



**Town of Surfside
DESIGN REVIEW BOARD/
PLANNING & ZONING BOARD
AGENDA**

May 31, 2018 – 6:00 p.m.

Town Hall Commission Chambers –
9293 Harding Ave, 2nd Floor, Surfside, FL 33154

Rule 7.05 Decorum. Any person making impertinent or slanderous remarks or who becomes boisterous while addressing the commission shall be barred from further appearance before the commission by the presiding officer, unless permission to continue or again address the commission is granted by the majority vote of the commission members present. No clapping, applauding, heckling or verbal outbursts in support or opposition to a speaker or his or her remarks shall be permitted. Signs or placards may be disallowed in the commission chamber by the presiding officer. Persons exiting the commission chambers shall do so quietly.

Any person who received compensation, remuneration or expenses for conducting lobbying activities is required to register as a lobbyist with the Town Clerk prior to engaging in lobbying activities per Town Code Sec. 2-235. "Lobbyist" specifically includes the principal, as defined in this section, as well as any agent, officer or employee of a principal, regardless of whether such lobbying activities fall within the normal scope of employment of such agent, officer or employee. The term "lobbyist" specifically excludes any person who only appears as a representative of a not-for-profit community-based organization for the purpose of requesting a grant without special compensation or reimbursement for the appearance; and any person who only appears as a representative of a neighborhood, homeowners or condominium association without compensation for the appearance, whether direct or indirect or contingent, to express support of or opposition to any item.

Per Miami Dade County Fire Marshal, the Commission Chambers has a maximum capacity of 99 people. Once reached this capacity, people will be asked to watch the meeting from the first floor.

DESIGN REVIEW BOARD

1. Call to Order/Roll Call

2. Approval of Minutes: April 26, 2018

3. Design Review Board Applications:

- A. 9513 Harding Avenue** - The applicant is requesting one (1) illuminated wall sign for the Her Royal Household business. The applicant is proposing a channel letter sign and logo to be illuminated by spotlight per Town Code.
- B. 9571 Harding Avenue** - The applicant is requesting one (1) illuminated wall sign for the Morelia Gourmet Paletas business. The applicant is proposing a facelit channel letter sign and logo.

4. Quasi-Judicial Application:

Please be advised that the following items on the Agenda are Quasi-Judicial in nature. If you wish to object or comment upon an item, please complete a Public Speaker’s Card indicating the Agenda item number on which you would like to comment. You must be sworn in before addressing the Board and you may be subject to cross-examination. If you refuse to submit to cross-examination, the Board will not consider your comments in its final deliberation. Please also disclose any Ex-Parte communications you may have had with any Board member. Board members must also do the same.

A. 8995 Collins Avenue - Site Plan; Conditional Use for Hotel Pool and Alternative Parking System; Variances for Landscaping and Loading Space Size

5. Adjournment

PLANNING & ZONING BOARD

1. Call to Order/Roll Call

2. Town Commission Liaison Report – Vice Mayor Daniel Gielchinsky

3. Approval of Minutes: April 26, 2018

4. Quasi-Judicial Application:

Please be advised that the following items on the Agenda are Quasi-Judicial in nature. If you wish to object or comment upon an item, please complete a Public Speaker’s Card indicating the Agenda item number on which you would like to comment. You must be sworn in before addressing the Board and you may be subject to cross-examination. If you refuse to submit to cross-examination, the Board will not consider your comments in its final deliberation. Please also disclose any Ex-Parte communications you may have had with any Board member. Board members must also do the same.

A. 8995 Collins Avenue - Site Plan; Conditional Use for Hotel Pool and Alternative Parking System; Variances for Landscaping and Loading Space Size

5. Discussion Items:

- A. Walkability – Verbal Update**
- B. Construction Fencing for Single Family**
- C. Aggregation of Single Family Lots**
- D. Sustainability Subcommittee Priorities**
- E. Future Agenda Items**

6. Adjournment

THIS MEETING IS OPEN TO THE PUBLIC. IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990, ALL PERSONS THAT ARE DISABLED; WHO NEED SPECIAL ACCOMMODATIONS TO PARTICIPATE IN THIS MEETING BECAUSE OF THAT DISABILITY SHOULD CONTACT THE OFFICE OF THE TOWN CLERK AT 305-861-4863 EXT. 226 NO LATER THAN FOUR DAYS PRIOR TO SUCH PROCEEDING.

IN ACCORDANCE WITH THE PROVISIONS OF SECTION 286.0105, FLORIDA STATUTES, ANYONE WISHING TO APPEAL ANY DECISION MADE BY THE TOWN OF SURFSIDE COMMISSION, WITH RESPECT TO ANY MATTER CONSIDERED AT THIS MEETING OR HEARING, WILL NEED A RECORD OF THE PROCEEDINGS AND FOR SUCH PURPOSE, MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE WHICH RECORD SHALL INCLUDE THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

AGENDA ITEMS MAY BE VIEWED AT THE OFFICE OF THE TOWN CLERK, TOWN OF SURFSIDE TOWN HALL, 9293 HARDING AVENUE. ANYONE WISHING TO OBTAIN A COPY OF ANY AGENDA ITEM SHOULD CONTACT THE TOWN CLERK AT 305-861-4863. A COMPLETE AGENDA PACKET IS ALSO AVAILABLE ON THE TOWN WEBSITE AT www.townofsufsidefl.gov.

TWO OR MORE MEMBERS OF TOWN COMMISSION OR OTHER TOWN BOARDS MAY ATTEND AND PARTICIPATE AT THIS MEETING.

THESE MEETINGS MAY BE CONDUCTED BY MEANS OF OR IN CONJUNCTION WITH COMMUNICATIONS MEDIA TECHNOLOGY, SPECIFICALLY, A TELEPHONE CONFERENCE CALL. THE LOCATION 9293 HARDING AVENUE, SURFSIDE, FL 33154, WHICH IS OPEN TO THE PUBLIC, SHALL SERVE AS AN ACCESS POINT FOR SUCH COMMUNICATION.



**Town of Surfside
DESIGN REVIEW BOARD/
PLANNING & ZONING BOARD
MINUTES**

April 26, 2018 – 6:00 p.m.

Town Hall Commission Chambers –
9293 Harding Ave, 2nd Floor, Surfside, FL 33154

DESIGN REVIEW BOARD

1. Call to Order/Roll Call

Chair Lecour called the meeting to order at 6:04 p.m.

Recording Clerk Duval called the roll with the following members present: Chair Lindsay Lecour, Vice Chair Judith Frankel, Board Member Peter Glynn, Board Member Brian Roller, Board Member William Fleck and Board Member Jorge Garcia.

The meeting was turned over to the Town Attorney to elect a Design Review Board Chair and Vice Chair. Board Member Roller nominated Lindsay Lecour as Chair. The motion received a second from Board Member Glynn and all voted in favor. Board Member Roller nominated Judith Frankel as Vice Chair. The motion received a second from Board Member Glynn and all voted in favor.

2. Approval of Minutes: March 29, 2018

Vice Chair Frankel made a motion to approve the minutes. The motion received a second from Board Member Fleck and all voted in favor.

3. Design Review Board Applications:

A. 8810 Harding Avenue - The applicant is requesting to add a pre-fabricated shed to the rear of the property.

Town Planner Sinatra introduced Town Planner Robert Collins from Calvin Giordano & Associates who will be presenting all development items. Mr. Collins presented the item and staff is recommending approval.

Chair Lecour asked if any members of the public wished to speak on the item and seeing none the public hearing was closed.

Building Official Prieto answered questions from the Board. The Board discussed the item.

Board Member Roller made a motion to approve as recommended by staff. The motion received a second from Vice Chair Frankel and all voted in favor.

B. 9217 Emerson Avenue - The applicant is requesting replacing their existing asphalt shingle roof with new asphalt shingles.

Town Planner Collins presented the item.

Chair Lecour asked if any members of the public wished to speak on the item.

Public Speaker Denis Murphy the contractor and applicant Mercy MacDonell spoke on the item. Building Official Ross Prieto answered questions from the Board.

Board Member Glynn made a motion to approve. The motion received a second from Board Member Garcia and all voted in favor.

C. 9325 Abbott Avenue - The applicant is requesting to build a 4,007 square foot two-story new home.

Town Planner Collins presented the item and is recommending approval with conditions. The applicant and architects for the project gave further details on the item.

Chair Lecour asked if any members of the public wished to speak on the item and seeing none the public hearing was closed.

The Board discussed the item and the architect answered questions from the Board.

Board Member Fleck made a motion to approve with the following conditions:

1. At time of Building Permit, submit a Landscape Plan that meets the requirements of Town Code Section 90-95.
2. Driveway material to be verified at Building Permit.
3. Add one foot of freeboard

The motion received a second from Vice Chair Frankel and all voted in favor.

D. 9482 Harding Avenue - The applicant is requesting one (1) illuminated wall sign for the Italian Jewelry business.

Town Planner Collins presented the item and is recommending approval with conditions.

Chair Lecour asked if any members of the public wished to speak on the item and seeing none the public hearing was closed.

Board Member Glynn made a motion to approve with the following conditions:

1. Proposed sign shall be off-set from the wall a minimum of one quarter inch to a maximum of two inches to permit rain water to flow down the wall face.
 2. The wall face shall be reconditioned and painted as necessary
- The motion received a second from Vice Chair Frankel and all voted in favor.

E. 9499 Collins Avenue - The applicant is requesting two (2) illuminated reverse channel letter signs for the existing Spiaggia Ocean Condominium.
Town Planner Collins presented the item and is recommending approval.

Chair Lecour asked if any members of the public wished to speak on the item and seeing none the public hearing was closed.

Board Member Roller made a motion to approve. The motion received a second from Board Member Garcia and all voted in favor.

F. 9525 Carlyle Avenue - The applicant is requesting to convert their garage to approximately 260 square feet of additional living space.
Town Planner Collins presented the item and is recommending approval.

Chair Lecour asked if any members of the public wished to speak on the item and seeing none the public hearing was closed.

The Board discussed the item.

Vice Chair Frankel made a motion to approve with the following conditions:

1. No net decrease in windows.
 2. Irrigate planter or plant landscaping directly in the ground.
- The motion received a second from Board Member Roller and all voted in favor.

G. 8975 Hawthorne Avenue - The applicant is requesting fencing in the secondary front yard. A 4.0-foot-high wood fence is proposed.
Town Planner Collins presented the item and is recommending approval. Lisa Herman the applicant spoke on the item.

Chair Lecour asked if any members of the public wished to speak on the item and seeing none the public hearing was closed.

The Board discussed the item and Building Official Prieto provided information.

Board Member Glynn made a motion to approve with the following condition:

1. The applicant shall provide that it meets the 50% opacity requirement.
- The motion received a second from Board Member Fleck and all voted in favor.

Vice Mayor Daniel Gielchinsky attending as liaison entered at 6:41 p.m.

4. Quasi-Judicial Application:

A. 8995 Collins Avenue – Site Plan; Conditional Use for Hotel Pool and Alternative Parking System; Variances for Landscaping and Loading Space Size

Chair Lecour read the process and rulings of a quasi-judicial hearing.

The applicant attested that compliance with advertising notice requirements have been met. The Town Attorney asked the DRB and Planning and Zoning Board if anyone had ex-parte communications with the Applicant or any objector. Board Member Roller said he had spoken briefly with the applicant. All other Board members said no. Recording Clerk Duval swore in anyone who wished to speak on the item.

Town Planner Sinatra presented a brief synopsis of the item. Graham Penn representing the applicant spoke on the item and introduced members of the team. George Kousoulas, Justine Velez, and Kobi Karp architects for the project went through the overall plan with a slide presentation.

Chair Lecour opened the public hearing.

Public Speakers:

-Michael Marcell representing clients from the Surf Club spoke objecting to the project.

No one else wishing to speak the Chair closed the public hearing.

The Board discussed the item and the applicant answered questions posed by the Board. The Board discussed the dunes and traffic issues as it was a concern. Karl Peterson, Traffic Consultant from CGA, spoke about his traffic analysis. Jason Halpern gave details regarding public space and answered questions from the Board. There was further discussion regarding traffic issues.

Vice Mayor Gielchinsky attending as liaison exited at 7:15 p.m.

Board Member Fleck made a motion to continue the item next month, May 31, 2018 at 6:00 p.m. The motion received a second from Board Member Garcia and all voted in favor.

THIS SPACE INTENTIONALLY LEFT BLANK

5. Adjournment

There being no further business to come before the Design Review Board, Board Member Glynn made a motion to adjourn the meeting. The motion received a second from Vice Chair Frankel and all voted in favor. Meeting adjourned at 8:54 p.m.

Accepted this ____ day of _____, 2018

Chair Lindsay Lecour

Attest:

Sandra Novoa, MMC
Town Clerk



MEMORANDUM

To: Design Review Board
 Thru: Guillermo Olmedillo, Town Manager
 From: Sarah Sinatra Gould, AICP, Town Planner
 CC: Kathy Mehaffey, Town Attorney
 Date: May 31, 2018
 Re: 9513 Harding Avenue – Her Royal Household

The subject property is located at 9513 Harding Avenue and is within the SD-B40 zoning district. The applicant is requesting one (1) illuminated wall sign for the Her Royal Household business. The applicant is proposing a channel letter sign and logo to be illuminated by spotlight per Town Code.

Staff has reviewed the current application for consideration by the Design Review Board. In this report, Staff presents the following:

- Applicable Zoning Code regulations, along with the results of the review
- Staff Recommendation

STANDARDS / RESULTS

Town of Surfside Zoning Code, Applicable Requirements

Sec. 90-73

Signs	Permitted	Proposed
Area	25 square feet	15 square feet
Approved word content	Signs may include the following: <ol style="list-style-type: none"> 1) Trade name of establishment 2) Logo of the establishment 3) Nature of business, services rendered or 4) Products sold on premises. 	Sign consists of the trade name and logo
Prohibited Word Content	Signs may not include the following: <ol style="list-style-type: none"> 1) Phone numbers; 2) Any reference to price, except as provided in regards to “window sign.” 	No phone number No reference to price



Location	With the exception of theater marquees and V-box signs, no sign shall be erected so that any portion thereof shall project over a dedicated street or sidewalk or so that any portion thereof shall project more than five feet from any main building wall.	Sign does not project over the sidewalk or street.
Offset	Signs shall be off-set from the wall a minimum of one quarter inch to a maximum of two inches to permit water to flow down the wall face.	Letters are proposed to be offset 1/2 inch
Illumination	All signage, lettering, logos or trademarks shall be required to be lit with white illumination from dusk to dawn. The illumination may be either internal illumination or external illumination, however, all walls below the sign shall be illuminated with white wall wash LED lighting. It shall be located and directed solely at the sign. The light source shall not be visible from or cast into the right-of-way, or cause glare hazards to pedestrians, motorists, or adjacent properties.	Sign detail indicates that the sign will be illuminated externally per Town Code requirements.

RECOMMENDATION

Staff recommends approval subject to the following conditions:

- 1). At Building Permit, external illumination to be reviewed and verified that it meets the requirements of the Town Code.
- 2). The wall face shall be reconditioned and painted as necessary.



MEMORANDUM

To: Design Review Board
 Thru: Guillermo Olmedillo, Town Manager
 From: Sarah Sinatra Gould, AICP, Town Planner
 CC: Kathy Mehaffey, Town Attorney
 Date: May 31, 2018
 Re: 9571 Harding Avenue – Morelia Gourmet Paletas

The subject property is located at 9571 Harding Avenue and is within the SD-B40 zoning district. The applicant is requesting one (1) illuminated wall sign for the Morelia Gourmet Paletas business. The applicant is proposing a facelit channel letter sign and logo.

Staff has reviewed the current application for consideration by the Design Review Board. In this report, Staff presents the following:

- Applicable Zoning Code regulations, along with the results of the review
- Staff Recommendation

STANDARDS / RESULTS

Town of Surfside Zoning Code, Applicable Requirements

Sec. 90-73

Signs	Permitted	Proposed
Area	25 square feet	18 square feet
Approved word content	Signs may include the following: 1) Trade name of establishment 2) Logo of the establishment 3) Nature of business, services rendered or 4) Products sold on premises.	Sign consists of the trade name and logo
Prohibited Word Content	Signs may not include the following: 1) Phone numbers; 2) Any reference to price, except as provided in regards to “window sign.”	No phone number No reference to price



Location	With the exception of theater marquees and V-box signs, no sign shall be erected so that any portion thereof shall project over a dedicated street or sidewalk or so that any portion thereof shall project more than five feet from any main building wall.	Sign does not project over the sidewalk or street.
Offset	Signs shall be off-set from the wall a minimum of one quarter inch to a maximum of two inches to permit water to flow down the wall face.	Letters are proposed to be offset 2 inch
Illumination	All signage, lettering, logos or trademarks shall be required to be lit with white illumination from dusk to dawn. The illumination may be either internal illumination or external illumination, however, all walls below the sign shall be illuminated with white wall wash LED lighting. It shall be located and directed solely at the sign. The light source shall not be visible from or cast into the right-of-way, or cause glare hazards to pedestrians, motorists, or adjacent properties.	LED illuminated channel letters and logo are proposed

RECOMMENDATION

Staff recommends approval subject to the following conditions:

- 1) The wall face shall be reconditioned and painted as necessary.



Town of Surfside

Planning and Zoning Communication

Agenda Date: May 31, 2018

Subject: 8995 Collins Avenue
From: Guillermo Olmedillo, Town Manager
 Sarah Sinatra Gould, AICP, Town Planner

Table of Contents:

1. Site Plan Report
2. Development Impact Committee Report
3. Architecturally Significant Report
4. Conditional Use Report
5. Variance Report
6. Application and Letter of Intent
7. Traffic Engineering Staff Review Comments & Conflict Point Graphics
8. Site Plan Package

REQUEST:

The agent, Graham Penn, Esq., for the owner, Surf House Condominium Association, is proposing a site plan to renovate an existing nine story tower by adding three additional stories while renovating both the interior and exterior of the tower, located at 8995 Collins Avenue. The existing building located at 8995 Collins Avenue was constructed in 1966 and is known as the Surf House Condominium. The building was designed by Robert Jerome Filer in the "International Style," an architectural style that was one of the strains of the "MiMo – Miami Modern" movement of architecture. Three sides of the building contain a grid of repetitive window patterns in a structural concrete frame. The fourth (south side) is practically a blank wall that appears to have been designed that way in anticipation of a future adjacent building. The applicant is proposing to renovate the existing nine story building and add three additional stories while renovating both the interior and exterior. The proposed renovation and addition will include 55 condominium hotel units. The existing 36 units will be demolished.

The applicant submitted an application to the Planning and Zoning Board on March 13, 2017 requesting the building to be designated Architecturally Significant. The application was heard on April 27, 2017 and was deemed significant. The applicant then submitted a site plan application on May 19, 2017. Staff confirmed that the package was complete and scheduled a Development

Review Group (DRG) meeting for June 19, 2017. Comments were provided to the applicant at this meeting and the applicant revised the site plan. A second DRG meeting was held on August 24, 2017. Comments were provided to the applicant at that time. The plans were resubmitted and a final DRG was held on September 28, 2017. The application was heard by the Planning and Zoning Board on February 22, 2018. The Board voted to defer the application as it had concerns regarding traffic back up as a result from the triple stacked system and concerns as to how the application was meeting the architectural significance ordinance.

