



City of Key West
201 William St.
Key West, FL 33040

December 11, 2012

Bob Vitas
City Manager
City of Key West

Structural Report of Concrete Repairs and Project Justification

As a follow up to prior discussion at Bight Board meetings, this report was created to explain the repairs made to the 201 William St. tie-beams and columns, specifically at the North corner of the building (currently the Key West Ice Cream Factory). It has been suggested that the reasoning and execution of the repairs were;

- a.) Unjustified
- b.) Used improper materials
- c.) Initiated only for a proposed new tenant who would have future use along and above the repair.
- d.) Without due diligence with respect to the tenant

The assumptions were made without inquiries to City staff (Operations Manager), project manager/contract engineer (Chen and Associates), or the projects engineer of record (United Engineering , previously BCC). This document and attached information qualify the repairs, as they were executed, in a manner most appropriate to the tenant, the tax payers, and the lease binding the two.

The nature of this project was one of necessity and timing. The structure had over 100 locations of spalling repair of concrete cracking identified by the structural engineer within the permit set

(attachment A) page S-3.0, cross section 2, dated September 26, 2011. The photos from the site visit attached are dated July 18, 2011 which initiated the structural repair documentation.

To refute the reasoning implied by Board members of the repair, the drawings attached show 11 separate locations of concrete delamination or spalling at the unit within question. Due to the accusation that the repairs and strengthening of the tie beam were only for the use of the proposed tenant, a zoom of Attachment A, the initial repair documents dated September 26th, 2011 is shown as well as the photos initiated July 18, 2011 that preceded the HARC drawings by William P. Horn Architect for the Waterfront Brewery dated November 11, 2011 (Attachment B) by nearly 4 months.

Also attached is an email from the structural engineer that confirms the tie-beam that was repaired runs parallel to the T-beam roof system that would support the proposed roof top deck and does not contact the roof beam(s) load point on either end. The tie-beam in question was repaired or replaced in kind, as were the columns within. They were not enlarged or expanded in any way.

There was discussion at the Bight Board meeting on Aug. 2nd that the repairs to the tie-beam were artificial and that the material used was "stucco" and not concrete. While material used was not concrete (especially considering the most common form of large aggregate and cementitious mix seen used for sidewalks or typical construction) it does in fact have a 28 day compression rating at 6,750psi compared to typical pump mix rated at 5,000psi. The product that were used, specified by the structural engineer (Attachment C), BASF LA40 Rapid Hardening Mortar is a fiber reinforced trowable mortar mix made specifically for its ability to be controlled by moisture content for workability and its great bonding strength to clean concrete as used in spalling repairs or in columns and beams overhead. These products are made for repairs/patches and contain corrosion inhibitors and curing additives. Attachment D shows a photo taken of a typical nonstructural mortar powder next to the LA40 powder. The products are nearly indistinguishable to the naked eye. Fiber reinforced materials like these do not have large aggregate, like concrete, and are made specific for areas that cannot be formed. Unless the product was in the packaging it would be almost impossible for someone to determine what type of mortar it was.

As noted above the initial field visit by the engineer was on July 18, 2011. The photos under Attachment E are all from the above date. Staff was explicitly accused of directing a repair which did not need access to the unit and without proper due diligence. Attachment F is the PDF and e-mail that was sent to the tenants of the 201 William St. building on February 23rd, 2012. This e-mail gave notice to all tenants that construction would begin as soon as building permits were issued and were given a full set of drawings. Tenants were notified to contact me with any questions regarding the project. The drawings show, in detail, the areas of needed repair. The letter also explains that due to the nature of the project that "concrete repairs are not fully known until invasive investigation is undertaken" and that "cracks on the outside that look exterior only... could certainly lead to the inside of the building."

