.00 FINAL INVOICE**

(Signature)

# Approved

10/10/2022 9:58:31 AM

Steven Wellnitz

## Contract Summary

Approved Budget:	\$14,900.00
Previously Invoiced:	\$0.00
<b>This Invoice:</b>	<b>\$ 14,000.00</b>
Budget Remaining:	\$900.00



To: Peter Postlmayr  
4500 Travis Street

April 9, 2020

RE: Travis Street Plaza Waterproofing Project Proposal

Cotton Commercial USA, Inc. submits for your consideration the following proposal from the Waterproofing Project located at 4500 Travis Street. Our proposal includes mobilization, equipment, labor, material and demobilization to do the follow Scope of Work.

### **SCOPE OF WORK**

#### **A. Cotton Commercial USA, Inc. responsibilities:**

- ❖ Project Management and scheduling
- ❖ Shop drawings, Manufacture's documents for Warranties and Guarantees.
- ❖ Testing, Inspections and Q/C – Quality Control throughout project.
- ❖ Scaffolding and overhead protection is provided

#### **B. Window Flashing (Approximately 8,000 Square Feet)**

- ❖ Install a bead of 925 BES Sealant at rough opening corner interface
- ❖ Install Henry Blueskin SA at the windowsill, jams and header prior to window
- ❖ Install Henry Bead of 925 BES at all flashing seams
- ❖ Once window is installed, install flashing as needed to terminate and tie into existing system
- ❖ Cotton will hire a 3<sup>rd</sup> party to conduct testing at 5 percent of the windows installed
- ❖ Penetrations from the 2<sup>nd</sup> floor and up are included in the proposal

**Exclusions:** Patching and repairing substrate prior to application, interior sealants, MEP, fire stopping, sealants associated with roofing, site sealants, custom colors, material exposed to UV for more than 30 days if Non-UV stable material, copper materials damaged by other trades and any other work not listed above.

#### **C. Windows Installation – 216 Jeld-Wen Window Units**

- ❖ 6 Window Types – Custom Sizes \*Credit for Materials "Noted" at Bottom of Proposal
- ❖ All Mulled Sliding/Fixed combinations window units
- ❖ Argon Gas
- ❖ Nail Fin

#### **D. Material Removal and Re-Installation**

- ❖ R&R Approx. 2,500 SF metal panel surrounding to allow for window R&R
- ❖ R&R Approx. 3,800 SF brick surrounding to allow for window R&R

- ❖ R&R Approx. 4,800 SF siding surrounding to allow for window R&R
- ❖ R&R Approx. 6,200 SF stucco surrounding to allow for window R&R
- ❖ Interior repairs from 216 window removal and replacement

**E. Window Removal and Jeld-Wen Glazing – 216 Openings**

- ❖ R&R with new Jeld-Wen windows and disposal of existing windows

**Exclusions:** Exterior furniture to be moved or replaced. Upon removal of stucco, panels, siding, brick and substrates there is always the possibility that there will be some structural damages. The cost associated with any structural repairs are beyond the scope of this estimate and will be assessed accordingly at the time.

**F. Planter Box Waterproofing**

- ❖ Remove existing waterproofing down to the manufacturer's recommended surface
- ❖ Detail all voids, laps and transitions with Tremco 250 T
- ❖ Furnish and install Tremco 250 GC at 90 wet nails
- ❖ Cotton to conduct a 24-hour water test on each planter box
- ❖ Document and record all test
- ❖ Once planter box passes test, install protection board with termination bar
- ❖ Install drain board with root barrier

**Exclusions:** Under slab vapor-barrier, structure damage, plants, soil, reinforcements, negative side waterproofing, trenching, backfilling, under slab drainage system, repair installed materials damaged by other trades, repair substrate and any work not listed above.

**G. Brick Sealer – Approximately 30,000 Square Feet**

- ❖ Pressure wash the brick tile at 3000 PSI to remove any bond inhibitor
- ❖ Install Proscowater repellent per manufacture

**Exclusions:** replacement of existing brick tile or reinforcement, repair of installed materials damaged by others, repair substrate and any work not listed above.

**PRICING**

Lump sum price per listed scopes of work:

**\$3,249,742.00**

We would like to thank you for your consideration and look forward to working with you on this project. Please let me know if you have any questions.

Sincerely,

Bill Jatzlau  
Cotton Commercial USA, Inc.  
281-979-6411  
[bill.jatzlau@cottonteam.com](mailto:bill.jatzlau@cottonteam.com)





December 22, 2021

Mr. William Morfey  
Spencer Fane, LLP  
3040 Post Oak Blvd. Suite 1300  
Houston, Texas 77056

Re: Travis Street Apartments Repair Matter

Gentlemen,

Attached please find our report on the reasonable and necessary costs of the repair work on the above referenced project. The budget included in the report considers both hard and certain soft costs. A complement to this cost estimate is a repair schedule, which will explain the approach taken to develop the repair estimate. Additionally, we are providing notes & qualifications to explain this repair estimate in context.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Stauch", is positioned above the printed name of the sender.

David Stauch  
Managing Principal

## Executive Summary

The Travis Street Apartment is a 5-story, 192-unit, multi-family building providing affordable housing to Veterans in Houston, Texas. The project is owned by Travis Street Plaza L.P. (Owner). The project was built by Comanche Contractors and was completed in 2012. In the time since opening, the building has experienced building envelope water infiltration and associated damage as noted in several reports by Building Diagnostics dba Engineering Diagnostics (BD/ED). Additionally, a separate consultant noted problems within the HVAC system. This is contained in a report by HMG Associates (HMG).

CPM Texas (CPM) was engaged in August 2021 by the Owner. The scope of our engagement was to provide a detailed cost estimate in response to the repairs noted in the BD/ED reports. In order to produce a credible estimate, we also undertook a scheduling exercise to demonstrate the logistics necessary for working around the building in a reasonably efficient manner.

A necessary part of this effort included detailed quantity surveys, both by floor and by elevation, of each building element involved. These quantities informed our phasing schedule. The pricing of the work itself was accomplished by accessing our internal, historical costs as well as interviews and estimates with local (Houston) contractors experienced in this type of work.

Based upon the information provided to us, and our additional research on this matter, we believe a reasonable repair cost budget will be \$5,249,000 – not including:

- Related haz-mat cost,
- Relocation costs,
- Un-recouped taxes & utilities on vacancies,
- Un-recouped building operational costs and
- Associated economic loss.

## Background

The Travis Street Apartments complex is a 5-story, 192-unit, multi-family project located in Houston, Texas. The building structure is comprised of a single level concrete parking podium and 4 levels of wood-framed residential floors above. The project was built by Comanche Contractors and was completed in 2012 according to BD/ED reports.

The structural system is a wood frame. According to the reviewed drawings and confirmed with onsite observations, exterior walls are clad with metal panels, conventional 7/8" thick stucco, thin brick veneer, and cement board siding, with insulated glass unit 'punched' window openings. There are numerous offsets and plane changes (both vertical and horizontal) on every exterior elevation of the building.

At some time during the life of the project, the building began experiencing water infiltration and resultant interior damage. The project Owner engaged BD/ED to evaluate these concerns. Upon completion of its evaluation, BD/ED provided a report dated February 2, 2015. Photographic images of apparent defects have been produced and are included in the report. BD/ED then provided subsequent reports in the years 2018, 2019, and 2020 that further highlighted the apparent defects. CPM has relied upon the technical representations in those reports, as well as subsequent clarifications by BD/ED for our estimate.

The HVAC system installation has contributed to moisture problems within the building(s). HMG reported on these in a February 2021 report that also included remedies and anticipated costs.

CPM was engaged to visit the site, to note the existing conditions and the reports by BD/ED and HMG, and to prepare a detailed cost estimate for all associated repair work.



## Observations & Findings

Dave Stauch and Brian Wheelis (both of CPM), Ed Breeze (BD/ED), and William Morfey (SF) met onsite on September 28, 2021 to review the current building and site conditions. We were guided around all exterior elevations and into multiple interior units by the Owner's Representative, Steve Wellnitz. This further advanced our understanding of the current conditions, and the prescribed remedies for repairs.

The project is an occupied multi-family building, making any comprehensive repair work a much more detailed and complicated process than if the building was vacant. The articulation of the building, as well as its proximity to the surrounding public roads, makes exterior repair work particularly challenging.

As a part of our analysis, we considered the logistics of temporarily relocating 192-units of low-income veteran housing. It seems more reasonable to break this temporary relocation into smaller subsets. This strategy also supports a shorter cycle time for trades moving through the project. Additionally, this strategy displaces veterans from their homes for the shortest duration possible.

