FEASIBILITY REPORT FOR
PRINCE MICHAEL HOTEL
2618 COLLINS AVENUE
MIAMI BEACH, FLORIDA

PREPARED FOR:

PRECISION ART CORP.

JANUARY 17, 2017

PREPARED BY:
DOUGLAS WOOD ASSOCIATES, INC.

WWW.DOUGLASWOOD.BIZ

AA/EO EMPLOYER|EB6353

5040 NW 7TH STREET, SUITE 820, MIAMI, FLORIDA 33126

STRUCTURAL FEASIBILITY REPORT FOR

PRINCE MICHAEL HOTEL
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DOUGLAS WOOD ASSOCIATES, INC.
STRUCTURAL ENGINEERS

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INTRODUCTION

General

As requested, we have conducted a preliminary evaluation of the present conditions of the existing primary structural systems and structural feasibility study of the following proposed additions and renovations designed by Precision Art for the building located at 2618 Collins Avenue, Miami Beach, Florida:

- Modify existing windows and doors for most of the rooms.
- General interior renovation.
- General structural repairs, as required.
- The addition of small 3-foot-wide balconies at the existing window locations on the south elevation.
- The addition of a rooftop swimming pool and adjacent deck (as indicated in the drawings).
- The addition of an elevator.

The Prince Michael Hotel was originally constructed in 1951 as a 3 story Hotel building. At this time there are no known construction drawings of the original building available. Douglas Wood Associates was given architectural design drawings (prepared by Precision Art), dated October 16, 2017.

Purpose

The purpose of this investigation was to provide a general assessment of the present conditions of the existing structural systems at this point in time and to review the feasibility of the proposed additions and renovations aforementioned above and indicated in our structural drawings. This investigation does not address any other issues or systems such as zoning, fire safety, egress, other architectural issues or mechanical systems, electrical systems, plumbing systems, storm drainage disposal, etc.

Scope

This investigation includes the primary structural systems for this existing building that are considered to be affected by the proposed additions and renovations, namely:

- Wood floor and roof sheathing supported by wood joists which span to the exterior wall and interior concrete frame consisting of concrete beams supported by concrete columns.
- The exterior walls which consist of concrete tie beams at each floor level with bearing C.M.U. wall between the floors.
- The foundations which consist of pile caps with precast concrete piles supporting the interior columns and with concrete grade beams supported by single piles supporting the exterior walls and concrete tie-columns.

Primary structural systems do not include roofing or other waterproofing systems, doors, windows, decorative elements, railings, fixtures and architectural finishes.

Roofing, insect infestations (including termites and other wood-destroying insects), mechanical, plumbing and electrical systems, environmental issues (including radon and ground contamination) and hazardous materials (including lead paint and asbestos) are not included in the scope of this structural assessment.

METHODOLOGY AND LIMITATIONS

Limited calculations were performed for the purpose of this investigation. The calculations are based on certain reasonable assumptions, and are, therefore, limited by those assumptions. When actual repairs and enhancements are finally designed and construction documents prepared, these assumptions will be more thoroughly verified. This office does not assume responsibility for the structural design or construction of this historical building. The findings presented in this report do not imply any warranty on the performance or Building Code compliance of the existing structural systems.

Two site visits were conducted to generally observe readily accessible areas within the building. As this is a finished and occupied building, only two units at each floor were directly observed at certain areas where openings were provided (one unit on the south end and one at the north end for each floor). Such visual observations did not include an exhaustive member by member inspection, but rather, were limited to a sampling of what could be readily observed.

In the absence of observations to the contrary, we have assumed that the existing structural systems were properly designed, permitted, constructed and approved in accordance with the building code and general practices in effect at the time of

construction. Also, while we performed observations of the existing structural systems, our observations were limited by time constraints and to what could be readily observed in the existing building.

GENERAL DISCUSSION

At this time, we assume that the proposed project will be an Alteration Level 2 as defined in the Florida Building Code – Existing Building 2017. If the cost of the project exceeds 50% of the current construction cost value of the existing building compliance with FEMA flood design criteria would normally be required. However, since this building is considered to be historical/contributing to the historical district, a waiver of compliance can be obtained. We assume that, if required, such waiver will be obtained for this project.

In general, this building has withstood the "test of time" and proven to have structural systems that are generally adequate for their current intended purposes. But It must be noted that this building is quite old and considered to be historical. The building codes, materials, products and practices at the time of the original construction vary considerably from those of today. This is particularly true for the design of wind resistance, but also for gravity loads. Therefore, it should be remembered that there are many aspects of the existing structural systems which do not conform to today's standards, practices and/or codes.

The current Florida Building Code – Existing Building will generally allow straight forward repairs to structural members, without requirement for a specific investigation of the adequacy of the existing structure.

EXISTING SITE CONDITIONS RELATIVE TO STRUCTURAL ISSUES

Environmental Influences

Hurricanes

All of South Florida is vulnerable to hurricanes, and most all older buildings in South Florida, including this building, have undoubtedly, been subjected to hurricane-force winds on a number of occasions. Past performance, however, cannot be considered a reliable predictor of future performance. Obviously of course, deterioration is progressive, and structural systems may weaken over time. Wind direction is also a significant factor. Also of importance, is the unlikelihood that, despite their age, older buildings, including this building, have ever experienced extremely high winds associated with an upper-level category storm, such as categories 4 and 5 on the Saffir-Simpson Scale such as those which occurred within the eye wall of Hurricane Andrew in 1992.

Flooding

Floods are possible in most of the coastal regions of South Florida. The existing lobby floor elevation is currently unknown. According to Miami-Dade County's website, this building is located within a FEMA AE 8 flood zone. The basement and most likely the entrance lobby of this building are below the designated flood level of +8.0 N.G.V.D. For historically-designated buildings, however, it is generally allowed for existing floors to remain below flood level, no matter the Alteration Level. The owner should, however, be aware that the basement and most likely the lobby floors are below the current base flood elevation and that such condition may affect insurance rates for the owner and tenants.

We performed a site visit during high tide to observe if there was any water infiltration into the crawl space and the basement. None of these areas were flooded at the time of the high tide (refer to photographs Nos. 63 and 64).

Humidity

Humidity is high in South Florida. Generally, ambient humidity will not significantly accelerate structural deterioration. However, the introduction of air-conditioning systems can cause deleterious conditions. Generally, such conditions occur when the interior spaces are kept quite cool. The cool air in turn cools the enclosing construction. If insulation is inadequate (which is almost always the case in older construction) the warm sides of surfaces can cool sufficiently to condense small amounts of moisture out of the warm humid air. This can be particularly problematic in exterior wall cavities (where outside air may enter through unsealed construction). Small amounts of moisture may in some cases actually be drawn through enclosing construction due to the humidity difference between inside and outside spaces. This can cause efflorescence of plaster and other conditions.

Condensation on cooled surfaces exposed to warm humid air can also cause enough moisture to support fungal growth in wood, resulting in rot.

Of course, climate control is needed for human comfort. From the viewpoint of the preservation of structural materials in buildings, however, air conditioning is generally counterproductive. To minimize its detrimental effects, future air conditioning should be used only to the extent necessary, and it may be appropriate to consider a "re-heat" to prevent cooling of exterior surfaces to the point of condensation. Roof, wall and floor construction should be appropriately sealed, each should be appropriately insulated, and adequate ventilation should be maintained.

General Building Code Issues Relative to Future Repair, Renovation and Additions

1. The extent of the proposed additions, renovations, and the buildings' historic classification requires the application of the current Florida

Building Code – Existing Building, Chapters 3, 4, 6, 8, 11 and 12 and the "High Velocity Hurricane Zone" sections of the Florida Building Code.

2. The proposed renovation will be classified as an Alteration Level 2. This will require an investigation and evaluation of all structural and envelope systems. Significant enhancements to the existing structural and envelope systems or their reconstruction will most certainly be required.

3. Buildings which are 40 or more years old are required to be "Recertified" (structural and electrical) every ten years. There are minimum guidelines and a specific format for these investigations and reports. For informational purposes, the owner should review previously submitted reports. The owner should also be aware of the due date for the next "Recertification." The Building Department normally issues a notice to the owner. The proposed restoration will most certainly address all issues appropriate to structural Recertification.

For this discussion, we refer to the 2017 Florida Building Code and the 2017 Florida Building Code – Existing Building. At this time, the Building Code will generally allow straight forward repairs to structural members, without requirement for a specific investigation of the adequacy of the existing structure.

If it is determined, through appropriate investigation/evaluation that a structural member(s) or system(s) is "dangerous" (as defined in Chapter 2 of the 2017 Florida Building Code – Existing Building), we are required to correct the dangerous condition(s).

Chapter 11 of the Florida Building Code – Existing Building, applies to any additions to existing buildings. Additions, along with all new structural members or systems, will need to comply with the present Building Code. Additionally, existing structural members or systems affected by the new additions also need to be evaluated and enhanced, as necessary, for the combined loading (old and new) in accordance with the present Building Code.

GENERAL DESCRIPTION OF EXISTING STRUCTURAL SYSTEMS

General

Observations were conducted over several days to attempt to confirm the structural systems and to evaluate their conditions. Our understanding of the structural systems, and our evaluation of the condition of these systems, is based on these site observations and on the limited testing program.

Primary Building Structure

Exterior walls

Around the perimeter of the building from the partial basement and second floor to the roof level and parapets the exterior walls consist of 8" bearing C.M.U. walls with concrete tie beams and concrete tie columns support the floor framing. In general, the tie columns on the perimeter walls were not completely exposed to measure the width. The concrete tie beams are 8"x46" at the second floor, 8"x22" at the third floor, and 8"x29" at the roof (Refer to Photographs No. 1 through No. 4).

Elevated Floors

The roof, third, and second floors are constructed of tongue and groove wood sheathing over 2x10 wood floor joists spaced at 16" on center. At the exterior perimeter masonry wall, the joists have fire cuts and bear in pockets on masonry infill over the 8" wide concrete tie beam (Refer to Photographs Nos. 5, 9, 10 and 11). There are two lines of interior concrete frames with concrete beams supported by concrete columns. At the interior concrete beams the floor joists are supported on 2x4 wood plate over the 11" wide beams (Refer to Photographs Nos. 6, 7, and 8). The entrance lobby area, which is the first floor, is most likely concrete slab on ground. The first floor area west of the lobby which occurs over the basement below is a structural concrete slab which is supported by concrete beams and columns and bearing C.M.U. walls (Refer to Photographs Nos. 12, 13 and 14). The second floor, to the west of the basement, is framed with wood joists as noted above. There is a crawl space below this second floor area in which the foundations supporting the concrete beams and columns can be seen.

Basement

There is a partial basement at the center of the building. The basement is constructed of bearing C.M.U. walls, concrete columns, concrete beams. The concrete slab appears to be a concrete slab-on-ground since it was observed to have minimal reinforcement. This slab is not a hydrostatic reinforced structural slab (Refer to Photographs Nos. 12 through 15).

Foundations

There is a crawl space at the west end of the building (west of the basement) below the second-floor area. The second floor and interior columns are supported on 12"x22" concrete grade beams. The concrete grade beams bear on 60"Wx65"Lx38.5"H concrete pile caps supported by four 11.5"x11.5" precast concrete piles. On the perimeter, the bearing C.M.U. walls and concrete tie-columns are supported by 8"x62.5" concrete grade beam supported by single 11.5"x11.5" concrete piles spaced along the length of the grade beam (Refer to Photograph Nos. 16 through 31).

At the basement area, one column foundation was excavated to observe the existing foundation. Only the top of the foundation was exposed, it seems to be a four piles pile cap just like the ones observed at the crawl space. The basement floor is a structural concrete slab-on-ground (Refer to Photograph No. 15).

Stairs and Elevator

There are three main sets of stairs. The northwest stair provides access from the second floor to the roof, the north stair provides access from the basement to the roof level, and the southeast stair provides access from the first floor to the roof. All the stairs are constructed of reinforced concrete beams and columns, and bearing C.M.U. walls.

There is an elevator shaft located at the west side of the lobby. This shaft extends past the roof. There is an elevator machine room above the roof with a steel access ladder (Refer to Photograph No. 32).

GENERAL ASSESSMENT OF THE PRESENT CONDITION OF THE EXISTING STRUCTURAL SYSTEMS

Observations, Evaluations and Recommendations

A. Wood Roof Framing and Elevated Wood Floors Framing

Light damage can be seen in several wood framing members at the few locations where openings were provided for observation purposes. The wood damage was primarily at the bathroom locations. Most of the wood framing members that were observed are in good condition considering the age of the building. Light to moderate deterioration was also observed at the roof and the crawl space locations (Refer to Photographs Nos. 26, 33, 34, 61 and 62). However, the scope of our work in this aspect was limited due to the few accessible locations. Once all the areas are exposed, we will determine better the general conditions of the wood framing members throughout the building. The wood joists are anchored to the perimeter walls approximately at 5'-4" on center or larger spacing with metal straps (Refer to Photographs Nos. 35 and 36).

Recommendations:

The present level of deterioration varies from light to moderate in the majority of structural wood members at the observed areas. The moderate deteriorated wood members will need to be removed. The connections will have to be replaced and additional connections will need to be provided. Also, the spacing of the anchor bolts at the wood plates seems to be more than 5'-4" on center. Additional anchor bolts would be required in order to properly transfer the lateral loads from the diaphragm to the concrete beams.

B. Cracked and Spalled Concrete, and Corroded Reinforcing Bars

1. General Discussion

   Spalled and delaminated stucco is sometimes caused by cracking or spalling of the concrete substrate which is in turn primarily the result of corrosion of the embedded reinforcement. This corrosion is usually attributed to two conditions. The concrete is not providing adequate protection from corrosion-

causing elements to the embedded reinforcement. This can be due to a lack of concrete cover to the reinforcement when originally cast, or the concrete may have undergone carbonation due to various factors, mainly due to long-term exposure to carbon dioxide in air. The other primary condition that can lead to corrosion is the presence of chlorides in the concrete which may have been introduced in the original concrete mix or with time by exposure to chlorides in the environment. As oxygen, salts, chlorides and other corrosion-causing elements interact with the corroded steel reinforcement, the corrosion process commences, and with time, causes the volume of the steel to increase significantly in proportion to its original volume. The concrete releases the stresses applied by this volume increase by cracking and spalling. Of course, the cracking and spalling increases exposure of reinforcement to more elements which accelerates the corrosion process, leading to more corrosion and damage to reinforcement, and subsequently to more cracking and spalling of the concrete. The concrete testing that was performed addresses the depth of carbonation and levels of chlorides present in a sampling of the existing concrete (Refer to Testing of Existing Concrete discussion below and photographs Nos. 37 through 47).

Recommendations:

All spalled concrete and corroded reinforcement should be repaired. Based on our observations, the concrete repairs can be accomplished using conventional, industry-accepted, International Concrete Repair Institutes' (ICRI's) recommended concrete repair techniques and materials. The exterior stucco finish should be sounded and observed at closer range. Where it may be found to be cracked, spalled or delaminated, the stucco finish should be removed to expose the concrete substrate for observation. After repairing the concrete structure as necessary (in accordance with ICRI's recommended repair techniques), all cracked, spalled or delaminated stucco should be replaced. If any reinforcement is severely corroded, it will need to be replaced.

2. Concrete Eyebrows

The underside of the eyebrows is finished with stucco. Spalled stucco and spalled concrete were observed at the underside of the concrete eyebrows at the east elevation (Refer to Photographs Nos. 48 through 50).

Recommendations:

All stucco should be observed and sounded at close range. If spalled or delaminated, the stucco should be removed. The concrete substrate should be observed and repaired where found to be damaged or deteriorated, and the stucco replaced. If the corrosion of the reinforcement is found to be severe and extensive, it will be necessary to chip out the full depth of the entire or damaged portion of the eyebrow, replace the steel reinforcement with epoxy-coated or galvanized steel bars (spliced to an adequate length of sound existing reinforcement) and recast the concrete. We recommend that water proofing be added to the concrete eyebrows.

3. Structural Concrete Framing Members

Spalled and cracked concrete was observed in several locations throughout the building, mainly in the crawl space area (Refer to Photograph Nos. 40 through 46), the elevator machine room (Refer to Photograph Nos. 51 through 53), and the basement (Refer to Photograph Nos. 54 and 56). At the crawl space, beams and columns present minor to moderate cracks and spalling, the elevator machine room and basement present spalls and cracks mostly at columns. All other areas present minor concrete deterioration.

Recommendations:

Spalled and cracked concrete should be repaired using conventional, industry- approved, ICRI-compliant methods. In general, the areas of spalled and cracked concrete which were observed were minor to moderate. It should be expected that shoring and bracing due to concrete repair work will be minimal, if accomplished in accordance with conventional ICRI-compliant methods.

4. Concrete Sills & Jambs

The existing window sills and jambs appear to be unreinforced masonry. (Refer to Photograph Nos. 57 and 58).

Recommendations:

Although it is not a building code requirement, we recommend that the existing C.M.U. below and to the sides of the window openings be reinforced by opening the C.M.U. interior face shell, installing reinforcement in grouted filled cells in order to create reinforced sills and jambs at each opening.

C. Stucco Finish

There are many cracks in the exterior stucco throughout the building. Most of these cracks appear to be caused by small differential movement of the joint between the concrete elements (columns, beams and the masonry walls). These cracks prominently appear around windows and doors openings (Refer to Photograph Nos.37 through 39).

Recommendations:

Where loose and where cracked due to concrete deterioration, the existing stucco should be removed. After the stucco removal, the existing concrete beams, columns and masonry can be examined for concrete cracks and spalls and for corroded reinforcement. Any spalled concrete, corroded reinforcement, cracks, etc. will need to be repaired prior to reapplying the exterior stucco finish. The stucco should be re-applied in such a manner as to diminish the possibility of a crack reappearing, especially if the original crack was related to movement of a joint. This would include using stucco accessories that allow for small movements in the stucco.

Other minor shrinkage cracks may be repaired by sealing.