Staff, United Engineering, and Bella started investigating the tie-beam on the north side of the Ice Cream Factory on May 2nd to determine the impact of the repair. After looking into attic area and continuous visible spall lines there was concern about the impact with the tenant. After much discussion by the engineer and contractor it was determined that replacing the tie beam at one time would be the least impactful to the tenant. A proposal was requested from Bella Construction to supply as much extra man power as could be supplied on the project to minimize down time. Attachment F shows the considerable amount of spalling that existed on the **inside** of the unit. These areas could not have been repaired from the exterior of the unit nor could they be repaired while keeping the store open due to safety concerns. The proposal was reviewed by Bight Staff, Engineering Staff, the City Manager's Office, and the project engineer and accepted as the timeliest solution to completion. A change order of \$2,586 for extra labor cost was approved for the repair.

**The total extra repair cost was \$10,026. The condenser units for the Ice Cream Factory had to be removed to repair the tie beam. They were relocated to the loading area of the building where there already existed electrical meters and AC condensers. HARC requested us move an AC unit at Thompsons Fish House out of view a month prior in their attempt to either conceal or locate such items collectively and out of view in the historic district, to comply we did the same with these units. They also would have been inoperable if they were to go back in the same location as the concrete repairs would have shut them down for days. This would have lost the tenant their cooled/frozen inventory.*

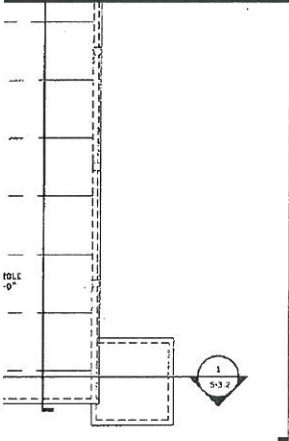
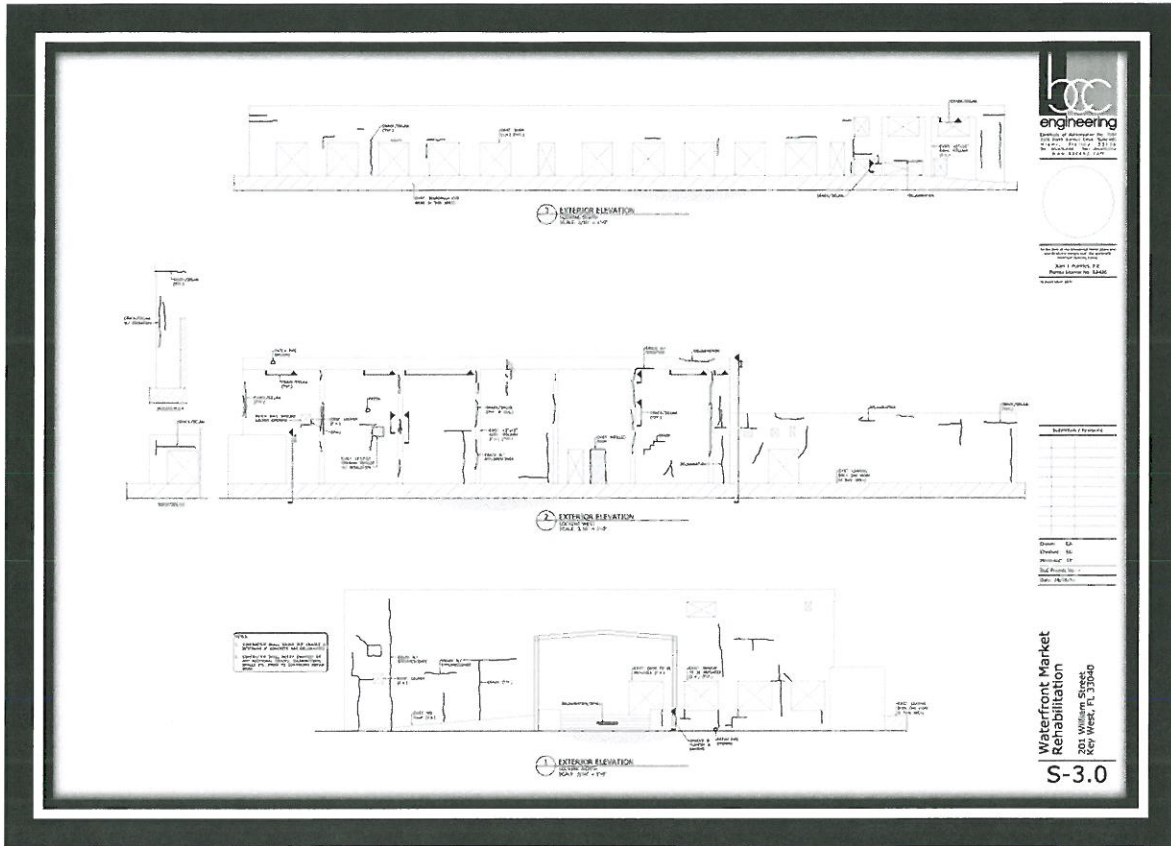
The condensers were also attached with code compliant and NOA labeled brackets. They were placed above flood and had custom enclosures made which they did not have prior. The condensers that were not in the repair area were not moved.