We then undertook a planning exercise to determine the access plan for the building. The geometric shape of the building lends to dividing the perimeter into 5 different "phases" to access the façade for repair activities, while allowing certain areas of the building to remain occupied. These phases are listed below:

- Phase 1 – 44 Units Affected
- Phase 2 – 56 Units Affected
- Phase 3 – 40 Units Affected
- Phase 4 – 28 Units Affected
- Phase 5 – 24 Units Affected

Traditional scaffolding (ground supported), mast climbing scaffolding (structurally supported), swing stage platforms (roof supported), and boom lifts were all contemplated as means to access the exterior façade for repairs. The building's unique plan and profile as well as the proximity to public roadways makes accessing the exterior face a particular challenge. Ground-supported access scaffolding was ultimately chosen to allow multiple trades to access an elevation simultaneously.

We developed an access / work plan that strikes a balance of building occupancy, building constraints, and resident access to building services and parking. This plan includes erecting traditional scaffolding stages at a maximum of 2 phase areas concurrently. These stages will be moved upon completion of each phase until all 5 phases have been completed. The phases vary in duration between 2 and 3 months depending on the area and quantities of repairs in each phased section. A phasing plan, and a detailed schedule are included as exhibits to further explain sequence and durations of activities. Water damage to interior units was also noted in the BD/ED report. We developed a phasing strategy for the interior (unit) repair work that follows the progression of phases for exterior repairs.

The next step was quantifying the various scopes of work identified in the BD/ED report. This process informs the pricing step, which follows. Our approach to determining the overall costs, for interior and exterior repairs, included a detailed estimate similar to one that a bidding general contractor would include. We then utilized our contacts in the general contractor / supplier community to provide unit pricing based upon the quantities we had independently developed.

We contacted the Houston Associated Builders and Contractors (ABC) and the Houston Apartment Association (HAA) for recommended contractors suitable for this repair work. Fifteen contractors were contacted and four initially responded with interest in providing an estimate for the cost of work. Many contractors were either not interested in the project or were too busy to participate in a pricing exercise. Full pricing was received by two contractors, and one responded with interior repair costs only.

There are certain categories of costs at present that are unknown / undetermined; accordingly, these have been excluded from this exercise. These include mold remediation and abatement, as well as indoor air quality monitoring. A Certified Industrial Hygienist (CIH) may also be a requirement, but this is similarly excluded from our cost model.

In addition to the detailed construction costs included herein, certain soft costs will apply to this comprehensive repair work as well. These are not included in the hard cost estimate in this report but should be considered in the overall settlement. These soft costs include:

- Tenant-specific concerns
  - Interior FF&E relocation, storage, & replacement
  - Tenant relocation (move-out & move-in) on a temporary basis
  - Ongoing taxes & utilities on an unusable residential unit
- Other considerations include:
  - Operational issues, such as preservation of parking, egress pathways, building utility service, etc.
  - Enhanced / increased building security
  - Economic loss, including devaluation of the property / diminution of value

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The scope of work is detailed as follows, and keyed to the BD/ED Reports:

### **Exterior Repairs**

#### **Selective Demolition and Removal**

- Removal of existing stucco cladding system
- Removal of metal panels
- Removal of fiber cement siding
- Removal of thin brick
- Removal of exhaust vent covers
- Removal of vinyl windows
- Removal of weather resistive barrier
- Removal of exterior sheathing



**Exterior Stucco Cladding system**

- Install 5/8" Densglass sheathing
- Install 2-layer self-adhered weather barrier to entirety of areas receiving new stucco cladding system
- Install 7/8" stucco cladding system including metal lath
- Install exhaust vent covers
- Install caulking as required

**Exterior corrugated metal panels and aluminum composite panels**

- Install 5/8" Densglass sheathing
- Install 2-layer self-adhered weather barrier to entirety of areas receiving corrugated metal panels and aluminum composite panels
- Install metal panels (Attachment per manufacturers recommendations)
- Install exhaust vent covers
- Install caulking as required

**Exterior fiber cement panels**

- Install 5/8" Densglass sheathing
- Install 2-layer self-adhered weather barrier to entirety of areas receiving 1x4 fiber cement siding
- Install shims for 1x8 fiber cement board trim and sill
- Install fiber cement board lap siding
- Install exhaust vent covers
- Install caulking as required

**Exterior thin brick veneer**

- Install 5/8" Densglass sheathing
- Install 2-layer self-adhered weather barrier to entirety of areas receiving thin brick veneer
- Install scratch and brow coat cement plaster (3/4" min. thickness)
- Install 1/2" mortar setting bed
- Install thin brick veneer
- Install exhaust vent covers
- Install caulking as required

**Perform following repairs at all windows**

- Remove all window units and sub-sills
- Remove any existing waterproofing membrane from the head, sill and jambs
- Apply bond breaker tape and cap bead of silicone over thermal break at these locations:
  - Perimeter of each window unit
  - Underside of sub-sill at each window
  - Lower 16 inches of interior side of receptor frame jamb
  - Six inches on receptor frame jamb and head at jamb to head intersection
- Install sub-sill, inject sealant into fastener hole and drive fastener against sub-sill so that sealant is pushed out from below fastener head. Then seal around fastener head
- Install screens over the weeps in the track supporting the operable sash
- Temporary plywood windows will be installed daily during course of work

## **Interior Repairs**

Repairs of interior wall and floor finishes will advance sequentially with the exterior repairs, generally following these sequences:

### **Sequence 1**

- Relocate furniture (by others)
- At every unit remove rubber base and electrical outlet cover plates
- At every unit remove bottom 2' of sheetrock from exterior wall
- At every unit inspect in-wall structural framing

### **Sequence 2**

- At every unit remove all vinyl flooring
- At every unit remove 2' of subfloor
- At every unit inspect subfloor for deterioration
- At every unit, if deterioration is found, remove an additional 2' of subfloor for inspection

### **Sequence 3**

- If necessary, repair in-wall structural framing per detail
- If necessary, repair flooring structural framing per detail

### **Sequence 4**

- Replace subfloor
- Replace sheetrock - Tape, Float, Paint walls
- Re-install electrical outlet cover plates
- Install new vinyl flooring
- Replace vinyl cove base
- Rough clean
- Final clean (by others)

Due to the specialized (and concealed) nature of the HVAC problems, we have relied upon the scope and pricing analysis by HMG. This is found on page 6 of the February 2021 report.

## Conclusions & Recommendations

The costs to repair & restore the Travis Street Apartments project must necessarily include more than hard construction costs. Accordingly, any reasonable estimate of repair must include certain soft costs directly related to the occupants and remedial design.

The estimate we prepared is based upon an assumption that the building that remains partially occupied during the repair process. However, given the scope of required repair as determined by BD/ED as well as the HMG prescribed repairs to defective HVAC installation, it is unlikely that life for an individual apartment unit occupant can reasonably continue without major disruption.

Due to the widespread number of problems with different exterior façade material types presented in the BD/ED reports, we believe the entire façade, including all windows, should be removed, and repaired to ensure a proper repair is completed. Exclusive of any costs associated with biohazards (mold) or soft costs associated with relocating tenants and other operational issues, the calculated average cost of repair and reconstruction for the Travis Street Apartments is \$5,249,000.

