Vieux Carré Commission Meeting

Wednesday, August 18, 2021





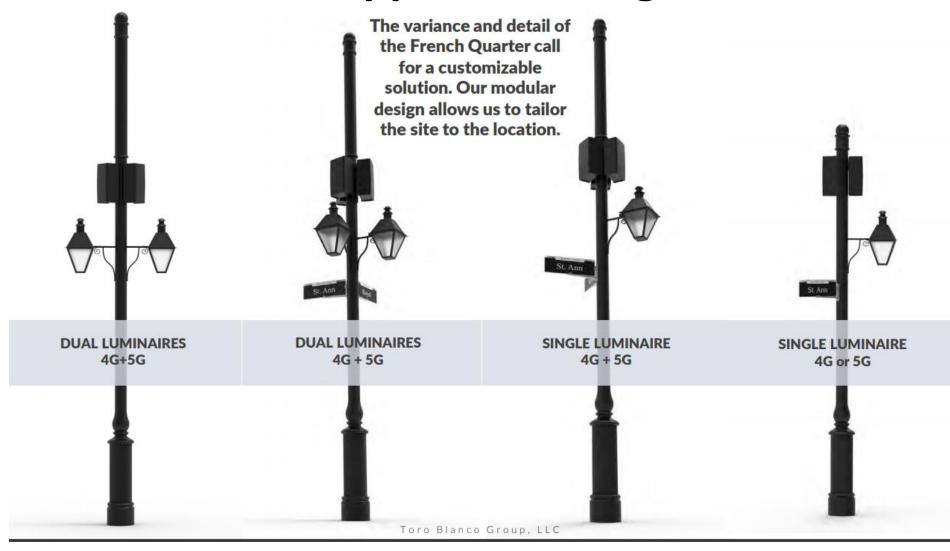




Verizon – Requested Modification to VCC Approved Pole Design

August 18, 2021

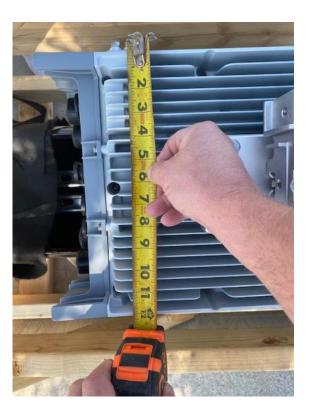
VCC Approved Design



Verizon's Equipment Challenge

- Verizon's 4G Radio is too large to fit inside the approved pole
 - Mount 4G radio opposite the luminaire
 - Mount 4G radio behind the 5G antennas
 - Mount 4G radio below 5G antennas







Verizon's Photo Simulations of 4G, 5G, and 4G/5G Poles

• At the suggestion of the VCC and the City, Verizon relocated the 4G antenna opposite the luminaire.

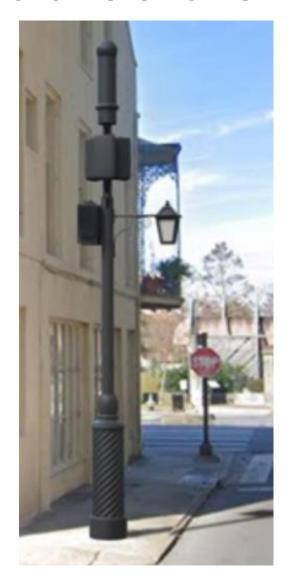






Toro Pole vs Verizon Modified Pole





	Toro Blanco Pole	Verizon Pole
Total Pole Height	20'	20'
4G Antenna Diameter	5"	8"
Top Pole Diameter	5.5"	5.5"
Base Diameter	10.75"	10.75"
Base Height	54"	54"
Foundation Base Diameter	11.75"	11.75"

Verizon's Request of the Vieux Carre' Commission

 Verizon respectfully requests approval of the modifications in order to have the poles manufactured in time to install during the City's One Dig planned street closures.

Thank you!



Vieux Carré Commission

Here at Toro we have worked hard to ensure that even Verizon's largest and most cumbersome equipment configurations will fit within the already approved small cell pole that we have expressly designed for the French Quarter of New Orleans. This pole and its modularity enables the unification of form factors across all small cell, smart city, and collocation solutions within the historic French Quarter while maintaining the existing design language and historic aesthetic.





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MODULAR

Stand-alone 5G

Samsung 5G AIR Units:

Max CL w/out CommScope Omni Antenna: 19' 3"

4G + 5G

Samsung 5G AIR Units:

Max CL: 19'

CL w/ CommScope Omni Antenna: 16' 4"

Provided by Toro Blanco



VERIZON EQUIPMENT

SAMSUNG 5G AIR UNITS

1-4 AIR Units

Max CL w/out 4G: 19' 3"

CL w/ 4G: 16' 4"

1 Fiber, 1 AC Power In Per Unit, Alarm

Cable & Ground

GPS Out

COMMSCOPE OMNI ANTENNA

Max CL: 19'

Up to 10 3/8" Coax Cables & Ground

SAMSUNG RADIO HEAD

Pole Top Mounted

48V DC Power In, 1 Fiber In, 4 Coax Out & Ground

TWO (2) RECTIFIERS

Both the GE Rectifier Verizon uses in the New Orleans market as well as the Samsung Rectifier prescribed by Samsung to work with the Samsung 310 RF4402d can be simultaneously base mounted or pole top mounted allowing for up to two rectifiers to be mounted without issue. 120V AC Power In + 48V DC Power Out & Ground

RAYCAP AC DISTRIBUTION PANEL

Base Mounted 120V AC Power In, 120V AC Power Out

CHARLES INDUSTRIES FIBER TERMINAL

Base Mounted Fiber In Up to 24 Port

*Please note, all cable management and plumbing designs have been based around a minimum bend radius of 5" for any fiber and coaxial lines, 4" for any AC or DC power conductors, and schedule 80 non-conductive conduit for any conduit runs. **Note: a ground bus bar will be mounted at the top of the pole for ease of equipment grounding,

EQUIPMENT SEPARATION, CLEARANCE & THERMAL REQUIREMENTS

The below numbers are the manufacturer's published standards for typically required clearances to prevent any EME interference, ensure proper fitment for installation and serviceability, and maintain optimum equipment operability and life span. All clearances have been maintained or exceeded within the attached designs. All thermal requirements have been accounted for, allowing natural convection throughout the provided non-restrictive system.

Samsung RRH

Max Temp 131° F

Samsung 5G AIR Units

- 12" Top Clearance to CommScope Omni Antenna
- 16" Bottom Clearance
- Min Pole Diameter 2", Max Pole Diameter 16"
 - Seojin Systems Tilt/Swivel Bracket Min Pole Diameter ~6"
- 33" Max Install Diameter OD
- 3 ¼" Sides Thermal Clearance, Min 2.7" Between Heat Sinks
- Max Temp 131° F w/ Solar Load

GE Rectifier

Optimum Ambient Air Temp 114° F

CommScope Antenna

- · 12" Bottom Clearance to Samsung 5G AIR Units
 - Max Temp 131° F



MAINTENANCE & EQUIPMENT ACCESSIBILITY

We have worked hard to create a design that not only accommodates the needs of Verizon's network and equipment, but also allows for ease of access for installation, upgrades, or maintenance.



POLE TOP RADIO MOUNT

The updated design pushes out the Samsung 5G AIR units by only 2", expanding the overall OD of the outside 5G AIR antenna faces by just 4". By placing the radio at the top of the pole we can utilize the passive cooling already built into the RRH without the need for fans. The proximity of the radio to the 5G AIR units does not affect thermal management or cause any interference with the signals from either device, all separation guidelines for each piece of equipment have been met or exceeded in the design for this express purpose.

4G SAMSUNG 310 RF4402d INSTALLATION SPECIFICATIONS age 20 of 101





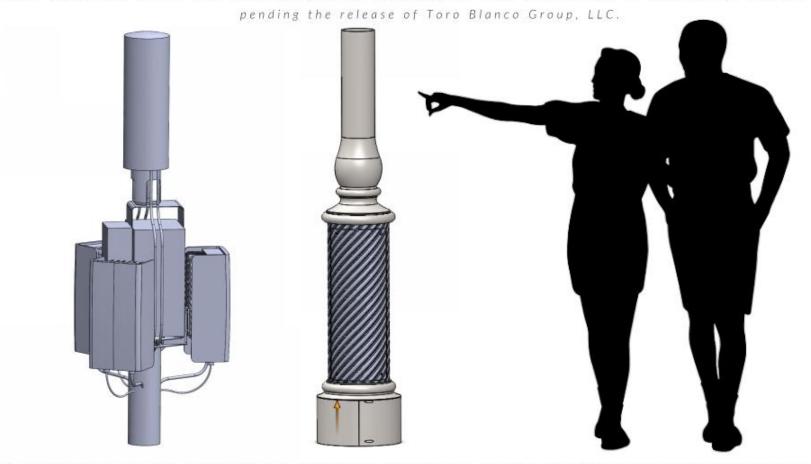
See above installation criteria excerpts from the OEM Samsung 310 RF4402d Installation Criteria Manual (excerpts taken from pages 20-24 and 32-33 of installation manual v3.1). The bracketing is first affixed to the pole structure, the AC/DC converter is affixed to the radio, and then, after the pole is erected, the combined radio+AC/DC converter unit is installed onto the radio mounting bracket (which was previously installed on the pole structure). Any installation of the radio+AC/DC converter on the ground would mean an installation of the equipment in the horizontal position, not showcasing the proper installation criteria and resulting in an unsafe mounting. A ground installation of the equipment (this also includes the 4G antenna and 5G AIR Units) would have to be removed prior to the pole being lifted vertical, then re-installed from a bucket truck once the pole is properly mounted to the foundation anchor bolts.

Renderings showcasing a two-part prototype, created expressly for demonstration/training/fitment/example purposes that would allow for the proper, OEM Samsung recommended installation criteria of all equipment at ground level is on page 3 of this document.

*See OEM Samsung Installation manual attached in email, excerpts of manual included on page 2 of this document for illustrative purposes.







Rendering to showcase size and fitment of pole-top integration of both Verizon's preferred 4G radio, associated DC rectifier, 4G antenna, and 5G AIR units. These renderings are scaled to showcase the base and pole-top sizing. The human silhouettes are for scale to show what these two sections would look like at ground level (the man is designed to represent a six-foot-tall figure).

Due to the installation techniques which we have designed this installation for, (*specifically designed to align with the OEM Samsung Manufacturer Installation Manual for ease of cross installation/maintenance for contractors) of the Samsung 310 RF4402d 4G radio and associated DC rectifier, an installation of the radio and other pole top equipment on the ground prior to the pole being erected is possible, thereby allowing off-site equipment integration and minimizing the timelines of necessary street and sidewalk closures.

"See OEM Samsung Installation manual attached in email, excerpts of manual included on page 2 of this document for illustrative purposes.

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*Signage to meet all local and national RF warning guidelines will be clearly visible and mounted on the pole a minimum of 6' away from any antenna.





POLE TOP RADIO MOUNTING, MAINTENANCE, & ACCESSIBILITY

Port access to the Samsung RRH, CommScope omni antenna, and the Samsung 5G AIR units is easily accessible without the removal of any covers, bracketing, or equipment.

RRH removal is easily accomplished, only requiring the removal of one Samsung 5G AIR unit and four bolts securing the RRH to a bracket via the pre-existing bolt pattern from Samsung. The CommScope omni antenna is equally easy to access and remove/install through four bolts integrated into the 5G AIR bracketing.









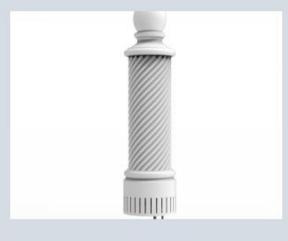
DESIGNED FOR MULTIPLE RECTIFIERS

We have specifically designed this pole and all associated attachments to accept any and all possible configurations of Verizon's preferred equipment for deployment within the New Orleans market. Our designs can accommodate both single and dual rectifier configurations, as is showcased on the following three pages.