Attachment G is an email sent to Scott Cates, owner of the Ice Cream Factory, on May 18 giving official notice of the repairs necessary to the unit. The dates of construction proposed were June 4 – 8. Had Bella repaired the areas identified with the standard crew and pace the store would have been impacted by chipping hammers and concrete repair for the more than 15 days enduring vibration, dust, and incredibly load noise. There is no way to complete repairs of this magnitude while keeping the store open to employees or patrons.

The attachments show that Staff gave the tenant 102 days from initial notice to repair date and 18 days of notice for the closure of the unit that required approval. Discussions with the tenant started approximately 2 weeks before the notice of the closure was sent in writing.

The attached photos, product approvals, data, and correspondence were made available to give assurance that all construction projects in the Key West Bight are initiated and executed with extreme due diligence to both our tenants and the City of Key West. As part of the contract documents for these repairs, there will be a full report from both the engineer and the contractor from every location of the building. Those reports as well as any other information from this project are available in my office for those interested.

Attachment A



**Waterfront Market
Rehabilitation**
201 William Street
Key West, FL 33040

S-2.1

Waterfront Market
Rehabilitation
201 William Street
Key West, FL 33040
S-3.0

John Castro

From: Juan Fuentes
Sent: Tuesday, December 11, 2012 1:32 PM
To: John Castro
Cc: Oscar Bello
Subject: Re: Structural Repairs

John Paul,

The concrete tie beam that runs parallel to the precast double tees does not carry any gravity loads from the roof. We typically provide a concrete tie beam, instead of masonry, to facilitate construction and provide closure to the building envelope.