## Exhibits

1. List of documents received
2. CPM Project Schedule
3. Graphics
  - a. CPM Phasing Elevations – Scaffolding & Exterior Work (Sheets A2.2 thru A2.5)
  - b. CPM Exterior Quantities - (Sheets A7.1 thru A7.3 and Sheet A8.3)
4. CPM Project Estimate
  - a. Estimate Notes: Inclusions, Exclusions, Assumptions & Allowances
  - b. Estimate Summary
  - c. Exterior detail
  - d. Interior detail
5. Resume – David Stauch

# Exhibit 1



## Exhibit 1 - List of Documents received:

1. BD/ED reports:
  - a. February 2015
  - b. January 2018
  - c. October 2018
  - d. September 2019
  - e. November 2020
  - f. November 2021 – quantity estimates
2. HMG report of February 2021
3. Cotton files:
  - a. September 2018 – Protocol
  - b. November 2018 – Estimate
  - c. April 2020 - Proposal
4. Original Architectural & Structural plans

# Exhibit 2

ID		Description	Original Duration	Start	Finish	2022	2023
<b>Travis Street Apartments - Exterior</b>							
<b>Phase 1 North Elevation #1 - Exterior</b>							
10		Mobilize	1	04/04/22	04/04/22		
20		Erect Scaffolding	4	04/05/22	04/08/22		
30		Demo Corrugated Metal Panels & WRB	5	04/11/22	04/15/22		
40		Demo Stucco #1, #2, #3 & WRB	5	04/13/22	04/19/22		
50		Demo Metal Panel #6 & WRB	3	04/20/22	04/22/22		
60		Demo Fiber Cement Siding & WRB	3	04/20/22	04/22/22		
70		Demo Brick & WRB	4	04/25/22	04/28/22		
80		Demo Windows (48ea)	5	04/27/22	05/03/22		
90		Install New Windows and Associated Flashing/Sealants	10	05/02/22	05/13/22		
100		Reconstruct & Flash Exhaust Vent Covers	4	05/09/22	05/12/22		
110		Install New WRB & Brick	15	05/09/22	05/27/22		
120		Install New WRB & Corrugated Metal Panels	10	05/16/22	05/27/22		
130		Install New WRB & Metal Panel #6	5	05/23/22	05/27/22		
140		Install New WRB & Fiber Cement Siding	5	05/31/22	06/06/22		
150		Install New WRB & Stucco #1, #2, & #3	10	06/02/22	06/15/22		
160		Dismantle Scaffolding & Clean Up	2	06/16/22	06/17/22		
<b>Phase 2 West Elevation #2 - Exterior</b>							
170		Erect Scaffolding	6	04/11/22	04/18/22		
180		Demo Corrugated Metal Panels & WRB	5	04/19/22	04/25/22		
190		Demo Stucco #1, #2, #3 & WRB	7	04/21/22	04/29/22		
200		Demo Metal Panel #6 & WRB	3	05/02/22	05/04/22		
210		Demo Fiber Cement Siding & WRB	3	05/02/22	05/04/22		
220		Demo Brick & WRB	8	05/05/22	05/16/22		
230		Demo Windows (64ea)	7	05/09/22	05/17/22		
240		Install New Windows and Associated Flashing/Sealants	13	05/12/22	05/31/22		
250		Reconstruct & Flash Exhaust Vent Covers	6	05/16/22	05/23/22		
260		Install New WRB & Brick	15	05/19/22	06/09/22		
270		Install New WRB & Corrugated Metal Panels	10	05/26/22	06/09/22		
280		Install New WRB & Metal Panel #6	5	06/03/22	06/09/22		
290		Install New WRB & Fiber Cement Siding	5	06/10/22	06/16/22		
300		Install New WRB & Stucco #1, #2, & #3	15	06/10/22	06/30/22		

Start Date: 04/04/22  
 Finish Date: 02/13/23  
 Data Date: 12/21/21  
 Run Date: 12/21/21

## Travis Street Apartments Repair Schedule





ID		Description	Original Duration	Start	Finish	2022	2023
310		Dismantle Scaffolding & Clean Up	2	07/01/22	07/05/22		
Phase 3 Southwest & Courtyard West Elevation #3 - Exterior							
460		Erect Scaffolding	5	07/06/22	07/12/22		
470		Demo Corrugated Metal Panels & WRB	5	07/13/22	07/19/22		
480		Demo Stucco #1, #2, #3 & WRB	10	07/15/22	07/28/22		
490		Demo Metal Panel #6 & WRB	5	07/29/22	08/04/22		
500		Demo Fiber Cement Siding & WRB	5	07/29/22	08/04/22		
510		Demo Brick & WRB	7	08/05/22	08/15/22		
520		Demo Windows (44ea)	5	08/09/22	08/15/22		
530		Install New Windows and Associated Flashing/Sealants	5	08/12/22	08/18/22		
540		Reconstruct & Flash Exhaust Vent Covers	4	08/16/22	08/19/22		
550		Install New WRB & Brick	15	08/19/22	09/09/22		
560		Install New WRB & Corrugated Metal Panels	15	08/26/22	09/16/22		
570		Install New WRB & Metal Panel #6	7	09/02/22	09/13/22		
580		Install New WRB & Fiber Cement Siding	8	09/14/22	09/23/22		
590		Install New WRB & Stucco #1, #2, & #3	15	09/14/22	10/04/22		
600		Dismantle Scaffolding & Clean Up	2	10/05/22	10/06/22		
Phase 4 Courtyard North & East Elevation #4 - Exterior							
610		Erect Scaffolding	3	10/07/22	10/11/22		
620		Demo Corrugated Metal Panels & WRB	3	10/12/22	10/14/22		
630		Demo Stucco #1, #2, #3 & WRB	7	10/14/22	10/24/22		
640		Demo Metal Panel #6 & WRB	2	10/25/22	10/26/22		
650		Demo Fiber Cement Siding & WRB	2	10/25/22	10/26/22		
660		Demo Brick & WRB	4	10/27/22	11/01/22		
670		Demo Windows (28ea)	3	10/31/22	11/02/22		
680		Install New Windows and Associated Flashing/Sealants	6	11/03/22	11/10/22		
690		Reconstruct & Flash Exhaust Vent Covers	3	11/07/22	11/09/22		
700		Install New WRB & Brick	7	11/10/22	11/18/22		
710		Install New WRB & Corrugated Metal Panels	5	11/17/22	11/23/22		
720		Install New WRB & Metal Panel #6	2	11/24/22	11/25/22		
730		Install New WRB & Fiber Cement Siding	3	11/28/22	11/30/22		
740		Install New WRB & Stucco #1, #2, & #3	10	11/28/22	12/09/22		
750		Dismantle Scaffolding & Clean Up	2	12/12/22	12/13/22		

Start Date: 04/04/22  
Finish Date: 02/13/23  
Data Date: 12/21/21  
Run Date: 12/21/21

## Travis Street Apartments Repair Schedule





ID	Description	Original Duration	Start	Finish	2022	2023
<b>Phase 5 Southeast &amp; East Elevation #5 - Exterior</b>						
760	Erect Scaffolding	2	12/14/22	12/15/22		Erect Scaffolding
770	Demo Corrugated Metal Panels & WRB	3	12/16/22	12/20/22		Demo Corrugated Metal Panels & WRB
780	Demo Stucco #1, #2, #3 & WRB	3	12/20/22	12/22/22		Demo Stucco #1, #2, #3 & WRB
790	Demo Metal Panel #6 & WRB	2	12/23/22	12/26/22		Demo Metal Panel #6 & WRB
800	Demo Fiber Cement Siding & WRB	2	12/23/22	12/26/22		Demo Fiber Cement Siding & WRB
810	Demo Brick & WRB	3	12/27/22	12/29/22		Demo Brick & WRB
820	Demo Windows (32ea)	4	12/29/22	01/03/23		Demo Windows (32ea)
830	Install New Windows and Associated Flashing/Sealants	8	01/03/23	01/12/23		Install New Windows and Associated
840	Reconstruct & Flash Exhaust Vent Covers	3	01/05/23	01/09/23		Reconstruct & Flash Exhaust Vent C
850	Install New WRB & Brick	7	01/10/23	01/18/23		Install New WRB & Brick
860	Install New WRB & Corrugated Metal Panels	5	01/17/23	01/23/23		Install New WRB & Corrugated Met
870	Install New WRB & Metal Panel #6	2	01/24/23	01/25/23		Install New WRB & Metal Panel #6
880	Install New WRB & Fiber Cement Siding	3	01/26/23	01/30/23		Install New WRB & Fiber Cement S
890	Install New WRB & Stucco #1, #2, & #3	10	01/26/23	02/08/23		Install New WRB & Stucco #1, #2,
900	Dismantle Scaffolding & Clean Up	2	02/09/23	02/10/23		Dismantle Scaffolding & Clean Up
<b>Travis Street Apartments - Interior</b>						
<b>Phase 1 North Elevation #1 - Interior (44 Units)</b>						
165	Mobilize	1	04/04/22	04/04/22		Mobilize
167	Sequence 1 - Relocate Furniture Along Exterior Wall (by others)	1	04/05/22	04/05/22		Sequence 1 - Relocate Furniture Along Exterior Wall (by others)
169	Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Covers	1	04/06/22	04/06/22		Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Cove
175	Sequence 1 - Remove 2' of Sheetrock from Wall	7	04/06/22	04/14/22		Sequence 1 - Remove 2' of Sheetrock from Wall
176	HVAC Repair	25	04/15/22	05/19/22		HVAC Repair
177	Sequence 1 - Inspect Structural Framing	7	04/07/22	04/15/22		Sequence 1 - Inspect Structural Framing
178	Sequence 2 - Remove 2' of Vinyl Flooring	7	04/18/22	04/26/22		Sequence 2 - Remove 2' of Vinyl Flooring
179	Sequence 2 - Remove 2' Subfloor	7	04/19/22	04/27/22		Sequence 2 - Remove 2' Subfloor
185	Sequence 2 - Remove Additional 2' of Subfloor if Necessary	5	04/28/22	05/04/22		Sequence 2 - Remove Additional 2' of Subfloor if Necessary
187	Sequence 3 - Repair In-Wall Structural Framing (Assumed 22 Units)	15	05/05/22	05/25/22		Sequence 3 - Repair In-Wall Structural Framing (Assumed 22
188	Sequence 3 - Repair Flooring Structural Framing (Assumed 22 Units)	15	05/05/22	05/25/22		Sequence 3 - Repair Flooring Structural Framing (Assumed 2
189	Sequence 4 - Replace Subfloor	5	05/26/22	06/02/22		Sequence 4 - Replace Subfloor
195	Sequence 4 - Replace Sheetrock	7	05/31/22	06/08/22		Sequence 4 - Replace Sheetrock
197	Sequence 4 - Tape, Float, Paint Wall	10	06/09/22	06/22/22		Sequence 4 - Tape, Float, Paint Wall
198	Re-Install Electrical Outlet Cover Plates	1	06/23/22	06/23/22		Re-Install Electrical Outlet Cover Plates
199	Install New Vinyl Flooring	10	06/24/22	07/08/22		Install New Vinyl Flooring