HEAT DISTRIBUTION: BASE + RECTIFIER

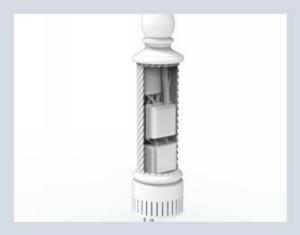
Base and pole top venting has been expressly designed to accommodate the airflow restrictions of the equipment within the pole and allow for the natural evacuation of air that will be heated from the equipment stored within.

The cross-sectional area of the rectifier is 80% of the systems next most restrictive section, thereby enabling uninhibited passive cooling of the rectifier and allowing the existing heatsinks to safely maintain GE's recommended operating temperature without the need for additional cooling mechanisms.



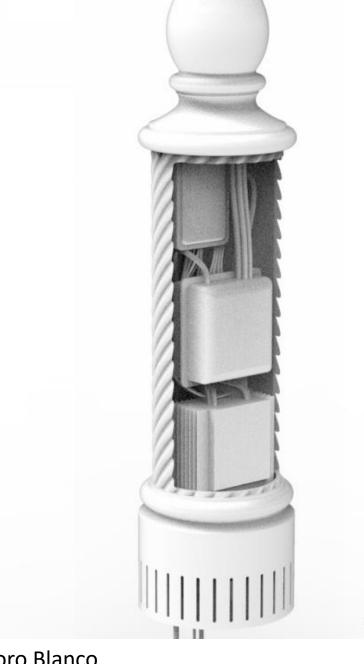






*Vent openings have been enlarged in renderings for visual purposes. Openings are designed to meet all UL standards for diameter and depth of opening to prevent intrusion or safety hazards.

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POLE BASE INTERNAL CONFIGURATION

A fully concealed solution to accommodate Verizon's fiber box, AC distribution panel, and AC/DC converter of choice.

POLE BASE FIBER BOX, AC DISTRIBUTION, & RECTIFIER MOUNTING, MAINTENANCE, ACCESSIBILITY & CABLE MANAGEMENT



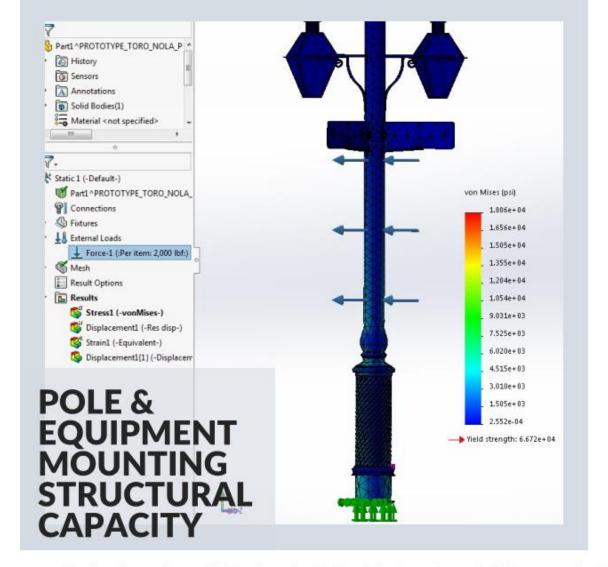
- The base door is large enough to accommodate fully opening (past 90°) the doors on both the AC distribution panel and the fiber box for any access necessary.
- · The rectifier is positioned to allow maximum access to the power panel and enables easy removal of the cover for install or maintenance.
- The ID of the base is right at 10" enabling sufficient routing for cabling with minimum bend radius' up to 5".

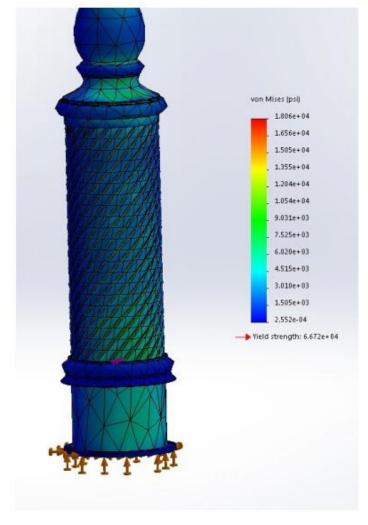
*Removable pole base cover to be securely locked in place with a minimum of four (4) 304 stainless steel, tamper resistant, pinned hex 1/2" button head bolts.



STRUCTURAL FEASIBILITY & WIND LOADING

We have specifically designed this pole and all associated attachments to sufficiently accommodate the natural forces which routinely assault New Orleans.





The above images document FEA performed on the French Quarter gas lamp pole design representing 2,000 pounds of force being applied to the pole and base. A Structural Analysis completed by a PE Stamped Structural Engineer licensed in the State of Louisiana will be provided upon receiving initial design approval from Verizon. The pole, base, and ancillary brackets or fixtures are predominantly constructed from ASTM A513 steel alloy.

Provided by Toro Blanco



WIND LOADING

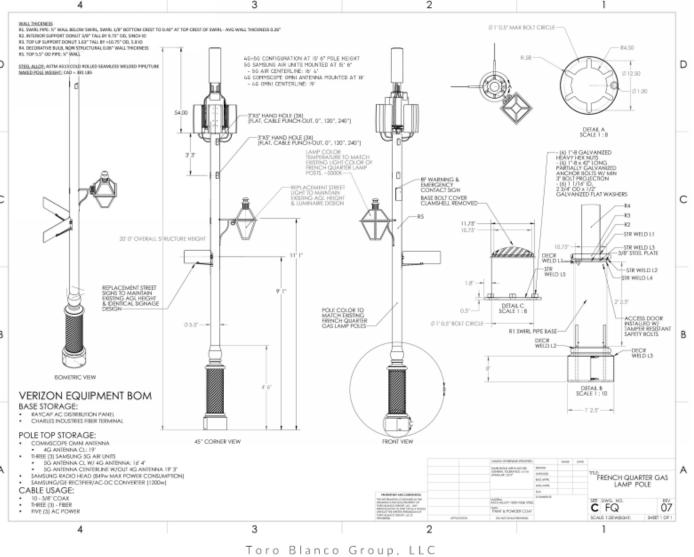
All poles, equipment, bracketing, and attachment materials included within this design are designed to accommodate wind speeds exceeding 157 mph.

All wind velocity ratings are based on ASCE/SEI 7-16 standards for the French Quarter of New Orleans, LA at Risk Category IV (157 mph) as well as the AASHTO LTS-5 specifications for a 3-second gust basic wind speed (in mph) with a gust effect factor of 1.14. The NAVD 88 elevation for prospective installations has a range from 0' to 20' so an elevation of 0' above sea level was assumed.





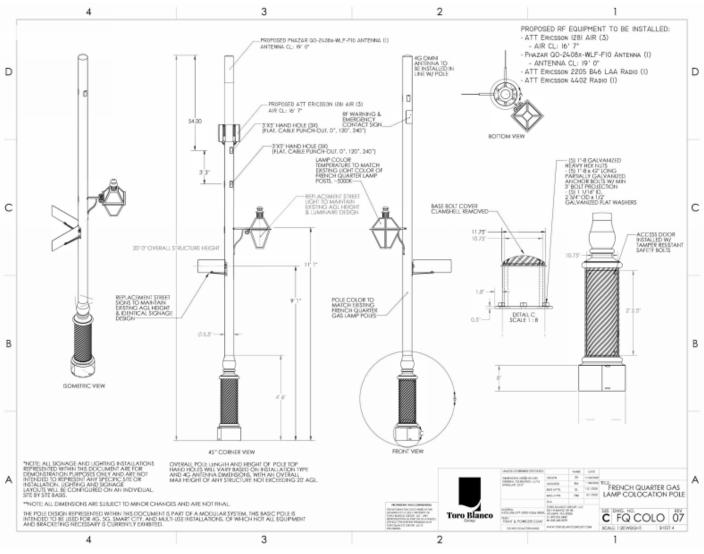
The below showcased design utilizes a single pole-top installed rectifier, however this design can also be configured to incorporate a base installed rectifier in addition to the pole-top rectifier shown here.