D. Roof Freestanding Sign

There is a freestanding sign 21 feet above the roof. We assume that it is a concrete wall due to its height.

Recommendations:

This concret e sign is most likely inadequate and should be reinforced, supported by supplemental framing, or recreated.

E. AC Units Mounts

1. The framing of the AC units mounts at the roof level are severely corroded (Refer to Photograph Nos. 59 and 60). Also, the supports seem to be missing anchors.

   Recommendations:

   If retained, it would be necessary to clean, remove all corrosion, repair (if necessary), enhance and recoat these steel members with a corrosion inhibiting paint system.

F. Slab on Grouns/Pile Caps

A portion of the concrete slab-on-ground at the basement was removed for observation and material testing of a basement column pile cap.

Recommendations:

The concrete slab-on-ground has to be restored to its original conditions.

Testing of Existing Concrete

A. General

Material testing laboratory, NV5, hired by the owner, provided their "Report of Core Compressive Strength and Material Testing," dated January 2, 2018, which is included in Appendix D of this report. Core samples of existing concrete were extracted from several locations around the building. The core samples were prepared and tested for chloride ion content, compressive strength and depth of carbonation.

B. Chloride Ion Testing & pH

Eight samples of existing concrete were extracted and tested for water-soluble chloride and pH. The results are presented in Appendix D. Three samples were extracted in the upper floors from the interior face of a tie-column and a tie-beam in the exterior wall in the 4th floor (below the roof framing) and from the interior face of a tie-column in the exterior wall in the 3rd floor. Two samples were taken in the basement from an interior pile cap and from the interior face of an exterior foundation wall. Three samples were taken in the crawl space from an interior pile cap, interior concrete beam and interior face of an exterior foundation wall/grade beam.

The chloride ion contents vary from one sample at a low of 0.0489% (weight of chloride to total weight) to a high of 1.2968%. The higher chloride ion contents of

1.2724% and 1.2968% were for the pile cap and foundation wall in the basement. The American Concrete Institute standard 318 sets recommended limits for chloride ion content in new concrete. It indicates limits for three exposure conditions: C0: dry (1.00%); C1: exposed to moisture (0.30%, but not to external sources of chloride; and C2: exposed to moisture and external sources of chloride (0.15%).

Five of the test results indicate chloride ion contents at acceptable levels for all three conditions.

One test result (Room #427 Tie-Column) is acceptable for C0 (dry) and C1 (exposed to moisture) but not for C2 which is the severe condition exposed to moisture and external sources of chloride. This tie-column occurs below the roof level and due to the proximity of the building to the ocean small amounts of chloride may have entered through the roof and the building envelope. The ion contents for this Tie-Column are in the acceptable level since it is not exposed to the severe condition.

Two test results for the foundation wall and the pile cap in the basement (not the crawl space) indicate chloride ion contents above the recommended limits for new concrete and are not within these acceptable levels. We believe these two locations occur in the severe condition C2 due to the proximity of the building to the ocean and water with chloride ions are present at the pile cap elevation and at the foundation wall due to water entering the building

C. Depth of Carbonation Tests

Carbonation is a reaction of concrete with carbon dioxide in the air. Carbonation lowers or eliminates the chemical protection that the concrete provides to the reinforcement. Four samples of existing concrete were tested for the depth of carbonation. The results are presented in Appendix D. One sample was extracted from the interior face of tie-column in the exterior wall in the 3rd floor. Two samples were taken in the basement from an interior pile cap and from the interior face of an exterior foundation wall. One sample was taken in the crawl space from the interior face of an exterior foundation wall/grade beam.
The depth of carbonation measured was 0.5” to 2”.

D. Concrete Compressive Strengths

Eight samples of existing concrete were tested for compressive strength in accordance with ASTM C42-04 (as indicated in NV5’s report). The results are presented in Appendix D. Four samples were extracted in the upper floors from the interior face of a tie-column and a tie-beam in the exterior wall and an interior concrete beam in the 4th floor (below the roof framing), and from an interior beam in the 2nd floor. One sample was taken in the basement from the interior face of an exterior foundation wall.. Three samples were taken in the crawl space from an interior pile cap, interior concrete beam and interior face of an exterior foundation wall/grade beam.

The test results for these samples range from a low of 1,870 psi to a high of 3,680 psi. These values are generally consistent with concrete of this age in commercial buildings in South Florida.

E. Evaluations and Recommendations

The testing of the existing concrete indicates that the present condition of the structural concrete is in a generally acceptable state (with the exception of the deteriorated areas, primarily as noted previously in this report). The deteriorated concrete and the corroded steel reinforcement will be repaired during the construction phase of the project. We recommend that galvanic anodes be used at the repaired reinforcement in the patched area for corrosion control beyond the patch.

Due to the high chloride ion levels indicated in the basement concrete test reports, it is our opinion that it would be prudent to consider the general application of a waterproofing system to the interior faces of basement concrete walls and columns. The exterior concrete appears to be benefiting from the protection that the stucco and paint have provided. If the stucco and paint are removed, they should be replaced with products that can provided the same or better level of protection.

FEASIBILITY OF PROPOSED ADDITIONS AND RENOVATIONS

PROPOSED STRUCTURAL SYSTEMS FOR THE ADDITIONS AND RENOVATIONS

The proposed structural systems to support the proposed roof top pool and deck addition and the balcony additions on the south elevation are shown in the conceptual design drawings in Appendix c.

The proposed structural systems are as follow:

1- Rooftop pool and deck addition:

The existing roof deck, constructed out of wood sheathing and wood joists will be removed and replaced by a concrete slab on steel deck at the pool and upper deck location. The concrete slab on steel deck will be supported by structural steel beams that span to the exterior walls and the interior concrete frame.

Structural steel columns will be installed floor to floor, down to the foundation in order to support the steel frame at the roof. At the exterior walls, concrete tie-columns will be installed from floor to floor, down to the foundation.

The foundation system of the proposed steel and concrete columns will be micro-piles.

2- Balcony additions at the South Elevation:

Concrete tie-columns will be installed on each side of the window opening to support the proposed cantilever concrete slab. The cantilever concrete slab is encasing the supporting structural steel tube beams in the slab.

At the columns' locations, outrigger beams will be installed from the existing concrete beam at the exterior wall to the existing interior concrete beam.

Micro-piles foundations system will be provided for the proposed tie-columns supporting the balconies.

3- Elevator Addition:

The proposed elevator shaft will be constructed out of concrete load bearing walls which will also act as shear walls to reinforce the existing building for the added lateral loads due to the additions. Additional shear walls may be required at other locations. The new bearing/shear walls will be supported on new foundations with micro-piles.

4- Repairs to Existing Deteriorated Systems:

We will identify areas of structural deterioration which require repair and provide structural repair drawings for construction.

SUMMARY

A. Purpose, Methodology, Limitations

1. This investigation and report address the present condition of the primary structural systems. This investigation of present conditions did not include extensive computational analysis relative to the overall structural members/systems.

2. Information was gathered primarily by visual observation, supplemented by sounding of concrete surfaces, probing of wood members, and testing of samples of existing concrete. All of these activities were limited by access, budget and/or time.

B. Existing Site Conditions

1. This building is subjected to hurricanes, a warm, humid climate and flooding. The building is located in a FEMA-designated AE 8 flood zone, and the existing lobby and basement floors are below this Base Flood Elevation. The existing basement and crawl space may be below the water table, this may require dewatering during the construction of the new foundations

ENCLOSURES:

Appendix A - Photographs

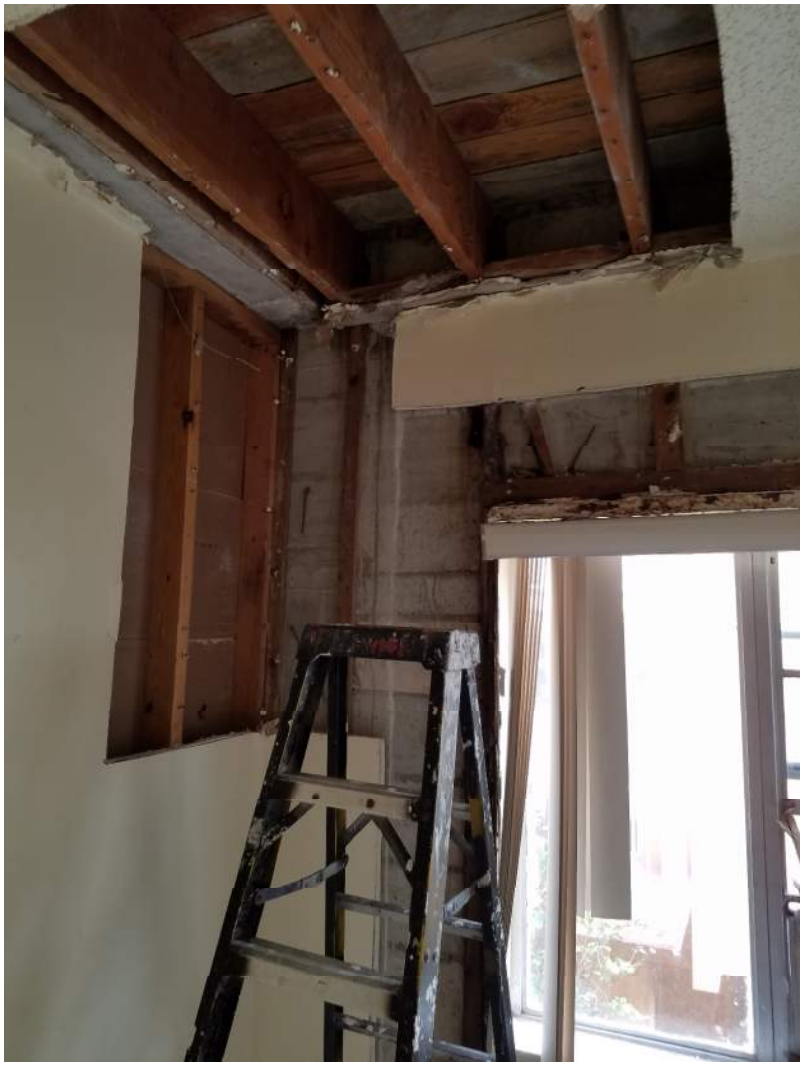
Appendix B - Structural Exploration Probe Drawings
S-PROBE 100, S-PROBE 101, S-PROBE200, S-PROBE 201, S-PROBE202, S-PROBE203, S-PROBE204

Appendix C - Structural Conceptual Design Drawings
S1.01, S1.02, S.1.03, S2.01, S2.02, S2.03, S3.01, S3.02, S3.03 & S3.04

Appendix D – Concrete Testing Report

APPENDIX A - PHOTOGRAPHS

PHOTOGRAPH NO. 1



PHOTOGRAPH NO. 2

PHOTOGRAPH NO. 3

PHOTOGRAPH NO. 4

PHOTOGRAPH NO. 5

PHOTOGRAPH NO. 6

PHOTOGRAPH NO. 7

PHOTOGRAPH NO. 8

PHOTOGRAPH NO. 9

PHOTOGRAPH NO. 10

PHOTOGRAPH NO. 11

PHOTOGRAPH NO. 12

PHOTOGRAPH NO. 13

PHOTOGRAPH NO. 14

PHOTOGRAPH NO. 15

PHOTOGRAPH NO. 16

PHOTOGRAPH NO. 17

PHOTOGRAPH NO. 18

PHOTOGRAPH NO. 19

PHOTOGRAPH NO. 20

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PHOTOGRAPH NO. 28

PHOTOGRAPH NO. 29

PHOTOGRAPH NO. 30

PHOTOGRAPH NO. 31

PHOTOGRAPH NO. 32

PHOTOGRAPH NO. 33

PHOTOGRAPH NO. 34

PHOTOGRAPH NO. 35

PHOTOGRAPH NO. 36

PHOTOGRAPH NO. 37

PHOTOGRAPH NO. 38

PHOTOGRAPH NO. 39

PHOTOGRAPH NO. 40

PHOTOGRAPH NO. 41

PHOTOGRAPH NO. 42

PHOTOGRAPH NO. 43

PHOTOGRAPH NO. 44

PHOTOGRAPH NO. 45

PHOTOGRAPH NO. 46

PHOTOGRAPH NO. 47

PHOTOGRAPH NO. 48

PHOTOGRAPH NO. 49

PHOTOGRAPH NO. 50

PHOTOGRAPH NO. 51

PHOTOGRAPH NO. 52

PHOTOGRAPH NO. 53

PHOTOGRAPH NO. 54

PHOTOGRAPH NO. 55

PHOTOGRAPH NO. 56

PHOTOGRAPH NO. 57

PHOTOGRAPH NO. 58

PHOTOGRAPH NO. 59

PHOTOGRAPH NO. 60

PHOTOGRAPH NO. 61

PHOTOGRAPH NO. 62

PHOTOGRAPH NO. 63

PHOTOGRAPH NO. 64

APPENDIX B – STRUCTURAL EXPLORATION PROBE DRAWINGS

GENERAL NOTES

1. CODES:
   ALL WORK SHALL CONFORM TO THE FLORIDA BUILDING CODE, 2014 EDITION AND ALL OTHER APPLICABLE LOCAL CODES.
2. BUILDING PERMIT:
   A. OBTAIN BUILDING PERMIT.
   B. COMPLY WITH THE REQUIREMENTS OF THE BUILDING PERMIT AND WITH OTHER REQUIREMENTS OF THE PERMITTING AUTHORITY.
3. DOCUMENTS:
   A. EXAMINE AND STUDY ALL CONSTRUCTION DOCUMENTS PRIOR TO COMMENCEMENT OF WORK. DIRECT ANY QUESTIONS TO THE ENGINEER.
4. CONFLICTS IN DOCUMENTS:
   IF CONFLICTS OCCUR IN OR BETWEEN ENGINEERING DOCUMENTS, BETWEEN DOCUMENTS AND FIELD CONDITIONS OR OTHERWISE, IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION AND DIRECTION BEFORE PROCEEDING.
5. METHODS & SAFETY:
   THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, PROCEDURES AND SEQUENCES OF THE CONSTRUCTION. PROVIDE APPROPRIATE SUPERVISION THROUGHOUT THE PROJECT. WORK SITE SAFETY, INCLUDING ALL ADEQUATE TEMPORARY BRACING AND SHORING, IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EMPLOY THE NECESSARY PROFESSIONAL SERVICES TO DETERMINE THE NECESSARY METHODS AND SUPPORTS.
6. PROTECTION OF EXISTING CONSTRUCTION:
   A. DO NOT DAMAGE EXISTING CONSTRUCTION WHICH IS TO REMAIN.
   B. LOCATE AND PROTECT CONCEALED PIPES, CONDUITS AND OTHER EXISTING CONSTRUCTION PRIOR TO DEMOLITION AND TAKE APPROPRIATE ACTION TO PROTECT THEM AND TO PROVIDE FOR SAFETY.
7. CONSTRUCTION INSPECTIONS:
   NOTIFY THE BUILDING INSPECTOR FOR INSPECTION AS MAY BE REQUIRED.
8. DEMOLITION
   A. DOUGLAS WOOD ASSOCIATES ASSUMES NO RESPONSIBILITY FOR THE DISCOVERY, REMOVAL, DISPOSAL OR EXPOSURE OF PERSONS TO HAZARDOUS MATERIALS OF ANY KIND.
   B. DISPOSE OF ALL MATERIALS LOCALLY.
10. REPLACEMENT OF MATERIALS
   A. AFTER ENGINEER HAS COMPLETED OBSERVATIONS, ETC. RESTORE REMOVED MATERIALS WITH LIKE MATERIALS.

EXPLORATORY ACTIVITIES (EA):

A. THE PURPOSE OF THESE EXPLORATION ACTIVITIES IS TO DETERMINE TO THE DEGREE REASONABLY THE GENERAL CONFIGURATIONS OF SOME EXISTING STRUCTURAL SYSTEMS, AT THE TIME OF THIS WRITING, NO DRAWINGS FOR THE CONSTRUCTION OF THE ORIGINAL STRUCTURAL SYSTEMS HAVE BEEN FOUND. THEREFORE, THESE CONFIGURATIONS ARE UNKNOWN, AND THEREFORE, EXERCISE DUE CAUTION IN ALL EXPLORATORY ACTIVITIES . USE TECHNIQUES SUCH AS:
   1. EXPLORATORY DRILL HOLES TO DETERMINE DEPTHS OF MEMBERS.
   2. USE LIGHTEST WEIGHT EQUIPMENT POSSIBLE AND USE HAND TOOLS WHERE POSSIBLE.
   3. IF UNEXPECTED OBJECTS ARE ENCOUNTERED, STOP ACTIVITY AND REQUEST OPINION FROM ENGINEERS. IN ALL LOCATIONS, ALLOW ENGINEER TO OBSERVE, PHOTOGRAPH AND MEASURE EXPOSED

B. COORDINATION: STRUCTURAL ELEMENTS.
   1. COORDINATE ALL EXISTING CONDITIONS AND STRUCTURAL ELEMENTS PRIOR TO PROCEEDING WITH THE WORK.
   2. REFER TO GENERAL NOTES, INCLUDING NOTE NO. 8 ON SHEET S-PROBE_100. RELATED TO EXISTING CONDITIONS IN THE FIELD PRIOR TO PROCEEDING WITH THE WORK. BRING ANY DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE ENGINEER. SCALE IS FOR GUIDELINE PURPOSES ONLY.