## Travis Street Apartments Repair Schedule

Start Date: 04/04/22  
Finish Date: 02/13/23  
Data Date: 12/21/21  
Run Date: 12/21/21





ID		Description	Original Duration	Start	Finish	2022	2023
205		Replace Vinyl Cove Base	2	07/11/22	07/12/22		
207		Relocate Furniture, Clean Unit, & De-Mobilize	1	07/13/22	07/13/22		Replace Vinyl Cove Base Relocate Furniture, Clean Unit, & De-Mobilize
<b>Phase 2 West Elevation #2 - Interior (56 Units)</b>							
217		Sequence 1 - Relocate Furniture Along Exterior Wall (by others)	1	04/11/22	04/11/22		Sequence 1 - Relocate Furniture Along Exterior Wall (by others)
219		Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Covers	1	04/12/22	04/12/22		Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Covers
225		Sequence 1 - Remove 2' of Sheetrock from Wall	8	04/12/22	04/21/22		Sequence 1 - Remove 2' of Sheetrock from Wall
226		HVAC Repair	30	04/22/22	06/03/22		HVAC Repair
227		Sequence 1 - Inspect Structural Framing	8	04/13/22	04/22/22		Sequence 1 - Inspect Structural Framing
228		Sequence 2 - Remove 2' of Vinyl Flooring	8	04/25/22	05/04/22		Sequence 2 - Remove 2' of Vinyl Flooring
229		Sequence 2 - Remove 2' Subfloor	8	04/26/22	05/05/22		Sequence 2 - Remove 2' Subfloor
235		Sequence 2 - Remove Additional 2' of Subfloor if Necessary	6	05/06/22	05/13/22		Sequence 2 - Remove Additional 2' of Subfloor if Necessary
237		Sequence 3 - Repair In-Wall Structural Framing (Assumed 28 Units)	17	05/16/22	06/08/22		Sequence 3 - Repair In-Wall Structural Framing (Assumed 28 Units)
238		Sequence 3 - Repair Flooring Structural Framing (Assumed 28 Units)	17	05/16/22	06/08/22		Sequence 3 - Repair Flooring Structural Framing (Assumed 28 Units)
239		Sequence 4 - Replace Subfloor	6	06/09/22	06/16/22		Sequence 4 - Replace Subfloor
245		Sequence 4 - Replace Sheetrock	8	06/13/22	06/22/22		Sequence 4 - Replace Sheetrock
247		Sequence 4 - Tape, Float, Paint Wall	12	06/23/22	07/11/22		Sequence 4 - Tape, Float, Paint Wall
248		Re-Install Electrical Outlet Cover Plates	1	07/12/22	07/12/22		Re-Install Electrical Outlet Cover Plates
249		Install New Vinyl Flooring	12	07/13/22	07/28/22		Install New Vinyl Flooring
255		Replace Vinyl Cove Base	3	07/29/22	08/02/22		Replace Vinyl Cove Base
257		Relocate Furniture, Clean Unit, & De-Mobilize	1	08/03/22	08/03/22		Relocate Furniture, Clean Unit, & De-Mobilize
<b>Phase 3 Southwest and Courtyard West Elevation Interior (40 Units)</b>							
267		Sequence 1 - Relocate Furniture Along Exterior Wall (by others)	1	07/13/22	07/13/22		Sequence 1 - Relocate Furniture Along Exterior Wall (by others)
269		Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Covers	1	07/14/22	07/14/22		Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Covers
275		Sequence 1 - Remove 2' of Sheetrock from Wall	7	07/14/22	07/22/22		Sequence 1 - Remove 2' of Sheetrock from Wall
276		HVAC Repair	25	07/25/22	08/26/22		HVAC Repair
277		Sequence 1 - Inspect Structural Framing	7	07/15/22	07/25/22		Sequence 1 - Inspect Structural Framing
278		Sequence 2 - Remove 2' of Vinyl Flooring	7	07/26/22	08/03/22		Sequence 2 - Remove 2' of Vinyl Flooring
279		Sequence 2 - Remove 2' Subfloor	7	07/27/22	08/04/22		Sequence 2 - Remove 2' Subfloor
285		Sequence 2 - Remove Additional 2' of Subfloor if Necessary	5	08/05/22	08/11/22		Sequence 2 - Remove Additional 2' of Subfloor if Necessary
287		Sequence 3 - Repair In-Wall Structural Framing (Assumed 20 Units)	14	08/12/22	08/31/22		Sequence 3 - Repair In-Wall Structural Framing (Assumed 20 Units)
288		Sequence 3 - Repair Flooring Structural Framing (Assumed 20 Units)	14	08/12/22	08/31/22		Sequence 3 - Repair Flooring Structural Framing (Assumed 20 Units)
289		Sequence 4 - Replace Subfloor	5	09/01/22	09/08/22		Sequence 4 - Replace Subfloor
295		Sequence 4 - Replace Sheetrock	7	09/06/22	09/14/22		Sequence 4 - Replace Sheetrock
297		Sequence 4 - Tape, Float, Paint Wall	10	09/15/22	09/28/22		Sequence 4 - Tape, Float, Paint Wall

## Travis Street Apartments Repair Schedule

Start Date: 04/04/22  
Finish Date: 02/13/23  
Data Date: 12/21/21  
Run Date: 12/21/21