APPROVED ATT EQUIPMENT CONFIGURATION SPEC SHEET Page 32 of 101

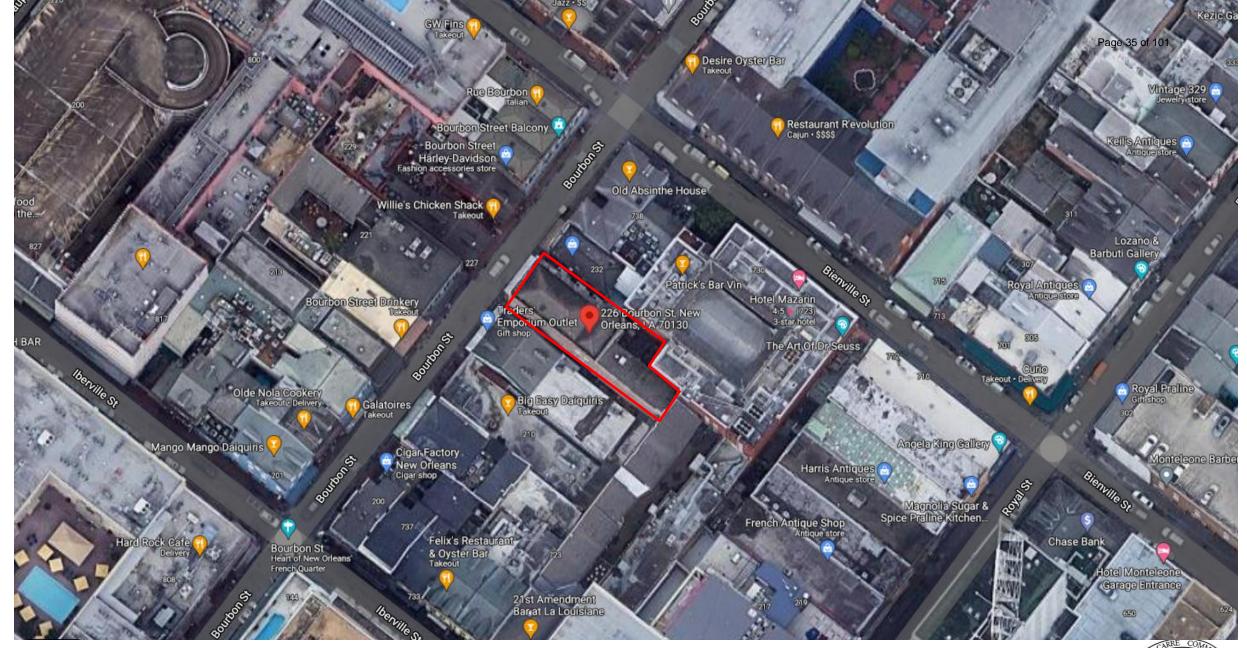




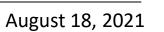


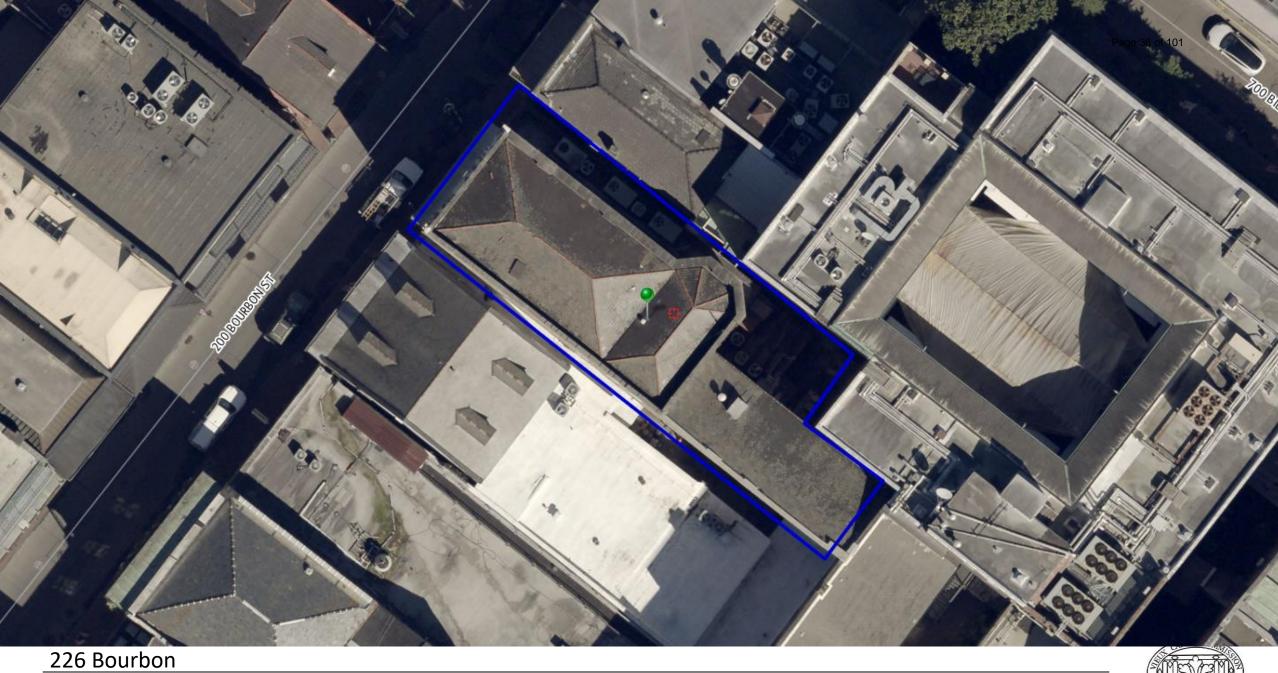






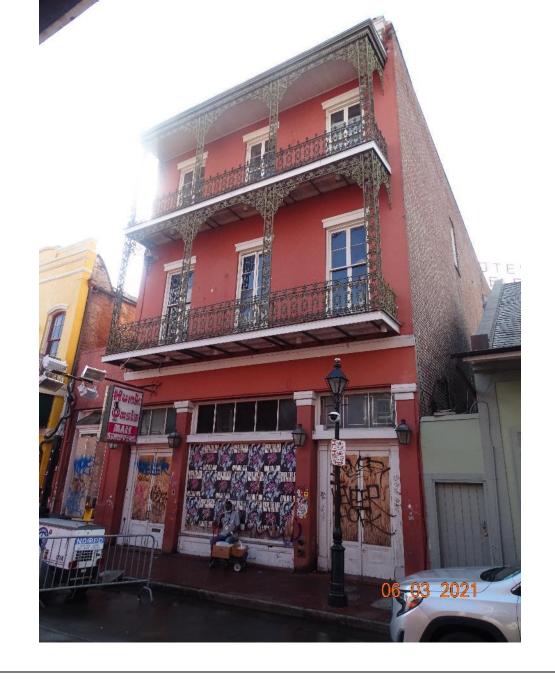


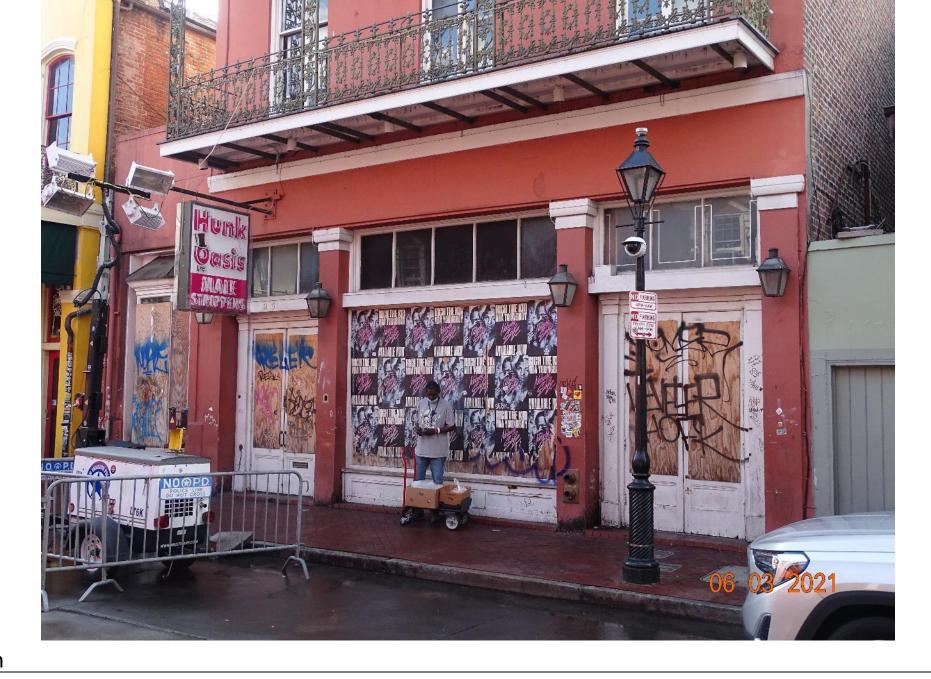




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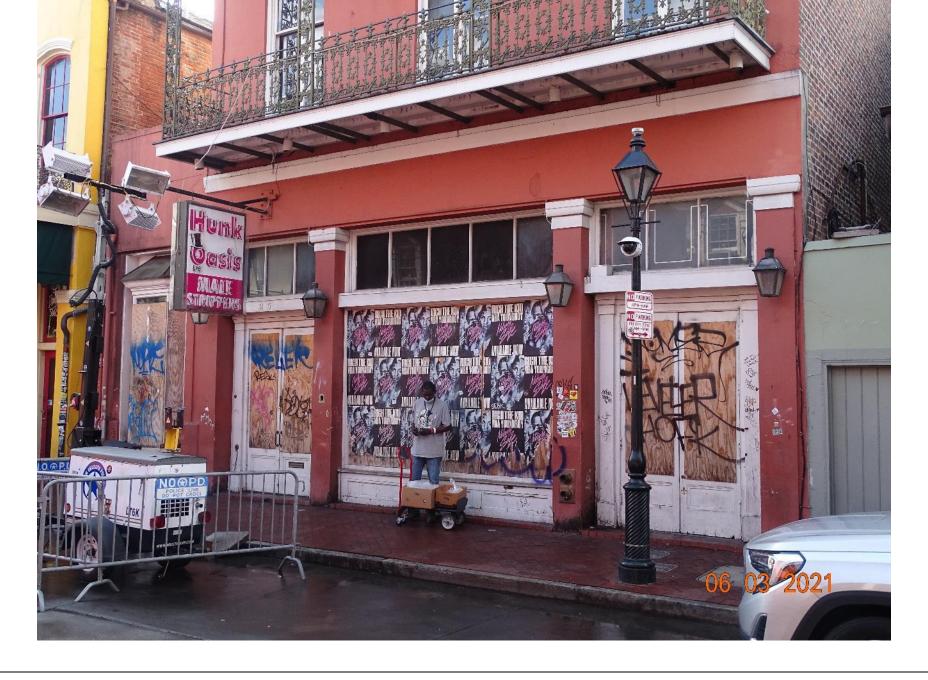
















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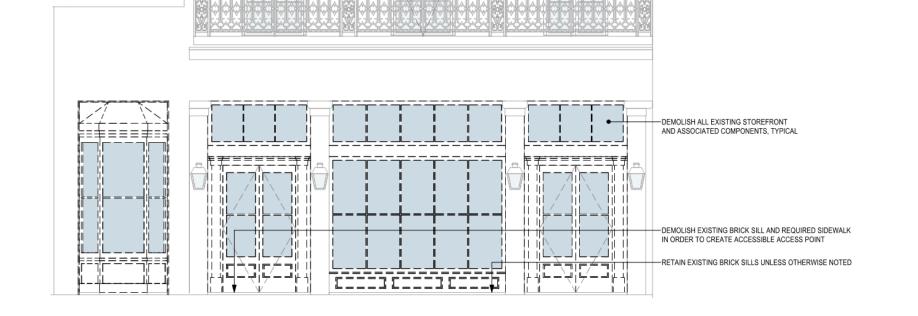
1/4" = 1'-0"

1 A2.0

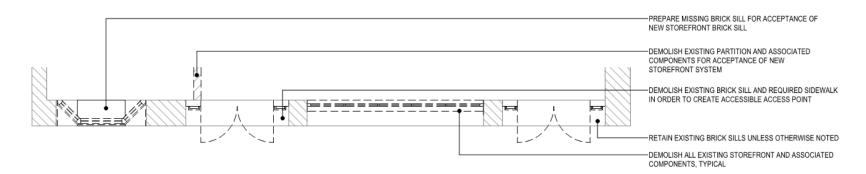








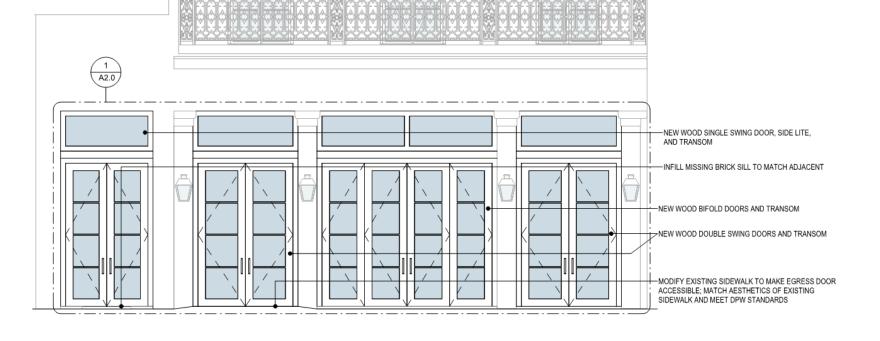
 $\underbrace{\text{1.3TING \& DEMOLITION BOURBON STREET ELEVATION}}_{\text{1/4"} = \text{1'-0"}}$



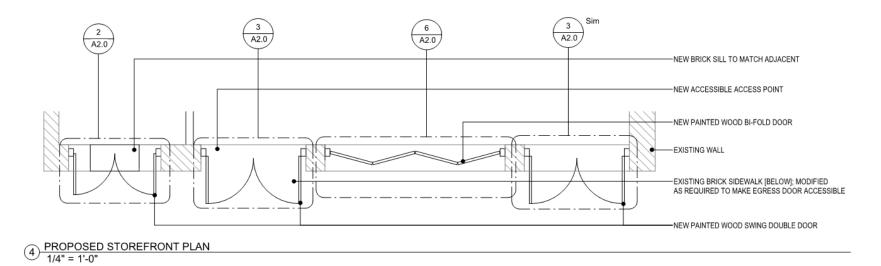
(3) EXISTING & DEMOLITION STOREFRONT PLAN 1/4" = 1'-0"



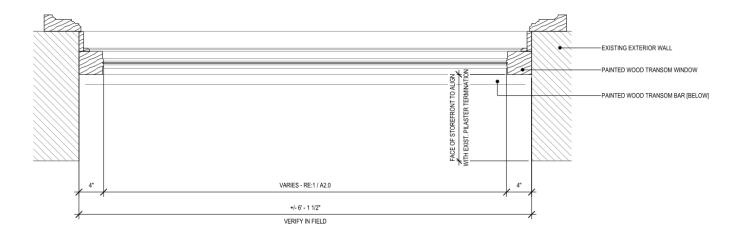




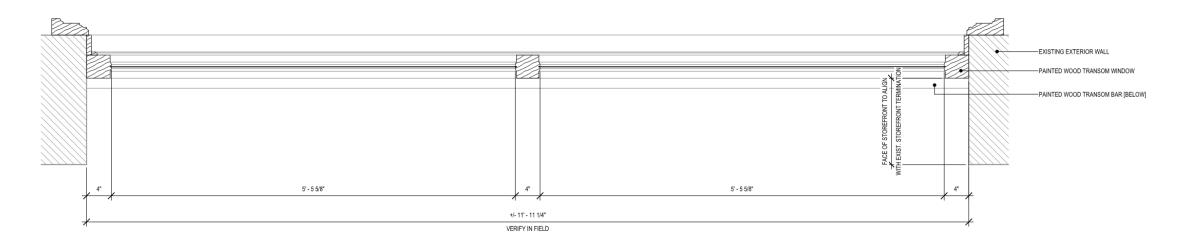
(2) PROPOSED BOURBON STREET ELEVATION 1/4" = 1'-0"