The application was resubmitted on March 29, 2018. The changes include adding a second parking lift, reducing the encroachment into the right-of-way and modifying the architecture. The application was heard on April 26, 2018. The Planning and Zoning Board indicated that there were still concerns regarding the traffic and deferred the application to the Planning and Zoning Board meeting of May 31, 2018. The applicant has since revised the valet operations analysis. The applicant provided an updated valet operations plan. This has been reviewed and staff has no further comments and staff's analysis on the report is attached. However, Staff is proposing the following conditions:

Conditions for Parking and Loading:

1. The parking system shall be staffed with a minimum of three valet operators at all times and shall have an additional valet operator staffed initially for six months after the development is opened.

Follow up Study

2. Traffic Data Collection will be by video data collection. The traffic data collection will be made at the 8995 Collins Avenue ingress and egress driveway location on 90th Street. Traffic counts will be collected at this driveway and the Surf Club driveway with 90th Street. The manual turning movement counts will be collected during the morning and evening peak hours.
3. Movement Counts shall also be collected at Collins Avenue and 90th Street signalized intersection.
4. Aerial Drone video footage will be collected along the 90th Street and 8995 Collins main driveway documenting the valet traffic operations and vehicular interactions within 90th Street during peak times on a weekday and weekend.
5. Field calculations of the valet operations will be taken and documented in the follow up study. This shall include the processing time for arriving and departing vehicles.
6. Evaluate vehicles stacking on 90th Street attempting to make eastbound left turn into Surf Club opening once the Surf Club is fully operational.

7. If the follow up study determines that the system is causing unacceptable traffic operations including but not limited to a negative impact on the safety of pedestrians and/or the reasonable flow of traffic on 90th Street because of the queuing of vehicles entering or exiting the system, the applicant shall be required to undertake modifications to the system or staffing to resolve the issue.

This application includes three variance applications, a right-of-way encroachment agreement and a conditional use application. The following describe the additional applications.

Variances

The applicant is requesting variances from the following sections of the code:

1. A. Section 90-82. – Off-street loading requirements (Loading Space Size).
Two spaces are required for a condominium or hotel. Only one full size (12-feet by 30-feet) off-street loading space is provided. A second off-street loading space is provided but is 9-feet by 25-feet which does not meet the space size requirement.
2. B. Section 90-91.2. – Required buffer landscaping adjacent to streets and abutting properties (Landscape Buffer).
A ten-foot buffer is required with three trees every 50 linear feet. On the 90th Street side of the property the required buffer and trees located within the applicant's property. Several of the required trees and portions of the buffer are provided off-site in the Right-of-Way which the applicant is requesting an encroachment agreement with the Town.
3. C. Section 90.93(1b). - Open Space (Open Space Trees).
One large tree (35 feet) for buildings over 75 feet in height is required per 25 linear feet of the building per each side for scaling and softening. All of the required large trees are not located within the applicant's property. Several of the required large trees are provided off-site in the Right-of-Way which the applicant is requesting an encroachment agreement with the Town.

Encroachment Agreement

The applicant is proposing to include 25 additional feet of Town property within their application to accommodate a vehicular drop off area and landscaping. They are proposing an encroachment agreement as the mechanism to address the encroachment. The applicant states that the result of the granting of the agreement is a loss of four feet in depth, 386 square feet, of public property, however the proposal eliminates the use of a significant portion of 90th Street and staff disagrees with the assessment of the loss. The encroachment usurps the Town's control of a stretch of 90th Street approximately 142'7" long and includes a significantly larger area than the applicant alleges.

The Valet Operational Plan narrative includes valet using both elevators and stacking vehicles in east-west area (up to three vehicles). The narrative in this plan discusses the limited need for the valet operators to make additional looped movements into 90th Street which will reduce the number of vehicle and pedestrian interaction on the south side of 90th Street. In essence the site has up to five vehicle stacking positions (as depicted in the figures) to use in the Valet Traffic Operations, not the three stacking positions that were originally reported.

Staff has further evaluated this request based on traffic engineering conflicts. Below are Staff's concerns:

1. The future 24-foot-wide pavement area restricts the maneuverability of vehicles dropping off individuals and/or families at the street end.
2. Potential concern of vehicles stacking on 90th Street attempting to make eastbound left turn into Surf Club opening. This will need to be evaluated as part of the post development study once Surf Club is fully operational. There is limited space available for queuing before stacking into the Collins Avenue signalized intersection.

To demonstrate the concerns, staff prepared the attached Conflict Point Drawing which shows the number of conflicts that could potentially occur within the 90th Street public right of way. Subsets of the overall Conflict Point Drawing were created that show all of the individual movements. This graphic also includes the Fire Rescue laddering area.

Conditional Uses

The project requires conditional use approval for the use of a hotel pool and an alternative parking lift system. The code requires an applicant to request conditional use approval when they are proposing a pool in connection with a hotel use. The proposed parking conditional use relates to the utilization of a triple stacked parking system. The code indicates that a parking lift can be utilized if one space is unencumbered, therefore resulting in a condition where only two vehicles can be stacked. The applicant is requesting that the Town consider an alternative program whereby three vehicles would be stacked.

The Development Impact Committee (DIC) met in an open, advertised, televised session on November 16, 2017 to discuss this application. The applicant proffered improvements to 90th Street, however, staff indicated that the Surf Club has already committed to improvements on 90th Street. Additional proffers have not been extended by the applicant.

The total gross acreage of the site is 1.16 acres, which would permit 116 units. The code requires a 15% reduction in density for aggregated properties, meaning, if a property is split between more than one site and the owner wants the benefit of amalgamating that property, the property will be subject to a 15% overall density reduction. This results in the permitted density of 99 units. The applicant is requesting to provide 55 condominium hotel units while demolishing the existing 36 units.

STAFF RECOMMENDATION

Recommendation: Staff recommends that the Planning and Zoning Board recommend denial of the site plan application, variances and conditional uses due to the following conclusions:

1. As discussed in the attached staff reports, the applicant has not demonstrated that the requests meet the Town Code requirements for the variances. or conditional use approval.
2. The site plan, without the significant variances, ~~the parking lift conditional use approval and~~ the use of Town right-of-way, does not meet the requirements of the Code.

3. ~~Providing space for only three vehicles in the drop off area of the driveway is not practical and may result in a spillover of vehicles into the right of way creating traffic congestion. This would allow for a site plan that only has space for three vehicles at the pickup and drop off area, while utilizing a triple lift system for parking. This has caused staff to be concerned about potential encroachment into the right of way for excess vehicles. Staff also has concerns with valet analysis performed which has not demonstrated de minimus impacts.~~
4. The encroachment agreement is not in the best interest of the public as it solely serves the private property owner and does not create a public benefit. The applicant is utilizing the encroachment area as the justification for the variance, which results in the need for the encroachment area to extend to the roadway.
5. ~~Staff has outstanding comments relating the traffic engineering and landscape review. See attached comments.~~

Budget Impact: The applicant has proposed a total of \$851,050 in proffers to the Town. These include the following:

1. Enhancements to the 90th Street Beach Access & Promenade by beautifying 90th Street from Harding Avenue to the beach including a sidewalk between Collins and Harding Avenues and landscaping. Also proposed is an enhanced promenade at the beach entry with decorative paving, a planted coral stone gateway with signage, benches and a shower. The amount proffered is \$686,050. Staff's review of the proposal indicates there is a conflict with the proposed improvements already proffered by the Surf Club, which results in duplicative improvements.
2. Two solar powered trashcans. The amount proffered is \$30,000.
3. Two diverter dunes at a location to be specified in the future. The amount proffered is \$20,000.
4. \$115,000 for the encroachment of the right-of-way.

Growth Impact: The project includes 55 condominium hotel units. The existing site has 36 units, resulting in a total of 19 more units than currently exist on site. Also, the existing building is a condominium while the proposed renovations result in the 55 units all being part of a condominium hotel. However, the property has a maximum density permitted of 99 units; therefore, based on the density alone, there are no negative impacts to level of service standards for traffic or public facilities within the Comprehensive Plan. The applicant is required to coordinate with the Miami-Dade School Board relating to School Impact Fees.

Staff Impact: The applicant has funded the review through the cost recovery process and the building permit review will be funded through the building permit fees.



Sarah Sinatra Gould, AICP, Town Planner



Guillermo Olmedillo, Town Manager

SITE PLAN REPORT

SITE PLAN INFORMATION:

Address	8995 Collins Avenue
General Location	East and west side of Collins Avenue, south of 90 th Street
Property Size	East Parcel: .83 gross acres West Parcel: .33 gross acres
Zoning District	East Parcel: H120 West Parcel: H40
Adjacent Zoning Districts	East Parcel: H120 to the north and south, H40 to the west West Parcel: H40 & H30 to the north, H40 to the south, H30C to the west, and H120 to the east
Future Land Use	East Parcel: High Density Residential/Tourist West Parcel: Moderate High Density Residential
Density Permitted	East Parcel: 109 units per acre = 90 units West Parcel: 79 units per acre = 26 units Total: 116 X 15% reduction = 99 units permitted
Number of units proposed	East Parcel: 55 dwelling/hotel units West Parcel: 0 dwelling units TOTAL: 55 units proposed, with 36 existing units being demolished
Number of parking spaces	East Parcel: 111 spaces West Parcel: 0 spaces TOTAL Provided: 111 spaces TOTAL Required: 108 spaces 100% triple mechanical lift parking proposed through a Conditional Use application.

ZONING CODE, APPLICABLE REQUIREMENTS

Sec. 90.42

Minimum Unit Sizes	Minimum Required	Proposed
One-bedroom	800 square feet	977 square feet
Two-bedroom	950 square feet	1,272 square feet
Three-bedroom	1150 square feet	2,240 square feet

Sec. 90.43

Maximum Building Heights	Maximum Required	Proposed
H120	120 feet maximum	120 feet
H40	40 feet maximum	0- lot to be sodded and fenced

Sec. 90.44

Modification of Height	Maximum Permitted	Proposed	Must be of high architectural quality integral to the design of the building
H120	20ft 30% of roof area	14 feet, 2 inches	The mechanical equipment, rooftop decks and parapet walls meet these criteria.

Sec. 90.45(b)

Setbacks	Minimum Required	Proposed	
H120	Front (Collins Avenue)	40 ft	26 ft, 11 inch – Per the project receiving architecturally significant designation
	Rear (Beach)	30ft	146 ft, 9 inches
	Setback from platted bulkhead line	20 ft	15 ft, – Per the project receiving architecturally significant designation
	Street Side	20 ft	10 ft – Per the project receiving architecturally significant designation
	Side	10 ft	10 ft
H40	Front (Collins Avenue)	20 ft	0 ft
	Side	10ft	0 ft
	Rear	10 ft	0 ft

Sec. 90.47

Yards generally, allowable projections	Required	Proposed
H120 - Projections of balconies features into required yards	Maximum 8 feet for front, secondary and rear and 5 feet for interior side	7 foot front encroachment and 7 foot 1 inch side encroachment – Per the project receiving architecturally significant designation

Sec. 90.49

Lot Standards	Required	Proposed
Minimum Lot width	50 feet	East Parcel: 73 ft West Parcel N/A – no development proposed
Minimum Pervious area	20%	East Parcel: 20% West Parcel: 100%

Sec. 90.50.1(2)

Architecture	Required	Proposed
All elevations for new structures and multi-story additions (additions greater than fifteen (15) feet in height)	Minimum of 10% wall openings including windows, doors or transitional spaces defined by porches, porticoes or colonnades.	East and west buildings both meet or exceed 10% wall openings
Roof materials are limited as follows:	<ul style="list-style-type: none"> a. Clay Tile; or b. White concrete tile; or c. Solid color cement tile which color is impregnated with the same color intensity throughout, provided said color if granted approval by the Design Review Board; d. Architecturally embellished metal if granted approval by the Design Review Board; or e. Other Florida Building Code approved roof material(s) if granted approval by the Design Review Board. 	Roof deck will include terraces for two private penthouses.

Sec. 90.50.2 (3)

Roof Deck Provisions	Required	Proposed
Roof Decks are limited to	a. Maximum 70% of the aggregate roof area;	62%
	b. Shall not exceed the maximum roof height required by any abutting property's zoning designation;	120 feet

	c. Minimum setback of 10 feet from the roofline on all sides	10 feet
--	--	---------

Sec. 90.67.2

	Required	Proposed
Underground utilities	All utilities including telephone, cable, and electrical systems shall be installed underground.	The lines are installed underground.

Sec. 90.77(c)

	Minimum Required	Proposed
Off-Street Parking	108 Spaces	East Parcel: 111, If requested variance is granted permitting triple stack parking lifts West Parcel: 0 TOTAL: 111

Sec. 90.83

Off-Street Loading	Minimum Required	Proposed
Hotel Greater than 100,000 sq ft	2	1 provided. Variance requested.

Sec. 90.91

Vegetative Provisions	Minimum Required	Proposed
Xeriscape in pervious area	50%	79%

Sec. 90.91.2

Buffers	
Landscape buffer adjacent to streets and abutting properties	Applicant has requested a variance.

Sec. 90.93

Open Space	
Landscaping along all buildings and structures, shrubs and trees required in open space	Applicant has requested a variance.

DEVELOPMENT IMPACT COMMITTEE REPORT

DEVELOPMENT IMPACT COMMITTEE MEETING

The Development Impact Committee (DIC)* met on November 16, 2017 to discuss the application for the 8995 Collins Avenue (“the Project”). The DIC meeting was attended by the following:

Staff Attendees: Guillermo Olmedillo, Town Manager
 Ross Prieto, Building Official
 Police Chief David Allen
 Kathryn Mehaffey, Town Attorney
 Randy Stokes, Public Works Director
 Duncan Tavares, Assistant Town Manager
 Tim Millan, Parks and Recreation Director
 Bill Tesauro, Landscape Reviewer
 Eric Czerniejewski, Traffic Engineer
 Sarah Sinatra Gould, Town Planner

Applicant Attendees: Achraf El Churafa, Ownership
 Graham Penn, Attorney, Bercow, Radell, Fernandez & Larkin
 Carly Koshal, Attorney, Bercow, Radell, Fernandez & Larkin
 Matt Picard, Architect, Kobi Karp
 George Kousoulas, Architect
 Camilo Tamayo, Architect
 Tom Hall, Traffic Engineering

Citizen Attendees (who signed in): None

***NOTE:** The DIC meetings are televised on the Town’s Channel 77 and are well on the Town’s website and posted on Town Hall.

The following were discussed:

1. Concerns with the encroachment into the right of way and the proposed encroachment agreement.
2. Concerns with the triple stacked parking system.
3. Concerns with the amount of space for vehicular and valet stacking of vehicles.
4. Applicant proposed improvements to 90th Street, however, the improvements conflicted with the Surf Club’s proposed improvements to the right-of-way.
5. The following proffers were made:
 - a. Enhancements to the 90th Street Beach Access & Promenade by beautifying 90th Street from Harding Avenue to the beach including a sidewalk between Collins and Harding Avenues and landscaping. Also proposed is an enhanced promenade at the beach entry with decorative paving, a planted coral stone gateway with signage, benches and a shower. The amount proffered is \$378,824. Staff’s review of the proposal indicates there is a conflict with the proposed improvements already proffered by the Surf Club, which results in duplicative improvements.
 - b. Two solar powered trashcans. The amount proffered is \$30,000.

- c. Two diverter dunes at a location to be specified in the future. The amount proffered is \$20,000.
- d. \$71,176 for the encroachment of the right-of-way.

ARCHITECTURALLY SIGNIFICANT REPORT



Date: 04-11-2018
Project Name: 8995 Collins Avenue Condo-Hotel
Permit Number: 08-1763.26
Project Address: 8995 Collins Avenue, Surfside, FL 33154

The proposed development for the subject property has been reviewed for compliance with Section 90-33(3) of the Town Code. The following review comments are based on the contents of this section within the context of a historically significant structure.

Sec. 90-33. – Alterations or enlargement of non-conforming structures.

- (3) Alterations or additions to architecturally significant buildings on H120 zoned lots that are nonconforming as to setbacks may follow existing building lines as long as the alteration or addition maintains the architectural integrity of the existing building. The lesser of the current code-required setback or the existing building line shall be deemed to be the required setback line.

Any redevelopment project undertaken under this subsection must comply with the Town's minimum finished floor elevation requirements for all portions of the building and further must be designed and developed in accordance with Leadership in Energy & Environmental Design (LEED) or Florida Green Building Coalition (FGBC) building design and construction standards.

Redevelopment projects seeking to utilize the setback exception of this subsection shall be limited to a total height of no more than twice the number of existing floors in a building, up to a maximum of 120 feet.

REVIEW COMMENTS FOR 90-33(3):

1. *The proposed alterations and/or additions are not within the existing building lines:*
 - a. *The addition of balconies extend the typical floor footprint approximately 5'-6" on the North side, 5,-0" on the South side, 6'-4" on the West side and 8'-0" on the East side. Although the proposed balconies are not within the existing building lines, they maintain the integrity of the existing building and constitute a desirable element that complements the residential use.*
2. *The proposed alterations and/or additions maintain the architectural integrity of the existing building:*
 - a. *The proposed arrangement for the new balconies emphasizes the verticality of the original structure. The introduction of vertical bands with no balconies break up the horizontal bands of the new balconies thus emphasizing the original structure's vertical orientation and creating a rhythm similar in proportions to the original fenestration. The clear glass balcony rail allows for the original building's*

vertical structural elements and the tall vertical glazing to be more prominent. This important design element, however, is not continuous from top to bottom. At the uppermost level, the balconies continue across some of the voids, thus breaking the continuity of the vertical bands from top to bottom.

- b. The replacement of all glazing and repetitive vertical fenestration at the openings between columns with full glass floor to floor sliders are now part of vertical elements separated by voids and secondary to the main vertical structural elements 9'-0" on center.*
- c. The proposed alterations maintain two very important and prominent elements that define the style of the existing building:*

- i. Arches*

The proposed alterations maintain the arches. The arches at the top of the building are one of the unique elements that characterize the original design. They culminate and unify the vertical structural elements. The combination of the arches and the horizontal roof line, similar in function to the entablature found in classical architecture above columns, bring together the arches and draw the eye to the top of the structure.

- ii. Plinth*

In the same manner that the arches are united by a horizontal element at the top of the structure, the plinth at the bottom brings together the base of the structural columns that support the arches and represents a transitional element that anchors the building façade to the ground.

REVIEW COMMENTS FOR 90-33(3)(a) Determination of Architectural Significance:

- a. A request for a determination of architectural significance representative of the MiMo/ Miami Modern architectural style has been made and properly submitted.*
- b. Staff has reviewed the analysis prepared by the property owner and has issued a recommendation stating that the building meets the town's standards of architectural significance.*
- c. After a Public Hearing, the Design Review Board has issued a determination of architectural significance.*

REVIEW COMMENTS FOR 90-33(3)(b) Alterations to Architecturally Significant Buildings:

- a. The revised proposed alteration or addition requires demolition or alteration in a manner that allows the building to remain architecturally significant; and*
- b. The proposed alteration or addition is designed in a manner that is compatible with the existing building with two exceptions:*
 - i. The continuous balconies at the uppermost level on the North and West elevations do not allow the vertical voids to be continuous.*
 - ii. The addition of a balcony on the South elevation's uppermost level.*

REVIEW COMMENTS FOR 90-33(3)(c) Site Plan Review for Architecturally Significant Buildings:

- a. The revised proposed alteration or addition requires demolition or alteration in a manner that allows the building to remain architecturally significant; and*
- b. The proposed alteration or addition is designed in a manner that is compatible with the existing building with two exceptions:*
 - i. The continuous balconies at the uppermost level on the North and West elevations do not allow the vertical voids to be continuous.*
 - ii. The addition of a balcony on the South elevation's uppermost level.*

CONCLUSION / RECOMMENDATION

The proposed alterations to the architecturally significant building at 8995 Collins Avenue, Surfside, Florida do not comply with the requirements of Section 90-33(3) of the Code of Ordinances of the Town of Surfside, Florida.