C. EXPLORATORY ACTIVITIES
   1. a) OPEN EXISTING CONCRETE SLAB (PRESUMED TO BE SLAB-ON-GROUND) TO EXTENT NECESSARY TO EXPOSE THE EXISTING FOUNDATION (FOOTING OR PILE CAP) BELOW. THERE MAY BE AN EXISTING CONCRETE PIER AND THERE MAY BE AN EXISTING CONCRETE CAP ON TOP OF THE EXISTING FOUNDATION. EXPOSE THESE ITEMS. LOCATE EDGES OF EXISTING FOUNDATIONS. EXCAVATE ALONG SIDES OF EXISTING FOUNDATION TO FIND BOTTOM. (DO NOT EXCAVATE BELOW EXISTING FOUNDATION). NOTIFY ENGINEER. IN THE PRESENCE OF ENGINEER, EXCAVATE AS INDICATED BY ENGINEER TO TRY AND DETERMINE IF THERE ARE EXISTING PILES.
      b) IF THIS PROVES INCONCLUSIVE CONDUCT GROUND PENETRATING RADAR (GPR) TESTING TO DETERMINE IF PILES ARE PRESENT. IF SO, THEIR LOCATIONS AND SIZES.
      c) AS MAY BE INDICATED BY ENGINEER, EXCAVATE TO EXPOSED SMALL PORTIONS OF OF THE EXITING PILES FOR OBSERVATION.
      d) CONDUCT (GPR) TESTING TO DETERMINE INFORMATION ABOUT EXISTING REINFORCEMENT IN THE EXITING FOUNDATION.
      e) AS TO BE INDICATED BY ENGINEER, TAKE A CORE SAMPLES OF CONCRETE FROM EXISTING FOUNDATION FOR TESTING AS INDICATED IN THE "TESTING OF EXISTING CONCRETE" NOTES BELOW.

2. REMOVE EXISTING CEILING FINISHES AT THE CORRIDOR AND TWO UNITS ON EACH NORTH & SOUTH SIDE OF THE CORRIDOR TO EXPOSE THE EXISTING WOOD FLOOR FRAMING, CONCRETE BEAMS, AND CONCRETE COLUMNS FOR OBSERVATION, MEASUREMENT, AND FOR CONCRETE TESTING AT INTERIOR AND EXTERIOR CONCRETE BEAMS AND COLUMNS. EXPOSE COLUMNS FULL HEIGHT FROM TOP TO BOTTOM FOR OBSERVATION.

STRUCTURAL ENGINEERS
2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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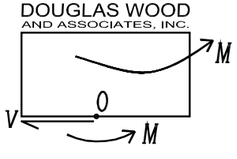

PRINCE MICHAEL
STRUCTURAL EXPLORATION

2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
AUGUST 29, 2017

PrecisionArt
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777 NE 62ND STREET C412
MIAMI, FL 33138
TELEPHONE: 305/456-6759 FAX: 786/752-3227
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S-PROBE_100

TESTING OF EXISTING CONCRETE:

THREE DIFFERENT TYPES OF CONCRETE TESTS ARE RECOMMENDED AS DESCRIBED BELOW. THE LOCATIONS OF THE TEST SAMPLES (CORES) ARE SHOWN ON THE ATTACHED PLAN SKETCHES S-PROBE_200 THROUGH 205. EXACT LOCATIONS CAN BE COORDINATED IN THE FIELD BETWEEN THE STRUCTURAL ENGINEER, AND THE TESTING LAB (HIRED BY THE OWNER). METAL DETECTION MUST BE USED PRIOR TO OBTAINING SAMPLES TO AVOID CUTTING OR DAMAGING STEEL REINFORCEMENT.

1. COMPRESSIVE CONCRETE STRENGTH TESTS:
   A TOTAL OF TEN CONCRETE CORES SHALL BE TESTED FOR COMPRESSIVE STRENGTH. USE METAL DETECTION TO ENSURE THAT NO EXISTING REINFORCEMENT IS DAMAGED AT THE TIME OF CORING. ALL CORE SAMPLES SHALL BE TAKEN AND COMPRESSION TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ACI 214.4R-5 “GUIDE FOR OBTAINING CORES AND INTERPRETING COMPRESSIVE STRENGTH RESULTS” AND ASTM C42-10A “STANDARD TEST METHOD FOR OBTAINING AND TESTING DRILLED CORES AND SAWED BEAMS OF CONCRETE”.

   AS INDICATED IN PLAN SKETCHES S-PROBE_200 THROUGH 203.

2. CONCRETE CHLORIDE TESTS :
   SIX CONCRETE SAMPLES TO BE TESTED FOR CHLORIDE CONTENT SHALL BE TAKEN, AS INDICATED IN THE PLAN SKETCHES S-PROBE_200 THROUGH 203. LEFTOVER SAMPLES FROM THE COMPRESSIVE STRENGTH TESTED CORES MAY BE USED, IF ACCEPTABLE TO THE TESTING LABORATORY. USE METAL DETECTION TO ENSURE THAT NO EXISTING REINFORCEMENT IS DAMAGED AT THE TIME OF CORING.

   CHLORIDE CONTENT TESTING SHALL CONFORM TO ASTM C1218 “STANDARD TEST METHOD FOR WATER-SOLUBLE CHLORIDE IN MORTAR AND CONCRETE” AND SHALL TEST FOR WATER SOLUBLE CHLORIDE ION (CL) IN CONCRETE, PERCENT BY WEIGHT.

3. CARBONATION ANALYSIS:
   FOUR CONCRETE CORES ANALYZED FOR CARBONATION SHALL BE TAKEN AS INDICATED IN THE PLAN SKETCHES S-PROBE_200 THROUGH 203.
   USE METAL DETECTION TO ENSURE THAT NO EXISTING REINFORCEMENT IS DAMAGED AT THE TIME OF CORING.

   DEPTH OF CARBONATION SHALL BE DETERMINED IN ACCORDANCE WITH ACI 437R-03 “STRENGTH EVALUATION OF EXISTING CONCRETE BUILDINGS” USING PHENOLPHTHALEIN INDICATOR DYE.

STRUCTURAL ENGINEERS
2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD
AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION

2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
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ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT

777 NE 62ND STREET C412
MIAMI, FL 33138
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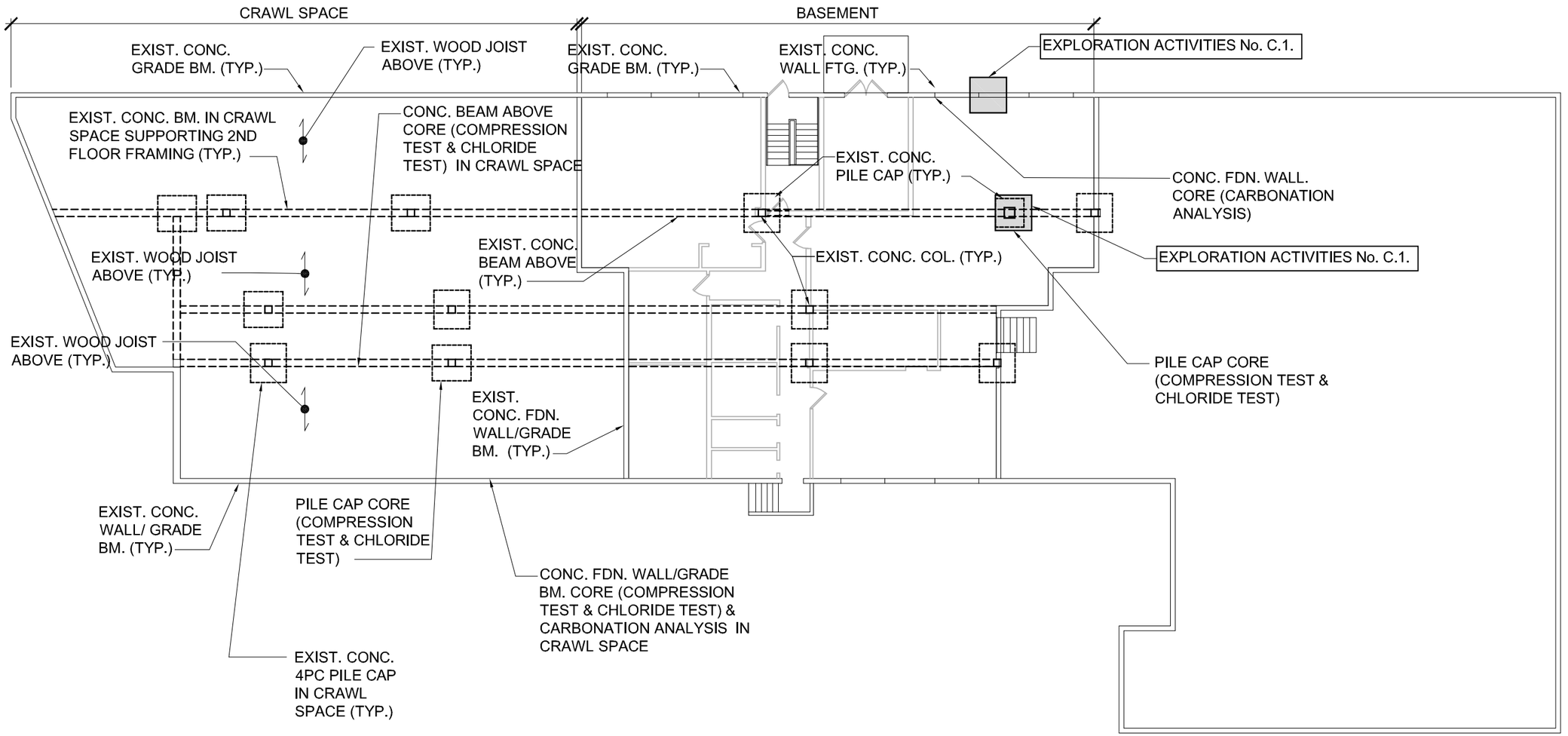
S-PROBE_101



FOUNDATION AND BASEMENT FLOOR FRAMING PLAN

1/16" = 1'-0"

N

NOTE:
SEE DESCRIPTION EXPLORATION ACTIVITIES AND TESTING OF EXISTING CONCRETE NOTES ON DRAWING S-PROBE_100 & 101.

STRUCTURAL ENGINEERS
2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD
AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION

2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
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ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT
777 NE 62ND STREET C412
MIAMI, FL 33138
TELEPHONE: 305/456-6759 FAX: 786/752-3227
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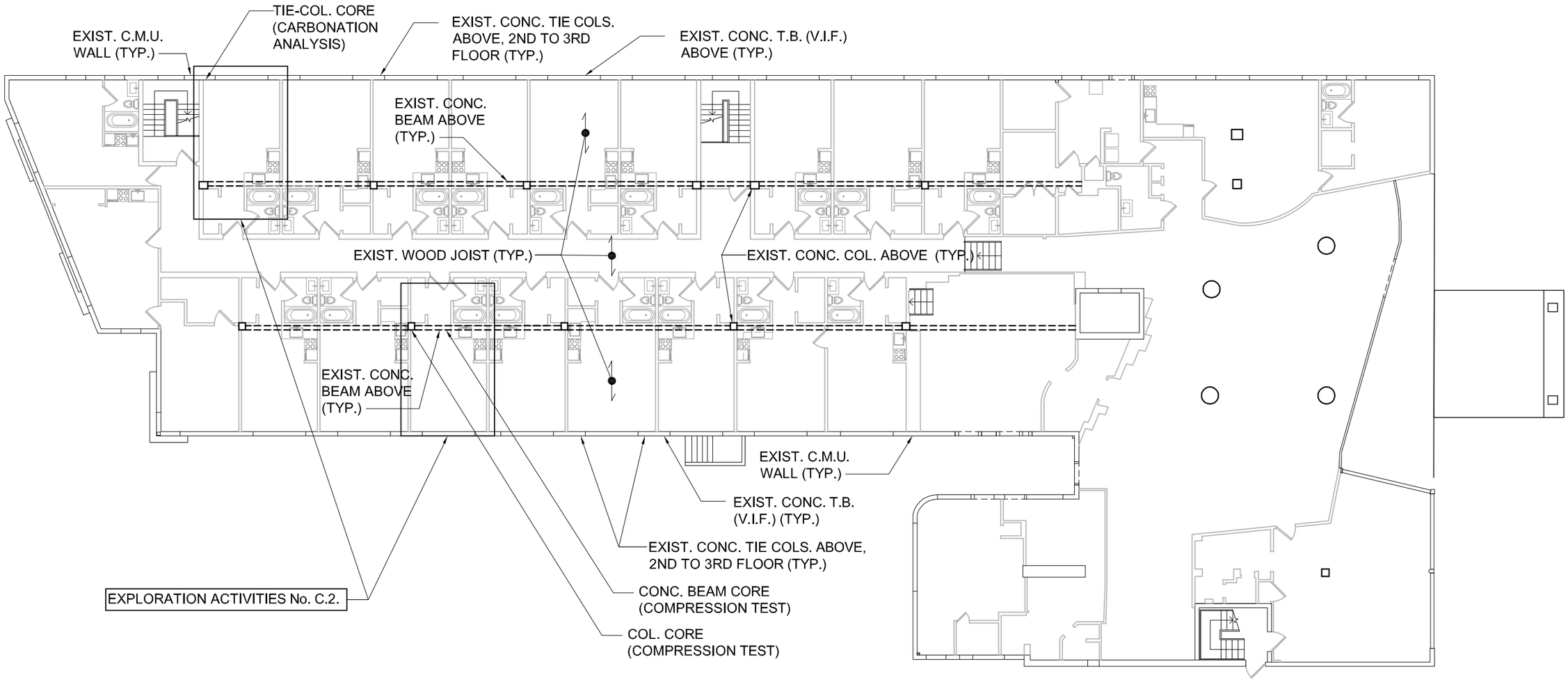
S-PROBE_200



FIRST & SECOND FLOOR CEILING FRAMING PLAN

1/16" = 1'-0"

N

NOTE:
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2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION

2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
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777 NE 62ND STREET C412
MIAMI, FL 33138
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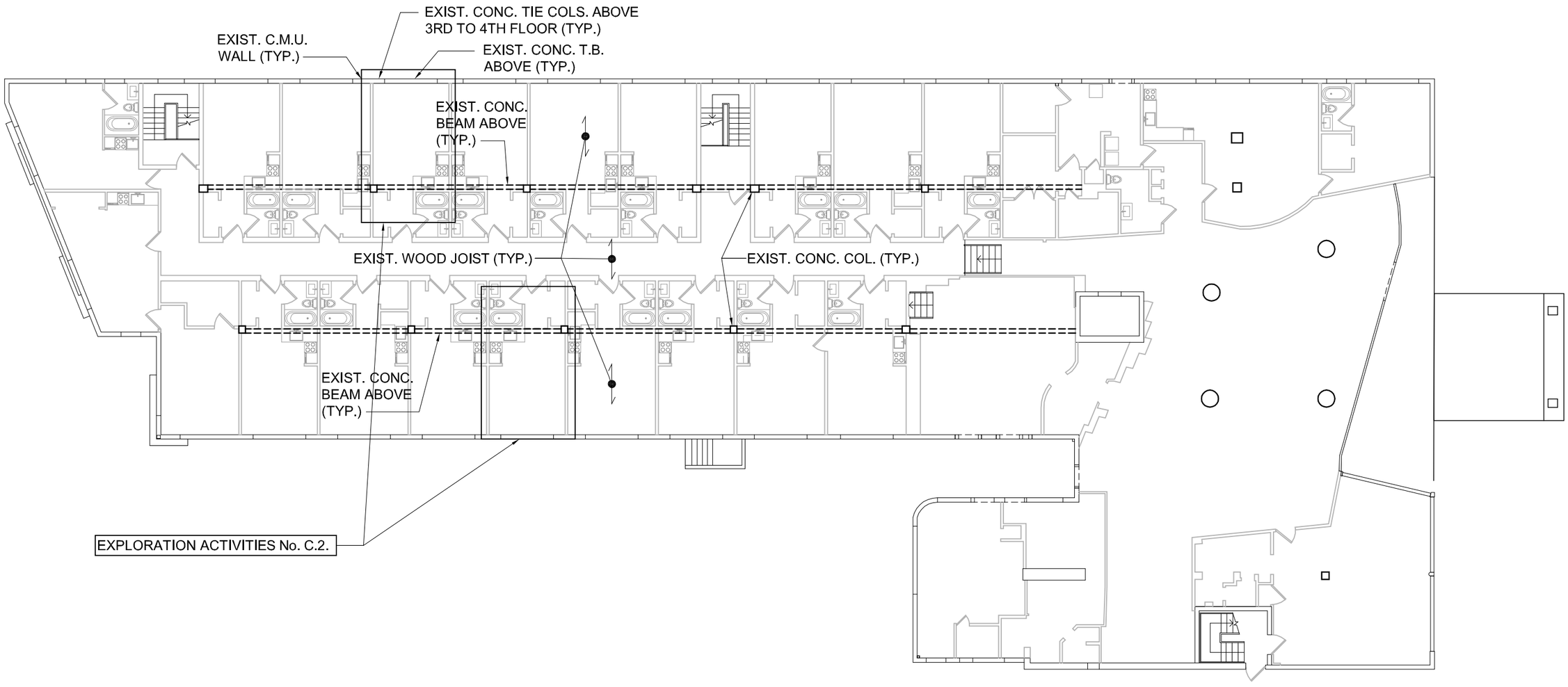
S-PROBE_201



THIRD FLOOR CEILING FRAMING PLAN

1/16" = 1'-0"

NOTE:
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N

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2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION