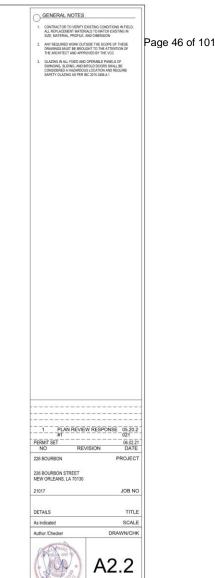


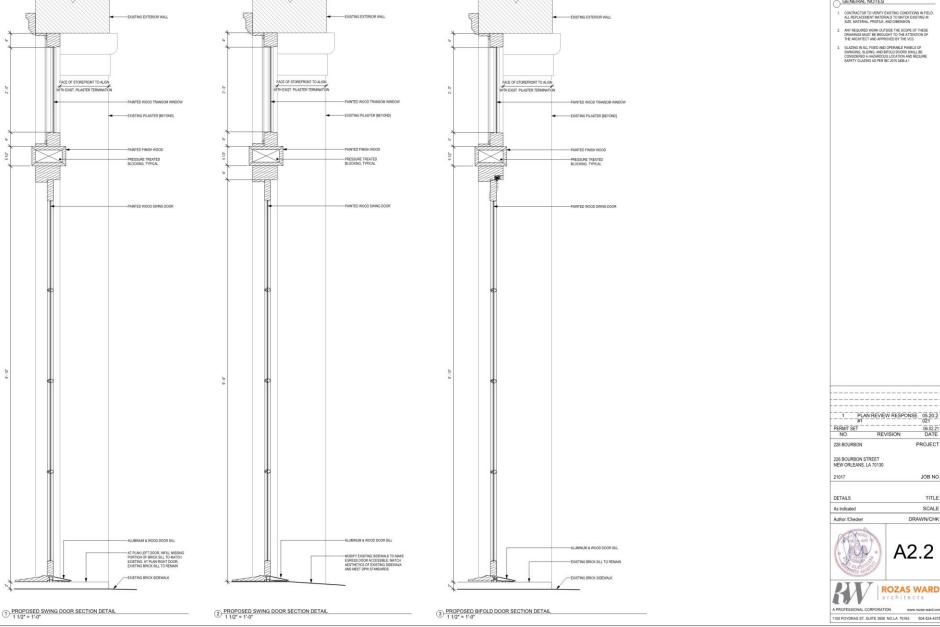


 $\underbrace{1}_{\text{ENLARGED PROPOSED TRANSOM WINDOW PLAN @ SWING DOORS}}_{\text{1 1/2"} = 1'\cdot0"}$



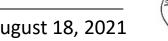
 $\underbrace{ \text{PNLARGED PROPOSED TRANSOM WINDOW PLAN @ BIFOLD DOORS} }_{\text{1 1/2"}} = 1'-0"$

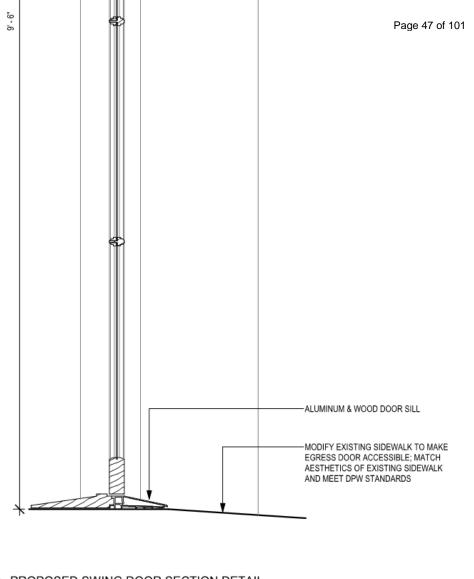




226 Bourbon

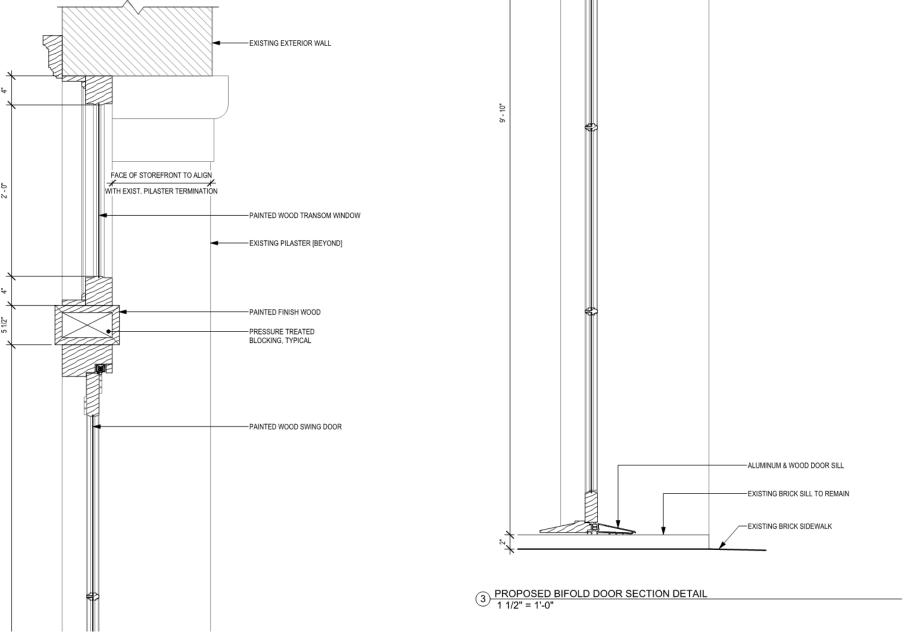
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2 PROPOSED SWING DOOR SECTION DETAIL 1 1/2" = 1'-0"



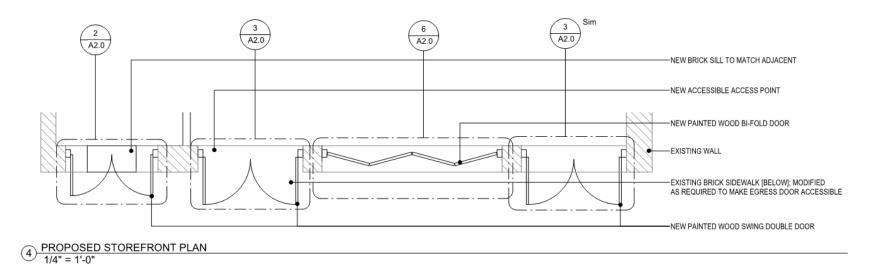








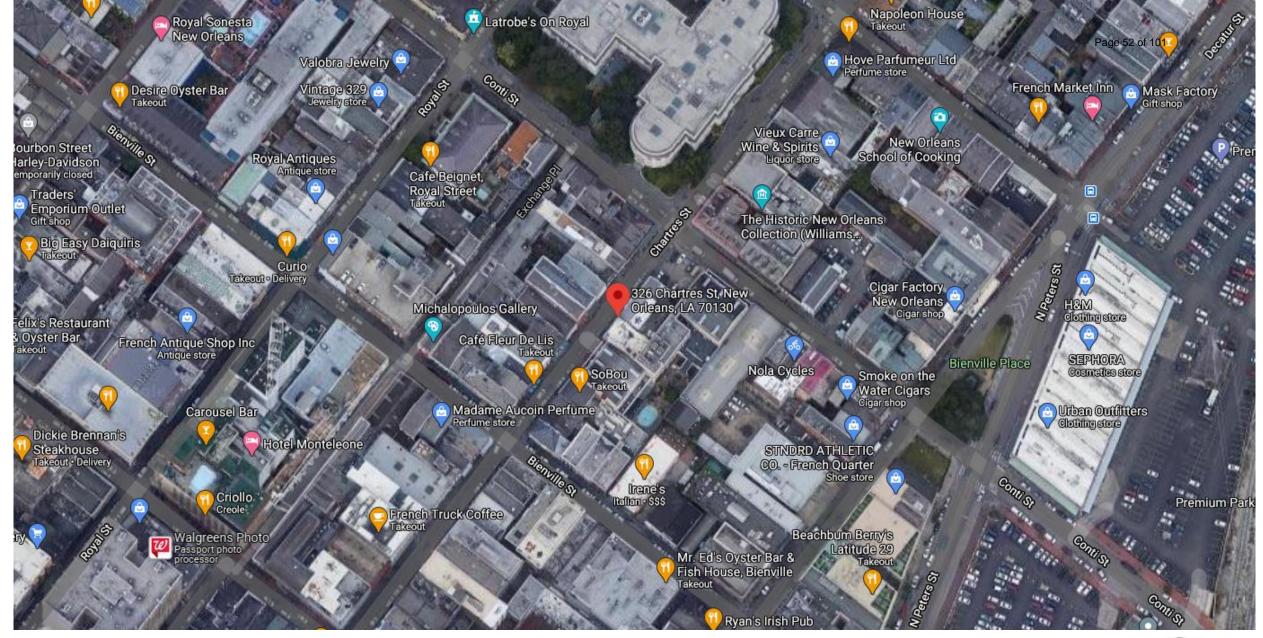
(2) PROPOSED BOURBON STREET ELEVATION 1/4" = 1'-0"