In order for the design to achieve compliance we recommend the following revisions:

1. Continue the vertical voids between the balconies at the uppermost level on the North and West elevations in order to emphasize the verticality.
2. Include in South elevation the doors to the stairs from the balcony at the uppermost level.

Based on this review, approval is recommended if the recommendations are incorporated into the design.

Respectfully,



Manuel Synalovski, AIA, NCARB, LEED AP
Managing Principal

CONDITIONAL USE REPORT

Request

The Applicant is requesting conditional use approval for an automated parking system that is not defined in subsection 90-77(f). The applicant is proposing a vertical parking lift for three vehicles which requires a conditional use. The applicant is also requesting conditional use approval for a pool. Code section 90-41(c) requires a conditional use application to be reviewed for pools associated with hotels.

Conditional Use Criteria

Section 90-23 of the zoning code provides standards of review for Conditional Uses. Conditional Uses are generally compatible with the other land uses permitted in a zoning district but, because of their unique characteristics or potential impacts on the surrounding neighborhood and the Town as a whole, require individual review as to their location, design, configuration, and/or operation for the particular use at the particular location proposed, as well as the imposition of individualized conditions in order to ensure that the use is compatible with the surrounding neighborhoods and appropriate at a particular location.

Town Code section 90-77(f) allows parking lifts that allow for the parking of two passenger vehicles. A parking lift space in a two-car parking lift may be counted as a parking space required by subsection 90-77(c), and shall not be subject to the minimum parking stall size requirements of subsection 90-81.1(1) provided that all of the following conditions are fulfilled:

(1) A traffic queuing analysis shall be submitted by the owner of the building for parking areas using parking lifts, for review and approval by the Town Manager, to ensure efficient processing times and queue lengths. The number of parking lifts permitted to be counted as required parking spaces shall be determined by the approved queuing analysis.

The Applicant has submitted a Traffic Analysis (8995 Collins Avenue Traffic Impact Study (Revised). The applicant updated the report after the April 26, 2018 Planning and Zoning Board meeting to staff's satisfaction. ~~Staff has reviewed the report and has concerns related to the limited vehicular staging area being proposed which only permits three vehicles at a time. The resubmitted application includes an additional lift to assist with vehicles leaving the property, however, Staff continues to have concerns over the fact that only three vehicles may be staged at the drop off.~~

(2) All parking lifts shall be located within a fully enclosed parking garage and shall not be visible from exterior view. No outside parking lifts shall be permitted.

The Applicant is proposing that all lifts will be located in a subterranean garage structure and will not be visible from the exterior.

(3) Parking lifts shall be permitted only when operated by an attendant or a licensed and insured valet parking company on a 24-hour/seven-days-a-week basis, to be confirmed by restrictive covenant to be recorded by the owner/applicant prior to establishment of the use.

The Applicant is proposing that all parking for the building will be provided via 24-hour valet service. Staff is proposing a condition if the application is approved that a minimum of three valets be required at all times with an additional valet for six months after the building is operational.

(4) No resident, guest, patron or customer of the building shall be permitted to operate the parking lift. A physical barrier shall be placed in the parking area to prohibit access to the parking lift area by residents, guests, patrons or customers of the building.

The Applicant has indicated that physical access to the basement will not be available to the general public including residents, guests, patrons or customers.

(5) All parking lifts shall be maintained and kept in good working order.

The Applicant is proposing to enter into a maintenance agreement with the manufacturer of the lifts prior to installation. Two lifts are proposed to accommodate ingress and egress.

(6) The parking lift platform must be sealed and of a sufficient width and length to completely cover the bottom of the vehicle on the platform to prevent dripping liquids or debris onto the vehicle below.

The applicant has indicated that the proposed lifts fully comply with this requirement.

(7) All lifts must be designed so that power is required to lift the car, but that no power is required to lower the car, in order to ensure that the lift can be lowered and the top vehicle can be accessed in the event of a power outage.

The applicant has indicated that the proposed lifts fully comply with this requirement.

(8) All parking lifts must be designed to prevent lowering of the lift when a vehicle is parked below the lift.

The applicant has indicated that the proposed lifts fully comply with this requirement.

(9) Ceiling heights of any parking level with parking lifts shall be a minimum of 14 feet 4 inches and sufficient to accommodate all types of passenger vehicles. Such required height shall be proposed in the traffic queuing study and approved by the town manager. There shall be no beams, plumbing, or sprinklers that lower or otherwise interfere with this clearance across the entire span of the parking space.

The height of the parking garage is proposed to be 19 feet which has been determined to be enough height for the parking lifts and associated vehicles. ~~However, Staff has reviewed the Traffic Analysis Report and has concerns related to the limited vehicular staging area being proposed which only permits three vehicles at a time.~~

(10) Noise and vibration barriers shall be utilized to ensure that surrounding walls decrease sound and vibration emissions outside of the parking garage.

The applicant has indicated that the parking garage with the lifts is below grade thus minimizing noise. They have not indicated if any other noise or vibration barriers will be utilized.

In addition to the standards set forth in this zoning code for the particular use, all proposed Conditional Uses shall meet each of the following standards. The responses to the criteria are in italics below:

- (1) The proposed use shall be consistent with the Comprehensive Plan and the Zoning Code;

The proposed use of the property as a hotel with parking lifts and pools is consistent with the Comprehensive Plan and Zoning Code.

- (2) The establishment, maintenance or operation of the proposed use shall not be detrimental to or endanger the public health, safety, or general welfare;

~~*All parking for the building will be provided via 24-hour valet service therefore limiting the possibility for public endangerment. The applicant has supplied information on the safe operation and continued maintenance of the proposed lifts. However, the limited stacking continues to create concerns regarding stacking and the potential for spillover into the street. The parking lift conditional use would allow for a site plan that only has space for three vehicles at the pickup and drop-off area, while utilizing a triple lift system for parking. This system stacks vehicles three high and is providing one lift for ingress and one for egress. This has caused staff to be concerned about potential encroachment into the right of way for excess vehicles.*~~

A pool is consistent with other properties within the zoning district and is not expected to be a detriment to public health, safety or welfare.

- (3) The proposed use shall be compatible with the community character of the immediate neighborhood. In addition to compatibility there must be congruity between the subject development and neighboring improvements and surroundings including but not limited to form, spacing, heights, setbacks, materials, color, rhythm and pattern of architectural or aesthetic interest or value as well as with any overlays and other development schemes or legislation.

The proposed building characteristics and pool are compatible with the community character of the immediate neighborhood. However, the site improvements being proposed are not congruent with other surrounding properties since the applicant is proposing to utilize the Town's right-of-way to meet site development standards for landscaping and access ways.

- (4) Adequate provisions shall be included for safe traffic movement, both vehicular and pedestrian, both internal to the use and in the area which will serve the use;

~~*It is staff's interpretation that there is not adequate area available at the drop-off and pick-up driveway for the ingress and egress of vehicles on the property. Staff's concern is if more than three vehicles are either arriving or departing, there would be spillover of cars into the right-of-way. The applicant has revised their valet operations plan and staff is satisfied with the analysis. However, the operations shall be analyzed after one year. Staff has provided a methodology for that evaluation.*~~

- (5) Adequate measures exist including landscaping or other buffering measures or shall be taken to mitigate any adverse effects of noise, light or other potential nuisances; and

The application includes two landscape variances. The code requires specific quantities of landscaping to be planted onsite. There is not adequate space from the existing building to the right of way line to plant the required landscaping. The alterations of the building will increase the non-conformity; therefore the project loses its non-conforming status and

will not be vested for the current landscaping. The applicant is proposing to permit off-site landscape improvements, immediately adjacent to the property in the surrounding public right-of-way. The quality and materials of the proposed landscaping would meet the code requirements if they were installed onsite. The parking lifts proposed are located in a subterranean garage structure and will not be visible from the exterior. This will limit noise, light and other potential nuisances. The hotel pool will be adequately landscaped and is not expected to negatively impact neighboring properties.

- (6) The establishment of the Conditional Use shall not impede the development of surrounding properties for uses permitted in the zoning district; and

The other surrounding properties are developed or under construction. Therefore, granting the conditional use will not impede the development potential of the neighboring properties.

- (7) Any other condition imposed by the Design Review Board and/or the Development Impact Committee.

This is at the discretion of the Board.

Recommendation: Denial

VARIANCE REPORT

Request

The applicant's request is for three variances which are needed in order to bring the property into compliance with the Town's Code while retaining the existing building lines of the architectural significant building. The applicant is also requesting approval of a Site Plan, Conditional Use, and an encroachment agreement for the property.

The following is a listing of the variances requested by the applicant:

A. Section 90-82. – Off-street loading requirements (Loading Space Size).

Two spaces are required for a condominium or hotel. Only one full size (12-feet by 30-feet) off-street loading space is provided. A second off-street loading space is provided but is 9-feet by 25-feet which does not meeting the space size requirement.

B. Section 90-91.2. – Required buffer landscaping adjacent to streets and abutting properties (Landscape Buffer).

A ten foot buffer is required with three trees every 50 linear feet. On the 90th Street side of the property the required buffer and trees are not able to be completely located within the applicant's property. Several of the required trees and portions of the buffer are provided off-site in the Right-of-Way which the applicant is requesting an encroachment agreement with the Town in order to maintain.

C. Section 90.93(1b). - Open Space (Open Space Trees).

One large tree (35 feet) for buildings over 75 feet in height is required per 25 linear feet of the building per each side for scaling and softening. All of the required large trees are not able to be completely located within the applicant's property. Several of the required large trees are provided off-site in the Right-of-Way which the applicant is requesting an encroachment agreement which would include also require the applicant to maintain the landscaping and trees in the Right-of-Way.

Variance Criteria

(1) Special conditions and circumstances exist which are peculiar to the land, structure, or building involved, and which are not applicable to other lands, structures, or buildings in the same zoning district;

The existing building was constructed in 1966. The code requirements have been modified since that time resulting in a non-conforming structure. The non-conforming code section states that a non-conformity may remain but cannot be enlarged or altered, unless the enlargement or alteration is conforming. The Town's Design Review Board has approved the existing building as Architecturally Significant under the terms of Town Code Section 90-33(3) which allows for the expansion to existing buildings in the H120 Zoning District based on previously established setbacks for the building. However, the Architecturally Significant designation does not exempt the building and property from other Code requirements such as parking, buffers and landscaping. The applicant is requesting to expand the existing building with three additional floors and increasing the number of units which does not meet the requirements or intent of the non-conforming code section. Pursuant to the requirements of the non-conforming section of the Town Code, alterations of the magnitude proposed by the applicant require that the site be brought into conformance with the Town Code. Thus, the applicant is requesting variances for the three items.

A. Section 90-82. – (Loading Space Size). The applicant is choosing to expand the non-conforming building so therefore the Code requirement for two loading spaces (12' x 30') must be met. The site plan includes one space at 12'x30' and another at (9'x25') which does not meet the size requirement of the Code. The lack of a second full size loading space could result in on-street loading and unloading. Other properties within the same zoning district would be required to meet the requirement.

B. Section 90-91.2. – (Landscape Buffer). The setback on the 90th Street side of property is 10 feet. The Code requires a 10-foot buffer with three trees every 50 linear feet. However, the applicant is choosing to relocate the entrance to the building and valet parking to the 90th Street side of the property thus resulting in the required buffer and trees not being completely located within the applicant's property. Several of the required trees and portions of the buffer are provided off-site in the Right-of-Way which the applicant is requesting an encroachment agreement with the Town in order to maintain. However, these areas, landscaped or otherwise, do not count toward the applicant's Landscape Buffer Code requirement. Other properties within the same zoning district would be required to meet the requirement on their property.

C. Section 90.93(1b). - (Open Space Trees). One large tree (35 feet) for buildings over 75 feet in height is required per 25 linear feet of the building per each side for scaling and softening. However, the applicant is choosing to relocate the entrance to the building and valet parking to the 90th Street side of the property thus resulting in all of the required trees not being able to be completely located within the applicant's property. Several of the required large trees are provided off-site in the Right-of-Way which the applicant is requesting an encroachment agreement with the Town in order to maintain. However, these areas, trees located in the Right-of-Way, do not count toward the applicant's required trees. Other properties within the same zoning district would be required to meet the requirement on their property.

(2) The special conditions and circumstances do not result from the actions of the applicant or a prior owner of the property;

The existing structure was developed under a different code, which is not the result of the applicant. However, as discussed under Variance Criteria (1) the applicant is choosing to make additions and alterations to the building which trigger a loss of the building's non-conforming status and thus the project must meet the requirements of the Town Code.

A. Section 90-82. – (Loading Space Size). The applicant is choosing to expand the non-conforming building so therefore the Code requirement for two loading spaces (12' x 30') is required. Therefore, the request is the result of the applicant.

B. Section 90-91.2. – (Landscape Buffer). The setback on the 90th Street side of the property is 10 feet. The Code requires a 10-foot buffer with three trees every 50 linear feet. However, the applicant is choosing to relocate the entrance to the building and valet parking to the 90th Street side of the property thus resulting in the required buffer and trees not being completely located within the applicant's property. Therefore, the request is the result of the applicant.

C. Section 90.93(1b). - (Open Space Trees). One large tree (35 feet) for buildings over 75 feet in height is required per 25 linear feet of the building per each side for scaling and softening. However, the applicant is choosing to relocate the entrance to the building and valet parking to the 90th Street side of the property thus resulting in all of the required trees not being able to be completely located within the applicant's property. Therefore, the request is the result of the applicant.

(3) Literal interpretation of the provisions of the Town Code deprives the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of the Town Code and results in unnecessary and undue hardship on the applicant;

The existing structure does not meet current Code requirements for setbacks. The building was found to be Architecturally Significant by the Design Review Board allowing expansion of the building with historic setbacks but not exempting the property from other Code requirements.

(4) The hardship has not been deliberately or knowingly created or suffered to establish a use or structure which is not otherwise consistent with the Town of Surfside Comprehensive Plan or the Town Code;

The original structure was built in 1966. It was not deliberately developed to be inconsistent with the Town. It was developed prior to the current Town Code requirements. The proposed project is to add three stories to the existing structure while maintaining the existing setbacks. The hardship has not been deliberately or knowingly created to establish an inconsistent project.

(5) An applicant's desire or ability to achieve greater financial return or maximum financial return from his property does not constitute hardship;

The applicant is requesting to add three stories to the existing structure. This will allow renovation as well as additional units. This will result in greater financial return.

(6) Granting the variance application conveys the same treatment to the applicant as to the owner of other lands, buildings, or structures in the same zoning district;

The original structure was built in 1966 under different Code provisions which allow for a greater floor area than is permitted by the current Code. Granting of the variances would provide the Applicant with special treatment than other owners of lands, buildings, or structures in the same zoning district.

(7) The requested variance is the minimum variance that makes possible the reasonable use of the land, building, or structure; and

The requested variances are not excessive and appear to be the minimum variance needed to accommodate the proposed site plan; however the property can be utilized as is and therefore the variances are a result of the proposed addition.

(8) The requested variance is in harmony with the general intent and purpose of the Town of Surfside Comprehensive Plan and the Town Code, is not injurious to the neighborhood or otherwise detrimental to the public safety and welfare, is compatible with the neighborhood, and will not substantially diminish or impair property values within the neighborhood.

The requested variances are generally in harmony with the intent and purpose of the Town of Surfside Comprehensive Plan and the Town Code, however the requests do not meet the Town Code requirements for approval and the variances would be injurious to the neighborhood and potentially detrimental to the public safety and welfare.

Recommendation: Denial

APPLICATION, LETTER OF INTENT AND APPENDIX

TOWN OF SURFSIDE

TOWN OF SURFSIDE

MAY 19 4:05 PM

TOWN OF SURFSIDE

TOWN OF SURFSIDE

MAY 21 3:51 PM

TOWN OF SURFSIDE



MAY 19 4:05 PM

DRB Meeting	___/___/20__
Application / Plans Due	___/___/20__

**TOWN OF SURFSIDE
MULTIFAMILY AND NON-RESIDENTIAL SITE-PLAN APPLICATION**

A complete submittal includes all items on the "Multifamily and Non-Residential Site-Plan Application Submission Checklist" document as well as completing this application in full. The owner and agent must sign the application with the appropriate supplemental documentation attached. Please print legibly in ink or type on this application form.

PROJECT INFORMATION	
OWNER'S NAME	Surf House Condominium Association, Inc.
PHONE / FAX	see agent
AGENT'S NAME	Graham Penn
ADDRESS	200 S. Biscayne Blvd., Suite 850 Miami FL 33131
PHONE / FAX	305 377 6229
PROPERTY ADDRESS	8995 Collins Avenue
ZONING CATEGORY	H-120
DESCRIPTION OF PROPOSED WORK	Site plan approval for expansion to existing multi-family building.

INTERNAL USE ONLY			
Date Submitted	_____	Project Number	_____
Report Completed	_____	Date	_____
Fee Paid	\$ _____		

ZONING STANDARDS	Required	Provided
Plot Size	X	X
Setbacks (F/R/S)	X	X
Lot Coverage	X	X
Height	X	X
Pervious Area	X	X

SIGNATURE OF OWNER _____ DATE 5/10/17

SIGNATURE OF AGENT _____ DATE 5/19/17

Vice President, Surf House Condominium Association, Inc.

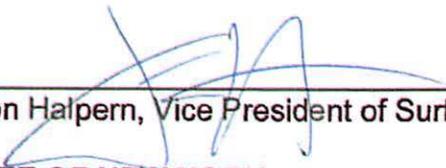
Town of Surfside – Multi-Family and Non-Residential Site Plan Application

Affidavit of Ownership

I, Jason Halpern, am over the age of 21 and otherwise am *sui juris*, and being duly sworn, allege and state:

1. I am the Vice President of the Surf House Condominium Association, Inc.
2. Surf House Condominium Association, Inc. (the "Owner") owns the Common Areas of the "Surf House" site identified by Miami Dade County Folio Reference Number 14-2235-022-0001 (the "Property").
3. The Property is located at the northeast and southeast corners of the intersection of 90 Street and Collins Avenue within the Town of Surfside, specifically identified by the address 8995 Collins Avenue.
4. The proposed redevelopment includes an expansion to the existing building and the creation of a new parking structure.

FURTHER AFFIANT SAYETH NAUGHT.



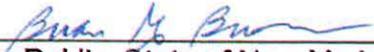
Jason Halpern, Vice President of Surf House Condominium Association, Inc.

STATE OF NEW YORK

COUNTY OF KINGS *Suffolk*

The foregoing instrument was acknowledged before me by Jason Halpern, Vice President of Surf House Condominium Association, Inc., who is personally known to me or has produced *Driver License* as identification.

My commission expires *8/14/18*



Notary Public, State of New York

BRIAN G. BROWN
Notary Public, State of New York
No. 01BR6151227
Qualified in Suffolk County
Commission Expires August 14, 20*18*



BERCOW RADELL FERNANDEZ & LARKIN
ZONING, LAND USE AND ENVIRONMENTAL LAW

DIRECT LINE: (305) 377-6229
E-MAIL: gpenn@brzoninglaw.com
www.brzoninglaw.com

May 8, 2018

VIA ELECTRONIC MAIL AND HAND DELIVERY

Sarah Sinatra, AICP
Town Planner
Town of Surfside
9293 Harding Avenue
Surfside, FL 33154

Re: Second Amended Letter of Intent for Site Plan, Conditional Use Approval for Automated Parking, Variances, and Vehicular Access Encroachment Agreement for 8995 Collins Avenue.