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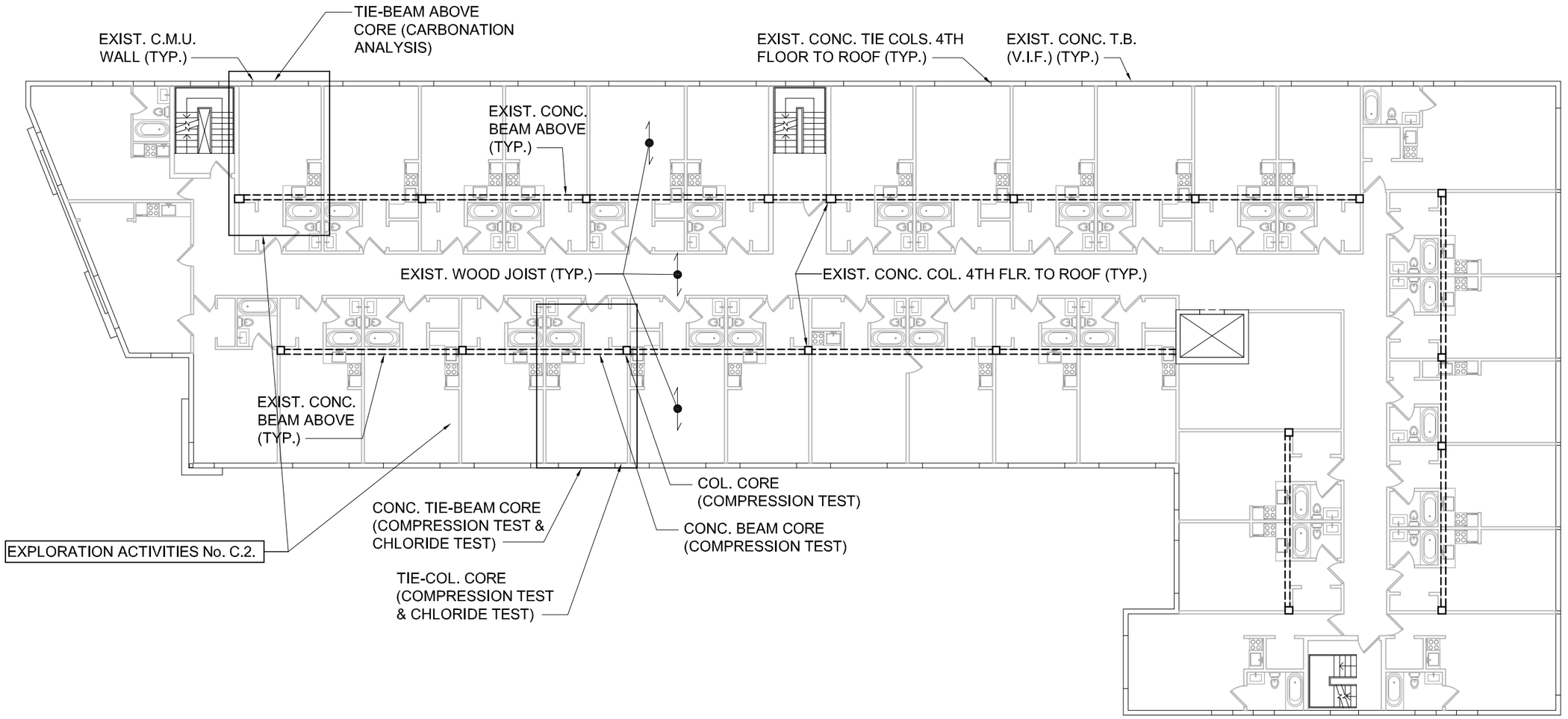
S-PROBE_202



FOURTH FLOOR CEILING

1/16" = 1'-0"

NOTE:
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2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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STRUCTURAL EXPLORATION

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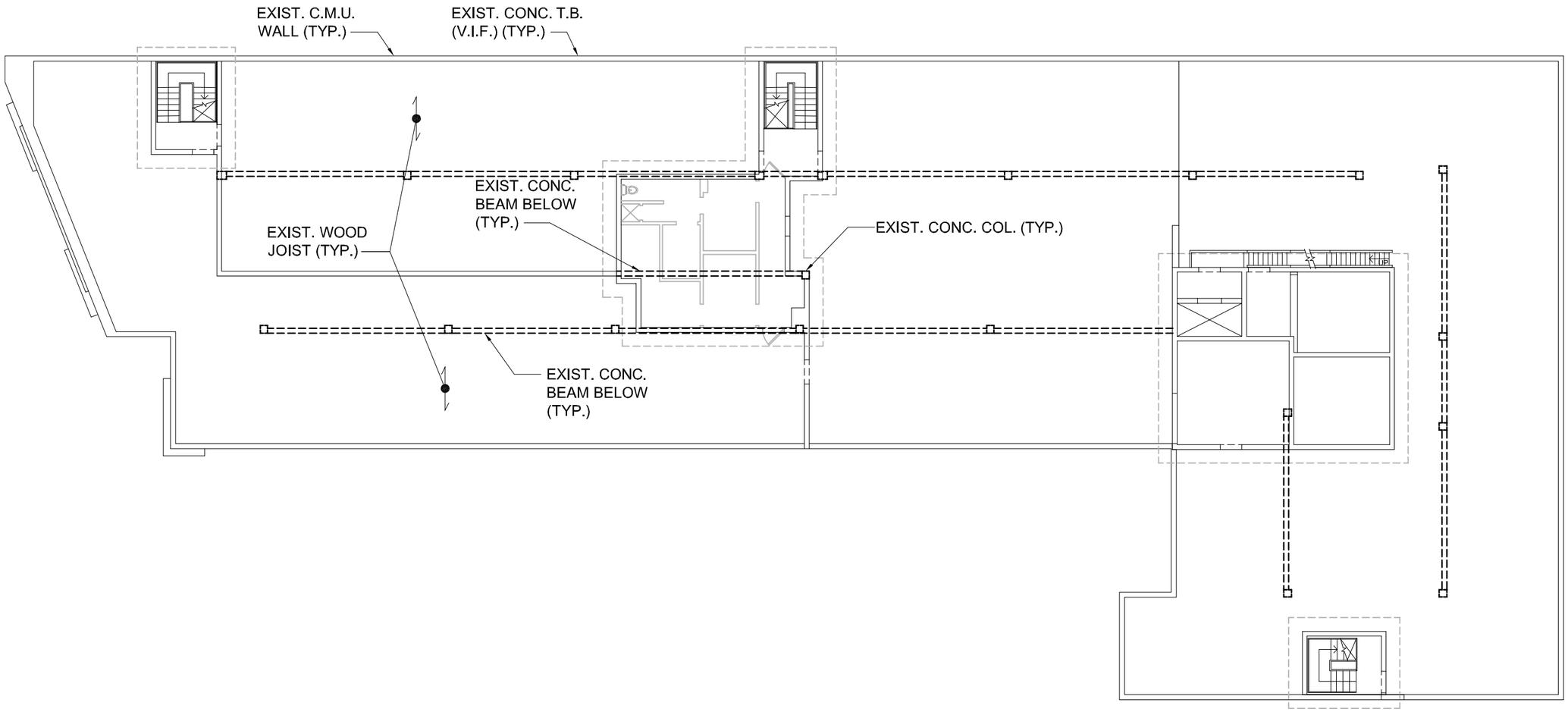
S-PROBE_203



ROOF PLAN

1/16" = 1'-0"

N

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2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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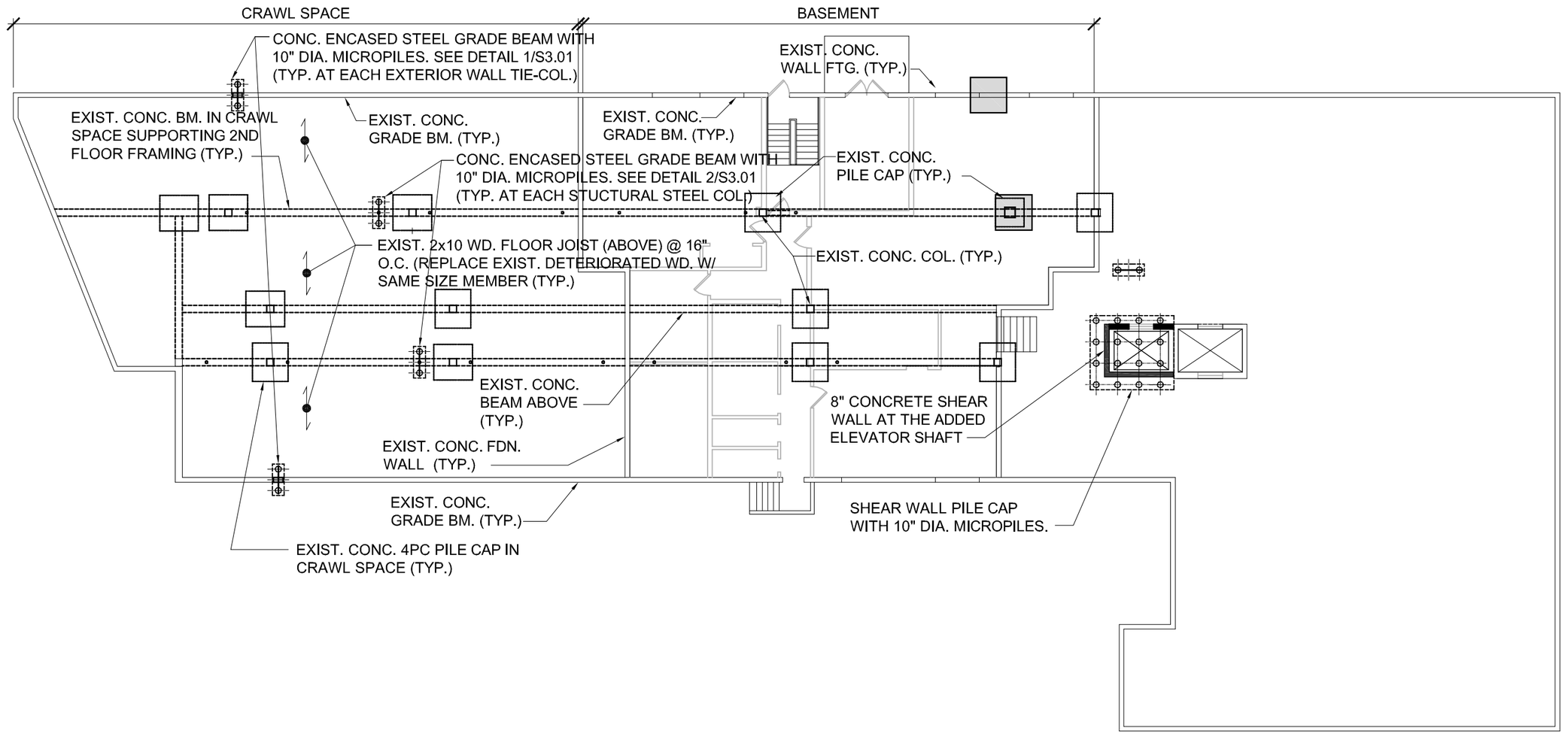
S-PROBE_204

APPENDIX C – STRUCTURAL CONCEPTUAL DESIGN DRAWINGS



FOUNDATION AND BASEMENT FLOOR FRAMING PLAN

1/16" = 1'-0"

1
S1.01

N

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5040 NW 7TH STREET
SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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AND ASSOCIATES, INC.

PRINCE MICHAEL HOTEL
CONCEPTUAL DESIGN ONLY

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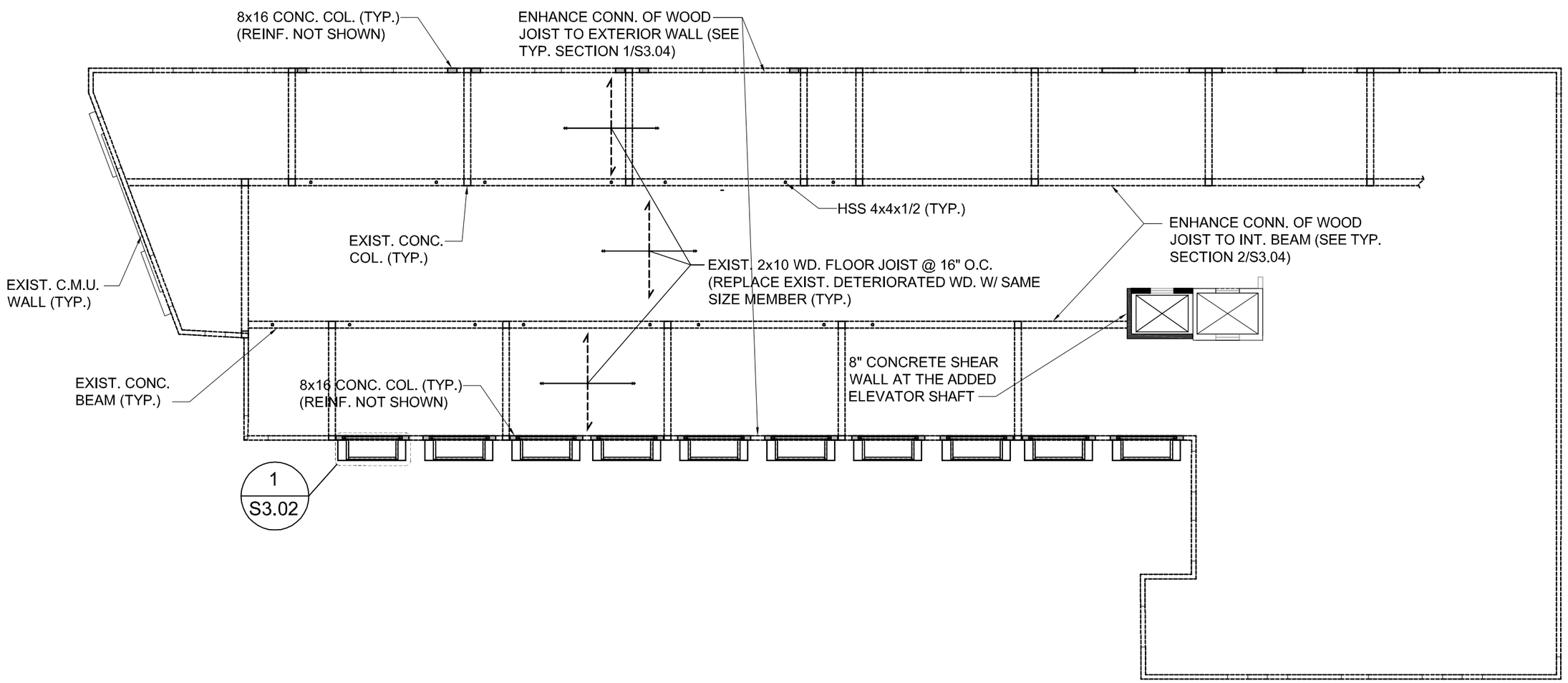
S1.01



TYP. FLOOR FRAMING PLAN

1/16" = 1'-0"

1
S1.02

N

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SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
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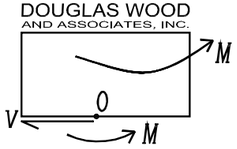

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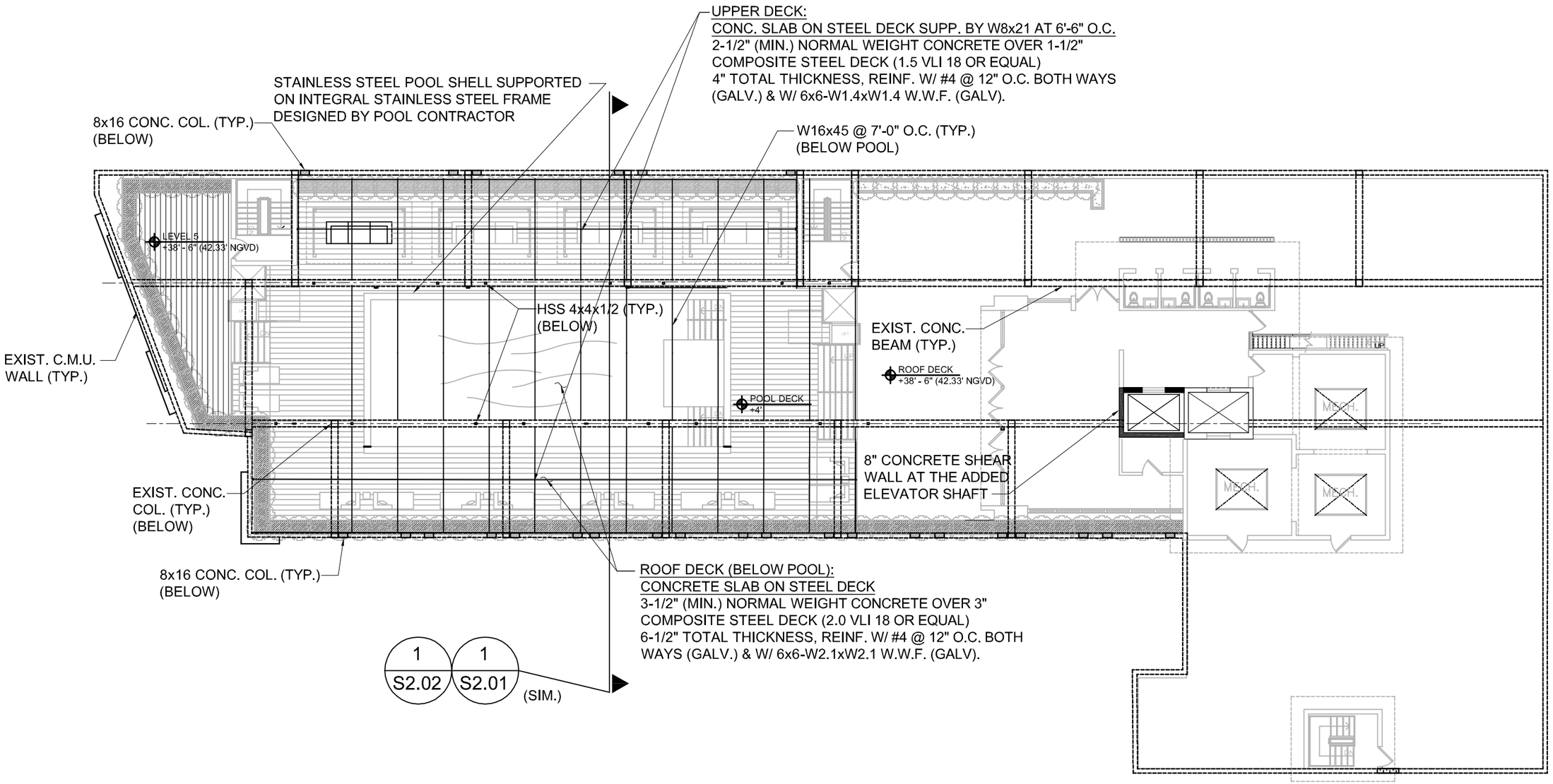
S1.02