Appeals and Violations

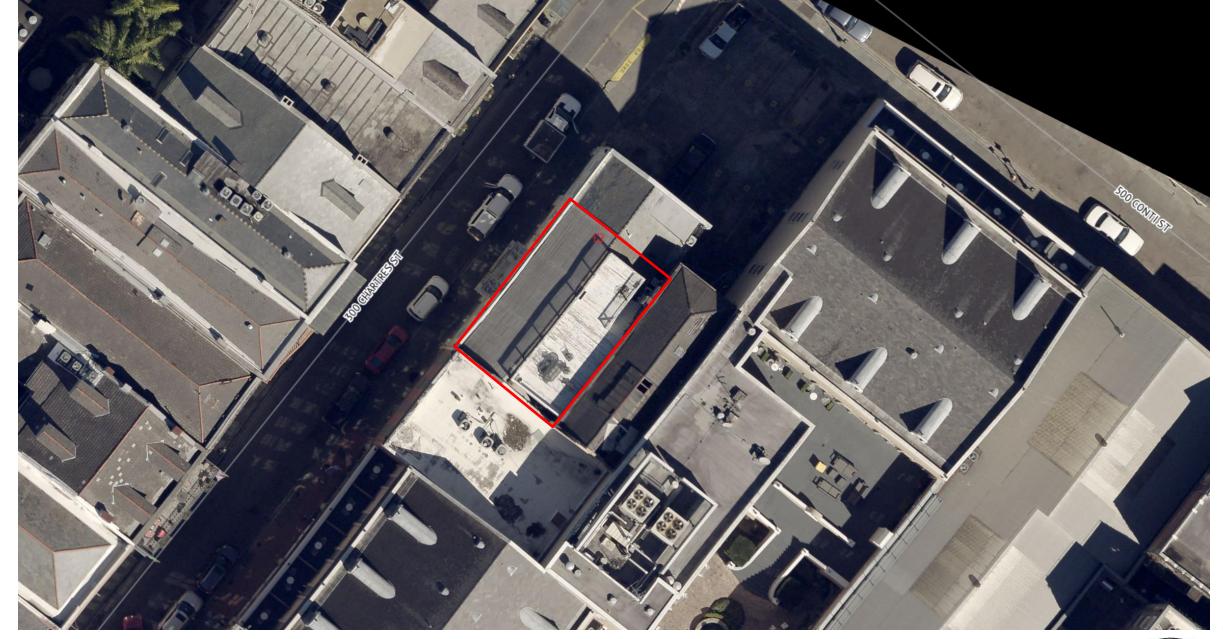








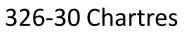
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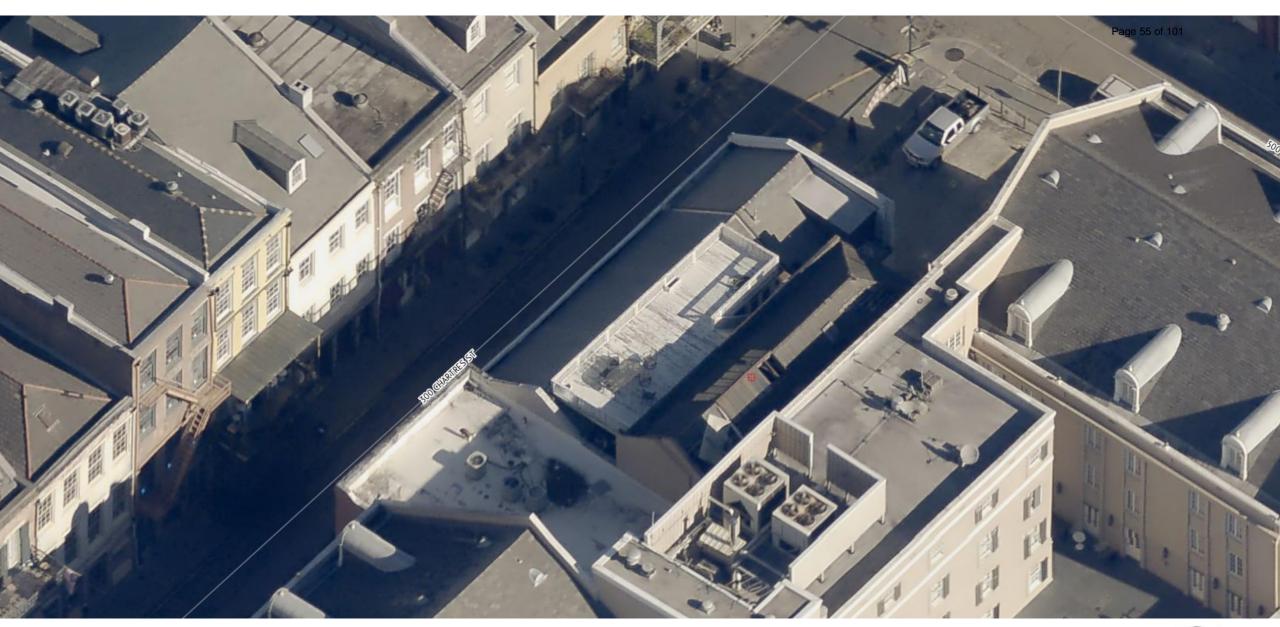
326-30 Chartres