ID	Description	Original Duration	Start	Finish	2022		2023	
298	Re-Install Electrical Outlet Cover Plates	1	09/29/22	09/29/22				Re-Install Electrical Outlet Cover Plates
299	Install New Vinyl Flooring	10	09/30/22	10/13/22				Install New Vinyl Flooring
305	Replace Vinyl Cove Base	2	10/14/22	10/17/22				Replace Vinyl Cove Base
307	Relocate Furniture, Clean Unit, & De-Mobilize	1	10/18/22	10/18/22				Relocate Furniture, Clean Unit, & De-Mobilize
<b>Phase 4 Courtyard North &amp; East Elevation #4 - Interior (28 Units)</b>								
317	Sequence 1 - Relocate Furniture Along Exterior Wall (by others)	1	10/12/22	10/12/22				Sequence 1 - Relocate Furniture Along Exterior
319	Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Covers	1	10/13/22	10/13/22				Sequence 1 - Remove Rubber Base & Electric
325	Sequence 1 - Remove 2' of Sheetrock from Wall	5	10/13/22	10/19/22				Sequence 1 - Remove 2' of Sheetrock from W
326	HVAC Repair	20	10/20/22	11/16/22				HVAC Repair
327	Sequence 1 - Inspect Structural Framing	5	10/14/22	10/20/22				Sequence 1 - Inspect Structural Framing
328	Sequence 2 - Remove 2' of Vinyl Flooring	5	10/21/22	10/27/22				Sequence 2 - Remove 2' of Vinyl Flooring
329	Sequence 2 - Remove 2' Subfloor	5	10/24/22	10/28/22				Sequence 2 - Remove 2' Subfloor
335	Sequence 2 - Remove Additional 2' of Subfloor if Necessary	3	10/31/22	11/02/22				Sequence 2 - Remove Additional 2' of Subflo
337	Sequence 3 - Repair In-Wall Structural Framing (Assumed 14 Units)	12	11/03/22	11/18/22				Sequence 3 - Repair In-Wall Structural Fra
338	Sequence 3 - Repair Flooring Structural Framing (Assumed 14 Units)	12	11/03/22	11/18/22				Sequence 3 - Repair Flooring Structural Fr
339	Sequence 4 - Replace Subfloor	4	11/21/22	11/24/22				Sequence 4 - Replace Subfloor
345	Sequence 4 - Replace Sheetrock	5	11/23/22	11/29/22				Sequence 4 - Replace Sheetrock
347	Sequence 4 - Tape, Float, Paint Wall	7	11/30/22	12/08/22				Sequence 4 - Tape, Float, Paint Wall
348	Re-Install Electrical Outlet Cover Plates	1	12/09/22	12/09/22				Re-Install Electrical Outlet Cover Plates
349	Install New Vinyl Flooring	7	12/12/22	12/20/22				Install New Vinyl Flooring
355	Replace Vinyl Cove Base	2	12/21/22	12/22/22				Replace Vinyl Cove Base
357	Relocate Furniture, Clean Unit, & De-Mobilize	1	12/23/22	12/23/22				Relocate Furniture, Clean Unit, & De-M
<b>Phase 5 Southeast &amp; East Elevation #5 - Interior (24 Units)</b>								
367	Sequence 1 - Relocate Furniture Along Exterior Wall (by others)	1	12/16/22	12/16/22				Sequence 1 - Relocate Furniture Along
369	Sequence 1 - Remove Rubber Base & Electrical Outlet Plate Covers	1	12/19/22	12/19/22				Sequence 1 - Remove Rubber Base &
375	Sequence 1 - Remove 2' of Sheetrock from Wall	3	12/19/22	12/21/22				Sequence 1 - Remove 2' of Sheetrock
376	HVAC Repair	19	12/22/22	01/17/23				HVAC Repair
377	Sequence 1 - Inspect Structural Framing	3	12/20/22	12/22/22				Sequence 1 - Inspect Structural Framir
378	Sequence 2 - Remove 2' of Vinyl Flooring	3	12/23/22	12/27/22				Sequence 2 - Remove 2' of Vinyl Floor
379	Sequence 2 - Remove 2' Subfloor	3	12/26/22	12/28/22				Sequence 2 - Remove 2' Subfloor
385	Sequence 2 - Remove Additional 2' of Subfloor if Necessary	2	12/29/22	12/30/22				Sequence 2 - Remove Additional 2' of
387	Sequence 3 - Repair In-Wall Structural Framing (Assumed 12 Units)	10	01/02/23	01/13/23				Sequence 3 - Repair In-Wall Structur
388	Sequence 3 - Repair Flooring Structural Framing (Assumed 12 Units)	10	01/02/23	01/13/23				Sequence 3 - Repair Flooring Structr
389	Sequence 4 - Replace Subfloor	3	01/16/23	01/18/23				Sequence 4 - Replace Subfloor

## Travis Street Apartments Repair Schedule

Start Date: 04/04/22  
 Finish Date: 02/13/23  
 Data Date: 12/21/21  
 Run Date: 12/21/21





ID		Description	Original Duration	Start	Finish	2022	2023
395	Sequence 4 - Replace Sheetrock		4	01/18/23	01/23/23		Sequence 4 - Replace Sheetrock
397	Sequence 4 - Tape, Float, Paint Wall		6	01/24/23	01/31/23		Sequence 4 - Tape, Float, Paint W
398	Re-Install Electrical Outlet Cover Plates		1	02/01/23	02/01/23		Re-Install Electrical Outlet Cover F
399	Install New Vinyl Flooring		6	02/02/23	02/09/23		Install New Vinyl Flooring
405	Replace Vinyl Cove Base		1	02/10/23	02/10/23		Replace Vinyl Cove Base
407	Relocate Furniture, Clean Unit, & De-Mobilize		1	02/13/23	02/13/23		Relocate Furniture, Clean Unit, &
						Project Finish	

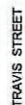
Start Date: 04/04/22  
Finish Date: 02/13/23  
Data Date: 12/21/21  
Run Date: 12/21/21

## Travis Street Apartments Repair Schedule



# Exhibit 3









1 Third Floor Plan  
Scale: 1/8"=1'-0"







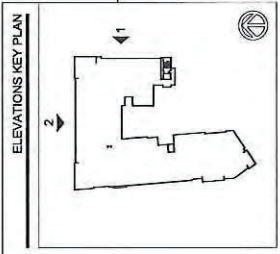


 1 Fifth Floor Plan  
Scale: 1/8" = 1'-0"

## 2 Roof Drain Chase Detail

The University, its institutions and their documents prepared by the Architect for this Project are instruments of the Architect's service for the study with respect to this Project, and the Architect and its documents are to remain the property of these documents and shall remain the property of the Architect. The Architect's documents, specifications and other documents shall not be used by the Owner or others on other projects, for multiple or for completion of the Project or for completion of the Project with subsequent completion to the Architect. The University, its institutions and their documents prepared by the Architect for this Project are instruments of the Architect's service for the study with respect to this Project, and the Architect and its documents are to remain the property of these documents and shall remain the property of the Architect. The Architect's documents, specifications and other documents shall not be used by the Owner or others on other projects, for multiple or for completion of the Project or for completion of the Project with subsequent completion to the Architect.



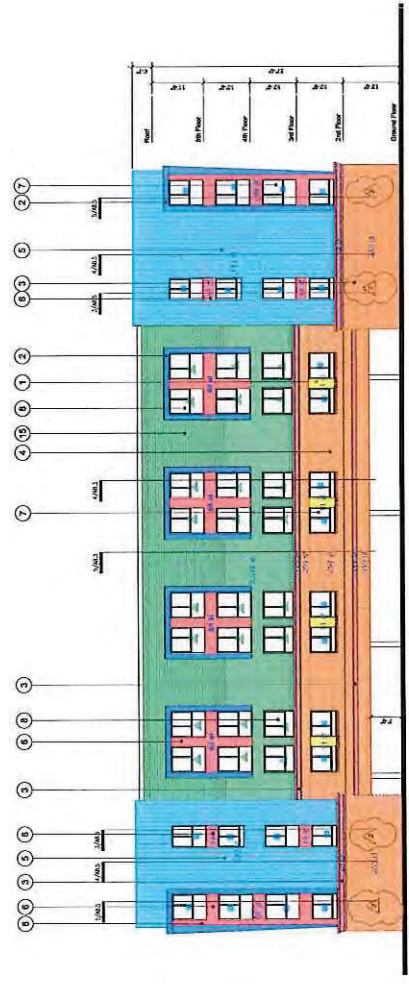


**MATERIALS LEGEND**

- 1 Stucco #1- to match DEB143 Almond Lato (Light Sand Finish)
- 2 Stucco #2- to match DEB141 Salt Bar (Smooth Finish)
- 3 Stucco #3- to match DEC252 Birchwood (Smooth Finish)
- 4 Brick- Belden Concord Blend or equal
- 5 Corrugated Metal Panel- Metal Sales Matique Plus W31-1C72 Wall Panel
- 6 Metal Panel- Metal Sales Matique Plus W31
- 7 Vinyl Windows- Jeld-Wiss Arctic Silver or equal
- 8 Vinyl Windows- Jeld-Wiss Chestnut Bronze or equal
- 9 Aluminum Sideright- Clear Anodized
- 10 Metal Awning- to match Arctic Silver
- 11 Metal Roll- to match Chestnut Bronze
- 12 Standing Seam Metal Roof- Metal Sales Pro Lock II Matique Plus W31
- 13 Metal Beam Frame- to match Arctic Silver
- 14 Aluminum Mesh- Merchants 4 Mesh Square 0.0470" #370473810
- 15 Fiber Cement Siding - to match DEB143 Almond Lato

- Metal Panel #6
- Fiber Cement Siding
- Brick
- #5 Corrugated Metal Panel
- Stucco #1
- Stucco #2
- Stucco #4
- ▲ #8 Vinyl Windows
- #7 Vinyl Windows

**North Elevation**  
3/28' 0" 12' 0" 24' 0" 36' 0" 48' 0"



**East Elevation (Travis St.)**  
3/28' 0" 12' 0" 24' 0" 36' 0" 48' 0"



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

**A7.1**

Houston, Texas  
CLOUDBREAK, HOUSTON, LLC

				Feb. 21, 2012	
				General Services	A
				Jun. 16, 2012	A
				Issued For Construction	
				Nov. 1, 2011	A
				Parent Narrative	
				Sept. 1, 2011	
				Issued For Parent	