ROOF FRAMING PLAN

1/16" = 1'-0"

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SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
inbox@douglaswood.biz
www.douglaswood.biz

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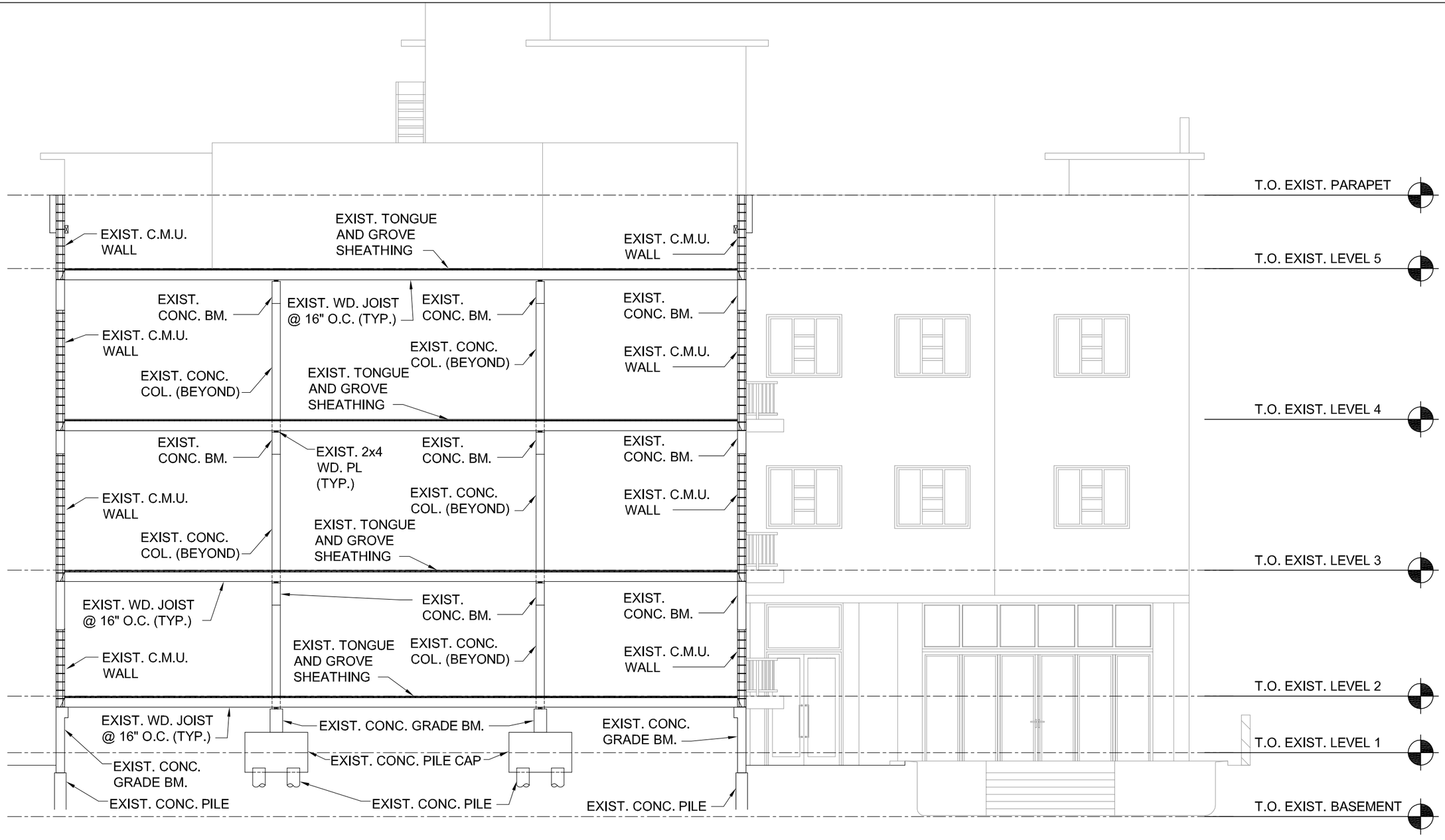
S1.03



TYPICAL EXISTING BUILDING SECTION - PRINCE MICHEL HOTEL

1/8" = 1'-0"

1
S2.01

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5040 NW 7TH STREET
SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
inbox@douglaswood.biz
www.douglaswood.biz

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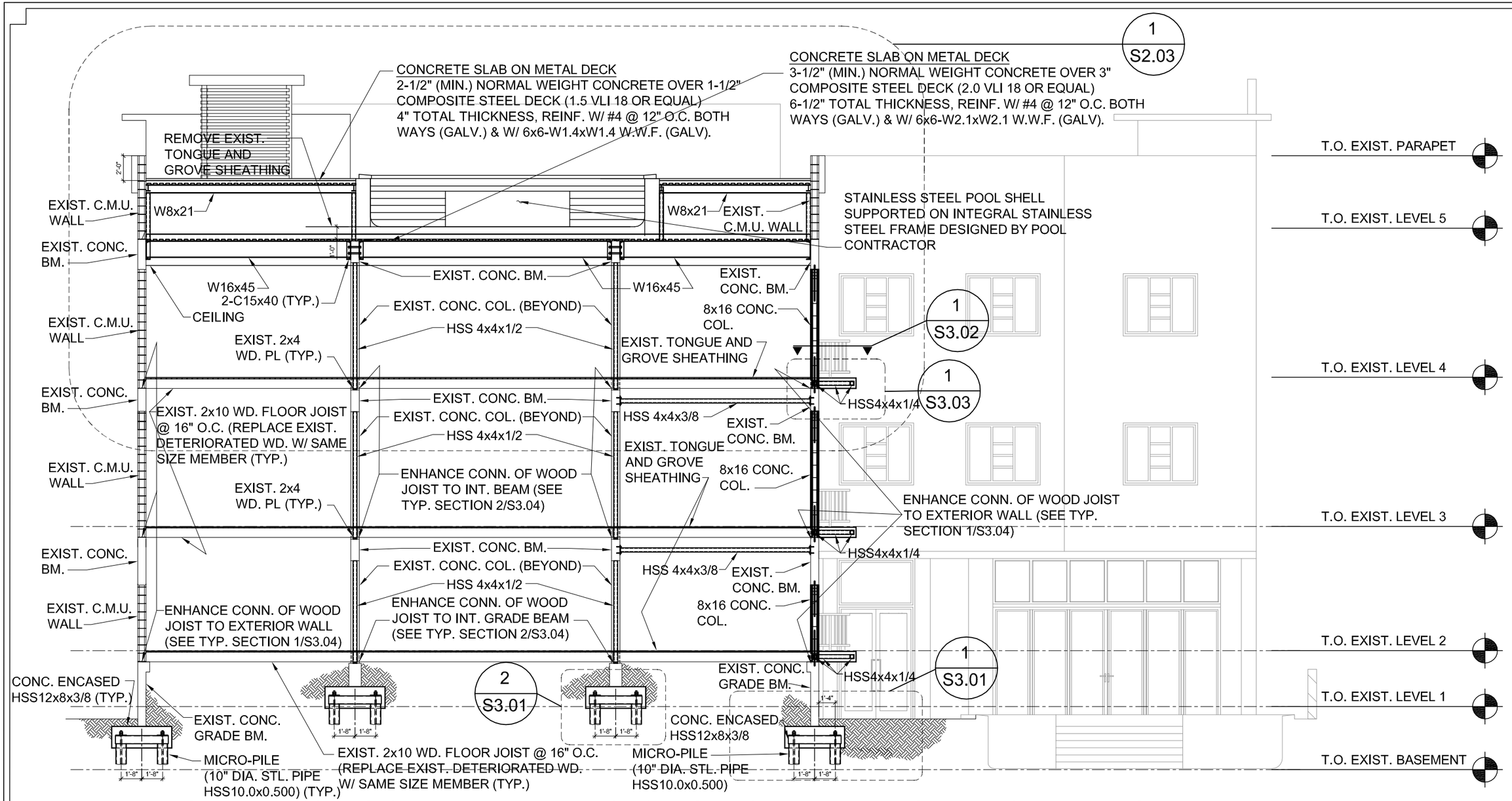
S2.01



TYPICAL PROPOSED BUILDING SECTION - PRINCE MICHEL HOTEL

1/8" = 1'-0"

1
S2.02

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5040 NW 7TH STREET
SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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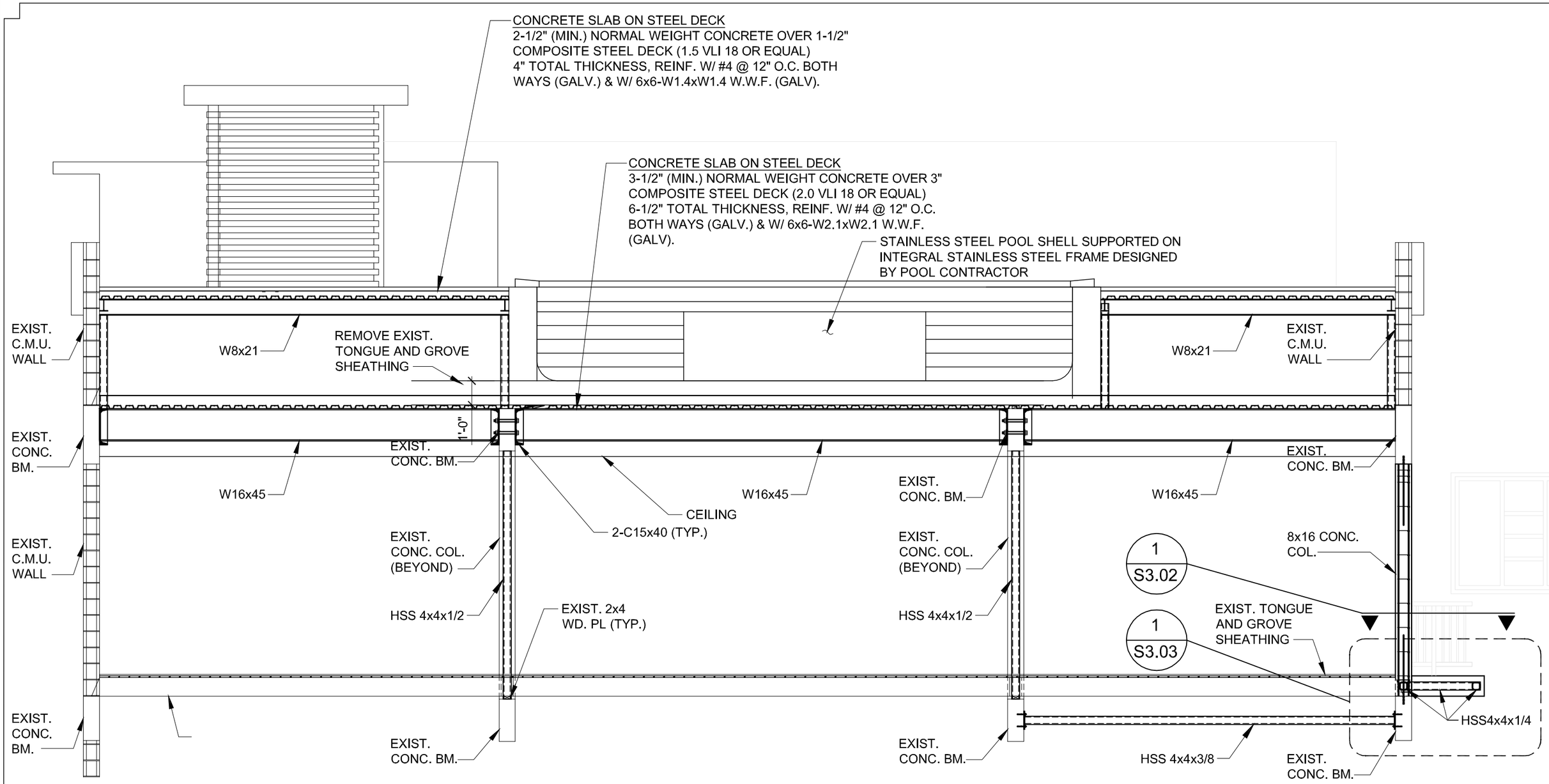
S2.02



TYPICAL PROPOSED BUILDING SECTION - PRINCE MICHEL HOTEL

1/4" = 1'-0"

1
S2.03

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5040 NW 7TH STREET
SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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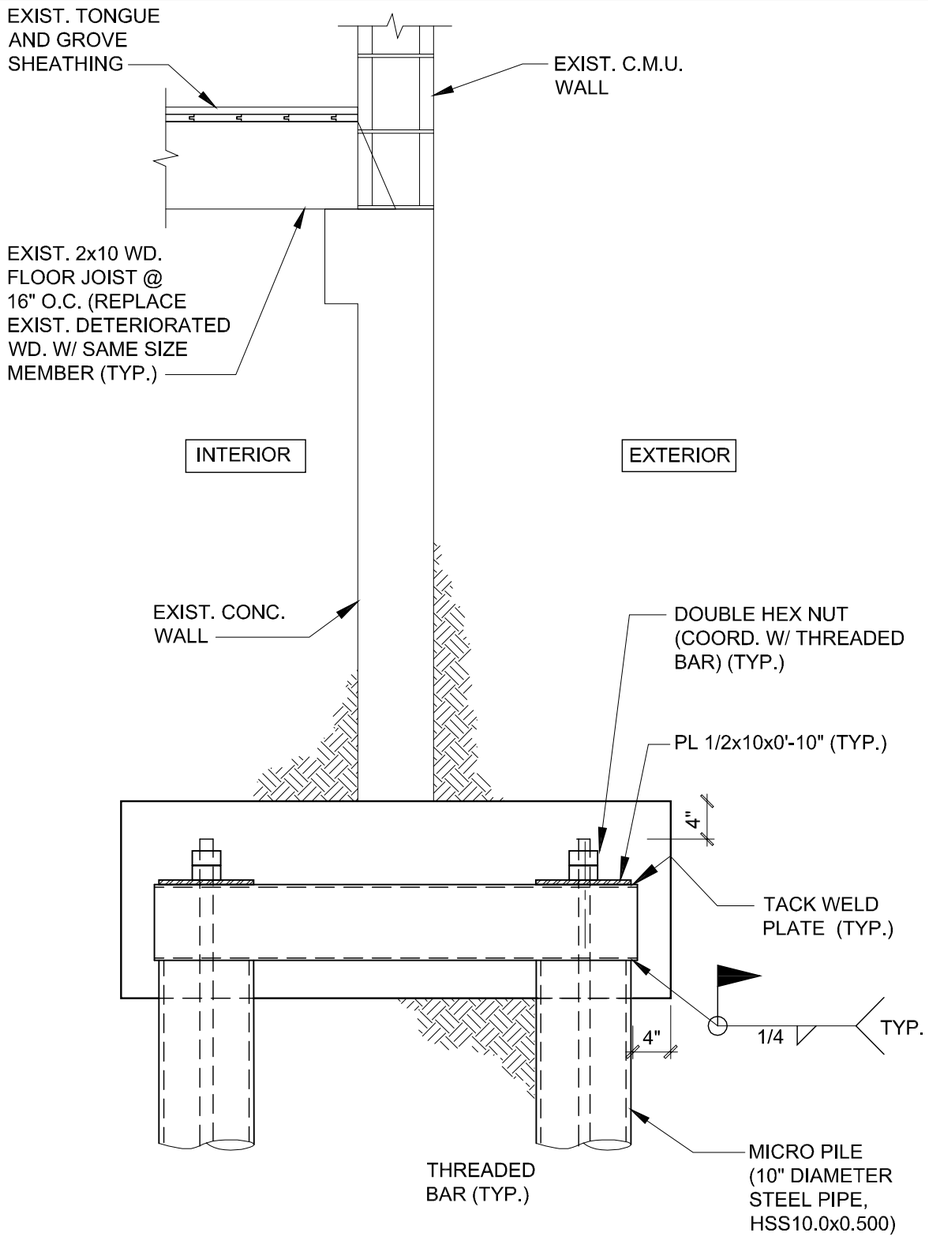
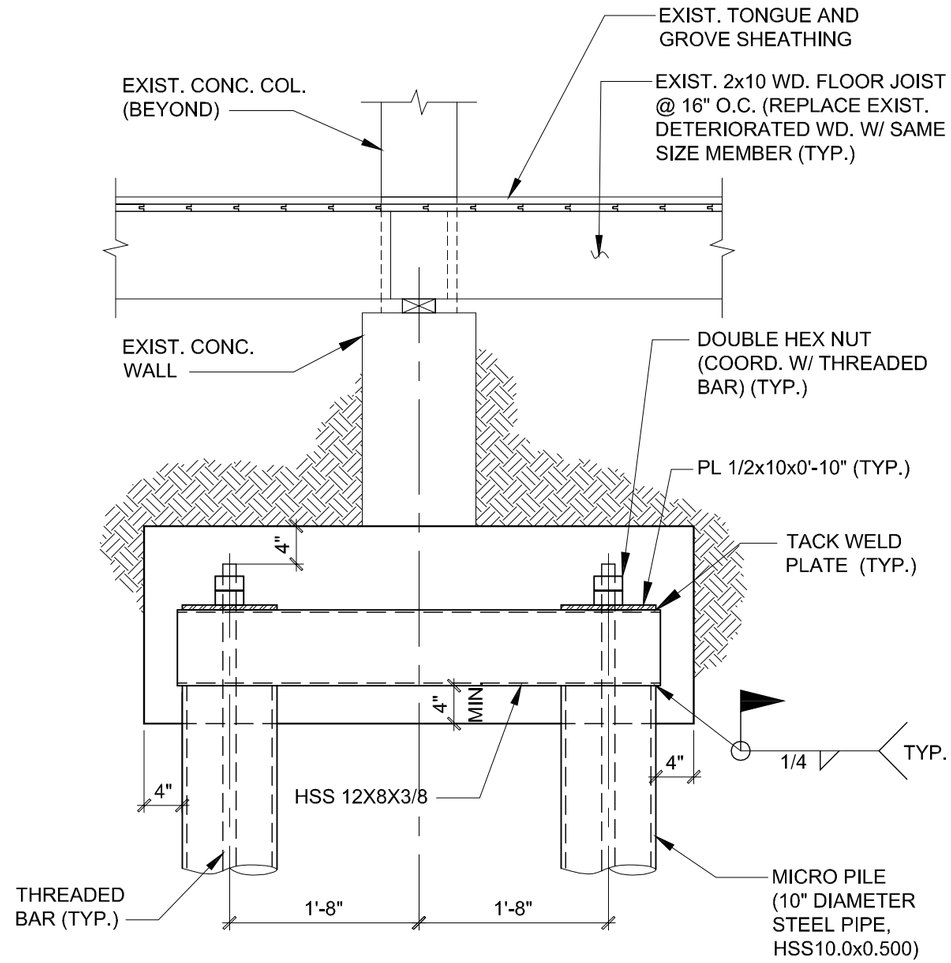
S2.03