326-30 Chartres

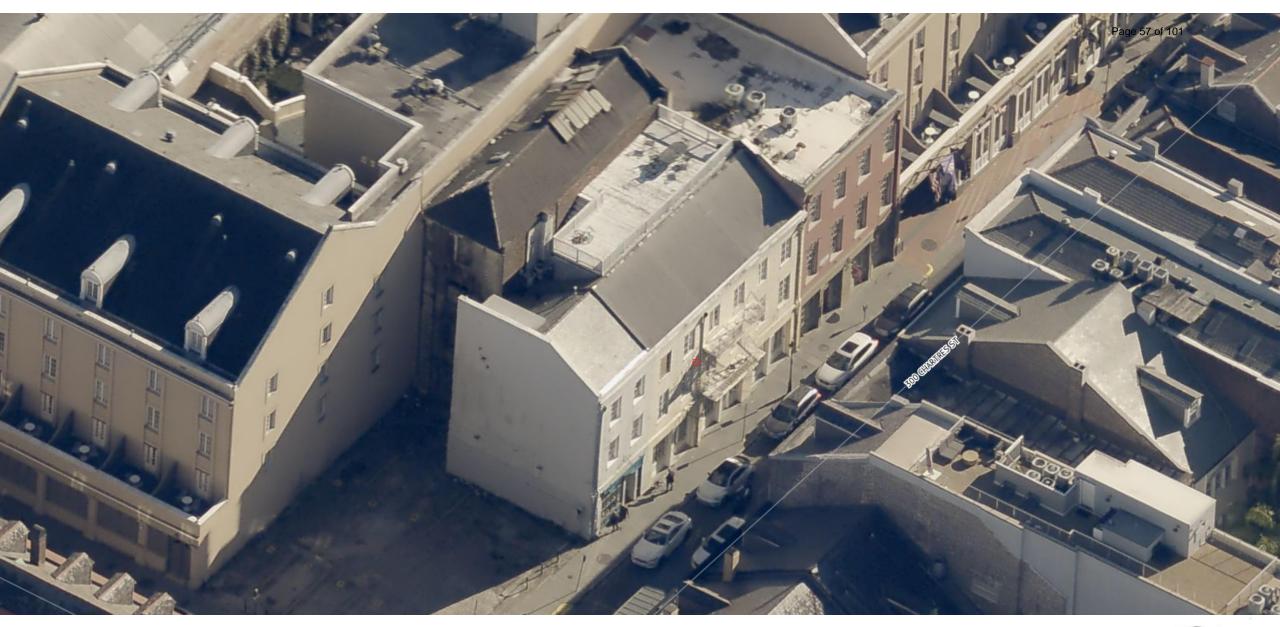


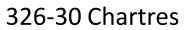


326-30 Chartres



Vieux Carré Commission August 18, 2021

























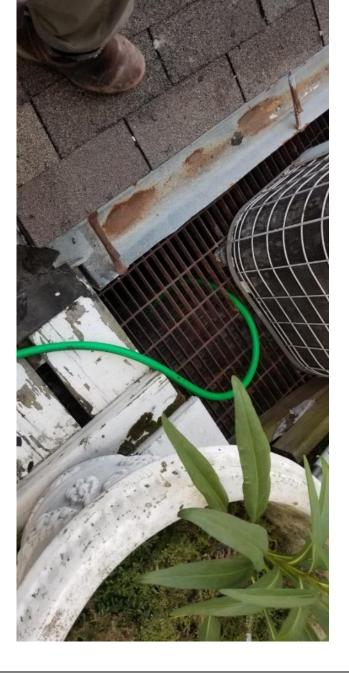


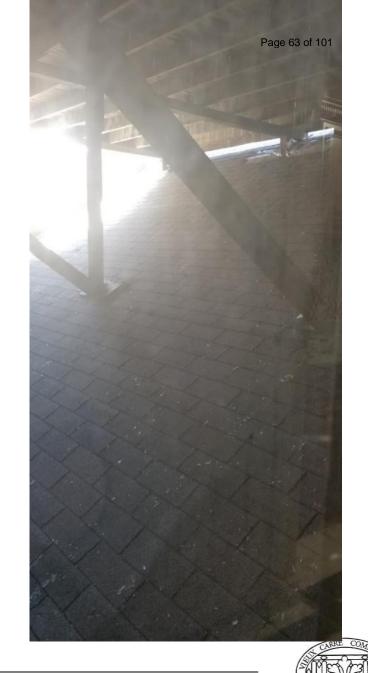








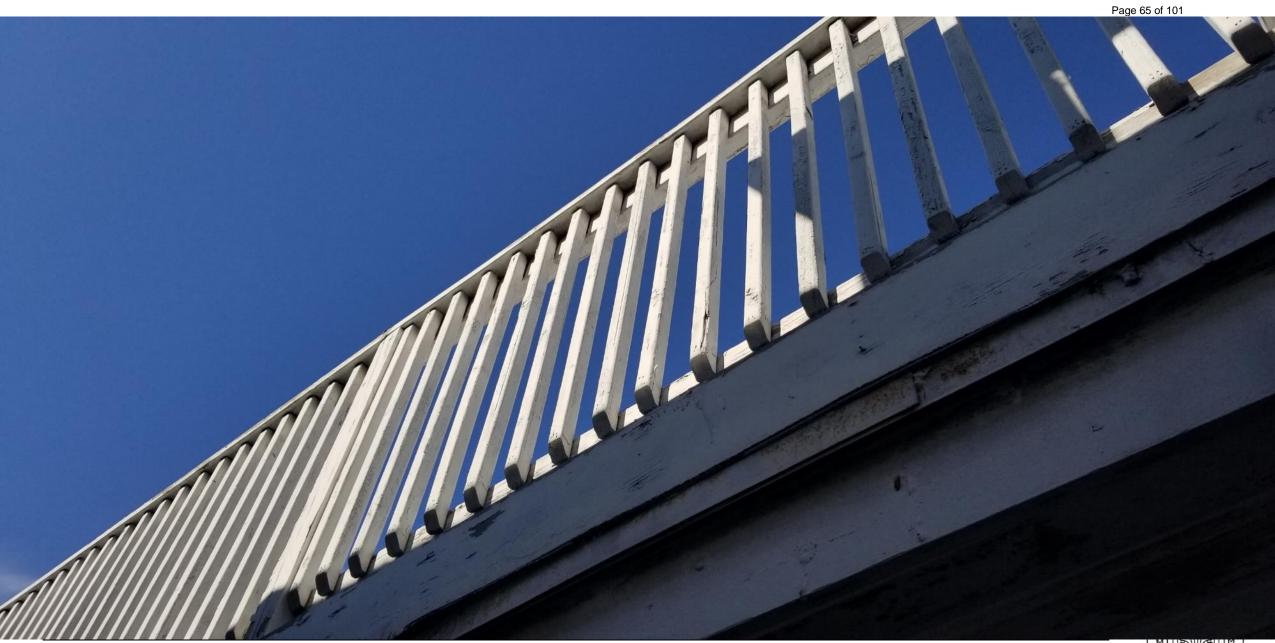




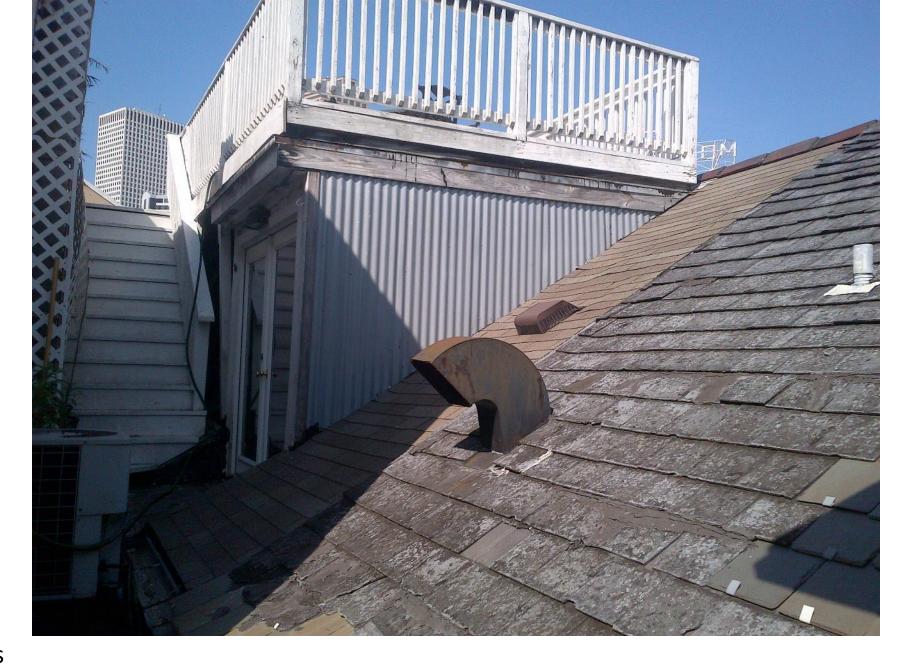








Vieux Carré Commission August 18, 2021













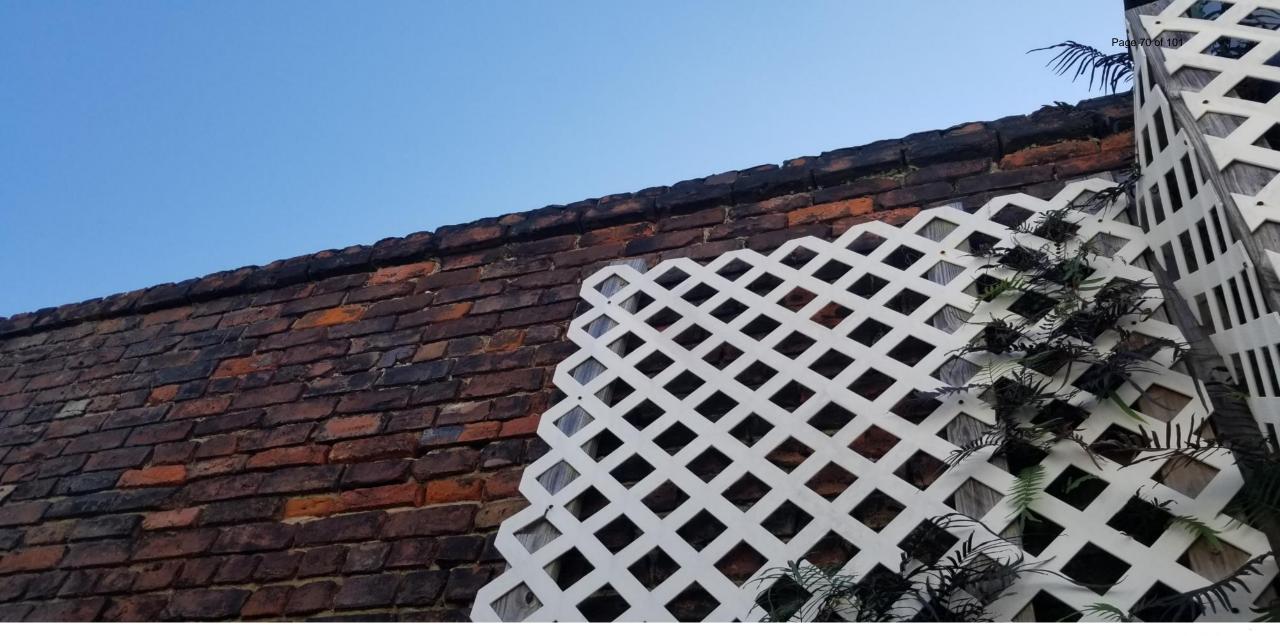


326 Chartres



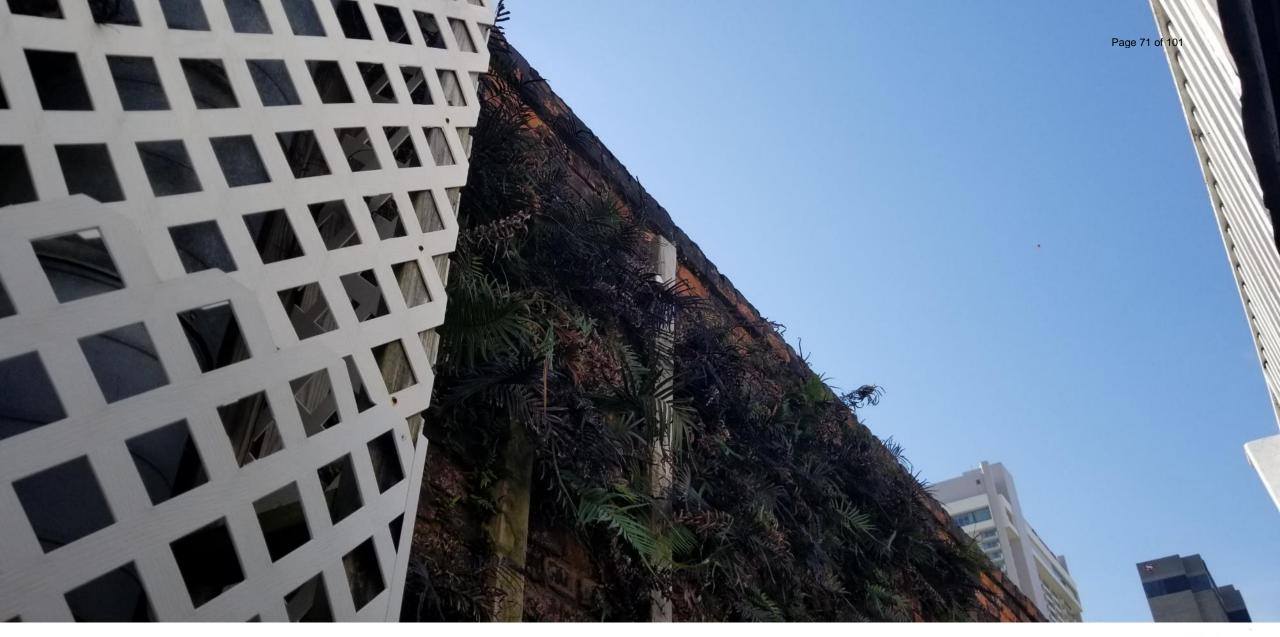






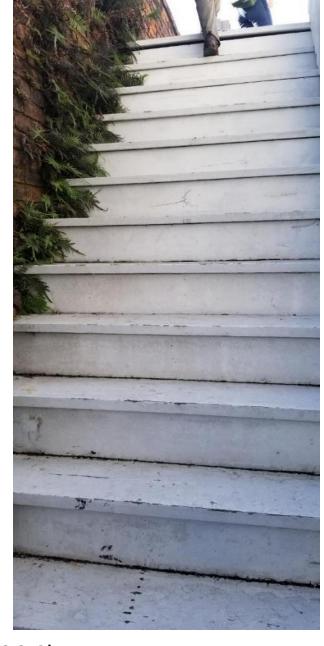
















326 Chartres



Vieux Carré Commission

August 18, 2021





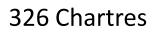




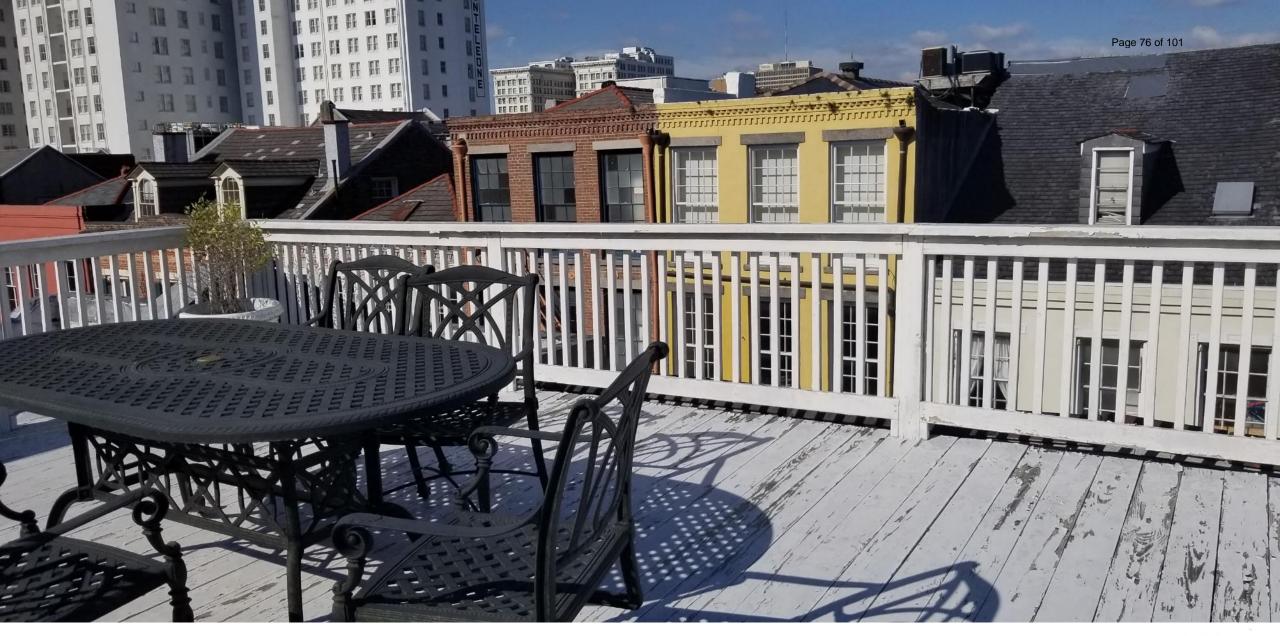
326 Chartres







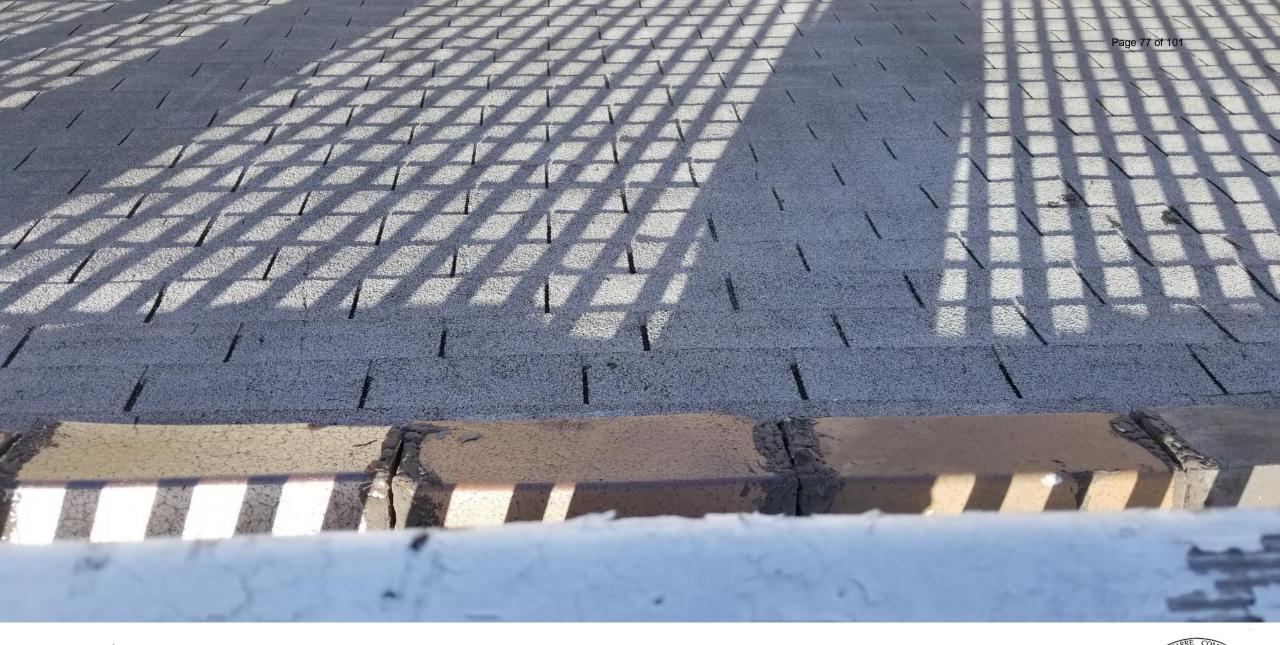








August 18, 2021











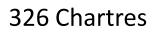




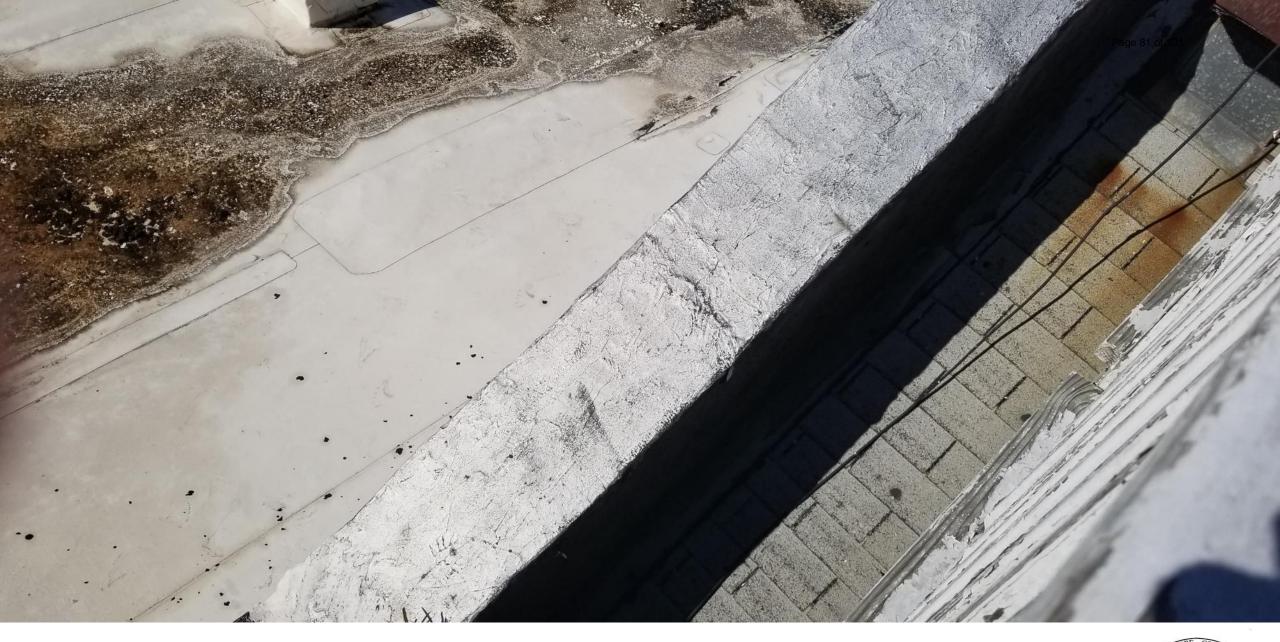












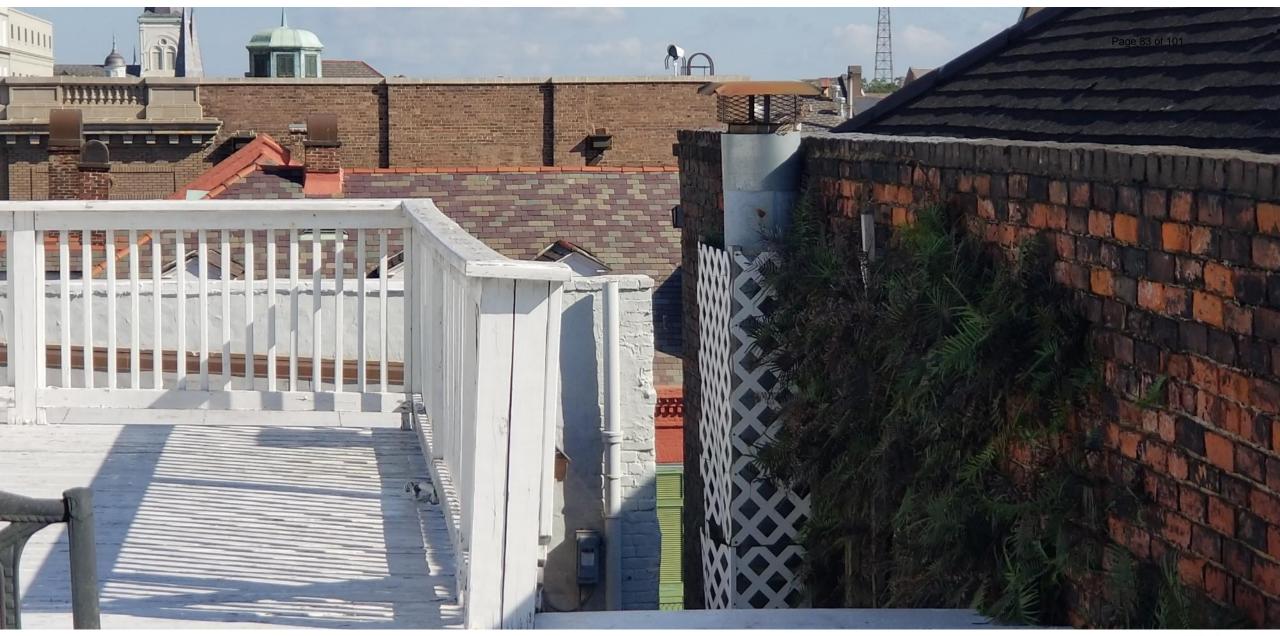
326 Chartres











326 Chartres





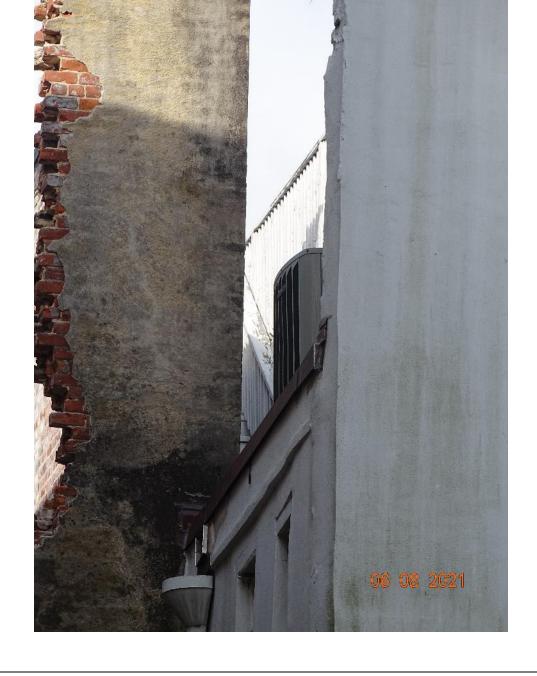
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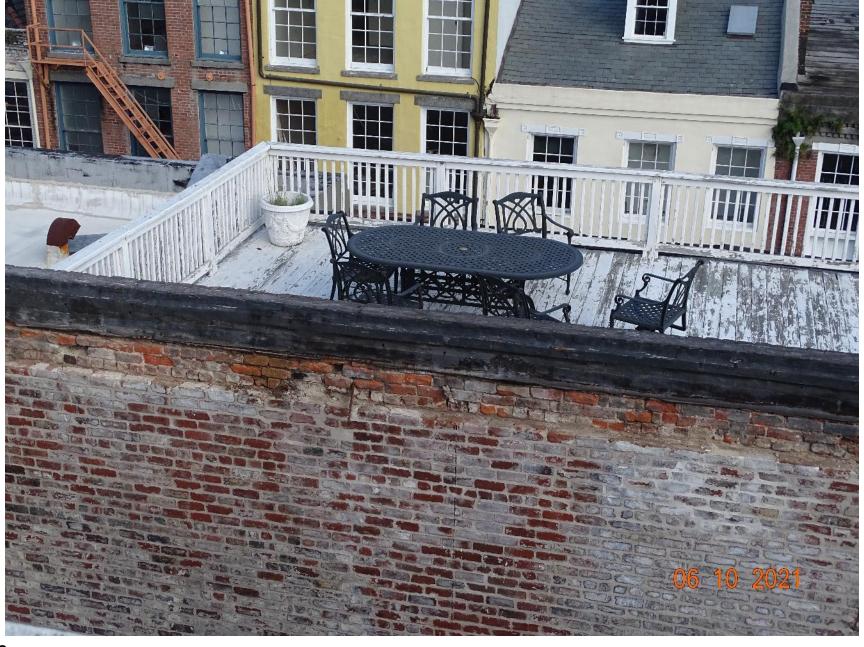
326-30 Chartres – from Conti





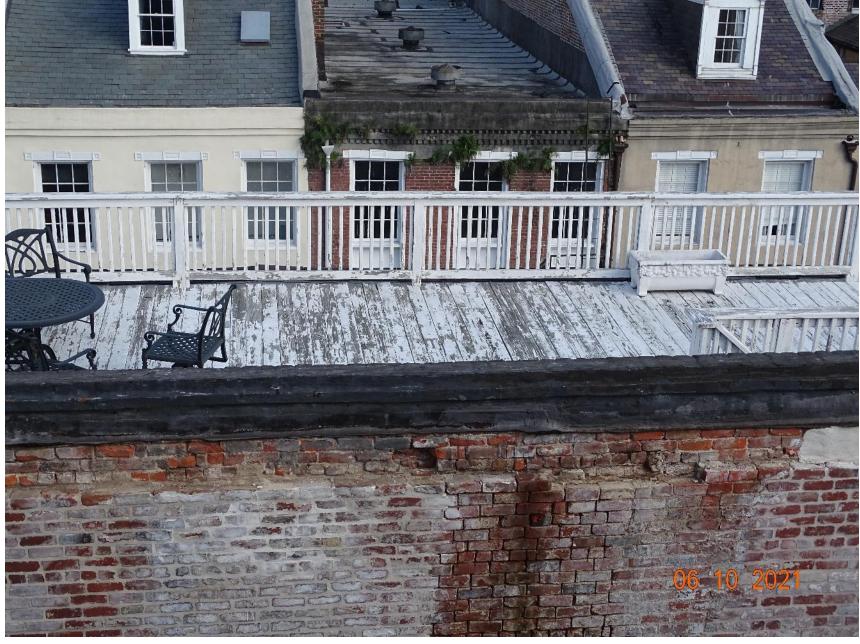


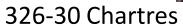




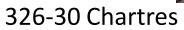
326-30 Chartres

















Inspection Photos

June 4, 2018

John C. Williams Architects, LLC Attn: Mark Heck 824 Baronne Street New Orleans, LA 70113

Subject: Balcony - Live Load Capacity

Site Name: 326 Chartres

Site Address: 326 Chartres St, New Orleans, LA 70130

On May 10, 2018, Heaslip Engineering, LLC (HE) performed a visual inspection at the above referenced location in an effort to evaluate the live load capacity of the balcony structure in accordance with the owner's request. No destructive testing was performed. General framing was inspected to assess the structural condition of the balcony. HE was retained by John C. Williams Architects to perform an evaluation of the balcony's live load capacity. Our work to complete this assignment was performed by Mr. James B. Heaslip II, P.E. accompanied by Mark Heck were present during the inspection and provided information pertaining to the subject building.