- |  |  |
|--|--|
| 1. Sucoo (P2) to match DE144 Almond Lash (Light Sand Finish)         | 6. Metal Panel/ Metal Trim/ Rail/ Tread/ Railings to match Metal Slatte Melique Plus W01 |
| 2. Sucoo (P2) to match DE141 Sail Box (Smooth Finish)                | 7. Vinyl Window/ Jeld Wen Action Series or equal   |
| 3. Sucoo (P2) to match DE1232 Birchwood (Smooth Finish)              | 8. Vinyl Window/ Jeld Wen Chateau bronze or equal  |
| 4. Sucoo (P2) to match DE2923 Birchwood (Smooth Finish)              | 9. Vinyl Window/ Jeld Wen Chateau bronze or equal  |
| 5. Brick- Belden Concrete Blend or equal                             | 10. Metal Awnings to match Arctic Silver   |
| 6. Curved Metal Panel- Metal Slatte Melique Plus W01-C172 Wall Panel | 11. Metal Rail to match Chateau Bronze   |
|  | 12. Standing Seam Metal Roof- Metal Slatte Melique Plus W01                              |
|  | 13. Steel Beam Frame to match Arctic Silver  |
|  | 14. Aluminum Mesh- Monclous 4 Mesh Square 0.0407" / 8794479310                           |
|  | 15. Fiber Cement Siding to match DE144 Almond Lash                                       |

- Metal Panel #6
- Fiber Cement Siding
- Brick
- #5 Corrugated Metal Panel
- Stucco #1
- Stucco #2
- Stucco #4
- ▲ #8 Vinyl Windows
- #7 Vinyl Windows



The Owner shall be permitted to retain copies, including reproducible copies, of the drawings, specifications and other documents prepared by the Architect for the Project for the purpose of the Project and for other projects, for addition to the Project or for completion of the Project by others, except by agreement in writing and with appropriate compensation to the Architect. The Architect shall be deemed the author of these documents and shall retain all copyright, title and other reserved rights, including reproducible copies, of the drawings, specifications and other documents and shall retain the right to use any or all of the drawings, specifications and other documents for the Project or for other projects, for addition to the Project or for completion of the Project by others, except by agreement in writing and with appropriate compensation to the Architect. The Architect's drawings, specifications and other documents shall not be used by the Owner or others for completion of the Project or for other projects, for addition to the Project or for completion of the Project by others, except by agreement in writing and with appropriate compensation to the Architect.



ELEVATIONS KEY PLAN



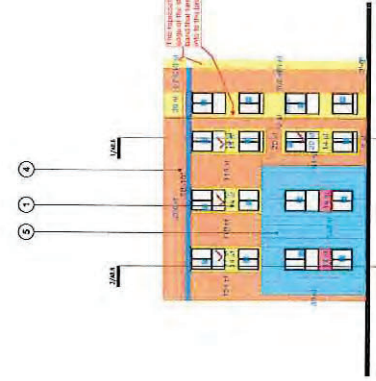
MATERIALS LEGEND

- 1 Stucco #1 - to match DBH-43 Almond Lath (Light Sand Finish)
- 2 Stucco #2 - to match DBH-41 Salt Box (Smooth Finish)
- 3 Stucco #3 - to match DEC732 Birchwood (Smooth Finish)
- 4 Brick - Bedford Concord Blend or equal
- 5 Corrugated Metal Panel - Metal Sales Matique Plus V31-1C72 Wall Panel
- 6 Metal Panel Metal Trellis Refrains - to match Metal Sales Matique Plus V31
- 7 Vinyl Window - Jeld Wen Arctic Silver - or equal
- 8 Vinyl Window - Jeld Wen Chestnut Bronze - or equal
- 9 Aluminum Siding - Clear Anodized
- 10 Metal Awning - to match Arctic Silver
- 11 Metal Rail - to match Chestnut Bronze
- 12 Standing Seam Metal Roof - Metal Sales Pro Lock II Matique Plus V31
- 13 Metal Beam Frame - to match Arctic Silver
- 14 Aluminum Mesh - Merionics 4 Mesh Square 0.0470" #370472810
- 15 Fiber Cement Siding - to match DBH-43 Almond Lath

- Metal Panel #6
- Fiber Cement Siding
- Brick
- #5 Corrugated Metal Panel
- Stucco #1
- Stucco #2
- Stucco #4
- #8 Vinyl Windows
- #7 Vinyl Windows

Courtyard Elevation - Looking West

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

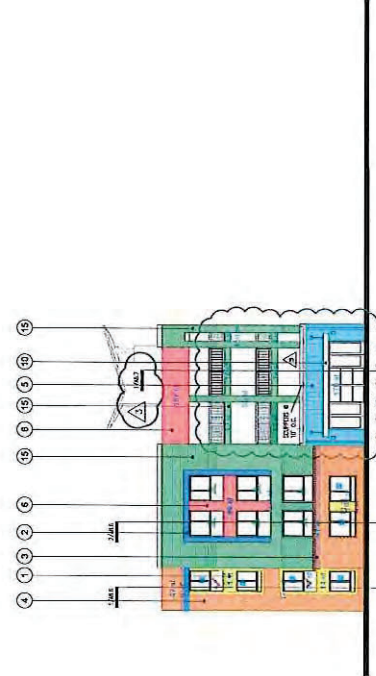


Courtyard Elevation - Looking North

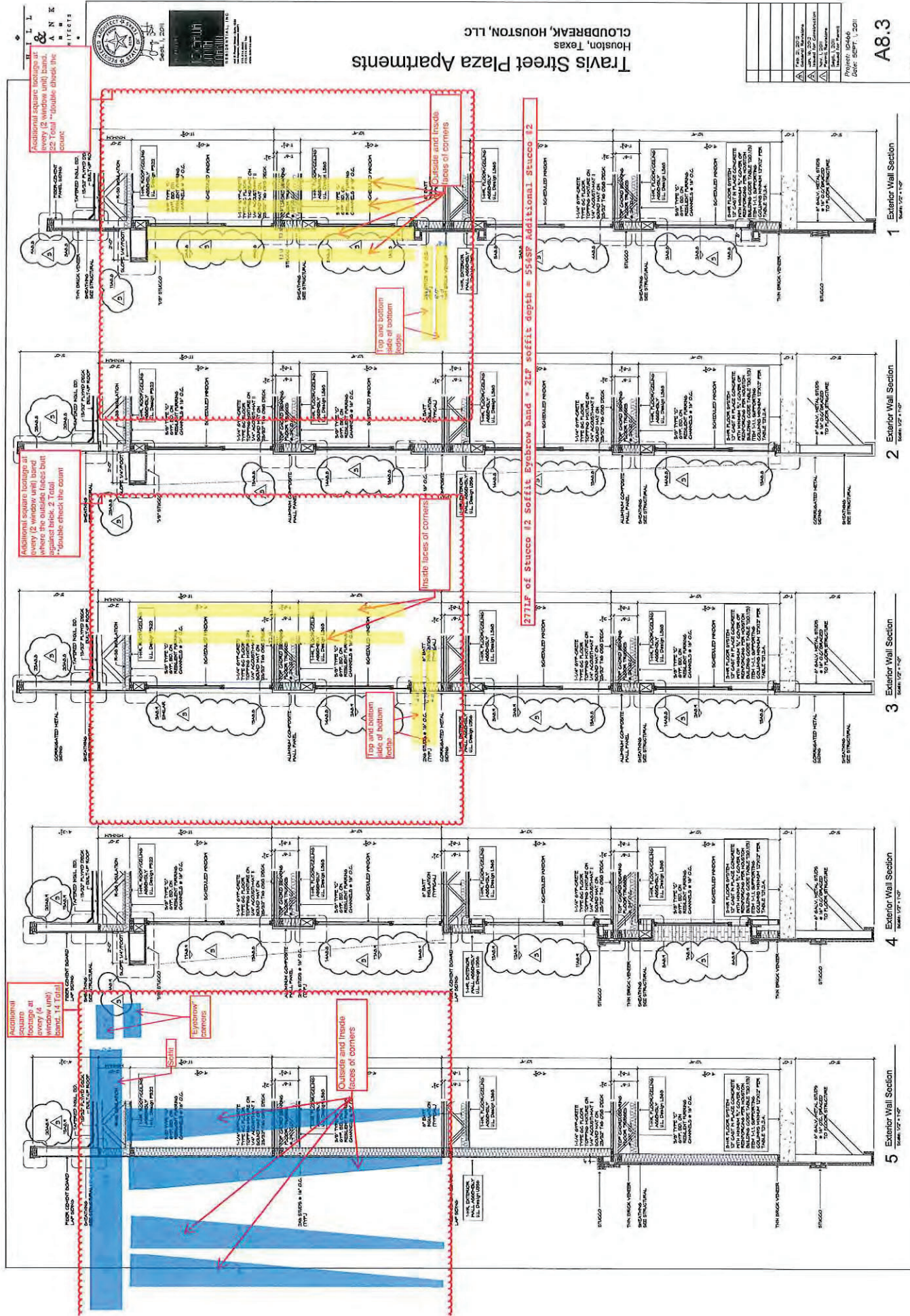
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Courtyard Elevation - Looking East