SECTION

3/4" = 1'-0"

1 / S3.01



SECTION

3/4" = 1'-0"

2 / S3.01

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SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

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PRINCE MICHAEL HOTEL

CONCEPTUAL DESIGN ONLY

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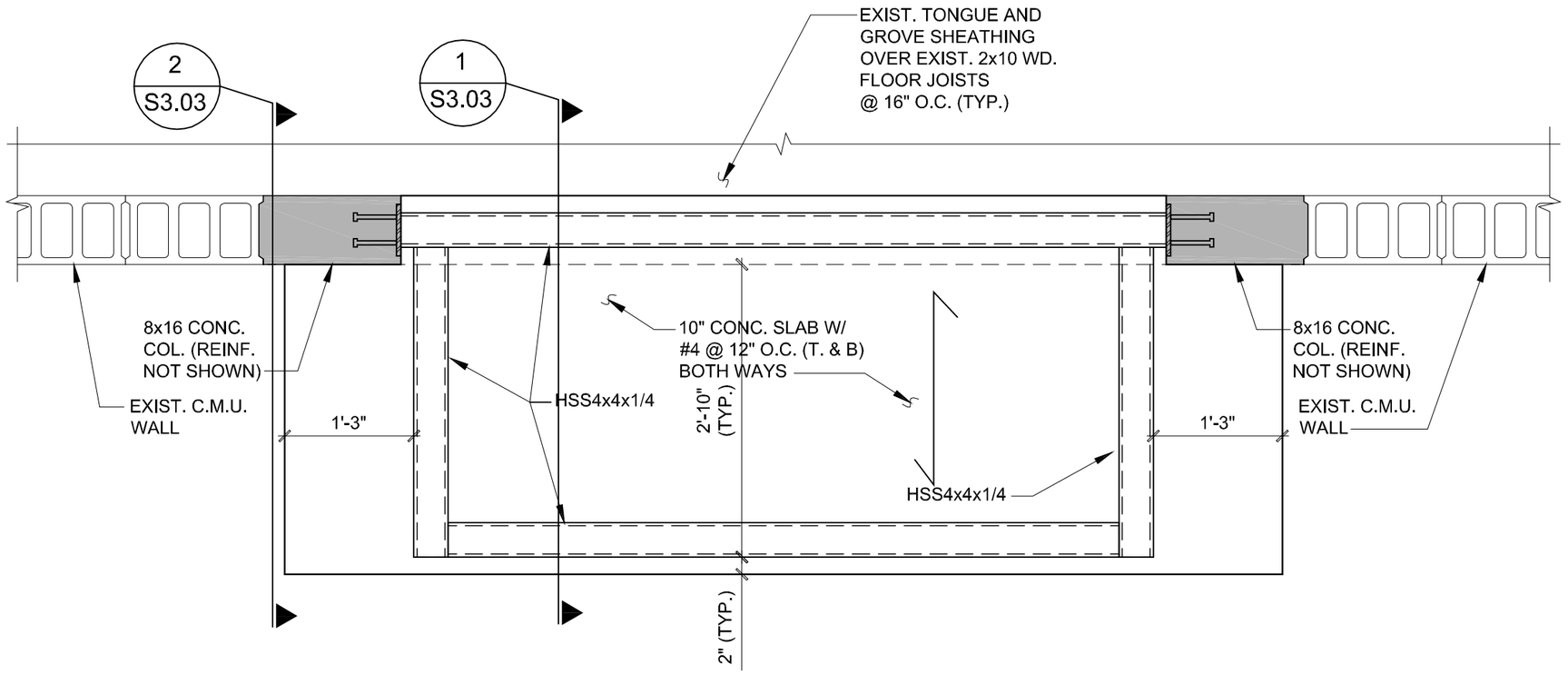
S3.01



SECTION

3/4" = 1'-0"

1
S3.02

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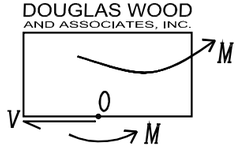
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD
AND ASSOCIATES, INC.



PRINCE MICHAEL HOTEL

CONCEPTUAL DESIGN ONLY

2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA

AUGUST 29, 2017

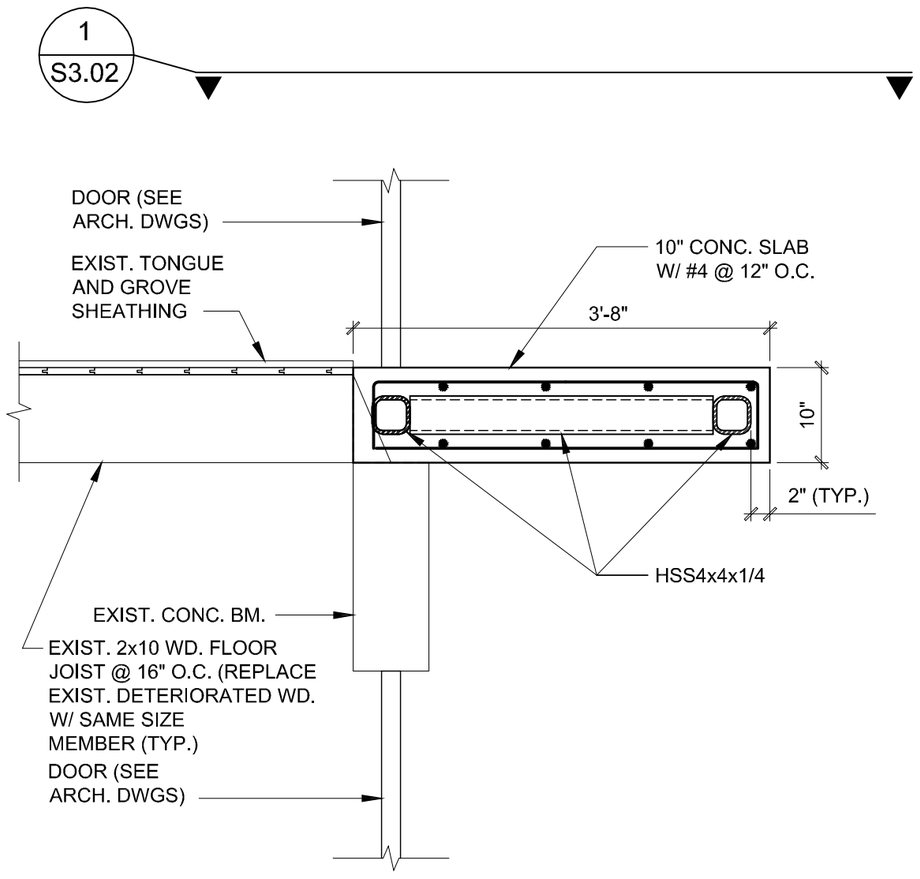
PrecisionArt
ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT

777 NE 62ND STREET C412
MIAMI, FL 33138
TELEPHONE: 305/456-6759 FAX: 786/752-3227
FLORIDA REGISTRATION NUMBER: AR 97982

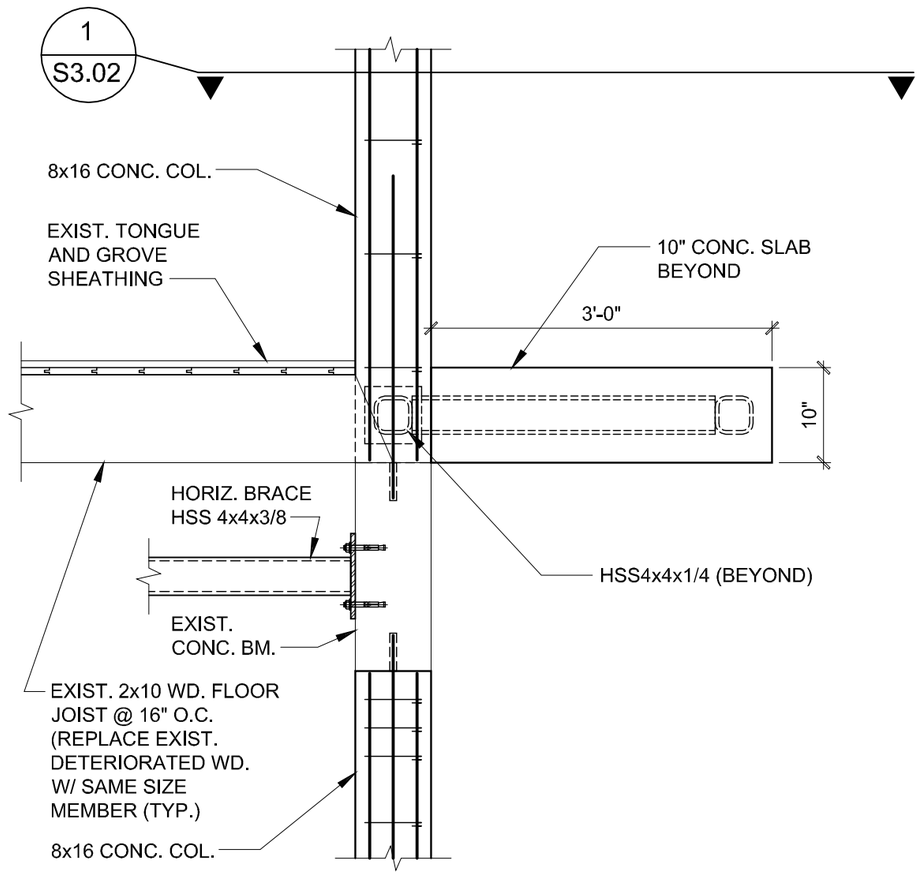
DWA PROJ. #: 17061

DATE: 01-08-2018

S3.02



SECTION 1
3/4" = 1'-0"



SECTION 2
3/4" = 1'-0"

STRUCTURAL ENGINEERS
5040 NW 7TH STREET
SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD
AND ASSOCIATES, INC.

PRINCE MICHAEL HOTE
CONCEPTUAL DESIGN

2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
AUGUST 29, 2017

PrecisionArt
ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT
777 NE 62ND STREET C412
MIAMI, FL 33138
TELEPHONE: 305/456-6759 FAX: 786/752-3227
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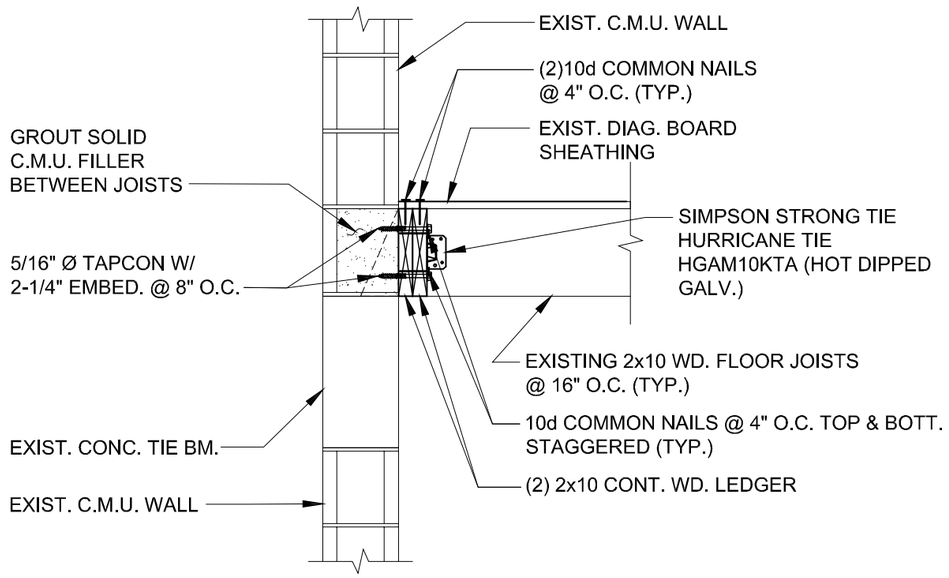
DATE: 01-08-2018

S3.03

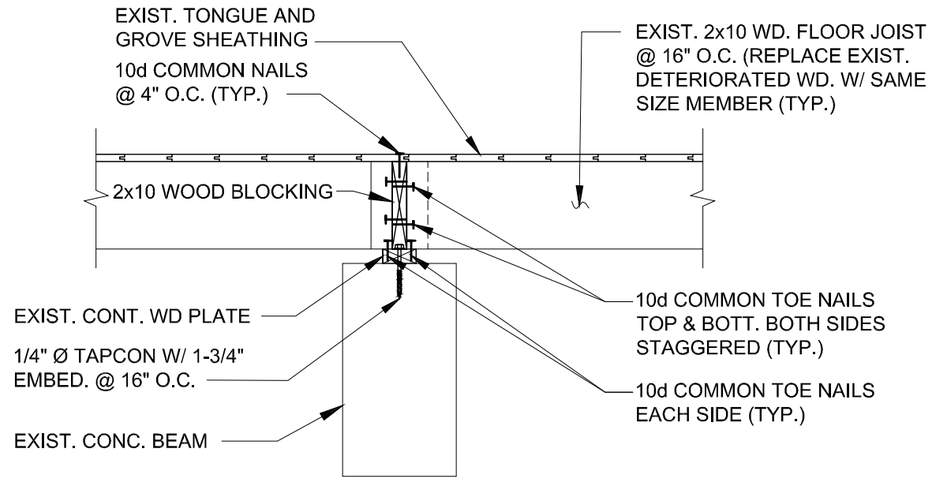


SECTION

3/4" = 1'-0"

1 / S3.04

(TYPICAL DETAIL WD. JOIST CONN. TO EXT. WALL)



SECTION

3/4" = 1'-0"

2 / S3.04

(TYPICAL DETAIL JOIST CONN. TO INT. CONC. BM.)

STRUCTURAL ENGINEERS
5040 NW 7TH STREET
SUITE 820
MIAMI
FLORIDA 33126
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD
AND ASSOCIATES, INC.

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PrecisionArt
ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT
777 NE 62ND STREET C412
MIAMI, FL 33138
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FLORIDA REGISTRATION NUMBER: AR 97982

DWA PROJ. #: 17061

DATE: 01-08-2018

S3.04

APPENDIX D – CONCRETE TESTING REPORT

January 9, 2018

Mr. Corey J. Lafferty
President
Precision Art Design & Construction
777 NE 62nd Street
Miami, FL 33138

Re: **Report of Core Compressive Strength and Material Analysis Tests**
Prince Michael Condo – Core Testing at 2618 Collins Avenue
2618 Collins Avenue
Miami Beach, Florida
NV5 Project No. 15938.00

Dear Mr. Lafferty:

NV5, Inc. submits this report in fulfillment with the Scope of Services described in our revised Proposal No. 17-0727 dated December 1, 2017. The work was authorized by acceptance of our professional agreement. This report contains the data collected and describes the procedures used.

PROJECT INFORMATION

The project is a four-story building with concrete roof located at 2618 Collins Avenue in Miami Beach, Florida. It lies on the west side of Collins Avenue between 26th Street and 27th Street. According to Miami Dade Property Appraiser, the building was built in 1951.

NV5 was requested by Mr. Corey J. Lafferty to obtain concrete core samples to be tested for compressive strength, depth of carbonation, and chloride ion content. NV5 was provided the core sample locations to be tested in the revised S-Probe drawing titled Prince Michael Structural Exploration sheet plans S-PROBE_ 100-101, and S-PROBE_200-205 Prepared by Douglas Wood and Associates, Inc. November 30, 2017. Sampling and testing were performed in general accordance with appropriate ASTM procedures.

PURPOSE

The purpose of our services on this project was to: document all testing locations, handle and transport concrete cores, perform required physical testing and chemical analysis of the samples and report the results to the client.

FIELD WORK

NV5 collected core samples extracted by others on December 4-6, 2017. A total of sixteen (16) concrete cores were drilled at locations specified in the drawing by the client as shown in Appendix A. Core samples could not be drilled from various columns due to the spacing of reinforcing steel bars, as shown by GPR scanning. The core samples that could be drilled were bagged within the time limit indicated in the ASTM standards and transported to our laboratory for testing. Photographs of the cores have been appended to this report.

Following are descriptions of the required core locations.

- Foundation/Basement Floor Plan
  - Existing footing/pile cap (northeast)
  - Existing footing/pile cap (southwest/crawl space)
  - Existing beam (southwest/crawl space)
  - Existing foundation walls (northeast wall)
  - Existing foundation walls (southwest wall)
- Level 2: Room #226
  - Interior beam
- Level 3: Room #318
  - Interior tie-column
- Level 4: Room #427
  - Interior beam
  - Interior tie-beam
  - Interior tie-column

LABORATORY TEST

Prior to laboratory testing, the core samples were measured, and trimmed. The original core samples measured ranged from 2.73 inches to 3.74 inches in diameter and ranged from 6.31 inches to 12.16 inches in length.

CORES – COMPRESSIVE STRENGTH

The extraction and compressive strength testing of the concrete cores were performed in substantial compliance with ASTM C42-16, Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete. In general, each core was cut for appropriate test correction factor of approximately 2:1 length to diameter ratio. The core samples were capped with a high-strength capping compound (TMI CA-0100 Capping Compound) and later subjected to compressive strength testing. The compressive strength results ranged from 1,870 to 3,680 pounds per square inch (psi).