The building is a three-story timber and masonry building typical to French Quarter construction built in approximately the early 1800s. The balcony structure wood members appear to be in good condition based on a visual inspection. The balcony structure consists of 2x6 joists at 16 inch spacing on center spanning ~8 feet, supported by 4x4 sills spanning ~8 feet, supported by 4x4 columns spaced 8 feet each direction. Please note, HE hasn't analyzed the global structure for the carry-down of balcony loads but doesn't anticipate any problems for the overall building strength. See following pages for pictures of existing balcony structure taken during inspection.

HE analyzed each structural member to determine the governing condition for live load rating. Although the joists and columns could handle ~60 psf, the 4x4 sills are only able to support 20 psf. Therefore, HE recommends a <u>rated balcony capacity of 20 pounds per square foot</u>.

The total balcony area is approximately 640 square feet. Per standing room code, the square footage allowed per person is 7 square feet. Therefore, the balcony has a usable area equal to 640/7 which is equal to approximately 91 square feet. The total load is equal to 20 pounds per square foot multiplied by 91 square feet which is equal 1,820 pounds. Assuming an average person weighs 200 pounds, the total number of people rated for the balcony is equal to 1,820/200 which is equal to 9 people. Therefore, HE recommends a rated balcony for 9 people.

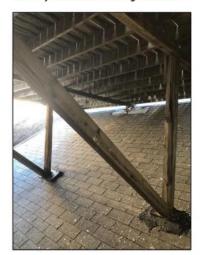
If there are any questions or comments regarding this report, please do not hesitate to contact this office.

Sincerely, James B. Heaslip II, P.E.



4x4 Column

Balcony Structure - Framing Sizes Noted



Balcony Structure - Column/Sill Spacing at 8 ft





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HE analyzed each structural member to determine the governing condition for live load rating. Although the joists and columns could handle ~60 psf, the 4x4 sills are only able to support 20 psf. Therefore, HE recommends a <u>rated balcony capacity of 20 pounds per square foot</u>.

The total balcony area is approximately 640 square feet. Per standing room code, the square footage allowed per person is 7 square feet. Therefore, the balcony has a usable area equal to 640/7 which is equal to approximately 91 square feet. The total load is equal to 20 pounds per square foot multiplied by 91 square feet which is equal 1,820 pounds. Assuming an average person weighs 200 pounds, the total number of people rated for the balcony is equal to 1,820/200 which is equal to 9 people. Therefore, HE recommends a <u>rated balcony for 9 people</u>.