Dear Ms. Sinatra:

Our firm represents Surf House Condominium Association (the "Applicant") in connection with the redevelopment of 8995 Collins Avenue (the "Property"). As you know, the Property is currently developed with the Miami Modern-designed Surf House condominium. The Applicant proposes to expand the building under the terms of the newly adopted "architectural significance" criteria for existing buildings in H-120 zone. Please consider this letter the Applicant's amended letter of intent in support of its application seeking site plan approval, conditional use approval, variance approvals, and Town approval of a vehicular access agreement. Attached hereto is our Appendix, which includes back up materials to this letter.

The Property. The building was constructed in 1966 and was designed as the Surf House condominium by Robert Jerome Filer Architect in the "International Style," an architectural style that was one of the strains of the "MiMo" - Miami Modern movement. Three sides of the building contain a grid of repetitive window patterns in a structural concrete frame which is expressed on the exterior. The fourth or south facade is practically a blank wall. It appears to have been constructed to anticipate a future adjacent building height of at least the same height and width as 8995 Collins Avenue. Parking for the building has been located in the basement and across the street on a surface lot. The surface lot is not

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 2

a part of the instant application.

Recently, the Town's Design Review Board approved the building as the Town's first recognized "architecturally significant" building under the terms of Section 90-33(3). This section of the Town Code allows for expansions to existing buildings in the H-120 zone that rely on historic setbacks. The code does not, however, exempt architecturally significant buildings from landscaping requirements. Because of the constraints of the existing site, including narrow setback areas, full compliance with the Town's landscaping requirements is not possible.

The building has been used as a residential condominium since its original construction. Vehicular access to the building has historically either been from drop off in the travel lane of 90th Street (where the main pedestrian entrance to the building is located) or through Collins Avenue (where the entrance to the underground parking area is located). The building has become surrounded by newer development in recent years - including the larger Surf Club project to the north and a new residential tower under construction at 8955 Collins Avenue to the south.

Amended Development Plan. The Applicant proposes to develop a condominium hotel development of 55 units on the Property. The building is not proposed to include food or beverage uses at this time, so it will remain a low-impact use, generating minimal traffic or noise.

In response to comments from the Town's architectural consultant and the Design Review Board, the Applicant has made several changes to the design and operation of the development plan. Specifically, the Applicant has: (1) adjusted the proposed new balconies and made other architectural revisions to better reflect and emphasize the hallmark elements of the building's design; (2) modified the vehicular access plan to reduce the amount of 90th Street impacted by the proposed driveways; (3) added a second vehicle elevator to provide access to the basement parking proposed for the building; and (4) proposed an expanded and improved public pedestrian corridor along 90th Street, designed to provide access to the beach from Harding Avenue to the beachwalk. Tab E attached hereto includes an analysis of the development's consistency with the requirements of Section 90-33(3) of the Town's regulations.

(1) Amendments to the Architecture. In response to comments by the Design Review Board, the Applicant has revised the design in two major ways. In areas where the earlier presentation may have not fully conveyed the positive attributes of the existing building's design, the team has provided additional

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 3

enhancements to bring those elements to the fore. In response to the concerns of the Design Review Board regarding the original cornice of the building, we have redesigned elements of the façade to even more closely align with the observations of the Town’s architectural consultant. Balconies and their respective gaps have been aligned to stress the verticality of the building and its columns, leading the eye to the powerful arches and vaults of the cornice. The balconies themselves have been deemphasized through the use of a low-iron glass balustrade free of metal supports (the ability of this ultra-clear glass, used in this manner, to recede from view can be seen on a recently completed building in Sunny Isles).

(2) Amended Parking/Access. As with the previous design, the building will provide a dedicated parking entrance and drop off area along 90th Street, limiting vehicular impacts on Collins Avenue. The 90th Street drop off area will also provide loading space for daily delivery vehicles. Because of site constraints, the main loading area will need to be retained on Collins Avenue, but has been redesigned to limit its impacts by using turfblock and installing extensive landscaping. Because vehicles will be in the loading areas only sporadically, we believe that the proposed design is consistent with the goal of improving the Collins Avenue frontage while still providing the needed loading capacity.

Parking for the site will be provided underneath the building. Parking will be exclusively through a 24-hour valet service. The Applicant is proposing to access the subterranean parking through a car elevator system and provide the parking using “triple stacker” vehicle lifts. The lifts will be completely subterranean and therefore will create no noise or vibration audible outside of the building.

The introduction of a second vehicle elevator (See No. 3, below) has permitted a more coherent flow of inbound and outbound cars. The proposed elevators will be separated from each other and aligned with their respective curb cuts. The design creates efficient loading and unloading of the elevators and ensures that the vehicular movements related to one do not interfere with those of the other. As noted below, the Applicant has managed to make these changes while significantly reducing the impact on the public right of way, improving the pedestrian experience and enhancing safety.

(3) Second Elevator for Improved Functionality and Safety. As noted in the submitted traffic analysis, the parking system will allow for the efficient functioning of the operation and will not result in external impacts. The Applicant has revised the development plan so that two car elevators will serve the subterranean parking system.

This change has three major benefits: (1) it will provide additional capacity for the system in instances of high demand; (2) it will allow for redundancy in the event of a mechanical issue with one of the elevators; and (3) most important, it will reduce the potential impact on the public. In order to create a superior pedestrian experience, it is important to reduce the number of potential vehicular or pedestrian interactions as much as possible. The amended parking system for the site will meet that goal.

(4) Expanded Proposed Pedestrian Corridor. As before, the Applicant is proposing improvements to the beachwalk (the area from the street-end to the hardpack) and the 90th Street Right of Way. The latter is amended here to include small but important improvements to the section east of Collins and more substantial improvements to the section between Harding and Collins Avenues. The eastern leg sees the addition of landscaping on both sides of the sidewalk with trees planted along the street. The western leg takes the recent one-way test of this block and makes it a new streetscaped feature of the Town. Both legs will provide a substantial improvement to pedestrian access along 90th Street.

Parking Conditional Use Approval. As provided by Section 90-77(f), parking lifts are permitted in the Town subject to multiple operational conditions. The Code permits traditional two-vehicle tandem lifts "as of right," but requires all other parking systems to obtain conditional use approval. The Applicant is proposing to use a stacker system that allows for vertical stacking of three vehicles. Other than accommodating three vehicles, the proposed lifts have the identical function to traditional tandem lifts. The lifts also comply with all of the Town's codified requirements. The various standards are as follows:

- (1) *A traffic queuing analysis shall be submitted by the owner of the building for parking areas using parking lifts, for review and approval by the Town Manager, to ensure efficient processing times and queue lengths. The number of parking lifts permitted to be counted as required parking spaces shall be determined by the approved queuing analysis; and*

The Applicant has submitted the required traffic analysis.

- (2) *All parking lifts shall be located within a fully enclosed parking garage and shall not be visible from exterior view. No outside parking lifts shall be permitted; and*

All lifts will be located in a subterranean garage structure and will not be visible from the exterior.

- (3) *Parking lifts shall be permitted only when operated by an attendant or a licensed and insured valet parking company on a 24-hour/seven-days-a-week basis, to be confirmed by restrictive covenant to be recorded by the owner/applicant prior to establishment of the use; and*

All parking for the building will be provided via 24-hour valet service.

- (4) *No resident, guest, patron or customer of the building shall be permitted to operate the parking lift. A physical barrier shall be placed in the parking area to prohibit access to the parking lift area by residents, guests, patrons or customers of the building; and*

No physical access to the basement will be available to residents, guests, or patrons.

- (5) *All parking lifts shall be maintained and kept in good working order; and*

The Applicant will be entering into a maintenance agreement with the manufacturer of the lifts prior to installation.

- (6) *The parking lift platform must be sealed and of a sufficient width and length to completely cover the bottom of the vehicle on the platform to prevent dripping liquids or debris onto the vehicle below; and*

The proposed lifts fully comply with this requirement.

- (6) *All lifts must be designed so that power is required to lift the car, but that no power is required to lower the car, in order to ensure that the lift can be lowered and the top vehicle can be accessed in the event of a power outage; and*

The proposed lifts fully comply with this requirement.

- (7) *All parking lifts must be designed to prevent lowering of the lift when a vehicle is parked below the lift; and*

The proposed lifts fully comply with this requirement.

- (8) *Ceiling heights of any parking level with parking lifts shall be a minimum of 14 feet 4 inches and sufficient to accommodate all types of passenger*

vehicles. Such required height shall be proposed in the traffic queuing study and approved by the town manager. There shall be no beams, plumbing, or sprinklers that lower or otherwise interfere with this clearance across the entire span of the parking space; and

The height of the parking level meets and exceeds this requirement.

- (10) *Noise and vibration barriers shall be utilized to ensure that surrounding walls decrease sound and vibration emissions outside of the parking garage.*

Noise from the system will be minimized as it will be completely subterranean.

In sum, the proposed lifts meet all of the Town's requirements for a parking lift system. The location of the lifts below ground will render them invisible and inaudible from neighboring properties and the public right of way. The proposed system will allow for the provision of adequate parking within the constraints of the Property.

Conditional Use Criteria. In addition to the specific requirements for mechanical parking systems, the proposed lifts are consistent with the standard conditional use criteria of Section 90-23.2 as follows:

- (1) *The proposed use shall be consistent with the Comprehensive Plan and the Zoning Code;*

The proposed parking lifts will support a use permitted by both the Town's Comprehensive Plan and Zoning Code.

- (2) *The establishment, maintenance or operation of the proposed use shall not be detrimental to or endanger the public health, safety, or general welfare;*

The proposed lifts will allow for the efficient and safe parking of the building in a manner that will reduce risk to the public by limiting all parking activity to the Property. The amended system goes farther in reducing these impacts through the addition of a second car elevator.

- (3) *The proposed use shall be compatible with the community character of the immediate neighborhood. In addition to compatibility there must be congruity between the subject development and neighboring improvements and surroundings including but not limited to form, spacing, heights, setbacks, materials, color, rhythm and pattern of architectural or aesthetic interest or value as well as with*

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 7

any overlays and other development schemes or legislation.

The proposed lifts, located within the building, will be invisible to other properties or the public.

- (4) *Adequate provisions shall be included for parking and safe traffic movement, both vehicular and pedestrian, both internal to the use and in the area which will serve the use;*

As noted above, the lift and elevator system has been designed to safely and efficiently move vehicles in and out of the building. The amended plan represents a significant improvement in pedestrian safety.

- (5) *Adequate measures exist including landscaping or other buffering measures or shall be taken to mitigate any adverse effects of noise, light or other potential nuisances; and*

The impact of the lifts has been mitigated in the best way possible, by locating them underground.

- (6) *The establishment of the conditional use shall not impede the development of surrounding properties for uses permitted in the zoning district.*

The use of parking lifts will in no way limit the development of surrounding properties.

Operational Plan and Voluntary Additional Conditions Related to Parking and Loading. Attached to this letter is the Applicant's Valet Operational Plan, which includes narrative and illustrative descriptions of the proposed parking and valet system. The Operational Plan depicts the manner in which parking system will integrate within the existing development in the area. Special attention has been paid to the interaction of the proposed parking system with the Surf Club development, which shares 90th Street with the Property. As you will see from the Plan and the Applicant's associated traffic materials, we anticipate that the development will not create any issues with the functioning of 90th Street for both vehicular and pedestrian access. The Operational Plan also notes that the Applicant has agreed to the following additional conditions to be imposed on the operation:

- (1) The building owner or condominium association must maintain a service

contract with the manufacturer or manufacturer-approved service company at all times to ensure continued operation of the lifts and car elevator. Proof of the service contract must be provided to the Town annually.

- (2) The parking system must be staffed by the number of personnel of a licensed and insured valet parking company adequate to accommodate demand at all times. Proof of the valet service contract must be provided to the Town annually.
- (3) Maintenance on the car elevators or lifts shall take not place between 7:00 AM and 7:00 PM on weekdays and between 9:00 AM and 7:00 PM on Saturdays and Sundays.
- (4) The Applicant shall store replacement mechanical parts for the elevator system on the Property and shall retain a contract with an elevator repair company ensuring 24/7 service. Proof of the elevator service contract must be provided to the Town annually.
- (5) Within 365 days of the sale and/or lease of all of the units in the renovated building, the applicant shall provide the Manager with a report on the functioning of the parking system. If the report determines that the system is causing unacceptable negative impact on the safety of pedestrians and/or the reasonable flow of traffic on 90th Street because of the queuing of vehicles entering or exiting the system, the applicant shall be required to undertake modifications to the system or staffing to resolve the issue. These modifications may include the utilization of the existing parking lot at the NW corner of Collins Avenue and 90th Street for additional vehicular queuing. If the Town Manager determines, after reviewing the report, that no excessive vehicular queuing is occurring at the time of the report, no further reports will be required.
- (6) All mechanical parking lifts and/or the car elevators must be maintained and kept in good working order and must be inspected by a licensed mechanical engineer at least once annually.
- (7) No delivery or moving truck servicing the Property may be larger than a single unit truck.

Vehicular Access Encroachment Agreement. As noted above, the building has historically had limited vehicular access. Cars were obligated to enter and exit the site from Collins Avenue. That access may have been workable in the mid-

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 9

1960s but current conditions (and the Town's standards) demand that improved access, including a drop off area and loading space, be provided.

The Applicant has designed a revised vehicular entrance and stacking area along 90th Street. That design should result in a reduction in traffic issues along Collins Avenue and improve pedestrian safety. Because the building was designed with a very limited setback along 90th Street and the Applicant intends to keep that existing building line, designing the drop off area has been complicated. 90th Street may be a low-traffic "dead end" road, but the Applicant understands that queuing of vehicles in the street is unacceptable to the Town.

The Applicant had proposed that the Town accept an agreement permitting the use of a small sliver of right of way (1,288 square feet) for purposes of providing additional room for vehicle queuing and loading. Since the first hearing on the development, the Applicant has been able to significantly reduce the amount of 90th Street right of way impacted by the development to just 378 square feet.

Included in Tab A are drawings explaining the proposed agreement. The drawing labeled "Vehicular Access Encroachment Area" depicts the portion of right of way that the Applicant proposes to utilize to accommodate a portion of the project's vehicular stacking and loading. This thin strip of land is the minimum necessary to allow for a code compliant vehicular drive aisle in front of the building given its historical setbacks. The driveway access for the Property would simply not function without the use of the proposed strip.

We understand that the proposed agreement is a new concept in the Town. Similar agreements are used throughout South Florida. In our experience, these agreements are especially useful in situations such as the instant application, where existing building setbacks do not permit sufficient room to accommodate more modern access standards.

New Pedestrian Corridor. As noted above, the Applicant is proposing a series of off-site improvements, focused on creating a superior pedestrian experience for Town residents accessing the beach. The Applicant is proposing the creation of a pedestrian corridor from Harding Avenue to the beach that will include widened sidewalks, more parking, and new landscaping along the 90th Street roadway. The proposed design is attached as Tab B.

The south side of 90th Street between Collins and the street end has been redesigned to favor the Town's pedestrians, with an improved sidewalk that will be buffered on both sides by landscaping. The ultimate goal of the design is to

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 10

provide Town residents with an attractive and safe pedestrian accessway to and from the beach.

As with similar beach-facing street ends in the Town (96th, 95th, 94th Streets), the revised design of 90th Street would reduce the roadway to 24 feet to allow for additional room for pedestrians and landscaping. The Town has historically recognized that re-focusing these street ends from cars to pedestrians benefits the public and has used redevelopment of adjacent H-120 sites as a mechanism to reach this end. The proposed modifications to 90th Street takes that effort one step further, providing a pedestrian-focused experience from Harding to the hardpack.

As you will note, the proposed pedestrian corridor design assumes that 90th Street will be reduced to a "one way" road between Harding and Collins Avenues. That change will have several significant benefits to the public: (1) it will allow for the creation of a generous landscape strip on the south side of the road (which now cannot be accommodated); (2) it will provide for the introduction of a sidewalk on the north side of the road (where none exists); (3) it will establish sufficient room for public parallel parking on both sides of the road, providing spaces for both immediately adjacent residents and for beachgoers; and (4) it will provide a significant public safety benefit (by both protecting pedestrians and encouraging vehicles to slow down).

If approved by the Town and following the issuance of all necessary governmental approvals, the Applicant will construct the new pedestrian corridor improvements. The Applicant has further agreed to perpetually fund the maintenance of the newly installed improvements within the right of way east of Collins Avenue and the landscape improvements within the right of way west of Collins Avenue. The Applicant's commitment to fund the maintenance of the newly installed landscaping between Harding and Collins will relieve the adjacent property owners of that responsibility and ensure that the entire pedestrian corridor is well landscaped in perpetuity.

Variations. Retaining the existing building lines of the architectural significant building has come at some cost to the flexibility of design for the Property. In fact, it has resulted in the need for several technical variances of the Town Code. As shown on the "Variance Summary" (Tab C), the existing building line of the architecturally significant building is simply too close to the northern property line to accommodate the modern loading and landscaping requirements of the Town on the site.

The Applicant has attempted to mitigate the impact of each variance,

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 11

including by planting trees that cannot “count” for zoning purposes and providing a loading area for daily delivery vehicles that, while effective, does not meet the Town’s technical size requirements. All of the required trees are being provided, with trees located both within the Property and in the 90th Street right of way.

The Applicant has recognized the following variances:

(1) Sec. 90-82. - Off-street loading requirements.

Two spaces are required for a condo/hotel. One full size space is provided; a second provided space does not meet the Town’s size requirements.

As noted above, the Applicant has included one very large space that will allow for “move in” and garbage pick-up, and one daily delivery space. The daily delivery space is sized at 9’ by 25’ and does not meet the Town’s size requirements. That space is further partially located within the Vehicular Access Encroachment Area, hence the need for the requested variance.

(2) 90-91.2 Required buffer landscaping adjacent to streets and abutting properties.

Three trees are required for each 50 linear feet under the terms of Section 90-91.2. Because of the narrowness of the setback of the building footprint, there is simply not enough planting room for all of the required trees along 90th Street within the Property. The Applicant is proposing to provide all three of the required trees, using both the Property and portions of the right of way. Therefore, the benefits of the required tree planting to the public will still be provided.

A minimum ten-foot-wide landscape strip is also required, not including overhands or awnings around all the buildings. There is simply not enough room to fit the full ten-foot-wide strip along the 90th Street property line while still providing for access to the building. The Applicant will still be providing more than sufficient open space in the design and adjacent parcels will still be buffered thanks to the pedestrian corridor landscaping.

(3) Sec. 90-93. - Open Space

One large (35’ foot) tree per 25 linear feet of each building on all sides for scaling and softening.

There is simply not enough room to fit all of these large required trees on the Property in a manner that will allow the trees to reach their natural size.

The Applicant is proposing to provide all eight of the required trees, using both the Property and the trees proposed for the 90th Street pedestrian corridor.

Variance Standards. Section 90-36(8) of the Town Code provides that variances may be approved based on a showing that:

- a. *Special conditions and circumstances exist which are peculiar to the land, structure, or building involved, and which are not applicable to other lands, structures, or buildings in the same zoning district;*

All of the requested variances are created by the need to accommodate a modern development on a narrow site while still complying with the spirit of Section 90-33. Development of the Property under both the architecturally significant building regulations and the Town's modern zoning requirements is essentially impossible without the modest variances requested herein.

- b. *The special conditions and circumstances do not result from the actions of the applicant or a prior owner of the property;*

The special conditions and circumstances presented here are due to the confluence of several factors - the size of the Property, the existing development on the site, the terms of Section 90-33 as applied to architecturally significant buildings, and the Town's current regulations.

- c. *Literal interpretation of the provisions of the zoning code deprives the applicant of rights commonly enjoyed by other properties in the same zoning district under the terms of the zoning code and results in unnecessary and undue hardship on the applicant;*

See below for full discussion of the hardship issue.