Regards,

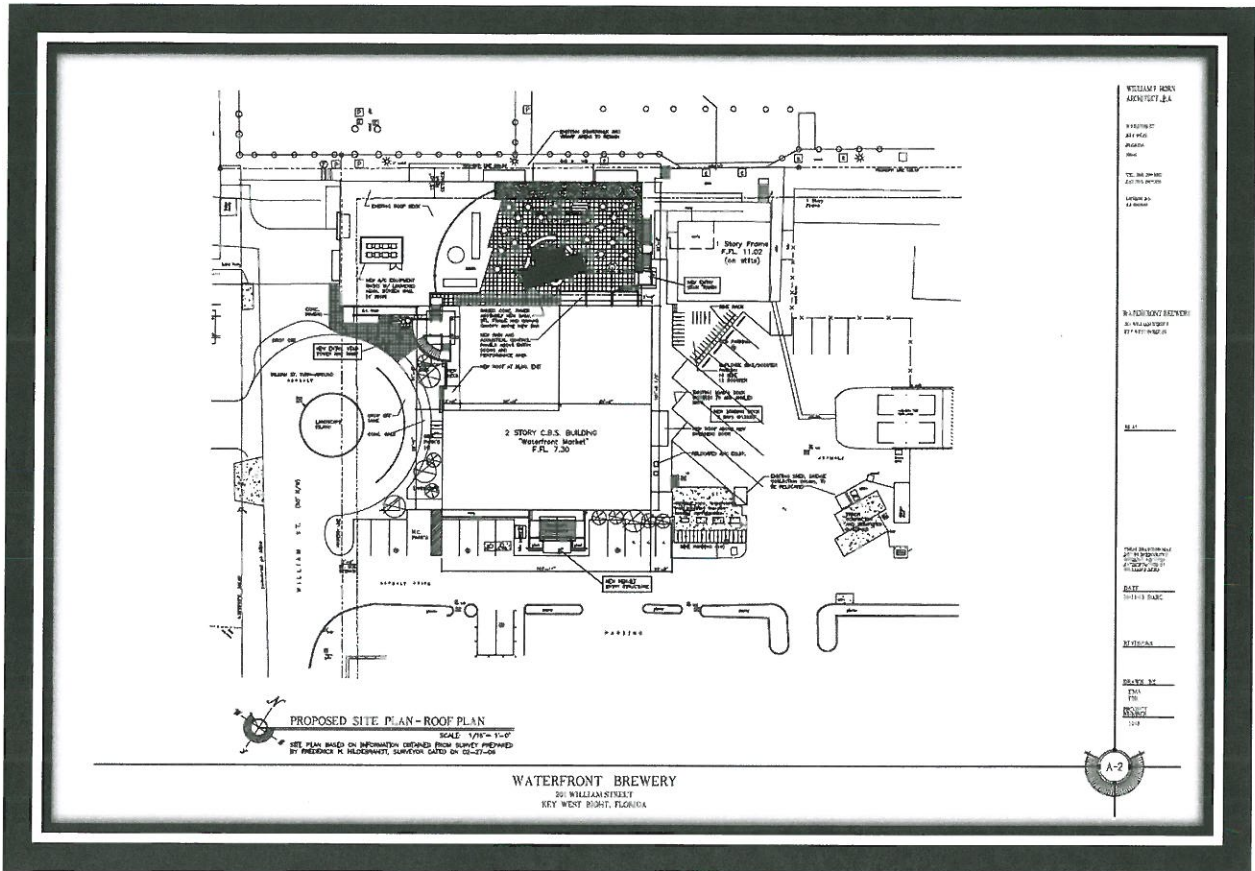
Juan J. Fuentes, P.E., S.E., LEED AP BD+C Principal

UNITED Engineering, Inc.
12595 SW 137 Ave, Suite 112
Miami, FL 33186
(T) 786.347.5250
(C) 305.724.6137

On Dec 6, 2012, at 3:16 PM, "John Castro" <jcastro@keywestcity.com> wrote:

> Juan,
>
> In regards to the tie-beam that we repaired at the ice-cream factory
> for the "201 William St. Concrete Repairs," can you give me a quick
> description of that tie-beam that runs parallel to the T- beams and
> its structural significance to that roof structure? Thank you.
>
> John Paul Castro
> Operations Manager
> Historic Seaport
> (305) 809-3803
>

Attachment B



WILLIAM F. HORN
ARCHITECT, P.A.

DATE: 11-11-11
SCALE: 1/8" = 1'-0"

PROJECT: WATERFRONT BREWERY
1113

DESIGNED BY: EMA
DRAWN BY: FIH
CHECKED BY: EMA
DATE: 11-11-11

PROPOSED SITE PLAN - ROOF PLAN
SCALE: 1/8" = 1'-0"
SITE PLAN BASED ON INFORMATION OBTAINED FROM SURVEY PREPARED BY ANDREW R. HODGKINSON, SURVEYOR DATED ON 02-27-08

WATERFRONT BREWERY
20 WILLIAM STREET
KEY WEST BIGHT, FLORIDA



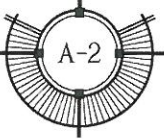
THESE DRAWINGS MAY NOT BE REPRODUCED WITHOUT WRITTEN AUTHORIZATION BY WILLIAM F. HORN

DATE
11-11-11 HARC.