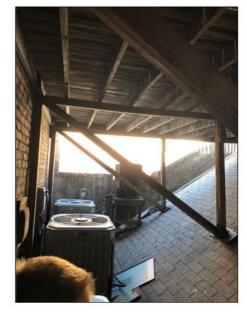
If there are any questions or comments regarding this report, please do not hesitate to contact this office.

Sincerely, James B. Heaslip II, P.E.









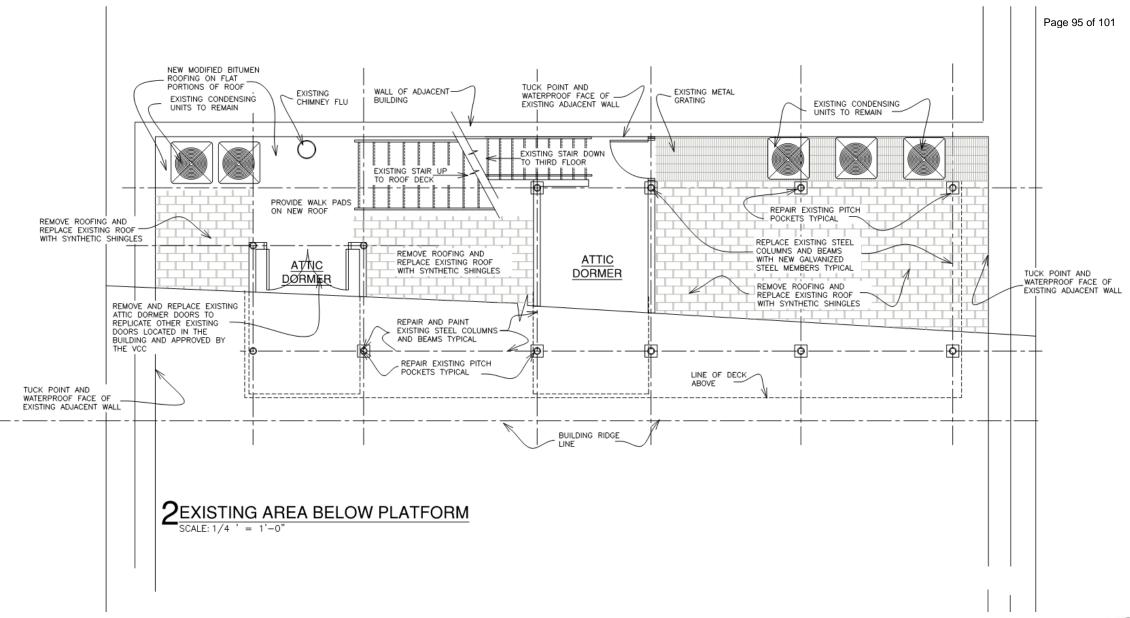
Underneath view of balcony structure



Above view of balcony structure

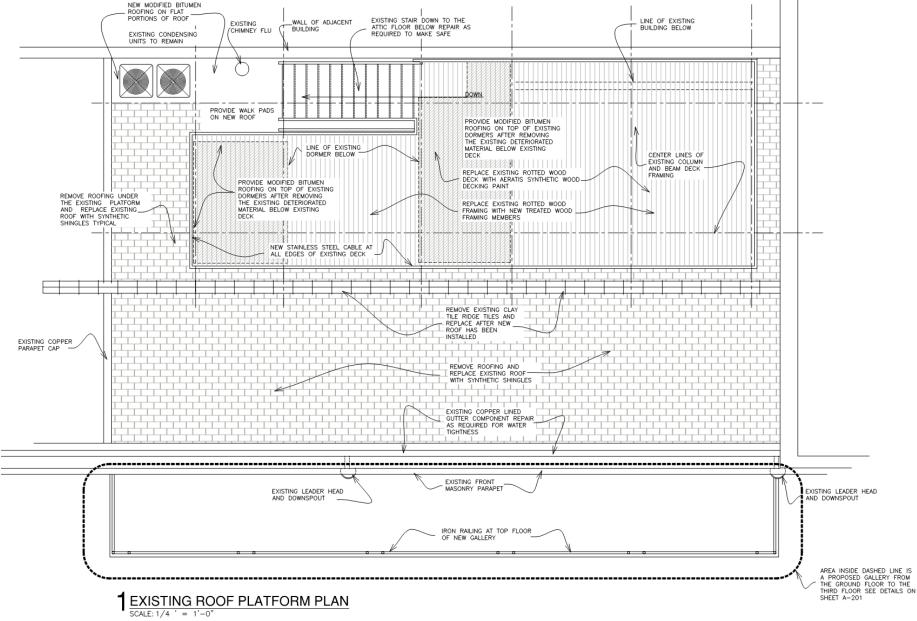






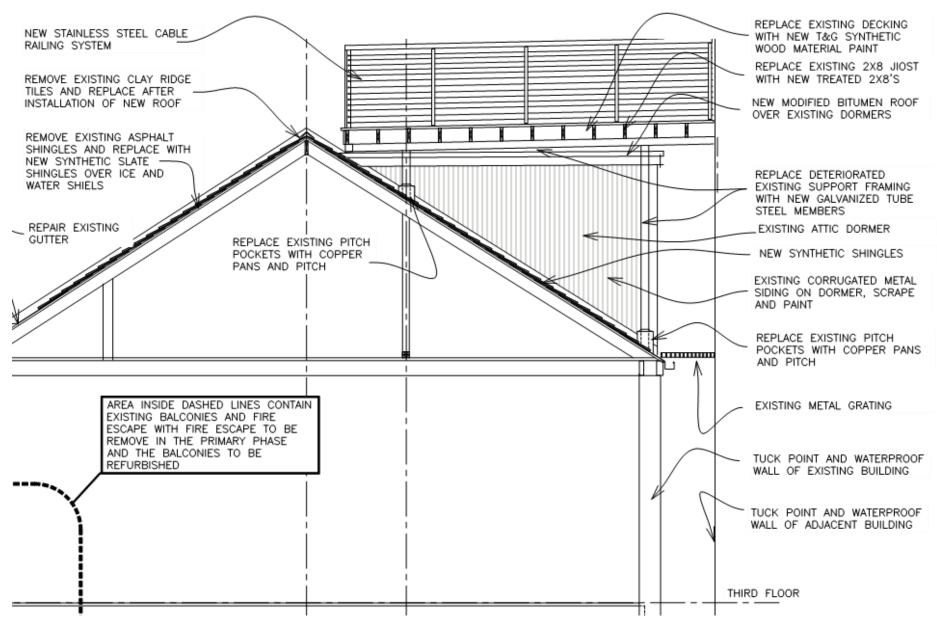






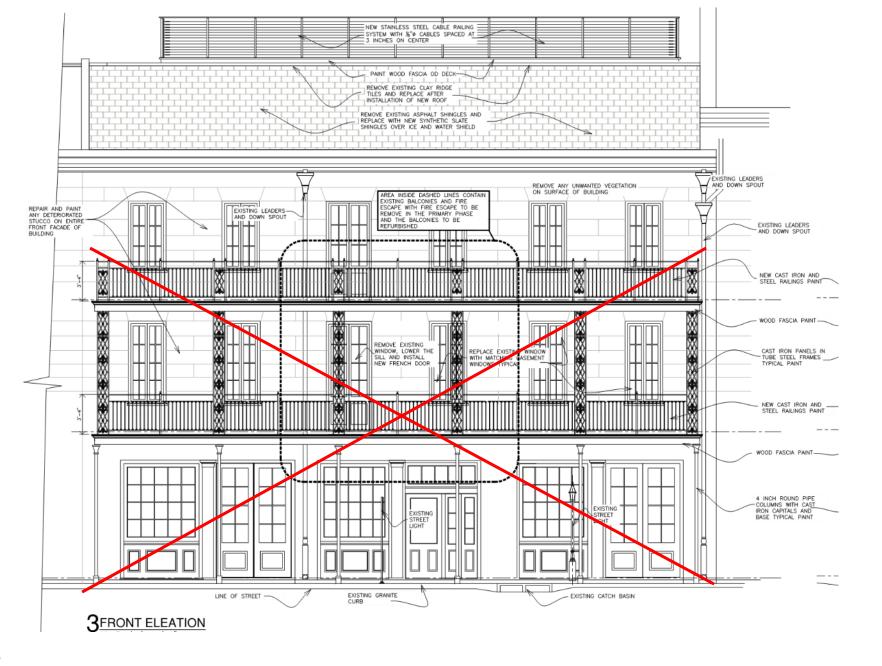
326-30 Chartres





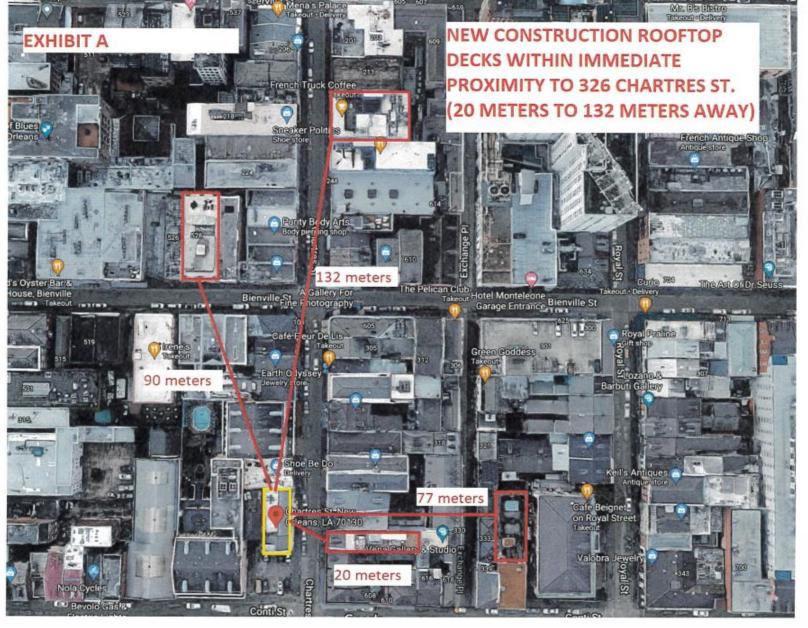






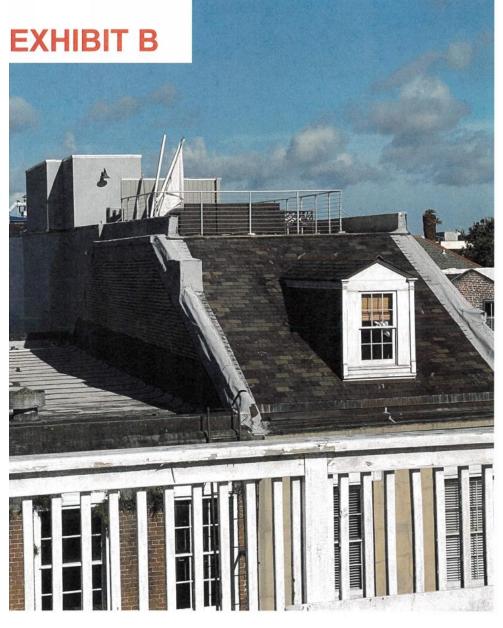






326-30 Chartres – provided by applicant











WALTER F. ZEHNER, III, P.E. CONSULTING ENGINEER

4702 TOULOUSE STREET NEW ORLEANS, LOUISIANA 70119

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June 2, 2021

Kailas Companies 3500 N. Causeway Boulevard Metairie, LA 70002

RE: 326 Chartres Street

Dear Gentlemen,

I have reviewed the structure of the building at 326 Chartres Street, which consists of four wythe thick brick bearing walls supporting three stories of timber framing.

It is my professional opinion that this existing structure has sufficient strength and capacity to safely support the replacement of the existing rooftop deck.

If you have any further questions concerning this matter, please call at your earliest convenience.

Yours very truly,

alter F. Zehner,