- d. *The hardship has not been deliberately or knowingly created or suffered to establish a use or structure which is not otherwise consistent with the town comprehensive plan or the zoning code;*

As noted above, the hardship at issue here was not created by the Applicant; it was further not knowingly created by the Town. The proposed use of the Property will be consistent with the

comprehensive plan and all other requirements of the zoning code.

- e. An applicant's desire or ability to achieve greater financial return or maximum financial return from his property does not constitute hardship;*

The hardship created in the instant application is not economic.

- f. Granting the variance application conveys the same treatment to the applicant as to the owner of other lands, buildings, or structures in the same zoning district;*

The approval of the requested variances will allow the Property to be developed in the same manner as similarly-situated parcels in the H-120 zone. The Applicant is not obtaining a special benefit.

- g. The requested variance is the minimum variance that makes possible the reasonable use of the land, building, or structure; and*

Development of the Property under the terms of Section 90-33 would simply be impossible without the requested variances.

- h. The requested variance is in harmony with the general intent and purpose of the town comprehensive plan and the zoning code, is not injurious to the neighborhood or otherwise detrimental to the public safety and welfare, is compatible with the neighborhood, and will not substantially diminish or impair property values within the neighborhood.*

As explained above, the proposed variances would not lead to the "real world" reduction in open space, loading capacity, or landscaping. The requested variances will therefore create no negative impact on the public interest and will allow for development that is in harmony with the surrounding neighborhood.

Undue Hardship. When reviewing the hardship issue in this case, it is important to remember that this site is in a unique circumstance. Not only is the site unusually narrow, it is developed with a building that the Town has deemed to be architecturally significant. Under the terms of Section 90-33 of the Town's regulations, the Applicant may retain the existing building lines of the structure. Unfortunately, Section 90-33 does not exempt the Applicant from the Town's modern landscaping or loading requirements, both of which are very different

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 14

from the standards in place when the existing building was designed and constructed. As explained above, there is simply not enough room between the existing northern building line of the structure and the northern property line to fully accommodate all of the trees and a second full size loading space.

The conclusion that this site and application represent a hardship that can support the requested minor variances is consistent with other major examples in variance law. Courts have also concluded that the unique limitations on parcels imposed by historic preservation regulations can support a finding of undue hardship. In the seminal case of United Unions Inc. v. District of Columbia Board of Zoning Adjustment, the District of Columbia Court of Appeals concluded that the historic nature of a property and/or the structures on the property may alone create a hardship upon which a variance may properly be supported. 554 A.2d 313 (D.C. Appeals 1989).

The United Unions case centered on a development application filed for an expansion to the Corcoran Gallery of Art, a designated historical landmark in the District of Columbia. In order to augment the Gallery's revenues, the Trustees of the Corcoran filed an application to develop a new seven-story office addition to the building on adjacent vacant land. The development of the new addition necessitated the approval of variances. In reviewing a challenge to the variance approval filed by adjacent property owners, the United Unions court held that the fact that the Corcoran Gallery was a historic structure created special conditions that supported the finding that unnecessary hardship would be created by the failure to grant the variances.

The instant application presents an analogous situation to the example cited above. The requested variances have been necessitated by the Town's determination that the existing building lines should be maintained in order to encourage the adaptive redevelopment of a building that has architectural value to the Town. Development within the existing building lines simply does not leave sufficient room for the trees and loading space on the Property. In order for Section 90-33 to have any reasonable application on the Property, these minor variances will be needed.

Green Building. As contemplated by Section 90-33 of the Town's regulations, the proposed redevelopment is being designed to meet the requirements of the "Florida Green High-Rise Residential Building Standard." The Applicant's worksheet is attached as Tab D.

Additional Off-Site Improvements. The Applicant has been in active discussions with the Town administration regarding a package of potential off-site

Sarah Sinatra, AICP
Town Planner
Town of Surfside
May 8, 2018
Page 15

improvements beyond the 90th Street pedestrian corridor. We expect those discussions to continue. At minimum, however, the Applicant has already committed to a value of improvements and direct financial mitigation to the Town in the amount of \$850,000.

Conclusion. We look forward to your review. If you have any questions or concerns regarding this letter, please do not hesitate to phone my direct line at (305) 377-6229 or send me an email at gpenn@brzoninglaw.com.

Sincerely,



Sarah Sinatra
Graham Penn



**APPENDIX TO LETTER OF INTENT FOR 8995
COLLINS AVENUE**

MATERIAL

TAB

Draft Vehicular and Pedestrian Access Agreement
and Exhibits

A

Additional Proposed Off-Site Improvements

B

Variance Summary

C

Draft Florida Green Checklist for Development

D

Analysis for Architectural Significance

E

A

VEHICULAR AND PEDESTRIAN ACCESS AGREEMENT

THIS AGREEMENT, made on this ___ day of _____, 2018, between the Town of Surfside (the “Town”) and the Surf House Condominium Association, Inc. (the “Owner”).

WITNESSETH

WHEREAS, the Owner is the owner of the common areas of the Surf House Condominium residential property (the “Property”) located at 8995 Collins Avenue, Surfside, Florida, which is legally described in Exhibit “A” attached hereto and abuts the 90 Street right of way; and

WHEREAS, the Owner has proposed to develop vehicular and pedestrian access improvements, as well as landscaping, within a portion of the right of way of 90th Street (the “Improvement Area”) depicted in Exhibit “B” hereto; and

WHEREAS, the Owner has proposed to utilize a portion of the Improvement Area, described as the “Vehicular Access Area” and depicted on Exhibit “C” hereto, for non-exclusive vehicular and pedestrian access to the Property and for loading purposes; and

WHEREAS, at its regular meeting on _____, 2018, the Mayor and Town Commission approved Resolution No. 2018-XXXX granting a Revocable Permit to Owner to retain the aforesaid improvements on the Town property; said Resolution attached and incorporated as Exhibit “C” hereto; and

WHEREAS, the Owner and the Town desire to memorialize the Owner’s commitments to install and maintain the improvements within the Improvement Area; and

WHEREAS, the Owner and the Town desire to memorialize the terms under which the improvements within the Vehicular Access Area will be required to be removed; and

WHEREAS, the Town, for and in consideration of the restrictions and covenants herein contained, hereby permits the use of the Vehicular Access Area as described herein.

NOW THEREFORE, Town and Owner, in consideration of the mutual covenants and agreements herein contained, agree as follows:

ARTICLE I

IMPROVEMENTS BY OWNER IN IMPROVEMENT AREA

Subject to the issuance of the appropriate approvals from all responsible government agencies, the Owner shall install the following improvements within the Improvement Area:

1. Lighting;
2. Landscaping;
3. Pedestrian sidewalk;
4. Town-approved street signage, directional signage, beach access signage, and similar signs (excluding private signage); and
5. Vehicular drives and loading as described in Article II.

The Owner shall have sole responsibility for obtaining all regulatory approvals, permits or licenses required for the placement of the improvements upon the Improvement Area. The improvements shall be installed and open for use prior to the issuance of a certificate of occupancy for the first new residential unit on the Property.

ARTICLE II

USE OF VEHICULAR ACCESS AREA BY OWNER/ IMPROVEMENTS

Subject to the issuance of the appropriate approvals from all responsible government agencies, the Owner shall use that portion of the Improvement Area designated as the Vehicular Access Area for the installation, maintenance, and construction of vehicular drop-off areas, drives, and a single loading space as depicted on Exhibit "C." These improvements shall serve the Property.

No other Improvements(s) of any kind shall be made to the Vehicular Access Area without the prior written consent of the Town. Parking for the Property shall be served by valet at all times. At no time will vehicles be permitted to block public pedestrian access. No vehicles from the Property will be permitted to park on any portion of the Improvement Area outside of the Vehicular Access Area. The vehicular drop off areas and drive installed by the Owner shall be removed from the Improvement Area at the expiration or termination of this Agreement. Removal by the Town of the improvements serving the Property made by the Owner or portions thereof shall be at the sole expense of the Owner and governed by Article IX hereunder.

ARTICLE III

CONDITION OF PREMISES AND MAINTENANCE

The Owner, at its own expense, shall cause the improvements within the Improvement Area to be in a state of good condition from the date of the installation of the improvements. The Owner shall maintain and keep the improvements and the Improvement Area in a safe, clean condition, free of refuse and debris. Determination of the condition of the improvements and of the Improvement Area shall be made by the Town.

ARTICLE IV

INDEMNIFICATION

Owner agrees that it will indemnify, hold and save the Town, their officers, agents, contractors and employees whole and harmless and at Town's option defend same, from and against all claims, demands, actions, damages, loss, cost, liabilities, expenses and judgments of any nature recovered from or asserted against Town on account of injury or damage to person or property to the extent that any such damage or injury may be incident to, arise out of, or be caused, either proximately or remotely, wholly or in part, by any act, omission, negligence or misconduct on the part of Owner or any of its agents, servants, employees, contractors, guests, licensees or invitees or of any other person entering upon the Improvement Area used hereunder with the express or implied invitation or permission of Owner, or when any such injury or damage is the result, proximate or remote, of the violation by Owner or any of its agents, servants, employees, contractors, guests, licensees or invitees of any law, ordinance or governmental order of any kind, or when any such injury or damage may in any other way arise from or out of the use by Owner, its agents, servants, employees, contractors, patrons, guests, licensees or invitees of the Improvement Area used hereunder, or arises out of any action challenging the granting or legality of the Town's Revocable Permit. Owner covenants and agrees that in case Town shall be made party to any litigation against Owner, or in any litigation commenced by party against any party other than Owner, it shall and will pay all costs and expenses, including reasonable attorney's fees and court costs, incurred by or imposed upon Town by virtue of any such litigation, including appeals.

ARTICLE V

NO LIABILITY FOR PERSONAL PROPERTY

All personal property placed or moved on the Improvement Area shall be at the risk of the Owner or the owner thereof. The Town shall not be liable to the Owner or owner for any damage to said personal property.

ARTICLE VI

TOWN'S RIGHT OF ENTRY

The Town or any of its agents, shall have the right to enter upon the Improvement Area at any time for the purpose of inspecting the Improvements and/or the Improvement Area, or to gain access to or repair any utilities located within any Town easement. Such right of entry shall, likewise, exist for the purpose of removing structures, improvements, alterations or landscaping that do not conform to this Agreement. Any removal of the above, or damage to the allowed improvements made by the Town and necessitated by the Owner's use of said Improvement Area, shall be at the sole expense of the Owner. Further, the Town shall not be responsible for the restoration of the Improvement Area, its fixtures, fences, walls, or landscaping, in the event such are damaged or removed by the Town in order to inspect, repair or gain access to its utilities located on the land which is the subject of this Agreement. Additionally, any expenses incurred by the Town, but not paid by the Owner, in removing such improvements or landscaping shall become a lien upon the Property, which may be foreclosed within one year of its filing.

ARTICLE VII

NOTICES

All written notices transmitted between Town and Owner shall be addressed to:

To Owner: Surf House Condominium Association, Inc.
Attn: President
8995 Collins Avenue
Surfside, FL 33154

with copies to:

To Town: Town of Surfside
Attn: Town Manager
9293 Harding Avenue
Surfside, FL 33154
(305) 861-4863 - telephone
(305) 861-1302 - facsimile

with copies to: Town of Surfside
Attn: Town Attorney
9293 Harding Avenue
Surfside, FL 33154
(305) 861-4863 - telephone
(305) 861-1302 - facsimile

All notices mailed to either party shall be deemed to be sufficiently transmitted if sent by certified mail, return receipt requested and shall constitute sufficient notice to the Town to comply with the terms of this Agreement.

ARTICLE VIII
RECORDING AND TERM

This Agreement shall be recorded in the Public Records of Miami-Dade County, Florida, at the cost of the Owner. The Agreement shall remain in full force and effect and shall be binding upon the parties, their successors in interest and assigns for an initial period of thirty (30) years from the date this instrument is recorded in the public records, and shall be automatically extended for successive periods of ten (10) years, unless modified, amended or released prior to the expiration thereof.

ARTICLE IX
TERMINATION

The Owner's use of the Vehicular Access Area will terminate upon the earliest of the following:

1. The Town Council determines, after a public hearing, that the Owner's use of the Vehicular Access Area is causing an unacceptable negative impact on the safety of pedestrians and/or the reasonable flow of traffic on 90th Street.

2. The Town Council determines, after a public hearing, that the Owner is in breach of the maintenance requirements of Article III of this Agreement.
3. The Owner notifies the Town that, due to changes in the use or development of the Property, that the Vehicular Access Area is no longer necessary for the appropriate functioning of the Property. The Owner shall provide evidence to the satisfaction of the Town Manager that the Property can be properly and safely accessed without the encroachment.

Prior to setting a public hearing on termination, the Town shall give written notice of any alleged default to the Owner. The Owner shall have a period of thirty (30) days following receipt of such notice in which to remedy the default (or such longer time as may be necessary and reasonable, provided the Owner shall have commenced a cure within said thirty (30) day period and is diligently and continuously prosecuting same to completion).

ARTICLE X

SURRENDER OF PREMISES

At the termination of this Agreement, the Owner shall, without demand, quietly and peaceably deliver possession of the Vehicular Access Area free of any walls, fences or other like fixtures or Improvements. The Owner shall be responsible for the expenses of putting the Vehicular Access Area in said condition. If said Premises are not in such condition, at the expiration or cancellation of this Agreement, the Owner hereby agrees that the Town shall have the right to restore the Vehicular Access Area to such condition. The Owner agrees to reimburse the Town for all such expenses within thirty (30) days of mailing of a statement to the Owner at the address indicated in Article VII. If not so paid, the expenses incurred by the Town in so doing shall become a lien upon the Owner's abutting property and/or leasehold and may be foreclosed within one year from the filing of such a lien, or the Town, at its option, may seek such other remedies as may be allowable by law. Upon the termination of the Agreement and the restoration of the Vehicular Access Area, the Owner shall have no further obligations under this

Agreement, including, but not limited to, the maintenance of any improvements in the Improvement Area.

IN WITNESS WHEREOF, the parties have hereunto executed this Agreement for the purposes herein expressed the day and year first above written.

ATTEST:

TOWN OF SURFSIDE

Sandra Novoa, Town Clerk

Daniel Dietch, Mayor

OWNER

Witness

Signature

Print Name

Print Name

Witness

Print Name

EXHIBIT A

Legal Description – Residential Tract

Lots 1 and 2, Block 1-A of the Second Amended Plat of Normandy Beach Subdivision, Plat Book 16, Page 44 of the Official Records of Miami-Dade County, Florida

AND

A Parcel of land lying Easterly of and adjacent to Lots 1 and 2, Block 1-A, SECOND AMENDED PLAT OF NORMANDY BEACH, according to the plat thereof recorded in Plat Book 16, Page 44 of the Public Records of Miami-Dade County, Florida and Westerly of the Erosion Control Line as shown on the "Erosion Control Line" according to the plat thereof as recorded in Plat Book 105 at Page 62 of the Public Records of Miami Dade County, more particularly described as follows:

Begin at Northeast Corner of said Lot 1 and 2, thence run North $86^{\circ}50'51''$ East along the Easterly extension of the North Line of said Lots 1 and 2 for a distance of 93.90 feet to a point on the Erosion Control Line as shown on said Plat Book 105 at Page 62; thence run South $05^{\circ}37'30''$ East, along said Erosion Control Line, for a distance of 72.83 feet to a point on the Easterly extension of the South line of said Lots 1 and 2; thence run South $86^{\circ}50'51''$ West, along the aforesaid Easterly extension of said Lots 1 and 2, for a distance of 93.40 feet to the Southeast corner of said Lots 1 and 2; thence run North $06^{\circ}00'58''$ West, along the Easterly line of said Lots 1 and 2, for a distance of 72.85 feet to the Point of Beginning.