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15







Travis Street Plaza Apartments  
 Houston, Texas  
 CLOUDBREAK, HOUSTON, LLC



Project: CH466	Date: 08/11/11
Sheet: A8.3	
Drawn by: [Name]	Checked by: [Name]
Reviewed by: [Name]	Approved by: [Name]

A8.3

Sheet

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# Exhibit 4



# Travis Street Apartments - Estimate Notes

## INCLUSIONS

1	Replacement of all vinyl windows (Double Single Hung above 2 Lites Series 15105 & 9105)
2	Permits and permitting costs

## EXCLUSIONS

1	Roof repairs - None noted in report
2	Storefront window unit replacement
3	Site paving or planters - Not contributing to envelope damage
4	Costs associated with relocating tenants
5	Project management services

## ASSUMPTIONS

1	Remediation work will begin in April 2022
2	Estimate based on drawings dated September 1, 2011 (Addenda through February 21, 2012)
3	Units will be vacant and empty at time of repairs
4	Power and water available during repair work
5	Detailed repair docs will be provided before repair work begins. Assumed by BD/ED.
6	Assumed 50% of units will need interior structural framing repairs
7	VCT tile replacement will match close enough to avoid removing all VCT from every unit

## ALLOWANCES

1	Design services for exterior and interior repair work = \$12,000. (BD/ED)
2	Field work structural inspections and reporting. (\$6,000 per Phase = \$30,000. (BD/ED)
3	\$100/door for water damage at hallway door thresholds - Observed during onsite visit. \$19,200.
4	Interior condensate rework \$1,600 per A/C unit x 192 units = \$307,200. (HMG)

# TRAVIS STREET APARTMENTS ESTIMATE SUMMARY

CPM Texas	
Interior Renovation	\$892,800
Design Service Allowance	\$12,000
Field Work Structural Allowance	\$30,000
Hallway Door Threshold Allowance	\$19,200
Interior Condensate Rework Allowance	\$307,200
Exterior Renovation	\$2,282,405
C.O.W. Total	\$3,543,605
General Conditions (10%)	\$354,361
Insurance/Bonds (2%)	\$70,872
Subtotal	\$3,968,838
Fee (15%)	\$595,326
Escalation (2.37%)	\$94,061
<b>SUBTOTAL:</b>	\$4,658,225
Contingency (7.5%)	\$349,367
<b>TOTAL:</b>	<b>\$5,007,592</b>

Lawson Construction	
	\$329,127
	\$12,000
	\$30,000
	\$19,200
	\$307,200
	\$2,942,754
C.O.W. Total	\$3,640,281
	\$364,028
	\$72,806
	\$4,077,115
	\$611,567
	\$96,628
<b>SUBTOTAL:</b>	\$4,785,310
	\$358,898
<b>TOTAL:</b>	<b>\$5,144,208</b>

FSI Construction	
	\$1,198,080
	\$12,000
	\$30,000
	\$19,200
	\$307,200
Removed Cont.	\$2,400,075
C.O.W. Total	\$3,966,555
Gen Cond (13%)	\$590,652
	\$79,331
Subtotal	\$4,636,538
Fee (7%)	\$324,558
	\$109,886
<b>SUBTOTAL:</b>	\$5,070,982
	\$380,324
<b>TOTAL:</b>	<b>\$5,451,306</b>

RAM Construction	
	\$906,640
	\$12,000
	\$30,000
	\$19,200
	\$307,200
(Average of 3)	\$2,541,745
C.O.W. Total	\$3,816,785
	\$381,678
	\$76,336
Subtotal	\$4,274,799
	\$641,220
	\$101,313
<b>SUBTOTAL:</b>	\$5,017,331
	\$376,300
<b>TOTAL:</b>	<b>\$5,393,631</b>

Annual Escalation Rate 7.10%  
 4 Months until bid = 33% factor 2.37%

**Average of 4 Estimates** **\$5,249,184**



# Travis Street Apartment - Exterior Scope of Work Summary

Act #	Activity	North Elevation #1			West Elevation #2			Southwest Elevation #3			Courtyard Looking West #3		
		Qty.	Per Unit	Total	Qty.	Per Unit	Total	Qty.	Per Unit	Total	Qty.	Per Unit	Total
1	Erect Scaffolding (SF)	11,533	\$2	\$23,066	16,283	\$2	\$32,566	6,366	\$2	\$12,732	7,764	\$2	\$15,528
2	Demo Corrugated Metal Panels & WRB (SF)	1,943	\$8	\$15,544	1,775	\$8	\$14,200	0	\$8	\$0	974	\$8	\$7,792
3	Demo Metal Panel #6 & WRB (SF)	504	\$8	\$4,032	466	\$8	\$3,728	0	\$8	\$0	239	\$8	\$1,912
4	Demo Fiber Cement Siding & WRB (SF)	2,074	\$8	\$16,592	2,549	\$8	\$20,392	1,117	\$8	\$8,936	1,013	\$8	\$8,104
5	Demo Stucco #1 & WRB (SF)	44	\$15	\$660	353	\$15	\$5,295	67	\$15	\$1,005	364	\$15	\$5,460
6	Demo Stucco #2 & WRB (SF)	474	\$15	\$7,110	657	\$15	\$9,855	178	\$15	\$2,670	403	\$15	\$6,045
7	Demo Stucco #3 & WRB (SF)	443	\$15	\$6,645	371	\$15	\$5,565	126	\$15	\$1,890	90	\$15	\$1,350
8	Demo Brick & WRB (SF)	2,100	\$10	\$21,000	3,968	\$10	\$39,680	1,832	\$10	\$18,320	1,798	\$10	\$17,980
9	Install New Windows & All Flashing/Sealants (EA)	48	\$4,500	\$216,000	64	\$4,500	\$288,000	4	\$4,500	\$18,000	40	\$4,500	\$180,000
10	Reconstruct & Flash Exhaust Vent Covers (EA)	40	\$50	\$2,000	56	\$50	\$2,800	0	\$50	\$0	40	\$50	\$2,000
17	Install New WRB & Brick Per Details (SF)	2,100	\$20	\$42,000	3,968	\$20	\$79,360	1,832	\$20	\$36,640	1,798	\$20	\$35,960
11	Install New WRB & Corrugated Metal Panels (SF)	1,943	\$25	\$48,575	1,775	\$25	\$44,375	0	\$25	\$0	974	\$25	\$24,350
12	Install New WRB & Metal Panel #6 Per Details (SF)	504	\$25	\$12,600	466	\$25	\$11,650	0	\$25	\$0	239	\$25	\$5,975
13	(SF)	2,074	\$20	\$41,480	2,549	\$20	\$50,980	1,117	\$20	\$22,340	1,013	\$20	\$20,260
14	Install New WRB & Stucco #1 Per Details (SF)	44	\$22	\$968	353	\$22	\$7,766	67	\$22	\$1,474	364	\$22	\$8,008
15	Install New WRB & Stucco #2 Per Details (SF)	474	\$22	\$10,428	657	\$22	\$14,454	178	\$22	\$3,916	403	\$22	\$8,866
16	Install New WRB & Stucco #3 Per Details (SF)	443	\$22	\$9,746	371	\$22	\$8,162	126	\$22	\$2,772	90	\$22	\$1,980
Phase Subtotal Material & Labor (Per Elevation):				\$478,446			\$638,828			\$130,695			\$351,570