REVISIONS

DRAWN BY
EMA
FIH

PROJECT NUMBER
1113



Attachment C



UNITED Engineering, Inc.
 12595 SW 137 AVE
 Suite 112
 Miami, Florida 33186
 t. 786.347.5250
 e. info@unitedeng.pro
 w. www.unitedeng.pro

PROJECT	Waterfront Market CA		PROJECT NO.	0301-03
			SHEET NO.	1
SCALE	N/A	BY	JJF	DATE 04/03/12

SHOP DRAWING LOG

DATE	LOG NUMBER	DESCRIPTION	STATUS
04/03/12	030103-1	5000 #89 Pump Mix	No exceptions taken
04/03/12	030103-2	Arch 3000	No exceptions taken
04/03/12	030103-3	Arch Med Stile Door Impact	No exceptions taken
04/03/12	030103-4	Armatec110	No exceptions taken
04/05/12	030103-5	Metro Mix 240AE	Substitution not approved
04/03/12	030103-6	Fox Industries FX-263	Substitution not approved
04/03/12	030103-7	BASF Gel Patch	No exceptions taken
04/03/12	030103-8	BASF Sonolastic NP1	No exceptions taken
04/03/12	030103-9	SIKA 1A	No exceptions taken
04/03/12	030103-10	Sikadur 32 Hi Mod	Substitution not approved
04/03/12	030103-11	Sikadur 35	No exceptions taken
04/03/12	030103-12	Sikacrete 11	Substitution not approved
04/03/12	030103-13	Ultrabond 2	Amend and Resubmit