8995 Collins - Improvement Area

EXHIBIT A

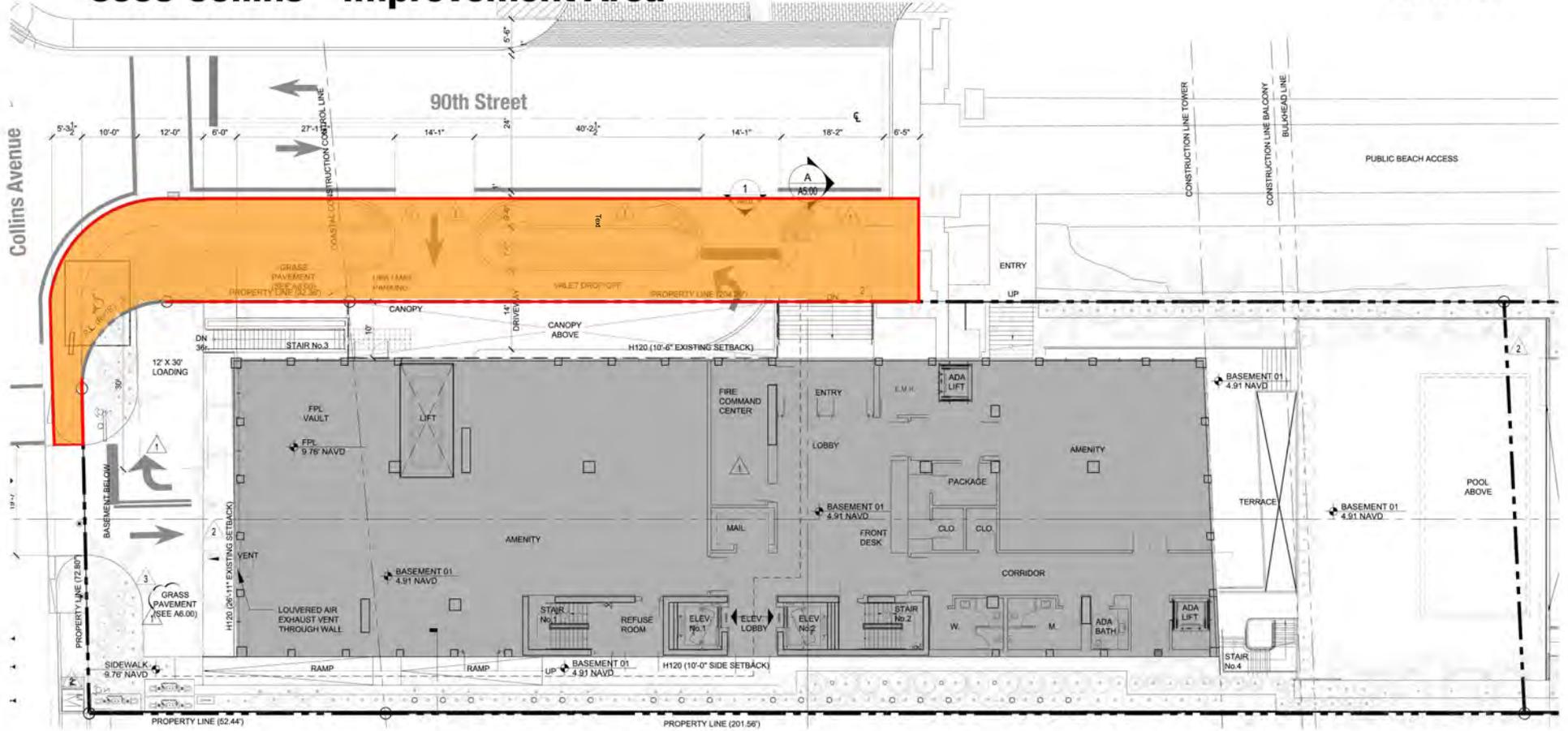


Exhibit B

8995 Collins - Vehicular Access Area

EXHIBIT B

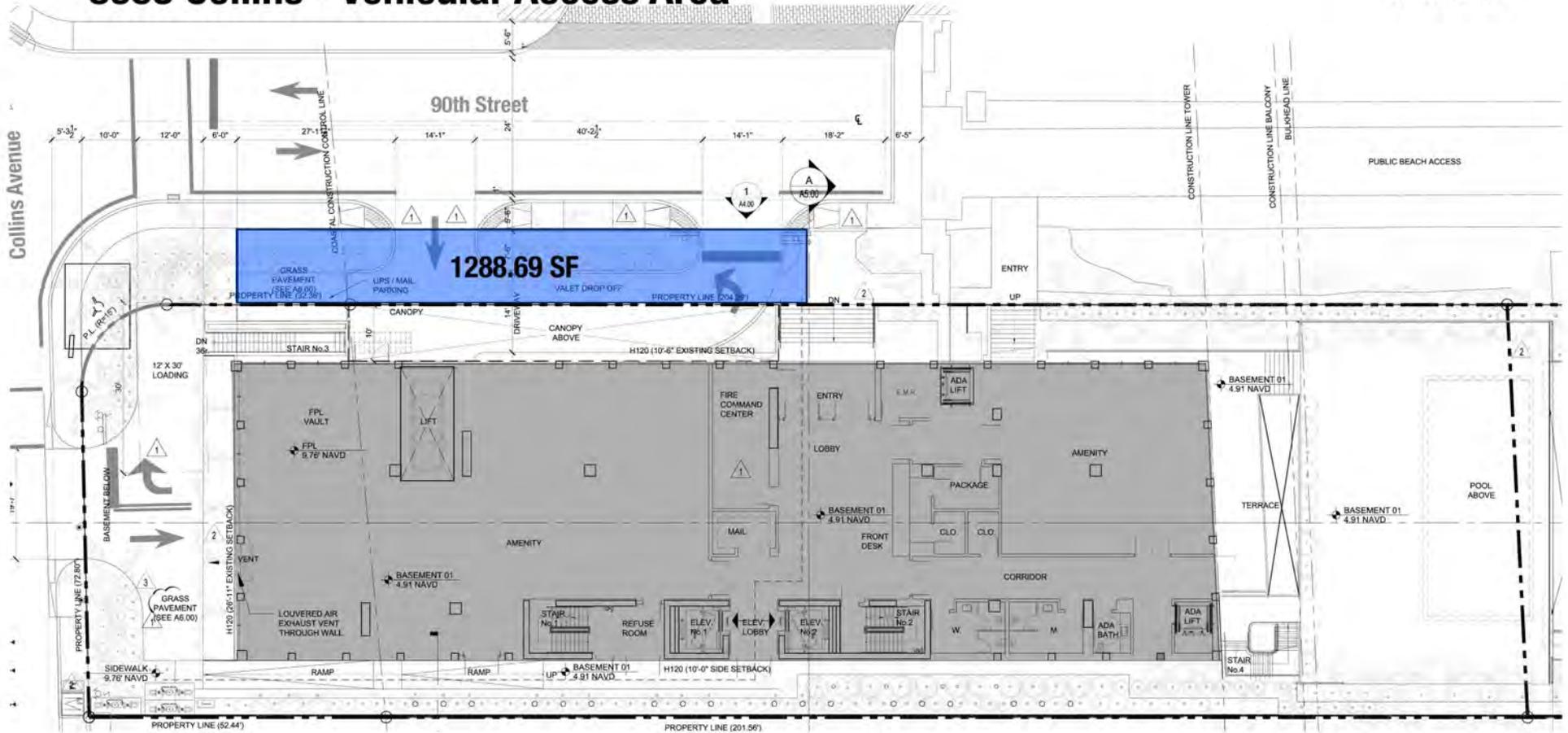


Exhibit C

B

D

D

REVISIONS / SUBMISSIONS	
ID	Date Description

15669

8995 COLLINS AVENUE
CONDO HOTEL
8995 COLLINS AVENUE
TOWN OF SURFSIDE, FLORIDA

90TH STREET IMPROVEMENTS

SURFHOUSE
OCEAN VIEWS, LLC
184 KENT AVENUE BROOKLYN,
NEW YORK 11211
TEL: 212-687-3444
FAX: 212-883-8267

URBAN ROBOT LLC
A42802780 02801534 LC2800510

ARCHITECTURE
INTERIOR DESIGN
PLANNING
AIA ASID NCARB
2915 Bicknare Boulevard
Suite 200
Miami, Florida 33137
O: 305.573.1818
F: 305.573.3766
WWW.KOBIKARP.COM



DRAWN BY: DR - RU
CHECKED BY: JV
DATE: 10-30-2017

L002

C

C

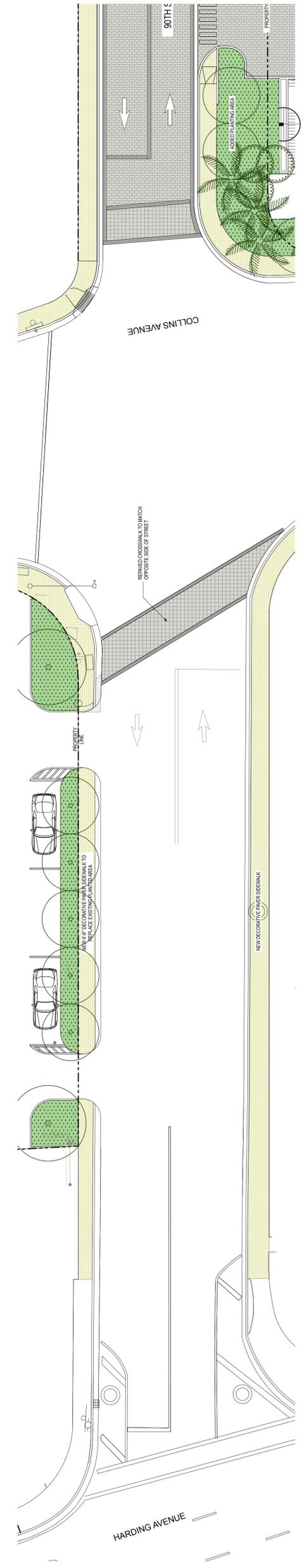


B

B

PROPOSED ENHANCEMENTS

EXISTING STREET



A

A

1 90TH STREET IMPROVEMENTS
SCALE: 3/32" = 1'-0"



5

4

3

2

1

5

4

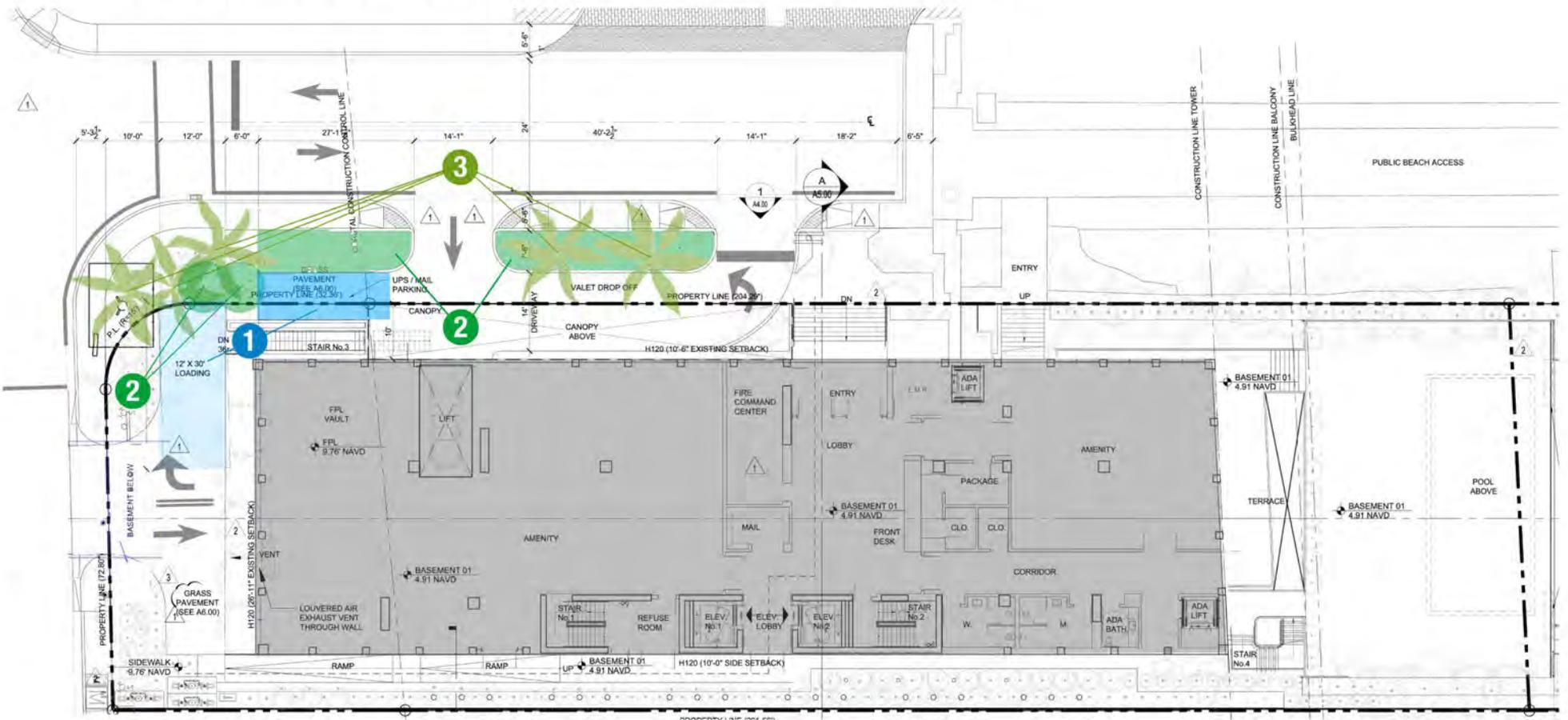
3

2

1

C

8995 Collins - Landscape and Surface Variance Plan



- 1 Variance 1: 2 12' x 30' off-street loading spaces required, 1 provided. 2nd 9 x 25' space provided.
- 2 Variance 2: Landscaping shall include a 10' buffer and 3 trees per 50 of frontage. Buffer and 2 required trees provided outside property line. [90-91.2 (1)]
- 3 Variance 3: One 35' tree per 25 lineal feet of facade. 8 required. 8 provided. 5 required trees are provided outside property line [90-93 (1) b]

D

Florida Green High-Rise Residential Building Standard

Version 2: Revised 6/7/2016

Final Application Form

Project Information

Project Name: _____

Address: _____

City & Zip: _____

County: _____

Size (SF): _____

Project Description: _____

Building Owner Contact Information

Name: _____

Company: _____

Address: _____

City / Zip: _____

Phone: _____

Fax: _____

E-mail: _____

Designated Professional Contact Information

Name: _____

Company: _____

Address: _____

City / Zip: _____

Phone: _____

Fax: _____

E-mail: _____

Total Fee Due: \$5,000

Deposit Paid: _____

Amount Due: \$5,000

Refer to "Instructions" tab for Application Fees

Balance Due Must Be Submitted with Final Application.

Project Point Summary

Minimum Points to Qualify (may be over 100 if a category minimum is missed) Currently this project needs

101

Please refer to Standards Documents and Green Commercial Reference Guide for additional information.

Category	Your Score	Required Min
Category 1: Project Management	10	5 Points
Category 2: Energy	35	15 Points (75 point max)
Category 3: Water	23	10 Points
Category 4: Site	24	5 Points
Category 5: Health	34	10 Points
Category 6: Materials	4	5 Points
Category 7: Disaster Mitigation	6	2 Points
Total:	136	

Total Needed:

101

Certification Level

Silver

To Qualify your project must



PM 1.4	1				Homeowner Training	Provide homeowner with "green maintenance" training lasting at least 1 hour. Builder must have an established procedure and the training completed by a knowledgeable jobsite superintendent, sales representative, customer service individual, or other appropriate individual. The training may be any combination of office instructions or home walk-through with hands-on training.	Provide a copy of the training outline and bio of the approved trainers.		
PM 1.5	1				Green Website	Provide information on the project website regarding the FGBC green certification of the project, a link to the project score sheet, information on green operation and maintenance for homeowners, and helpful links for homeowners regarding FGBC, energy efficiency, water efficiency, and healthy homes.	Provide the web address and copies of the content.		
PM 2	5	5			Building Information Modeling 1 point for Architect 3 points for Architect, Structural and MEP 5 points for Architect, MEP, Contractor, Mechanical, Electrical, Plumbing, and Fire Subs	Design team and construction teams use BIM process to optimize the efficiencies related to design, estimating, materials ordering, and construction.	Renderings and report summaries from BIM software	GC Requirement	
PM 3	5				Cost-Benefit Analysis	FGBC project team member shall document the cost impact of each energy and water credit the project is pursuing for certification. Analysis shall include a minimum of two building alternatives considered to achieve the credit, the cost associated with each alternative and calculated annual kWh, gallons of water, and cost savings.	The project must submit a copy of the FGBC Checklist from: 1. The team kickoff meeting 2. 100% Construction Document Phase 3. Final FGBC Submittal Include assumptions regarding interest rates, life of materials, and any other assumptions made for the analysis. A short narrative must accompany each credit explaining the options reviewed, environmental benefits, and reasoning for final selection for inclusion in the project.		
PM 4	20	10			Small Unit Credit 10 points for weighted average < 1500 SF 15 points for weighted average < 1200 SF 20 points for weighted average < 900 SF	Design and construct small units. Points are awarded based on the weighted average unit size for the project.	Architectural drawings showing floorplans and units, a list of the types of units, square footage of the units, and a weighted average calculation.		
ENERGY (Required Category Minimum 15, Allowed Category Maximum 75)									
TOTAL AVAILABLE		120	35	4	NA	Points Below Category Minimum			
ENERGY CREDIT									
PREREQUISITES									
EP1	Required				OPR	Owner designated representative must develop a list of owner project requirements related to each of the categories of the high-rise standard. The OPR should indicate minimum goals for each category and any specific credits the Owner wishes to target.	Submit a narrative explaining the OPR for the project.	JMH to generate as per FES's review	
EP2	Required				BOD	Design team representatives develop and document how the design will achieve the Owner Project Requirements. The basis of Design should include specifically how the performance desires of the Owner will be achieved by the proposed design.	The design team must submit a narrative that explains how their design decisions support the Owner project requirements.	FES to contribute to the narrative	
					REQUIREMENTS			SUBMITTAL	
					ENERGY			DESIGNATED PROFESSIONAL COMMENTS	

E P4	Required					Testing and Balancing	<p>Mechanical Electrical Plumbing (MEP) Engineering Firm works with the Architect or design team leader to verify field installed equipment meet OPR, BOD and is installed and operating correctly. Testing and verification must include all commercial and common areas, amenity areas, and a minimum of one of each distinctive residential unit type. The Testing and verification shall include, at a minimum, Heating, Ventilation, Air Conditioning and Refrigeration (HVAC&R) systems & controls, lighting systems and controls, renewable energy systems, hot water system, and flow rate verification.</p> <p>Requires that all building HVAC&R systems be free of CFC's and Halons</p>	<p>Mechanical engineer will submit a signed letter declaring that the building's new HVAC&R systems do not use CFC-based refrigerants and a mechanical schedule showing HVAC equipment</p>	<p>FES - easily achievable</p>	<p>FES to review 7/B reports as created and submitted by other parties</p>
CREDITS										
E1										
Performance Improvement										
E 1.1	60	2				Energy Performance Improvement 2 point for each percent lower than code	<p>The designed building will receive credit for energy performance that is more efficient than the current Florida Energy Code. Refer to the Florida Energy Code Calculations and their provided summary comparing the baseline and design buildings.</p>	<p>A copy of the Florida Energy Code calculations and input summary</p>	<p>FES states that level of achievement depends on glass type</p>	
E 1.2	1	1				Pump Motors	<p>All three phase pump motors 1 horsepower or larger shall meet or exceed efficiency standards for NEMA Premium™ 3 motors. Note: Motors that are packaged as an integral component of mechanical equipment, fire pump motors, and booster pump motors are exempt from this requirement</p>	<p>Plumbing plans highlighting location of pumps, cut sheets and photos of complying pumps</p>	<p>FES will need to consult with fan and heat pump mfg</p>	
E 1.3	2	2				Lighting Power Density 0.8W/sf for Individual Units	<p>Design the installed lighting in each unit such that the total Watt per square foot does not exceed 0.8.</p>	<p>Electrical plans showing fixture location and type, summary of the units, total Watts and square feet with</p>	<p>TJH LED use. Lighting designer to determine based on FES review</p>	
E 1.3.1	3	3				For Entire Building	<p>Design the installed lighting for the conditioned spaces of the building, to include conditioned spaces (common areas and private residences) such that the total Watt per square foot does not exceed 0.8</p>	<p>Florida Building Commission approved Energy Code printout, signed by lighting designer or MEP with lighting power densities.</p>	<p>TJH LED use. Lighting designer to determine based on FES review</p>	
E2										
Prescriptive Energy Features										
E 2.1	1	1				Energy Star Refrigerator	<p>Install Energy Star qualified Refrigerators in each unit</p>	<p>Copy of the appliance package approved submittal, cut sheet identifying model number and photo of installed appliance</p>	<p>TJH</p>	
E 2.2	1	1				Energy Star Dishwasher	<p>Install Energy Star qualifying dishwashers in each unit</p>	<p>Copy of the appliance package approved submittal, cut sheet identifying model number and photo of installed appliance</p>	<p>TJH</p>	
E 2.3	1	1				Energy Star Clothes Washer	<p>Install Energy Star qualifying clothes washers in each unit</p>	<p>Copy of the appliance package approved submittal, cut sheet identifying model number and photo of installed appliance</p>	<p>TJH</p>	
E 2.4	1					Energy Star Ceiling Fans	<p>Install Energy Star qualified ceiling fans located in the main living area and each bedroom of each unit</p>	<p>Copy of the electrical plan showing fan locations and type, appliance package approved submittal, cut sheet</p>		
E 2.5	1	1				Energy Star Common Area Appliances	<p>Install all Energy Star appliances in common areas to include: refrigerator, dishwasher, clothes washer, and vending machines.</p>	<p>Copy of the approved submittal, cut sheet identifying model number and photo of installed appliance</p>	<p>TJH</p>	