Details of the compressive strength results of the individual core samples are summarized in Table 1 as well as Appendix C - NV5 Report - Core Compressive Strength Results. Photographs of the core samples obtained in the field and tested in the laboratory are included in Appendix B.

CORES – CHLORIDE ION CONTENT TEST

The resulting samples were labeled and bagged separately and sent to A&S Laboratories to be tested for water soluble chloride ion content. Testing was performed on the top 1-inch of the core in general accordance with the test method described in ASTM C1218-17, Standard Test Method for Water Soluble Chloride in Mortar and Concrete.

According to the publication 'Design and Control of Concrete Mixtures', chlorides may be introduced into concrete with the separate mix ingredients (admixtures, aggregates, cement, and mixing water) or through exposure to deicing salts, seawater, or salt laden air in coastal environments. An acceptable limit depends primarily upon the type of structure and the environment to which it is exposed during its service life. ACI 318R-14, table 19.3.2.1 shows that the maximum water-soluble chloride ion (Cl^-) content in concrete (percent by weight of cement) shall be 0.15% for non-pre-

stressed concrete exposed to moisture and an external source of chloride from deicing chemical, salt, brackish water, seawater, or spray from these sources.

The core samples tested have percent chlorides ranging from 0.0489% to 1.2968%. The percent chlorides presented in the report were based on a 10 gram pulverized sample of the hardened concrete mixture. The percent chloride by mass of cement of each individual sample has been included in A&S Laboratories Test Reports shown in Table 1 and in Appendix D.

CARBONATION TEST

Carbonation is one of the two main causes of corrosion of steel in concrete and grout; the other is chloride attack. The depth of carbonation was performed on the freshly exposed section of the core samples by spraying with an indicator spray such as phenolphthalein. The concrete core sample turns pink when the concrete is alkaline (above pH 9.2) but remains colorless where the concrete is carbonated, usually as more or less even zone extending from the surface. It should be noted that the pH at which the color changes may be lower than that at which passivity has been lost. The depth of carbonation was measured by A&S Laboratories.

Table 1: Summary of NV5 Test Results and A&S Laboratories Chemical Test Results

Core Number	Core Locations	Core Compressive Strength Results (psi)	Chloride Ion Content By Mass of Cement (%)	Core Sample Carbonation Test (in)
1	Room #427 Tie-Column	2,460	0.2741%*	--
2	Room #427 Tie-Beam	2,910	0.0685%*	--
3	Room #427 Beam	1,940	--	--
4	Basement South Beam Crawl Space	2,580	0.0489%*	--
5	Room #226 Interior Beam	1,870	--	--
7	Basement Pile Cap Crawl Space	2,820	0.0587%*	--
9	Basement NE Foundation Wall	3,680	1.2968%*	Carbonation 0.5”
10	Basement South Foundation Wall	3,390	0.0587%*	Carbonation 1”
11	Room #318 Tie-Column	--	0.0881%*	Carbonation 1.5”
12	Basement NE Wall	--	1.2724%*	Carbonation 2”

CLOSURE

We appreciate the opportunity to provide engineering and material testing services on this project. This report has been prepared for the exclusive use of the current project owners, and other members of the design team for the specific application to the project described in this report. This report has been prepared in accordance with generally accepted local engineering practices; no other warranty is expressed or implied.

If you or other members of the design team have questions about information contained in this Report, please contact the undersigned at 305-907-3120.

Sincerely,

NV5, Inc.

Ralph Numa
Staff Engineer

Steven E. Black, P.E.
Vice President
Florida License No. 39810

Distribution: 2 Copies to Addressee via U.S. Mail
Copy to NV5 File

Attachments:
Appendix A: Drawings/Locations (4 pages)
Appendix B: Photographs of Core Samples (9 pages)
Appendix C: NV5 Report - Core Compressive Strength Report (1 page)
Appendix D: A&S Lab Report: Percent Chloride, and Carbonation Tests (9 pages)

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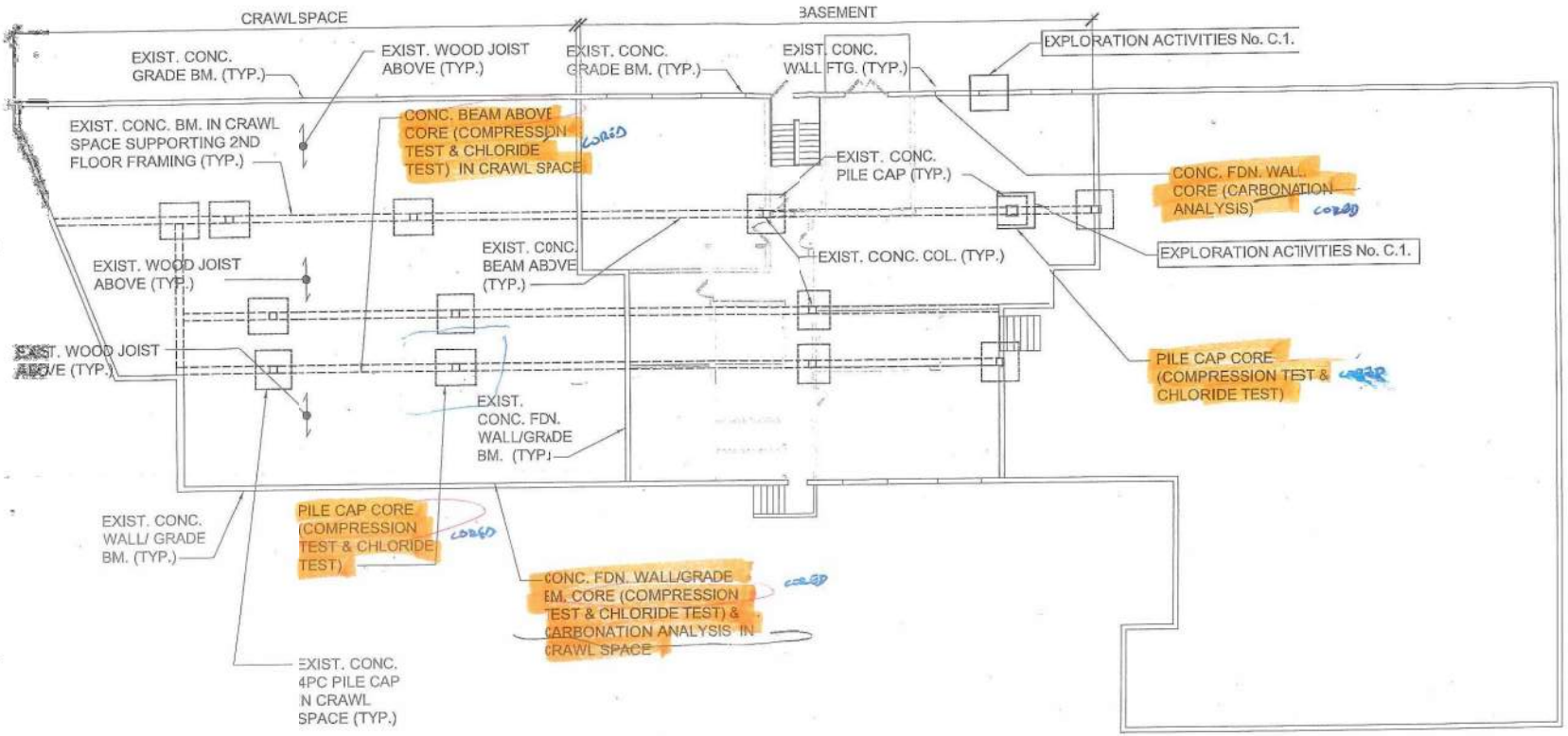
APPENDIX A
Drawings/Locations



FOUNDATION AND BASEMENT FLOOR FRAMING PLAN

1/16" = 1'-0"

N

NOTE:
SEE DESCRIPTION EXPLORATION ACTIVITIES AND TESTING OF EXISTING CONCRETE NOTES ON DRAWING S-PROBE_100 & 101.

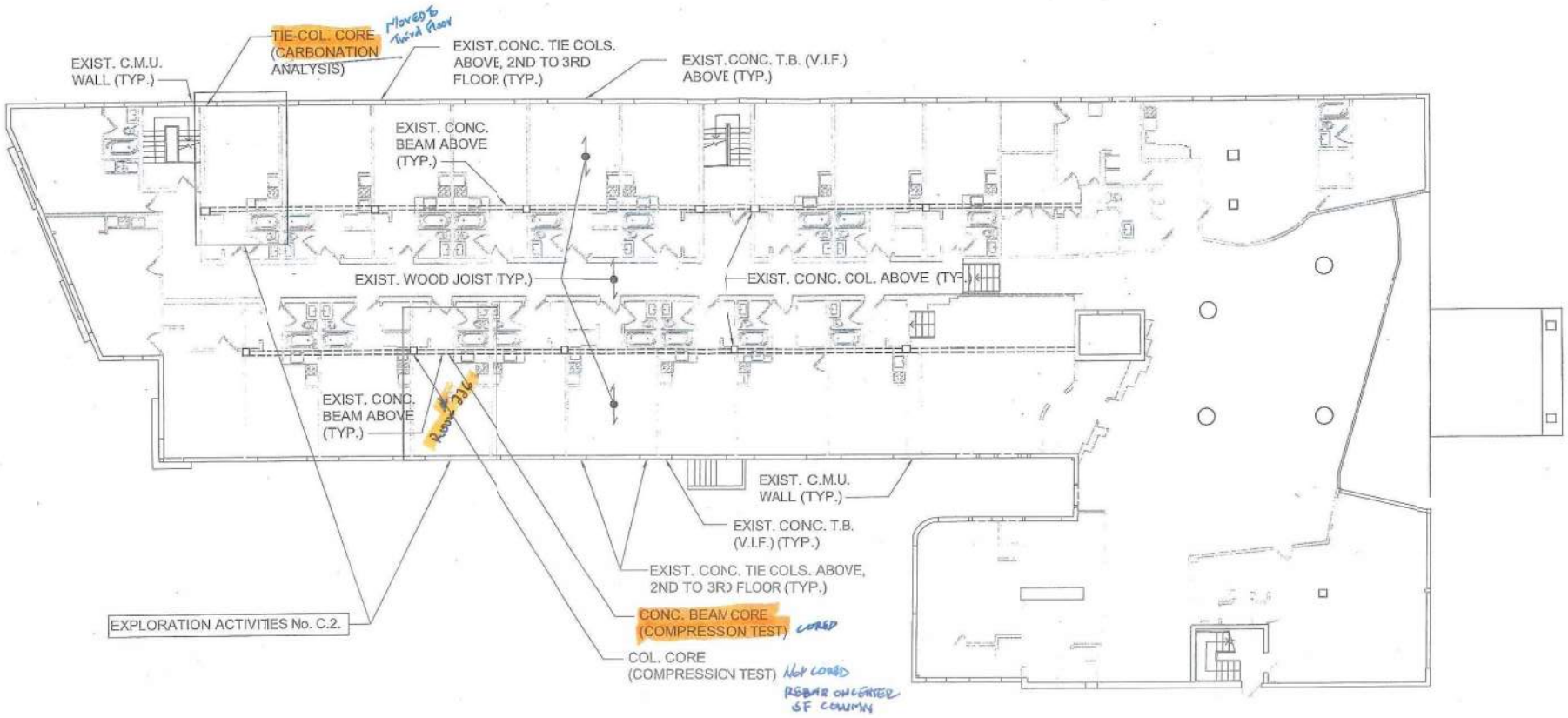
DOUGLAS WOOD AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION
2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
AUGUST 29, 2017

PrecisionArt
ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT
777 NE 62ND STREET C42
MIAMI, FL 33138
TELEPHONE: 305/456-6759 FAX: 786/752-3227
FLORIDA REGISTRATION NUMBER AR 97962

DWA PROJ. #: 17061
AUGUST 31, 2017
REVISED NOV. 30, 2017

S-PROBE_200



FIRST & SECOND FLOOR CEILING FRAMING PLAN

1/16" = 1'-0"

NOTE:
SEE DESCRIPTION EXPLORATION ACTIVITIES AND TESTING OF EXISTING CONCRETE NOTES ON DRAWING S-PROBE_100 & 101.

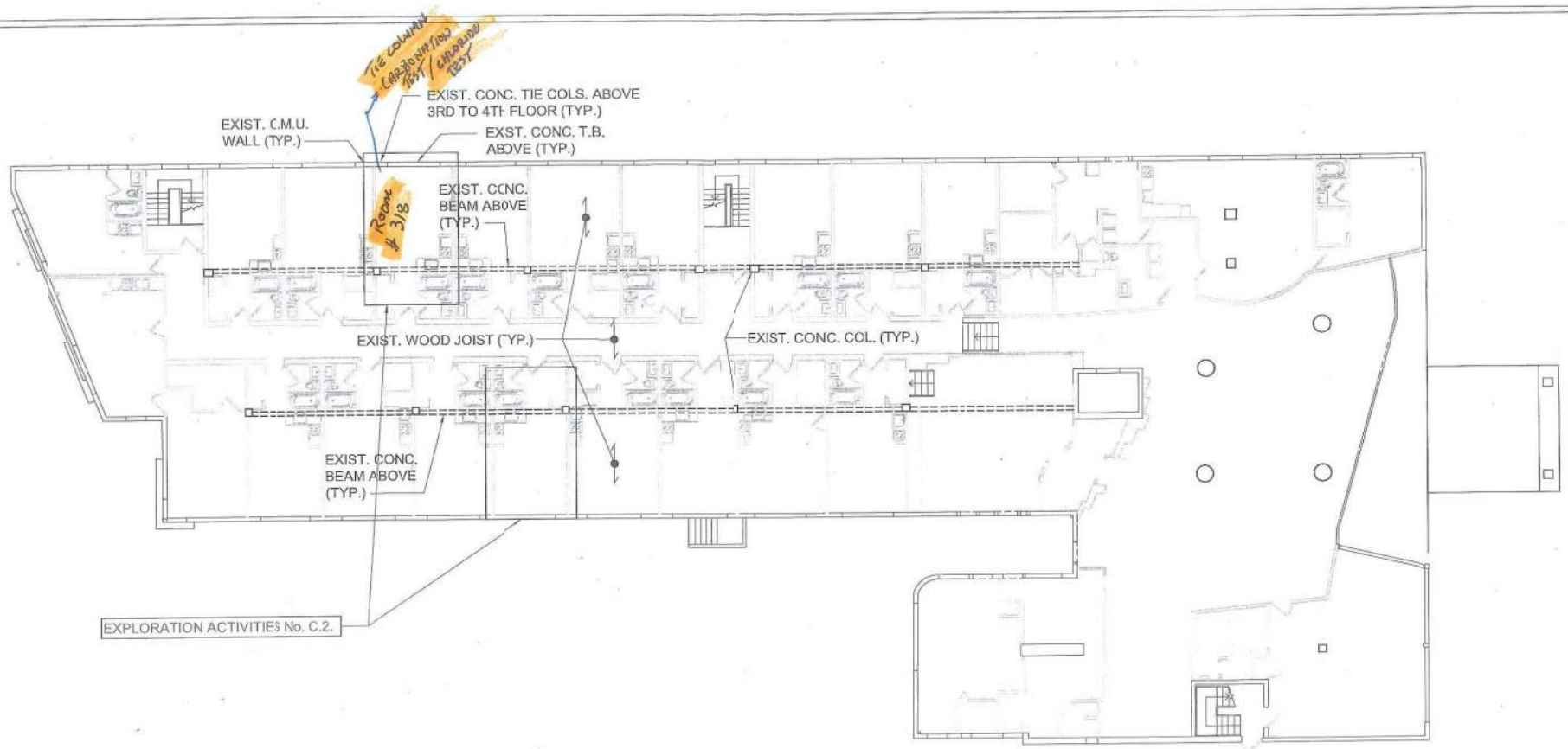
STRUCTURAL ENGINEERS
2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3550
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION
2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
AUGUST 29, 2017

PrecisionArt
ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT
777 NE 62ND STREET C42
MIAMI, FL 33138
TELEPHONE: 305/458-6759 FAX: 786/752-3227
FLORIDA REGISTRATION NUMBER AR 97982

DWA PROJ. #: 17061
AUGUST 29, 2017
REVISED NOV. 30, 2017
S-PROBE_201



THIRD FLOOR CEILING FRAMING PLAN

1/16" = 1'-0"

NOTE:
SEE DESCRIPTION EXPLORATION ACTIVITIES AND TESTING OF EXISTING CONCRETE NOTES ON DRAWING S-PROBE_100 & 101.