Attachment D

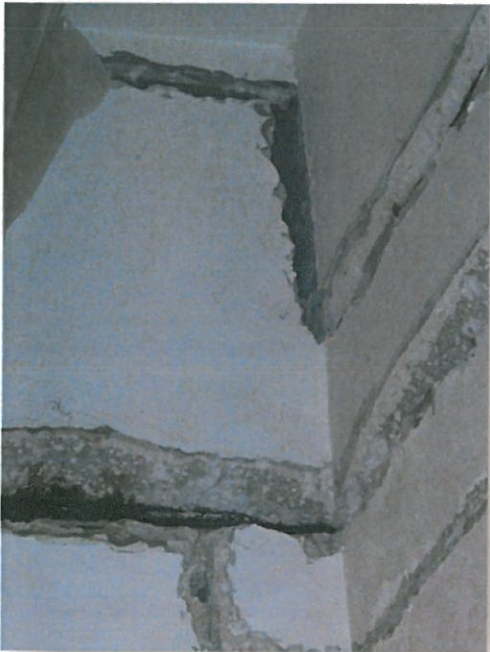


Attachment E

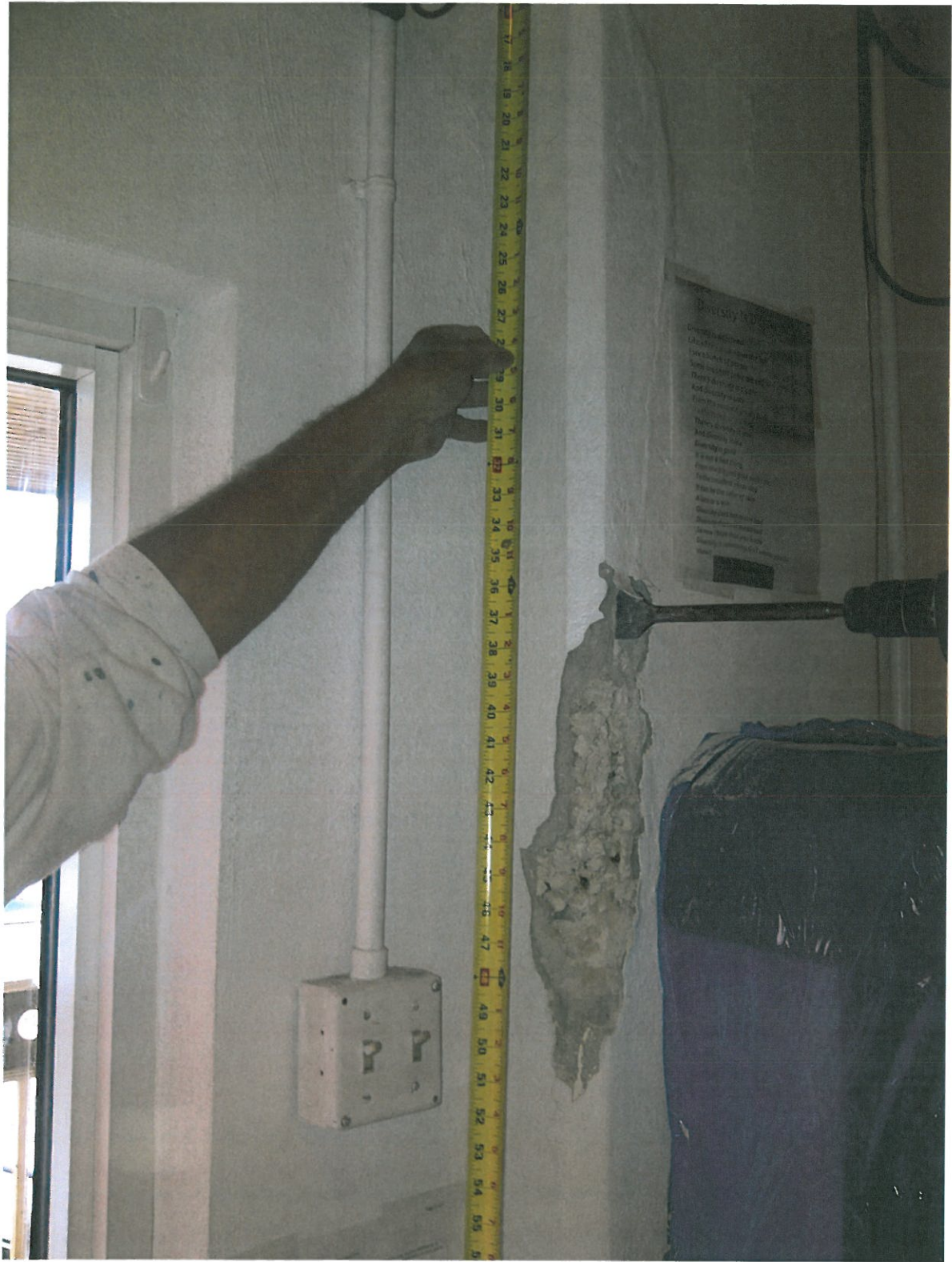




Attachment F







Attachment G

From: [Debra Gartenmayer](#)
To: kwicecream@aol.com
Cc: [John Castro](#)
Subject: NOTICE OF CONSTRUCTION
Date: Thursday, February 23, 2012 1:58:21 PM
Attachments: [Notice to Tenants.pdf](#)

Scott,

Please be advised this is a notice that concrete repairs will begin to 201 William Street within the next 30 days. The attached memo has contact info for further information. Thank you.

Debra Gartenmayer for John Paul Castro, Operations Mgr.
Secretary-Key West Bight Marina
City of Key West
201 William Street
Key West, Florida 33040
dgartenm@keywestcity.com
Phone (305) 809-3802
Fax (305) 293-8308



2/23/2012

Dear 201 William St. Tenants,

As you know the 201 William St. building is need of repair both structurally and aesthetically. For those of you that do not follow the City projects or Bight Board meetings we have been working on awarding the improvements to the structure for some time. The project was awarded at the CRA meeting last night to Bella Construction of Key West, Inc.