E.2.6	2	Automated Lighting Controls	All non-apartment spaces, except those intended for 24-hour operation or where automatic shutoff would endanger the safety of occupants, must have occupancy sensors or automatic bi-level lighting controls.	Copy of the approved submittal, cut sheet identifying model number and photo of installed appliance	TJH	
E.2.7	1	Exterior Lighting	Fixtures must include automatic switching on timers, photocells, or motion sensor controls, OR provide > 95 lumens/watt, OR be solar powered - except fixtures intended for 24-hour operation, required for security, or located on apartment balconies.	Copy of the approved submittal, cut sheet identifying model number and photo of installed appliance	TJH	
E.2.8	1	Insulate hot water pipes	Piping carrying liquid with temperatures greater than 105°F must have a minimum of 1" of insulation. Pipes over 1.5" in diameter must have a minimum of 1.5" of insulation. Extent and location to be determined by ASHRAE 90.1-2007 Section 7.4.3 or local code. All pipes over 3/4" in diameter conveying hot water must be insulated.	Photos of insulated hot water pipes, plan detail, or approved submittal of selected insulation signed by architect.	FES is ok with this but hot water branch piping to fixtures will also need insulation	
E.2.9	2	Ductwork sealed with mastic	Seal all duct connections with mastic. This includes rigid and flex duct connections to air handlers and junction boxes	Construction detail and photos	FES -ok	
E.3 Performance Verification/Testing						
Commissioning						
Basic Commissioning						
E.3.1	4		Fundamental Building Systems Commissioning: Implement or have a contract in place to implement all of the following fundamental best practice commissioning procedures Commissioning includes verifying installation, functional performance testing, training and documentation for EACH of the commissioned system or components as compared to the design intent, training of owner designated O&M professional and completion of the operation and maintenance manuals.	Copy of signed contract explaining scope of work (contract amount may be excluded) and a letter from the CxA or the building owner stating all CxA duties were completed. Submit a copy of the OPR, BOD, Commissioning Plan and Commissioning Report. The Commissioning Plan should include an overview of the commissioning process, a list of systems and features, the commissioning participants and their roles, a communication and management plan, an outline of the scope of commissioning tasks, and schedule. Where possible, include copies of the start up checklists. The commissioning report should contain the analysis of whether each commissioned system or component meets the design intent, specifications, was properly installed, passed the functional performance tests, was properly documented in the O&M manuals, and was covered in the operator training.	FES approved, this is a code requirement	
E.3.1.1	5	Advanced Commissioning	Advanced Building Systems Commissioning: In addition to fundamental commissioning, retain a CxA prior to completing the design phase of the project.	Submit all documentation for Basic Commissioning and a copy of the signed commissioning contract and dated plans to verify CxA was contracted prior to Construction Documents. Submit a copy of the Design Document review, architect and owner responses.	FES	
Midpoint Inspections						
Thermal Bypass Inspections						
E.3.2	2		Conduct a thermal bypass inspection of the structure to ensure the integrity of the air and thermal barriers of the building	A thermal bypass checklist along with a summary of deficiencies, photos, corrective actions and corrected photos	FES	
E.3.2.1	NA					

E 3.2.2	2	2	Smoke Test Ducts if in Unconditioned Space	<p>AC Contractor or Smoke Testing personnel administer smoke test, identify leaks, and verify leaks are sealed. Verify leaks are sealed by visual inspection. Smoke identifies leaks visually. Leaks are sealed when there is no more smoke coming from leaks. AC contractor must be present to seal leaks. Smoke testing protocol as follows:</p> <ol style="list-style-type: none"> All boots are temporarily sealed by either the AC Contractor or Smoke Testing personnel. Portable smoker or duct tester/fogger is connected to the supply and return sections of the duct work. All dampers, if installed, to be verified open by AC Representative. AC Representative is present during Smoke Testing to seal observed leakages with approved materials. Smoke Testing personnel note severity and location of leakages. Smoke Testing personnel verify that all leaks have been sealed at rough-in and supply certificate to client attesting to that fact with date and signature of the Smoke Tester. 	<p>Photos of duct testing in progress and a summary report of findings and corrections.</p>	FES - ok
E 3.2.3	3	3	Duct testing/leakage	<p>Total duct leakage for in-unit systems shall be ≤ 8 CFM25 per 100 s.f. of conditioned floor area. All units must be tested by a RESNET or BPI energy rater following RESNET protocol.</p>	<p>Summary report or each unit leakage and corrective action taken if required</p>	FES - ok
E 3.3	5	5	Blower Door Test Units 3 points for < 7 ACH50 4 points for < 6 ACH50 5 points for < 5 ACH 50	<p>Post-construction, multi-point blower door testing of units must be performed by a RESNET or BPI energy rater following RESNET protocol. All units must pass at one of the levels listed in the Credit column. Points are awarded based on worse-case test results.</p>	<p>Copy of the test results</p>	FES - ok
E 3.4	5	5	Complete Testing and Balancing in all residential units	<p>Mechanical Electrical Plumbing (MEP) Engineering Firm works with the Architect or design team leader to verify field installed equipment meet OPR, BOD and is installed and operating correctly. In addition to the required prerequisite testing and verification, testing and verification of ALL of the residential units shall be performed by a licensed engineer or a professional certified by the National Environmental Balancing Bureau (NEBB), the Associated Air Balance Council (AABC), or other nationally accredited organization.</p>	<p>Copy of the testing and balancing report</p>	FES - ok
E.4			Design			

E 4.1	1	NA	Washer and dryer out of conditioned space	Locate washer and dryer outside of conditioned space —garage, unconditioned utility room, etc. The location must be separated from the main conditioned space of the building. The unconditioned utility room must meet the following requirements: <ul style="list-style-type: none"> • Insulate the walls between the utility room and conditioned space (shared walls). • Finish the shared walls and ceiling (if below conditioned space) with drywall. • Seal all holes and air leakage pathways through the walls, floor, and ceiling that can connect the utility room to the conditioned space (plumbing, gas lines, wiring, and bottom plate). • Install a non-louvered door that is weather-stripped and equipped with a properly adjusted threshold. 	Floorplan identifying location of laundry room	TJH- W/D are within units														
E 4.2	2	2	Light colored interior finishes 1 point: light colored walls/ceiling in main living 1 point: light colored walls in bedrooms	All bedrooms and all major living spaces in the home have light-colored wall and ceiling surfaces with a reflectance of at least 50% (or Light Reflectance Value (LRV) > 50). Bonus point awarded if all major living spaces and bedrooms have light colored flooring. If a documented reflectivity is not available, this credit can only be given to "white" or "off white."	Photo of completed project interior, paint selection and LRV	TJH														
E 4.3	1	NA	Compact hot water distribution	Install compact hot water distribution system. For a conventional system, no branch line from the water heater to any fixture may exceed 25 feet. Branch lines from the central header to each fixture must be a maximum of 1/2-inch diameter. One point is also available for use of a manifold system or a recirculation loop with an on-demand control with auto pump shut-off in the kitchen and each full bathroom.	Floorplan showing location of hot water heaters/distribution system	FES														
E 5	<p>Renewable Energy</p> <p>Renewable Energy Production</p> <p>1 point per 1% of building power provided</p> <p>Green Power</p> <p>1 point: 50% for 1 year 2 points: 100% for 1 year 3 points: 100% for 2 years</p>																			
E 5.1	8			Supply a fraction of the building's total energy use (as expressed as a fraction of annual energy cost) through the use of on-site renewable energy systems.	Plan detail highlighting installed renewable energy system and photos	N/A														
E 5.2	3			Provide a percentage of the building's electricity from renewable sources by engaging in at least a one-year renewable energy contract to purchase green power. Earn one point by purchasing green power for 50% of the building total annual energy demand from certified green power generator for one year, 2 points are available for purchasing 100% for 1 year and 3 points available for purchasing 100% for 3 years.	Provide an executed copy of the contract for the purchase of renewable energy indicating the types of renewable purchased and the total kWh of energy production capacity.	N/A														
E 5.3	1	NA	Solar Hot Water	Each unit is serviced by a solar hot water system	Plan detail highlighting design, equipment cut sheet and photos of installed equipment.	FES														
E 5.4	1	NA	Solar Pool Heat	Install solar pool heater	Plan detail highlighting design, equipment cut sheet and photos of installed equipment.	JMH														
WATER (Required Category Minimum 10)																				
<table border="1"> <tr> <td>CREDITS</td> <td>TOTAL AVAILABLE</td> <td>ACHIEVED</td> <td>POSSIBLE</td> <td colspan="3"></td> </tr> <tr> <td></td> <td>71</td> <td>23</td> <td>10</td> <td colspan="3">Points Below Category Minimum</td> </tr> </table>							CREDITS	TOTAL AVAILABLE	ACHIEVED	POSSIBLE					71	23	10	Points Below Category Minimum		
CREDITS	TOTAL AVAILABLE	ACHIEVED	POSSIBLE																	
	71	23	10	Points Below Category Minimum																
WATER				CREDIT	SUBMITTAL	DESIGNATED PROFESSIONAL COMMENTS														

M1		Installed Landscape					
W1.1	3	2	1	Plants/trees from drought-tolerant list: 1 Point - 60% drought tolerant 2 Points - 80% drought tolerant 3 Points - 100% drought tolerant	Use of at least 60% of the plants and trees incorporated into the landscape are from a local drought tolerant list; 2 points are available if 80% are from such a list; and 3 points are available if 100% of the plants and trees are from such a list. A minimum of 12 total plants must be present in the landscape to qualify for the credit. Plants shall be listed with high or moderate drought tolerance by Florida Friendly Landscape, WaterWise (water management district) or local drought tolerant list.	Plant list identifying drought tolerant vegetation, landscape plan, and percentage of drought tolerant vegetation calculation.	UR has 95% of specified trees listed on the drought tolerant list (2 points) UR can change 3 of the non-listed plants for 100% (3 points) if needed
W1.2	5	5		Turf 1 point: Install only drought tolerant turf < 50% 2 points: Install only drought tolerant turf < 40% 3 points: Install only drought tolerant turf < 30% 4 points: Install only drought tolerant turf < 20% 5 points: Install only drought tolerant turf < 10% Non-Cypress mulch	If sod is installed, do not install turf in densely shaded areas (<60% shade on June 21) and only use Bahia, Zoysia, or Bermuda grass. Apply 3-4" of mulch around plants and trees (extending out to drip line) and in landscaped beds avoiding volcano mulching	Landscape plan, and photos of the completed project.	UR
W1.3	1	1				Landscape plans and photos of installed vegetation	UR
W2				Installed Irrigation Properly Installed Irrigation			
W2.1	5	5			1. Separate zones for turf and landscape beds - multi-program controller 2. High-Volume irrigation does not exceed 60% of the landscaped area 3. Head to head coverage for rotor/spray heads 4. Correctly install micro-irrigation in landscape beds and narrow areas 5. Provide facility manager installed irrigation plan, on site training and written instructions See FGBC guidelines for irrigation as stated in the Reference Guide. Install only drip irrigation systems to service installed landscape Landscape contains no permanently installed irrigation system.	Copy of the irrigation design, photos of installed irrigation, and a copy of the instructions.	UR suggested that Item #5 can be achieved if JMHWants, by collaborating with the irrigation consultant. JMHW confirmed to hire a consultant to comply
W2.2	3		3	Only drip irrigation is used on site		Copy of the irrigation design, and photos of installed irrigation.	UR can coordinate to comply if needed
W2.3	10		NA	No permanent installed irrigation		Provide a signed letter from the project owner.	UR - N/A
W2.4	2	2		Soil Moisture Sensors		Cut sheet of innovative equipment	UR - can include soil sensors if needed
W3				Water Source Conservation Reclaimed Water for Irrigation			
W3.1	1		NA			Letter from municipality indicating reclaimed water is supplied and used on the project	N/A

<p>W3.2</p> <p>10</p> <p>NA</p>				<p>Rainwater</p> <p>1 point: Simple Collection</p> <p>3 points: Collection with dedicated use for irrigation. Collected rainwater must supply a minimum of 25% of the water necessary for irrigation.</p> <p>5 points: Collection for toilet/urinal flushing. Collected rainwater must supply a minimum of 25% of the water required for toilet/urinal flushing.</p> <p>10 points: Rainwater is collected and treated to potable standards for use throughout the building. Rainwater collected must provide a minimum of 25% of the building's annual water use.</p>	<p>Install rainwater harvesting collection and storage system. The minimum requirement for this credit is a simple collection system, which for all intents and purposes would be for demonstration. Achieve additional points, per the break down below, as the rainwater collection system increases in functional use to replace both potable and non potable water.</p> <p>1. Simple Collection: Used to supplement irrigation and for demonstration purposes.</p> <p>2. Dedicated use for irrigation: Harvested Rainwater is used to supply irrigation to landscape.</p> <p>3. Rainwater is collected and used in lieu of potable water for flushing toilets and urinals: Rainwater is collected and fed to dual piping system as greywater to reduce potable water demand inside the building.</p> <p>4. Collected and treated to potable standards for whole building use: Water is treated to potable standards and supplements whole building water use</p>	<p>Construction drawings indicating design and location of system</p>	
<p>W3.3</p> <p>10</p> <p>NA</p>			<p>Greywater</p> <p>3 points: Collection with dedicated use for irrigation. Collected and treated greywater must supply a minimum of 25% of the water necessary for irrigation.</p> <p>5 points: Collection for toilet/urinal flushing. Collected and treated greywater must supply a minimum of 25% of the water required for toilet/urinal flushing.</p> <p>10 points: Greywater is collected and treated to potable standards for use throughout the building. Greywater collected must provide a minimum of 25% of the buildings annual water use.</p>	<p>Greywater system is installed to reduce demand on potable water. System must have a specific collection source and a dedicated use. Greywater system is installed to reduce demand on potable water. System must have a specific collection source and a dedicated use.</p>	<p>Construction drawings indicating design and location of system</p>		
<p>Interior</p>							
<p>W4</p>							
<p>W4.1</p> <p>4</p>		<p>2</p>		<p>Fixtures</p> <p>Low Flow Toilets</p> <p>Water closets in the individual units</p> <p>1 point: ≤ 1.28 gpf</p> <p>2 points: Dual Flush</p> <p>3 points: ≤ 1.0 gpf</p> <p>1 Bonus point is available if all water closets in the common areas are low flow</p>	<p>All installed toilets must comply with the low-flow criteria AND have a minimum MaP (Maximum Performance) rating of 600 OR are WaterSense Certified. For Dual-Flush toilets to receive one point, ONE of the two flush options must be ≤ 1.1gpf.</p>	<p>Photo of installed low flow fixtures and cut sheets</p>	<p>TJH to spec</p>
<p>W4.2</p> <p>3</p>		<p>1</p>	<p>1</p>	<p>Low Flow Lavatory Faucets in units</p> <p>1 point: ≤ 1.5 gallons per minute (gpm)</p> <p>2 points: ≤ 1.0 gpm OR Motion Sensor self-closing faucet (0.25 gal/metering cycle Max)</p> <p>1 Bonus point is available if all of the lavatory faucets installed in the common areas are ≤ 1.5 gpm</p>	<p>All installed lavatory fixtures must comply with the low-flow requirements.</p>	<p>Photo of installed low flow fixtures and cut sheets</p>	<p>TJH to spec</p>

W4.3	3	1	1	<p>Low Flow Kitchen Faucets in units</p> <p>1 point: ≤ 2.0 gallons per minute (gpm)</p> <p>2 points: ≤ 1.5 gpm OR WaterSense Certified</p> <p>1 Bonus point is available if all of the kitchen faucets installed in the common areas are ≤ 2.0 gpm</p>	<p>All installed kitchen fixtures must comply with the low-flow requirements.</p>	Photo of installed low flow fixtures and cut sheets	TJH to spec	
W4.4	3	2	2	<p>Low Flow Shower heads in units</p> <p>2 point: ≤ 2.0 gallons per minute (gpm)</p> <p>1 Bonus point is available if all of the shower heads installed in the common areas are ≤ 2.0 gpm</p>	<p>All installed shower heads must comply with the low flow requirements. A maximum of 1 shower head per 15sf of shower compartment is allowed</p>	Photo of installed low flow fixtures and cut sheets	TJH to spec	
W5				<p>Appliances and Equipment</p> <p>High Efficiency Water-Saving Clothes Washer</p> <p>2 point for Water Factor ≤ 6</p> <p>3 points for Water Factor ≤ 4</p> <p>1 Bonus point is available if all of the clothes washers installed in the common areas have a Water Factor ≤ 6</p>	<p>All installed clothes washers must comply with the stated Water Factor requirement.</p>	Photo of installed low flow fixtures and cut sheets	TJH to spec	
W5.1	4	4						
W5.2	2			<p>Tankless, boiler, or recirculating hot water heaters</p>	<p>Install on demand tankless hot water heaters or hot water recirculation system</p>	Photo of installed tankless water heaters and cut sheets or schematics of recirculation system		
W6	2	2	2	<p>Florida WaterStar™ Certification</p>	<p>Meet or exceed Florida WaterStar™ standards</p>	Copy of Florida WaterStar™ Certificate	FES not familiar w/ standard	
SITE (Required Category Minimum 5)								
TOTAL AVAILABLE				46	ACHIEVED	24	POSSIBLE	NA
CREDITS				46	24	8		
SITE (Required Category Minimum 5)								
TOTAL AVAILABLE				46	ACHIEVED	24	POSSIBLE	NA
CREDITS				46	24	8		
REQUIREMENTS								
SP1	REQUIRED			<p>Copy of Stormwater Pollution Prevention Plan (SWPPP) and Florida Department of Environmental Protection (FDEP) Notice of Intent (NOI) onsite</p>	<p>Keep copy of SWPPP & FDEP National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI) onsite for contractor to implement & maintain SWPPP Best Management Practices (BMP) as designed by civil engineer or SWPPP designer.</p>	Copy of Notice of Intent	Ocean Engineering to provide SWPPP & Erosion Control	
SP2	REQUIRED			<p>Erosion and Sedimentation Control</p>	<p>Design a sediment and erosion control plan, specific to the site that conforms to United States Environmental Protection Agency (EPA) Document No. EPA 832/R-92-005 (September 1992), Storm Water Management for Construction Activities, Chapter 3. OR local erosion and sedimentation control standards and codes, whichever is more stringent. The plan shall meet the following objectives:</p> <ul style="list-style-type: none"> Prevent loss of soil during construction by stormwater runoff and/or wind erosion, including protecting topsoil by stockpiling for reuse. Prevent sedimentation of storm sewer or receiving streams and/or air pollution with dust and particulate matter. 	Copy of erosion control plan, site details and photos	Ocean Engineering to provide SWPPP & Erosion Control	
PREREQUISITES								
TOTAL AVAILABLE								
CREDITS								
DESIGNATED PROFESSIONAL COMMENTS								
TOTAL AVAILABLE								
CREDITS								
SITE Selection								

S.1.1	1		1	Select Appropriate Site	Do not develop on: Prime farmland, flood prone areas, habitat for threatened species, within 100 feet of wetlands, public parkland	Site survey and Google earth map	KK/Graham to confirm
S.1.2	1		NA	Within an FGBC Certified Green Local Government	Build within an FGBC certified Green Local Government	Name of local government	??
S.1.3	1		NA	Within an FGBC Certified Green Land Development	Build within an FGBC certified Green Land Development	Name of land development	
S.1.4	1	1		High Density	Project has a minimum of 30 dwelling units per acre.	Number of units per acre	KK - refer to zoning package sheet A1.00
S.1.5	3		3	Greyfield Redevelopment	Locate the building on a site that has existing hardscape or other structure that must be replaced. To achieve this credit, the site must have utility connections available within 1/8 mile boundary.	Copy of a site plan with the existing conditions	Scott to Review
S.1.6	3		NA	Brownfield Redevelopment	Development of any EPA or federal/state/local government classified brownfield and provide remediation as required by EPA's Sustainable Redevelopment of Brownfields Program.	Provide a copy of the Phase II Environmental Site Assessment OR a letter from a local, state or federal regulatory agency confirming that the site is classified as a brownfield	
S.1.7	5	2		Access to Basic Services (Connectivity) 1 point awarded for each 3 unique services	Locate the building on a site that is within 1/2 mile of, and has safe and walkable access to, basic services (this can be measured as the crow flies). Each type of service may only be counted once, i.e. if there are 3 banks, for the purposes of this Checklist that is equal to ONE service. Please refer to the Reference Guide for a list of services.	Aerial context map with building location, and location and type of basic services within 1/2 mile.	KK - refer to zoning package sheet A1.02
S.1.8	2	2		Public Transportation Access	Site is located within 1/2 mile of an existing or funded rail node OR within 1/4 of mile safe and walkable access to mass transit of at least 1 active bus stop, trolley or ride share (this can be measured as the crow flies).	Regional/local drawing or transit map highlighting the building location and the fixed rail stations and bus lines, and indicate the distances between them. Include a scale bar for distance measurement.	KK confirmed
S.2				Site Enhancement Tree Preservation	Protect existing trees during construction of project by employing the following techniques to at least 36 inches of tree caliper measured at chest height (i.e. nine 4-inch trees, three 12-inch trees, etc.) per acre. Refer to FGBC Reference Guide for all credit requirements.	Tree/native plant identification survey and photo or other documentation of each technique. For multi-family projects, tree protection shall be shown on the site plan or on a tree survey with details on the drawings outlining protection strategies, barricades, fencing, and areas of protection.	
S.2.1	1		NA	Minimize Site Disturbance	The maximum square footage of the site that may be disturbed, excluding the building footprint, must be less than or equal to the building footprint.	Copy of project site indicating building footprint, square footage of building footprint and outlining site cleaning operation boundaries and staging areas. Provide photos of site demonstrating minimal site disturbance.	KK - refer to zoning package A1.01A, A1.00, A2.00, A2.00A
S.2.2	1	1		Site Open Space	Exceed minimum zoning requirements for open space by 25%	Provide a site plan with the building footprint, square footage of building footprint (or a copy of the local zoning open space requirements) that shows the designated open space and landscape plan. Also provide a list of trees and their projected canopies after 10 years.	KK - refer to zoning package A2.00 (list of trees - TBD)
S.3				Transportation Bicycle Storage	Project must provide securing locations for bicycles for 5% of total occupants	Provide site plan identifying bike storage, cut sheet of bike rack, and photo of installed bike storage	TJH believes there is space for storage in basement
S.3.1	1	1					