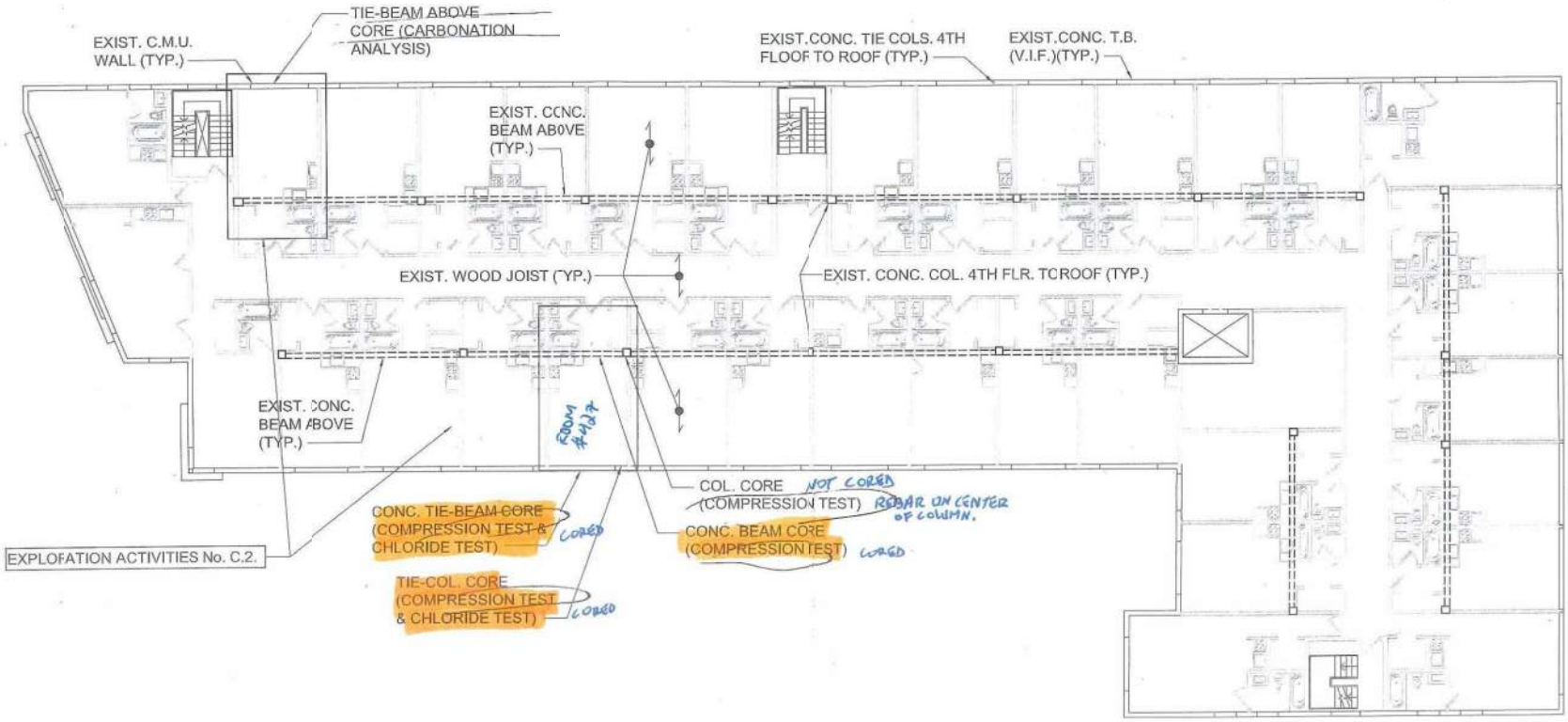
STRUCTURAL ENGINEERS
2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6393
inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD
AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION
2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
AUGUST 29, 2017

PrecisionArt
ARCHITECTURE-DESIGN-CONSTRUCTION MANAGEMENT
777 NE 82ND STREET C42
MIAMI, FL 33138
TELEPHONE: 305/456-6759 FAX: 786752-3227
FLORIDA REGISTRATION NUMBER:AR 97982

DWA PROJ. #: 17061
AUGUST 29, 2017
REVISED NOV. 30, 2017
S-PROBE_202



FOURTH FLOOR CEILING

1/16" = 1'-0"

N

NOTE:
SEE DESCRIPTION EXPLORATION ACTIVITIES AND TESTING OF EXISTING CONCRETE NOTES ON DRAWING S-PROBE_100 & 101.

STRUCTURAL ENGINEERS
2100 PONCE DE LEON BLVD.
SUITE 1020
CORAL GABLES
FLORIDA 33134
PH. 305 461-3450
FAX 305 461-3650
EB 6353
Inbox@douglaswood.biz
www.douglaswood.biz

DOUGLAS WOOD
AND ASSOCIATES, INC.

PRINCE MICHAEL
STRUCTURAL EXPLORATION

2618 COLLINS AVENUE, MIAMI BEACH, FLORIDA
AUGUST 29, 2017

Precision Architecture
ARCHITECTURE-DESIGN-CONSTRUCTIONMANAGEMENT
777 NE 62ND STREET C41
MIAMI, FL 33138
TELEPHONE: 305/456-6759 FAX: 76/752-3227
FLORIDA REGISTRATION NUMBER: AR 97982

AUGUST 31, 2017

DWA PROJ. #: 17061
AUGUST 31, 2017
REVISED NOV. 30, 2017

S-PROBE_203

APPENDIX B
Photographs of Core Samples

Figure 1: Core Sample – Compressive Strength Test

Figure 2: Core Sample – Compressive Strength Test

Figure 3: Core Sample – Compressive Strength Test

Figure 4: Core Sample – Compressive Strength Test

Figure 5: Core Sample – Compressive Strength Test

Figure 6: Core Sample – Compressive Strength Test

Figure 7: Core Sample – Compressive Strength Test

Figure 8: Core Sample – Compressive Strength Test

Figure 9: Core Samples – Trimmed/Capped/Tested

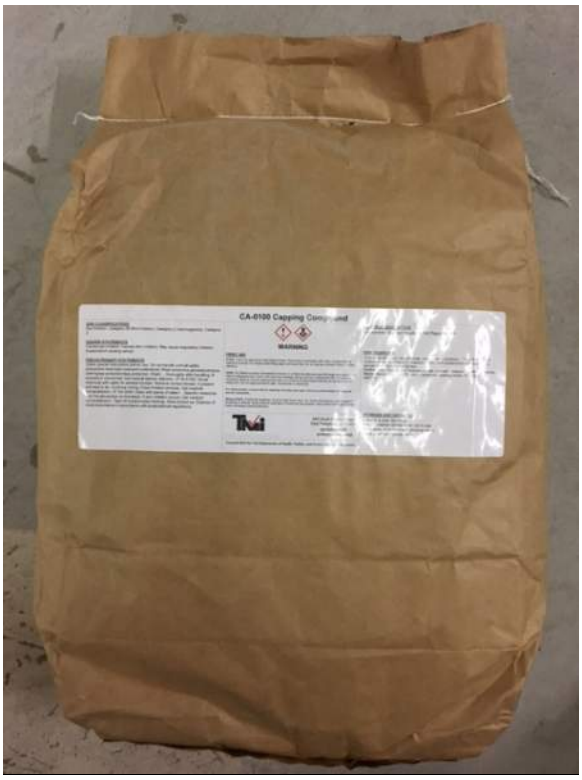


Figure 10: Core Samples Capping Material Used (CA-0100 Capping Compound)

Figure 11: Core Sample – Chloride and Carbonation Tests

Figure 12: Core Sample – Chloride Test

Figure 13: Core Sample – Chloride Test

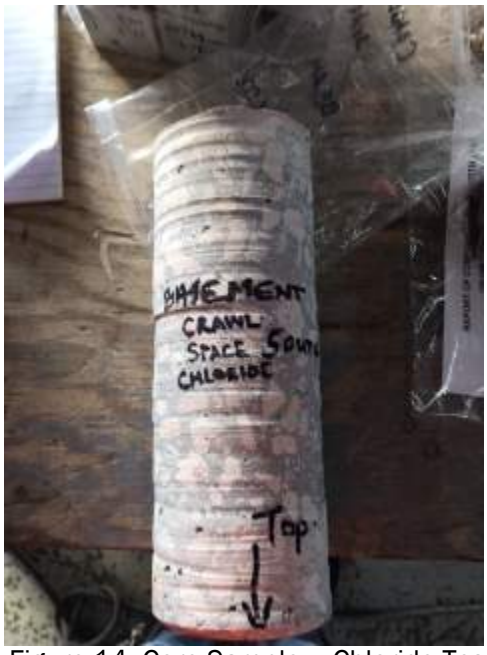


Figure 14: Core Sample – Chloride Test

Figure 15: Core Sample – Chloride and Carbonation Tests

Figure 16: Core Sample – Carbonation Test

Figure 17: Core Sample – Chloride Test

Figure 18: Core Sample – Carbonation Test

APPENDIX C
NV5 Report - Core Compressive Strength Report

CORES COMPRESSIVE STRENGTH REPORT

N/S, INC.
14486 COMMERCE WAY, MIAMI LAKES FL 33016
TELEPHONE NO. 305-666 3563 FAX NO.: 305-646-1069

PROJECT NAME: Prince Michael Cordo Core Testing
PROJECT NUMBER: 15938.40
DATE: 12/15/2017

CLIENT: Cadon, Eli
SAMPLE BY: A. Armstrong
SET NO.: 1

CONTRACTOR: Precision Art Design and Construction
SPECIFIED STRENGTH: Not Provided AT N/A DAYS
PAGE NO.: 1

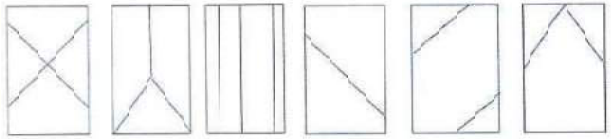
TEST METHOD: In general accordance with ASTM C42-16
CONCRETE SUPPLIER: Not Provided

Core Number	Core Location	Core Sample ID	Core Dimensions					Compressive Strength				Fracture Type	Direction of Load Application	Moisture Condition	Maximum Nominal Aggregate Size	Pour Date	Core Date	Preparation Date	Test Date	Core Weight (lbs.)	Core Unit Weight (lbs/ft³)
			Diameter (inches)	Lengths			Cross Sectional Area (sq.inches)	Maximum Load (lbs)	L/D	Correction Factor	Approx. Compressive Strength (psi)										
				Original (inches)	w/o cap (inches)	with cap (inches)															
1	Room #427	Tie-Column	2.76	6.67	5.22	5.44	5.98	14,740	1.97	1.00	2,460	3	Perpendicular	Bagged	#8	Not Provided	12/5/2017	12/7/2017	12/11/2017	231	118.4
2	Room #427	Tie Beam	2.73	8.36	5.13	5.39	5.85	17,000	1.94	1.00	2,910	2	Perpendicular	Bagged	#8	Not Provided	12/5/2017	12/7/2017	12/11/2017	223	118.1
3	Room #427	Beam	2.76	8.42	5.19	5.46	5.98	11,630	1.94	1.00	1,940	3	Perpendicular	Bagged	#8	Not Provided	12/6/2017	12/7/2017	12/11/2017	224	114.3
4	Basement Crawl Space (South)	Beam	3.75	9.17	7.30	7.45	11.04	28,490	1.99	1.00	2,580	4	Perpendicular	Bagged	#8	Not Provided	12/6/2017	12/7/2017	12/11/2017	587	115.3
5	Room #216	Beam	2.72	6.95	5.13	5.30	5.81	10,850	1.95	1.00	1,870	4	Perpendicular	Bagged	#8	Not Provided	12/6/2017	12/7/2017	12/11/2017	226	110.9
6	Basement Crawl Space (South)	Pile Cap/Foundation	3.73	11.12	6.90	7.09	10.94	30,750	1.90	1.00	2,820	5	Perpendicular	Bagged	#8	Not Provided	12/5/2017	12/5/2017	12/11/2017	569	110.7
7	Basement NE Wall	Foundation Wall	3.74	8.49	6.31	6.50	10.98	40,170	1.74	1.00	3,680	2	Perpendicular	Bagged	#8	Not Provided	12/5/2017	12/5/2017	12/11/2017	551	137.5
8	Basement South Wall	Foundation Wall	3.74	12.16	6.91	7.09	10.98	37,130	1.90	1.00	3,390	3	Perpendicular	Bagged	#8	Not Provided	12/5/2017	12/5/2017	12/11/2017	580	132.2

Notes

1. According to ACI 318 and Note 4 of ASTM C42-16, "The concrete represented by the cores is considered structurally adequate if the average strength of three cores is at least 85% of the specified strength and no single core strength is less than 75% of the specified strength." Compressive strength results should be reviewed by the Engineer of Record for acceptance.
2. Due to tightly spaced reinforcing steel, the core diameter sizehas to be reduced under the recommended diameter described by ASTM C42 (3.70 inches or large).

FRACTURE TYPE



Steven L Black, P.E.
Vice President
Florida License No. 39810

12/18

APPENDIX D
A&S Laboratories Test Results
Percent Chloride by Mass of Cement, and Carbonation Tests

A & S Laboratories
2550 Success Dr.
Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784023
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	Basement South Wall FDN
Project Number:	15938
Sample Characteristics:	Carbonation 0.5"
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	65 ppm
Percent Chloride Content:	0.0065 %
Percent Chloride by Mass of Cement:	0.0636 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

A & S Laboratories
2550 Success Dr.
Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784016
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	Basement Southwall FDN
Project Number:	15938
Sample Characteristics:	Carbonation 1"
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	60 ppm
Percent Chloride Content:	0.0060 %
Percent Chloride by Mass of Cement:	0.0587 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

A & S Laboratories
2550 Success Dr.
Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784024
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	N.E. Basement Wall
Project Number:	15938
Sample Characteristics:	Carbonation 2"
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	1,300 ppm
Percent Chloride Content:	0.1300 %
Percent Chloride by Mass of Cement:	1.2724 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

A & S Laboratories
2550 Success Dr.
Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784022
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	Room #318 Tie Column
Project Number:	15938
Sample Characteristics:	Carbonation 1.5"
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	90 ppm
Percent Chloride Content:	0.0090 %
Percent Chloride by Mass of Cement:	0.0881 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

A & S Laboratories
2550 Success Dr.
Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784021
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	Room #427 South Tie Beam
Project Number:	15938
Sample Characteristics:	N/A
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	70 ppm
Percent Chloride Content:	0.0070 %
Percent Chloride by Mass of Cement:	0.0685 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

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Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784020
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows.

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	Room #427 South Tie Column
Project Number:	15938
Sample Characteristics:	N/A
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	280 ppm
Percent Chloride Content:	0.0280 %
Percent Chloride by Mass of Cement:	0.2741 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

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Odessa, FL 33556
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TEST REPORT

A & S Project Number:	784017
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	Basement Crawl Space South Beam
Project Number:	15938
Sample Characteristics:	N/A
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	50 ppm
Percent Chloride Content:	0.0050 %
Percent Chloride by Mass of Cement:	0.0489 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

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Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784019
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach. Fl.
Client Identification:	N.E. Basement Pile Cap
Project Number:	15038
Sample Characteristics:	N/A
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	1,260 ppm
Percent Chloride Content:	0.1260 %
Percent Chloride by Mass of Cement:	1.2332 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

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Odessa, FL 33556
Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784025
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	N.E. FDN Wall Top Basement
Project Number:	15938
Sample Characteristics:	N/A
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	1,325 ppm
Percent Chloride Content:	0.1325 %
Percent Chloride by Mass of Cement:	1.2968 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

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Phone: (727)375-0388

TEST REPORT

A & S Project Number:	784018
Purchase Order Number	N/A
Customer:	NV5
Project Name:	Prince Michael Condo
Attention:	Ralph Numa

The results of tests performed in accordance with ASTM C1218-15 Water Soluble Chloride in Mortar and Concrete are as follows:

Sample Location:	2618 Collins Avenue Miami Beach, Fl.
Client Identification:	Basement Crawl Space South Pile Cap
Project Number:	15930
Sample Characteristics:	N/A
Date Core Extracted:	12/01/2017
Date Sample Tested:	12/14/2017
Design Compressive Strength:	3000 psi (Unit Weight 3915 lbs./c.y.)
Cement Weight (lbs.):	400
Chloride Content (mg/kg)	60 ppm
Percent Chloride Content:	0.0060 %
Percent Chloride by Mass of Cement:	0.0587 %*

Gregory P Allen
Lab Director

*This result is based on client supplied data. The percent chloride by mass of cement may be an estimated value. The client should provide a mix design when possible for an accurate calculation.

PRINCE MICHAEL HOTEL
2618 Collins Ave
Miami Beach, FL 33140

OPERATIONS PLAN

PRINCE MICHAEL HOTEL
2618 Collins Ave
Miami Beach, FL 33140

OPERATIONS PLAN

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HOURS OF OPERATIONS -1

The hotel, with lobby on the ground floor, will be operational 24-hours a day. The ground floor hotel restaurant will operate from 7:00 AM to 1:00 AM.

STAFFING LEVELS AND SERVICE- 2

The number of employees anticipated for the hotel range from 20 to 25 employees on different shifts throughout the day. Shifts range from mornings, evening and overnight shifts. The hotel restaurant is anticipated to have approximately 15 employees on different shifts throughout the day.

General turn-over of the hotel rooms will occur on a daily basis, while full cleaning and laundry will occur between guest stays. Products will be stored in the storage room located on each floor.

ACCESS & SECURITY - 3

Guests of the hotel will travel into the hotel through the lobby entrance at the eastside area of the building on Collins Avenue. Guests will check-in at the lobby on the ground floor and, once they receive their room assignments, will be free to enjoy the property at their leisure. The hotel restaurant, which has interior space on the ground floor, will likewise be accessed internally through the hotel lobby. The rooftop sundeck is accessible for hotel guests by internal elevators and stairway.

The hotel will provide on-site security through its employees. Cameras will be located within the facility, which will monitor the site.

GUEST DROP-OFF AND VALET PARKING -4

The Applicant expects most guests to arrive by taxi and rideshare vehicles with drop-off passenger loading at the top of half circle driveway area off of Collins Avenue. Guests will arrive under the Porte cochere that is directly connected to the lobby.

The Applicant will offer 100% 24/7 valet-services for guest who travel with their own vehicles. The valet drop-off area is also located at the top of half circle driveway area off of Collins Avenue.

DELIVERIES AND COLLECTIONS - 5

Deliveries for the entire property will take place at the Freight Loading Zone established in accordance with the Miami Beach Parking Department, which will likely be located along Indian Creek Drive or 27th Street. At all times, staff will supervise deliveries and the traffic to ensure no adverse impact to the surrounding area or on-site occur.

The hotel operator will make proper arrangements so that all deliverables will be received at non-peak times of 8:00 AM to 12:00 PM. Delivery personnel may utilize hand-trucks to take the goods into the hotel through existing north-west gate entrance that open to the north walk way and leads receiving room on the north portion of the building near back of house operations on the first floor.

Refuse collection by a private waste hauler will take place during non-peak hours of 8:00AM to 12:00 PM. Refuse will be collected approximately 4 days per week. By arrangement with the waste hauler, all refuse will be walked from the trash room located at the northern portion of the building along the north street for quick collection.