The project will encompass the entire building and all structural components noted within the drawing (which have provided). The windows and doors of the former "Waterfront Market" building will also be replaced.

Both Key West Bight Management and Bella Construction will do our best to make this renovation as quick and with as little disruption to business as possible. The project still has to go to the Building Department for permits and then will begin on the inside of the main structure. They will then move outward and around the outside of the building.

Due to the nature of the project you can expect to hear good amount of jack hammering, chipping, and hammering during construction. Unfortunately there is no way to avoid this.

I have attached the working drawings for you information. Please look at the areas identified by the engineer to see if and how this will affect you. There will likely be some work done inside of your units. We will give as much notice as possible to these repairs but please be advised that concrete repairs are not fully known untill invasive investigation is undertaken. There could be cracks on the outside that look exterior only that could certainly lead to the inside of the building once opened up. There is no way to predict these occurrences.

If you have any questions about the construction, would like to go over the drawings, or any other questions you may have about the project please contact me to set up a meeting 809-3703.

Sincerely,
John Paul Castro
Operations Manager – Key West Bight
City of Key West.

John Castro

From: John Castro <jcastro@keywestcity.com>
Sent: Friday, May 18, 2012 10:11 AM
To: 'kvicecream@aol.com'
Cc: Marilyn Wilbarger
Subject: Notice of Construction

Scott,

Attached is a notice for necessary construction repairs to your unit. A copy is being hand delivered to due to timing concerns and mailed per the terms of the lease. Please let me know when we can have meeting to discuss the project with the contractor. Thank you.



Ice Cream Factory
Notice.pdf

John Paul Castro
Operations Manager
Historic Seaport
(305) 809-3803



City of Key West
201 William St.
Key West, FL 33040

May 18, 2012

Key West Ice Cream Factory
Scott Cates
201 William St.

Advance Notice of Building Repairs

Dear Mr. Cates,

As noted in a letter sent to all tenants of the 201 William St. building dated February 23, 2012 the concrete repairs to the structure have been moving forward and Bella Construction is now assessing the exterior of the building. Within terms the conditions of the lease the landlord shall give notice for repairs that are considered necessary to the structural integrity of the building and safety of the tenant and its patrons. Along with the contractor, a plan has been put together that will be complete the repairs as engineered in the shortest amount time with regards to your business.

The tie-beam along the east side of the building, which encompasses the length of your unit, is at a level of spalling delamination that will require complete replacement. This requires work to be done both inside and out, with considerable noise in an environment that can be considered construction only. The City, at additional cost, has requested the contractor to add significant labor resources to this section of the project to minimize time and disruption.

The proposed construction will require all movable, wall hung or other items not permanently attached to the floor or walls, to be removed from the east wall of the building prior to construction.

The project timeline will be 5 complete days of construction in which the only contractor crew will be permitted on site due to safety. The contractor is to take all necessary steps to protect the interior of the unit for debris and dust by partitioning wherever possible, the construction area from the remainder of the unit.

Within this construction the City has requested the contractor to move the four condensing units for your business's freezers/ice machines around to the loading dock to clear room for repairs and also install the units with covers (the units currently do not have covers in which all mechanical and electrical are exposed) permanently and up to code (not all of the units are currently strapped down or secured). This will make that side of the building more aesthetically pleasing and secure the units in an area where utilities and mechanical equipment already exist. The condensing units are to be set-up in their new location prior to disconnecting, as to have the shortest down time possible. There is to be no loss to any items frozen or cooled.

The scheduled construction dates are June 4 – 8th. The unit will be completely cleaned and shall match existing when the job is complete. We would like to have a meeting the week prior to discuss the logistics of the project details.

If you have any questions or concerns about this project please do not hesitate to call me at 809-3803. Thank you.

Sincerely,

John Paul Castro
Operations Manager
City of Key West