Note: All material removal includes disposal

Act #	Activity	Courtyard Looking North #4			Courtyard Looking East #4			Southeast Elevation #5			East Elevation #5		
		Qty.	Per Unit	Total	Qty.	Per Unit	Total	Qty.	Per Unit	Total	Qty.	Per Unit	Total
1	Erect Scaffolding (SF)	2,920	\$2	\$5,840	3,604	\$2	\$7,208	4,924	\$2	\$9,848	10,179	\$2	\$20,358
2	Demo Corrugated Metal Panels & WRB (SF)	547	\$8	\$4,376	179	\$8	\$1,432	306	\$8	\$2,448	818	\$8	\$6,544
3	Demo Metal Panel #6 & WRB (SF)	28	\$8	\$224	206	\$8	\$1,648	417	\$8	\$3,336	432	\$8	\$3,456
4	Demo Fiber Cement Siding & WRB (SF)	0	\$8	\$0	775	\$8	\$6,200	1,196	\$8	\$9,568	1,548	\$8	\$12,384
5	Demo Stucco #1 & WRB (SF)	331	\$15	\$4,965	80	\$15	\$1,200	14	\$15	\$210	54	\$15	\$810
6	Demo Stucco #2 & WRB (SF)	170	\$15	\$2,550	98	\$15	\$1,470	0	\$15	\$0	306	\$15	\$4,590
7	Demo Stucco #3 & WRB (SF)	0	\$15	\$0	47	\$15	\$705	37	\$15	\$555	266	\$15	\$3,990
8	Demo Brick & WRB (SF)	993	\$10	\$9,930	416	\$10	\$4,160	683	\$10	\$6,830	1,894	\$10	\$18,940
9	Install New Windows & All Flashing/Sealants (EA)	16	\$4,500	\$72,000	12	\$4,500	\$54,000	2	\$4,500	\$9,000	30	\$4,500	\$135,000
10	Reconstruct & Flash Exhaust Vent Covers (EA)	16	\$50	\$800	12	\$50	\$600	0	\$50	\$0	28	\$50	\$1,400
17	Install New WRB & Brick Per Details (SF)	993	\$20	\$19,860	416	\$20	\$8,320	683	\$20	\$13,660	1,894	\$20	\$37,880
11	Install New WRB & Corrugated Metal Panels (SF)	547	\$25	\$13,675	179	\$25	\$4,475	306	\$25	\$7,650	818	\$25	\$20,450
12	Install New WRB & Metal Panel #6 Per Details (SF)	28	\$25	\$700	206	\$25	\$5,150	417	\$25	\$10,425	432	\$25	\$10,800
13	Install New WRB & Fiber Cement Siding Per Details (SF)	0	\$20	\$0	775	\$20	\$15,500	1,196	\$20	\$23,920	1,548	\$20	\$30,960
14	Install New WRB & Stucco #1 Per Details (SF)	331	\$22	\$7,282	80	\$22	\$1,760	14	\$22	\$308	54	\$22	\$1,188
15	Install New WRB & Stucco #2 Per Details (SF)	170	\$22	\$3,740	98	\$22	\$2,156	0	\$22	\$0	306	\$22	\$6,732
16	Install New WRB & Stucco #3 Per Details (SF)	0	\$22	\$0	47	\$22	\$1,034	37	\$22	\$814	266	\$22	\$5,852
Phase Subtotal Material & Labor (Per Elevation):				\$145,942			\$117,018			\$98,572			\$321,334

Note: All material removal includes disposal

\$2,282,405



## Travis Street Apartment - Typical Interior Scope of Work Summary

Act #	Activity	Sequence 1 Wall Inspection (Per Unit)	Sequence 2 Floor Inspection (Per Unit)	Sequence 3 Structural Repairs (Per Unit)	Sequence 4 Repair & Finish Work (Per Unit)
1	Relocate Furniture Along Exterior Wall	By others			
2	Remove Rubber Base	2 men @ 2 hours per unit			
3	Remove Electrical Outlet Cover Plates				
4	Remove 2' of Sheetrock from Wall 5,693SF (Single Layer 5/8")				
5	Inspect Structural Framing				
6	Remove 2' of Vinyl Flooring		4 men @ 3 hours per unit		
7	Remove 2' Subfloor				
8	If Deterioration is Found, Remove 2 Additional Feet of Subfloor for Repair				
9	If Necessary, Repair In-Wall Structural Framing Per Detail (Provided by others)			4 men @ 8 hours per unit	
10	If Necessary, Repair Flooring Structural Framing Per Detail (Provided by others)				
11	Replace Subfloor				4 men @ 24 hours per unit
12	Replace Sheetrock on Wall				
13	Tape, Float, Paint Wall				
14	Re-Install Electrical Outlet Cover Plates				
15	Install New Vinyl Flooring				
16	Replace Vinyl Cove Base				
17	Rough Clean				
18	Final Clean				By others
Sequence Subtotal Labor (Per Unit):		\$140	\$420	\$1,120	\$3,360
Sequence Subtotal Material (Per Unit):		\$0	\$0	\$1,200	\$2,500
Sequence 1 & 2 Subtotal for All 192 Units		\$26,880	\$80,640		
Assumed Structural & Finish Repairs Subtotal for 50% of Units (96 Units)				\$222,720	\$562,560
<b>Total:</b>		<b>\$892,800</b>			

\$107,520

\$785,280

\*\*All material removal includes disposal

Sequence 1 Estimated Labor Costs Per Unit			
Men	Hours	Costs / Hr	Total Cost
2	2	\$35.00	\$140.00

Sequence 2 Estimated Labor Costs Per Unit			
Men	Hours	Costs / Hr	Total Cost
4	3	\$35.00	\$420.00

Sequence 3 Estimated Labor Costs Per Unit			
Men	Hours	Costs / Hr	Total Cost
4	8	\$35.00	\$1,120.00

Sequence 4 Estimated Labor Costs Per Unit			
Men	Hours	Costs / Hr	Total Cost
4	24	\$35.00	\$3,360.00

# Exhibit 5



## David Stauch Managing Principal



Dave's diverse background in program management of large-scale, complex projects, coupled with his positive leadership approach, enables the project team to achieve successful outcomes on our projects.

### PROFESSIONAL

State Bar of Texas Construction Law Section  
Associate Member

Urban Land Institute  
District Council Chair  
Governance Committee Chair  
Advisory Board

### CIVIC

American Red Cross of Central Texas  
Board of Directors

Austin Habitat for Humanity  
Board of Directors

Western Hills Little League  
Coach, Board of Directors (Chair)

Ross Volunteer Association  
President

Young Men's Business League

Downtown Austin Alliance

TAMU Corps Development Council

Colorado River Alliance



### EDUCATION

Texas A&M University  
BS – Building Construction

### EXPERIENCE

CPM Texas (2013-present)  
Managing Principal

#### Program / Project Management (major projects) including:

Mason County Courthouse Restoration	\$20M
Texas Association of Counties – Office Core & Shell	\$25M
Indigo Ridge, 155-acre Mixed-Use Development	\$2B
Austin Theatre Alliance-Renovation to Paramount & State Theatres	\$21M
Travis County North Campus – Public / Private Partnership (P3) Mixed Use	\$46M
The Independent	\$245M
University of Texas - Kappa Kappa Gamma House Addition / Renovation	\$10M
Austin Ridge Bible Church	\$61M
Greater Mt. Zion Baptist Church	\$14M
Austin Geriatric Center / RBJ Center Re-Development	\$230M
Seaholm Power Plant Re-Development	\$150M

#### Construction Claims Consultant / Expert Witness

Representing a broad range of clients in mediation, arbitration, and litigation

HS&A – Austin, Texas (1995-2012) (Formerly Herndon, Stauch & Associates)  
Co-Founder, Managing Principal

#### Program / Project Management (major projects) including:

UT MD Anderson Cancer Center (BSRB) – Project Recovery	\$221M
Travis County Criminal Justice Program – Project Recovery	\$92M
St. Edward's University / 7 Projects	\$67M
Concordia University Campus Relocation & Expansion	\$51M
UT Austin / Applied Computational & Engineering Sciences Bldg.	\$38M
St. Andrew's Episcopal School / 2 Projects	\$25M
Austin Children's Museum	\$20M

#### Construction Management-At-Risk

Austin ISD, Dripping Springs ISD	\$50M
St. Andrew's Episcopal School, UT Austin	
Multiple Private Sector Clients	

#### Construction Claims Consultant / Expert Witness

State Preservation Board – Austin, Texas (1990-1995)

Construction Manager / Project Manager Texas Capitol Preservation and Extension Program	\$187M
--	--------

SEMATECH, Inc. – Austin, Texas (1988-1989)

Manager of Planning, Engineering, and Construction SEMATECH 1A Wafer Fab, 1B Wafer Fab and Office Building	\$100M
---	--------

Prior Experience (1981-1987) General Contracting (Austin Commercial, Badgett Construction) \$50M

Stauch & Company (1986-present)

Consultant to area construction lenders (loan portfolio exceeds \$4 billion)