S3.2	1		NA	Alternative Fuel Refueling Stations	Provide preferred parking for 3% of the parking capacity for the use of low-emitting, fuel-efficient and high occupancy vehicles. Preferred parking spaces may also include charging stations for electric vehicles.	TJH	Plan identifying location of preferred parking, description of charging apparatus and photos of installed equipment
S3.3	1	1		Parking Capacity	Parking provided on site must be equal to or less than required by local jurisdiction. Design team must work with the local jurisdiction to reduce the typically required parking by proposing shared parking or other multimodal transportation methods.	KK - refer to zoning package A1.00	Provide a calculation of the zoning required parking spaces, a letter from the local jurisdiction indicating the projects parking requirements and a site plan with a total parking count.
S3.4	1	1		Automated Parking	Automated parking System - systems include elevators, lifts, or 100% valet parking.	KK - refer to zoning package - lift system	Detail and description of plan and system
S4				Heat Islands			
				Roof	Use ENERGY STAR roof-compliant, high-reflectance AND high emissivity roofing (for low slope roofs: initial reflectance of at least 0.65 and 3-year-aged reflectance of at least 0.5 when tested in accordance with ASTM E903 and emissivity of at least 0.9 when tested in accordance with ASTM 408; for steep slope roofs: initial reflectance of at least 0.25 and 3-year-aged reflectance of at least 0.15 when tested in accordance with ASTM E903 and emissivity of at least 0.9 when tested in accordance with ASTM 408). Alternatively roof materials may have a LRV ≥ 50); OR install a "green" (vegetated) roof OR combinations of high albedo and vegetated roof can be used providing they collectively cover the roof area. (Amenity decks and finished roof terraces shall be considered under Credit 4.2: Hardscape)	KK - refer to zoning package Sheet A3.05, A3.07	Provide a roof drawing with area calculations and cut sheets for the materials used.
S4.1	4	4		1 point: 20% roof coverage 2 point: 40% roof coverage 3 point: 60% roof coverage 4 point: 80% roof coverage			
S4.2	4	3	4	Shaded, Covered, or High Albedo Hardscape 2 point: 40% hardscape coverage 3 point: 60% hardscape coverage 4 point: 80% hardscape coverage	Shade, cover or use high albedo hardscape for a minimum of 40% of the site hardscape. For the purpose of this credit site hardscape includes roads, sidewalks, courtyards, amenity decks, and parking lots. Areas square footage that may be included in this calculation are hardscape shading by trees (within 10 years, structures with roof materials with a SRI > 78 or a LRV ≥ 50, structured parking or hardscape with a SRI > 35. The building footprint, i.e., square footage of roof, is NOT considered hardscape unless used as a rooftop terrace amenity. Hardscape shaded by photovoltaic panels or other systems that are generating electricity can be included in the shade square footage calculation and are exempt from meeting the SRI ≥ 78 requirement.	UR - we have more than 60% coverage by shade/canopy based on UR. They suggest we can achieve 80% by the selection of the artificial wood finish color to be high albedo	Provide a site plan identifying all the site features and a cut sheet for any reflective materials used to achieve this credit.
S4.3	3	3		Under Building Parking	A minimum of 50% of the parking shall be located under the building	TJH	Plan details for project parking
S4.4	1	1		Building Exterior	To qualify for this credit, a minimum of 80% of the exterior wall surface area minus the glazing must have a LRV > 60 for stucco and painted all finishes, a SRI ≥ 29 for metal and vinyl. Natural and man made stone products must be light in color and comparable to LRV > 60 point.	TJH	Provide a cut sheet of the exterior wall coating/paint and any shading calculations of claimed.
S5				Light Pollution Reduction			

\$5.1	1	1	1	Building, amenity deck, and site lighting are dark sky compliant	Do not exceed the light levels and uniformity ratios recommended by the Illuminating Engineering Society of North America (IESNA) Recommended Practice Manual: Lighting for Exterior Environments (RP-33-99). Design exterior lighting such that all exterior luminaires and all luminaires with more than 35000 initial lamp lumens meet the Full Cutoff IESNA Classification. If the bulb exceeds 26W the lights shall be full cut-off luminaires so that no light or brightness from those luminaires crosses the property boundary.	Provide specifications, construction detail and lighting cut sheets indicating dark sky compliance.	UR believes this can be achieved by the same regulations for the fish & wildlife for turtle lighting								
S6 Stormwater Management Rate and Quantity															
S6.1	1		1		No net increase in Stormwater runoff from pre-development conditions to post-development	Civil Engineering stormwater calculations and narrative explaining how the design improves the water quality	Ocean Engineering - confirmed								
S6.2	1			NA	Provide onsite treatment of stormwater to remove 80% of (TSS) Total Suspended Solids and 40% of (TP) Total Phosphorous	Civil engineering stormwater calculations and narrative explaining how the design improves the water quality									
S6.3	2			NA	Use littoral vegetation surrounding stormwater ponds - a minimum of 75% of the shoreline (calculated based on percentage of linear feet of shoreline) shall be vegetated with littoral plants.	Plant list and detention pond design.									
S6.4	3			NA	Alternative Stormwater Detention: Rain Gardens, Infiltration Trenches, Rainwater Harvesting, and Injection Wells. 1 point: 50% of stormwater collected using LID 2 points: 75% of stormwater collected using LID 3 points: 100% of stormwater collected using LID	Site design, stormwater calculations and construction details of low impact development designs.									
S6.5	1		1	Pervious Hardscape	Install pervious hardscape for a minimum of 25% of the hardscape. Site hardscape includes roads, sidewalks, courtyards, and parking lots. Hardscape may be porous pavers (open grid pavers) or permeable pavement (minimum percolation rate of 2 gal/min/SF and a minimum of 6 inches of open graded base below.	Site drawing with pervious hardscape identified and cut sheet or calculations regarding percolation or perviousness.	UR can include hardscape to be permeable. UR believes that the wood deck would be considered permeable and adds itself a 47% of the total hardscape								
S6.6	1			Treat Stormwater from Adjacent Sites	Collect and treat stormwater from adjacent properties to assist in controlling both the quantity and quality of stormwater in the community. Earn 1 point for each additional 10% of stormwater volume the project site can retain and treat.	Civil engineering stormwater calculations									
HEALTH (Required Category Minimum 10)															
<table border="1"> <tr> <td>TOTAL AVAILABLE</td> <td>63</td> <td>ACHIEVED</td> <td>34</td> <td>POSSIBLE</td> <td>12</td> <td colspan="2">Points Below Category Minimum</td> </tr> </table>								TOTAL AVAILABLE	63	ACHIEVED	34	POSSIBLE	12	Points Below Category Minimum	
TOTAL AVAILABLE	63	ACHIEVED	34	POSSIBLE	12	Points Below Category Minimum									
HEALTH PREREQUISITES				REQUIREMENTS				SUBMITTAL				DESIGNATED PROFESSIONAL COMMENTS			

H1.6	1	1	1	1	Chemical and Cleaning Product Storage	Any room(s) containing chemicals or cleaning products for building O&M is ventilated and under negative pressure with respect to the building. The room must also have a door installed that will automatically close. For mechanically ventilated buildings, design ventilation systems that result in an air change effectiveness greater than or equal to 0.9 as determined by ASHRAE 129-1997.	Letter from mechanical engineer indicating the design achieves an air change effectiveness of 0.9 or greater in each ventilated zone or that the design complies with the recommended design approaches in ASHRAE 2001 Fundamentals Chapter 32, Space Air Diffusion.	FES - possible
H1.7	1			NA	Thermal Comfort, Comply with ASHRAE 55-1992.	Comply with ASHRAE Standard 55-1992, Addenda 1995, for thermal comfort standards, including humidity control		FES
H1.8	5			NA	Thermal Comfort, Dehumidification System	System installed to control building humidity such as a desiccant system, enthalpy wheel, heat pipes, or dual path system. The dehumidification system shall be centrally located and permanent servicing the common areas and individual units of the building.	Letter from the mechanical engineer and cut sheet of dehumidification equipment.	FES
H1.9	1	1	1		Combustion: No Gas Water Heating Equipment Located Inside Conditioned Area – Or Use of Electric	One point is also available for use of a sealed combustion water heater, or use of an electric water heating system.	Mechanical Schedule	FES
H1.10	1	1	1		Combustion: No Gas Heating Equipment Located Inside Conditioned Area – Or Use of Electric	One point is available for use of a sealed combustion furnace, or use of an electric heating system, such as a heat pump.	Mechanical Schedule	FES
H1.11	2	2	2		Kitchen Hood Vented to Exterior	Home equipped with a range hood vented to the exterior of the building. Non-vented or ductless range hoods are not eligible for the point. Hood ducting must be of building code-approved materials and completely sealed to prevent leakage. Exterior of vent must also contain building code approved termination cover.	Schematic of vent, photos of rough in and cut sheet for range vent	FES
H2					Design - Occupant Experience			
H2.1	3	3	3		Daylight 2 points: 50% 3 points: 75%	Provide natural daylight to 50% of interior spaces. Achieve a minimum Daylight Factor (the ratio between the measured interior and exterior light levels in lumens) of 2% for a minimum of 25% of the occupied spaces of the building. (Note: Occupied Space refers to all areas except hallways, bathrooms, laundry rooms and closets.)	Provide plans specifying the day lit areas and day lighting calculations for occupied spaces	KK - N/A TBD
H2.2	3	3	3		Views: Views for 75% of Spaces	Provide views to vision glazing for 75% of all occupants. Occupants must have line of sight from occupied spaces to the exterior. (Note: Occupied Space refers to all areas except hallways, bathrooms, laundry rooms and closets.)	Provide plans showing line of site for occupied areas.	KK - Refer to zoning package Sheet A2.00
H2.3					Acoustics			
H2.3.1	1	1	1		Between Individual Units	Provide wall assembly with a STC rating ≥ 45	Provide cut sheets for the wall assembly and fenestration indicating the STC ratings.	KK to spec UL assembly
H2.3.2	1	1	1		Between Units and Common Areas	Provide wall assembly with a STC rating ≥ 55	Provide cut sheets for the wall assembly and fenestration indicating the STC ratings.	KK to spec UL assembly
H2.3.3	1	1	1		Exterior Wall Assembly	Provide wall assembly with a STC rating ≥ 50	Provide cut sheets for the wall assembly and fenestration indicating the STC ratings.	KK to spec UL assembly
H2.3.4	1	1	1		Fenestration	Provide fenestration STC rating ≥ 30	Provide cut sheets for the fenestration indicating the STC ratings.	KK to spec UL assembly
H2.4	1	1	1		Cleanability: Narrow Grout Lines	All grout lines between tiles must be less than 3/16" wide	Specification and photo of installed tile	KK to spec UL assembly

H2.5	2	NA	15% of Building Units and All Building Common Areas Designed to Meet ADA Standards	A minimum of 15% of the units in the building must comply with the following requirements: <ul style="list-style-type: none"> • Ample clear floor space (5 x 5 foot turning radius) to ensure maneuverability at lavatories, toilets, and tubs/showers • The bathroom walls must be reinforced for grab bars that are installed at commode, tub, and shower (FGBC recommends following the ADAAG for height and size specifications). • 32 inch minimum door width; 36 inches preferred • 24 inch space on latch side of doors or automatic door opener • Light switches a maximum height of 48" from the floor to the top of the switch • Electrical outlets a minimum of 15" from the floor to the bottom of the outlet • Lever handles on doors or doors without latches • Rocker or touch switches <p>AND</p> <p>Include at least one of the following options:</p> <ul style="list-style-type: none"> • Standard tub with a fold-up seat • Tub with a transfer seat • Whirlpool tub • 3 x 3 foot transfer shower • 5 x 5 foot roll-in shower 	Floorplan showing ADA units, cut sheets and signed approved submittal of ADA products, photos of installed features, and plan details	Current layouts do not comply with this item based on TJH review
H3			IAQ Management During Construction Protect Ducts, Range Hood, and Bath Exhaust Fans During Construction	All duct register boxes, supply plenums, range hood, the bath exhaust fans (housing or fan) and liner boxes are sealed off with cardboard, rigid duct board, or other suitable method directly following mechanical rough in. The temporary tape used to seal the registers during a smoke test does not comply. Ducts must remain sealed until HVAC system start-up. This step prevents construction dust and pollutants from accumulating in the duct system and being released into the air when the system is turned on. If interior finish work (painting, etc.) continues after HVAC start up, ducts must be re-sealed until work is complete	Photo	GC requirement by JM
H3.2			Minimum MERV 13 During Construction Common Areas	During construction install a minimum of a MERV 13 air filter.	Cut sheet of air filter system.	GC requirement by JM
H3.2.1	2		Individual Units	During construction install a minimum of a MERV 13 air filter.	Cut sheet of air filter system.	GC requirement by JM
H3.2.2	2		Pre-Occupancy IAQ Testing	Test and remediate building prior to occupancy using procedure consistent with the United States Environmental Protection Agency's current Protocol for Environmental Requirements, Baseline IAQ and Materials, for the Research Triangle Park Campus, Section 01445.	Copy of the IAQ testing results indicating that the maximum chemical contaminant concentration requirements are not exceeded.	GC requirement by JM
H3.3	1		Low-Emitting Materials/Healthy Finishes			
H4						

H4.1	2			2	Adhesives & Sealants	All adhesives and sealants shall be low Volatile Organic Compound (VOC) and meet the VOC limits below that were established by the South Coast Air Quality Management District (SCAQMD) Rule #1168 AND all sealants used as fillers must meet or exceed the requirements of the Bay Area Air Quality Management District Regulation 8, Rule 51.	Contractor shall maintain all Material Safety Data Sheet (MSDS) highlighting the stated VOC emissions for each paint and coating used in the building.	KK - TBD
H4.2	2	2		2	Paint	Interior paints and coatings shall be less than 100 g/l for non-flat paint and less than 50 g/l for flat paint. Exterior paints and coatings shall be less than 200 g/l for non-flat and less than 100 g/l for flat.	Contractor shall maintain all Material Safety Data Sheet (MSDS) highlighting the stated VOC emissions for each adhesive and sealant used in the building.	TJH to spec
H4.3	2	2		2	Carpet	All carpet and carpet products shall meet the Carpet & Rug Institute Green Label Certification Program.	Provide carpet cut sheets or the VOC limits for each carpet product used in the building.	TJH to spec
H4.4	2	2		2	Composite Wood	All composite wood and agrifiber products will contain no added urea-formaldehyde.	Provide a manufacturers catalog cut sheet for each composite wood or agrifiber product used in the building indicating that the bonding agent used in each product contains no added urea-formaldehyde.	TJH to spec - GC Requirement
H4.5	2			2	Insulation	All Insulation products will be free of formaldehyde.		KK - TBD
H4.6					Minimize Carpet Use			
H 4.6.1	2			2	100% Hard Flooring Installed in Individual Units	The flooring installed shall be classified as hard or resilient and comply with GreenGuard or similar health related certification.	Cut sheets of flooring selections.	KK - TBD
H 4.6.2	2			NA	Carpet Tiles Used in Common Areas	If carpet is installed in common areas, carpet tiles must be used. All carpet and carpet products shall meet the Carpet & Rug Institute Green Label Certification Program.	Provide carpet cut sheets or the VOC limits for each carpet product used in the building.	
H4.7	2	2		2	Green Cleaning - Environmentally Friendly Maintenance - Green Cleaning Products in Common Areas	Owner shall maintain or contract a cleaning service to maintain the property using only non-toxic cleaning supplies in the regular maintenance of the building. A list of approved supplies must be posted in janitor closets and in common areas such as break rooms and restrooms. Non-Toxic is defined as having a zero Health Hazard rating on the product's Material Safety Data Sheet (MSDS) and listed as "non-toxic" for Acute Toxicity under "Section V - Health Information" on the MSDS. Alternatively the products may be approved by the EPA's Design for Environment program or Green Seal.	Provide a list of approved cleaning products for the building	JMH to contact cleaning company in regards to toxic free supplies
H4.8	2			2	Healthy Pool- Non-Chlorine System	Install and use a pool sanitation system that reduces the use of chlorine.	Cut sheet or photo of sanitation system	JMH
H5					Management			
H5.1					Prohibit Smoking			

H 5.1.1	1	NA	Reduce Smoke Exposure and Transfer	<p>1. Prohibit smoking in all common areas of the building. The prohibition must be communicated in building rental/lease agreements or condo/coop association covenants and restrictions, and provisions for enforcement must be included.</p> <p>2. Locate any exterior designated smoking areas, including balconies where smoking is permitted, at least 25 feet from entries, outdoor air intakes and operable windows opening to common areas.</p> <p>3. Prohibit on-property smoking within 25 feet of entries, outdoor air intakes and operable windows. Provide signage to allow smoking in designated areas, prohibit smoking in designated areas or prohibit smoking on the entire property.</p>	Copy of the covenants and restriction, plan showing designated smoking area, copy of signage	TJH														
H 5.1.2	1	NA	Prohibit Smoking Throughout the Building	<p>1. Prohibit smoking within living units. The prohibition must be communicated in building rental/lease agreements or condo/coop association covenants and restrictions, and provisions for enforcement must be included.</p> <p>2. Prohibit smoking in all common areas of the building. The prohibition must be communicated in building rental/lease agreements or condo/coop association covenants and restrictions, and provisions for enforcement must be included.</p> <p>3. Any exterior designated smoking areas must be located at least 25 feet away from all entries, outdoor air intakes, and operable windows.</p>	Copy of the covenants and restriction, plan showing designated smoking area, copy of signage															
H 5.2	2	2	Integrated Pest Management	<p>Work with a skilled pest control professional to develop an Integrated Pest Management Plan that addresses the following four items:</p> <ul style="list-style-type: none"> • Monitoring and prevention of pest populations. • Application of pesticides only "as needed" after prevention and physical controls have been implemented. • Selecting the least hazardous pesticides for control of targeted pests. • Precision targeting of pesticides to areas not contacted or accessible to the occupants • Provide information to homeowners on non toxic pest management practices. 	Provide a copy of the pest management plan including identification of the pests and monitor process, action thresholds, prevention activities, and control mechanisms.	JMH to hire Pest Control Management company														
MATERIALS (Required Category Minimum 5)																				
<table border="1"> <tr> <td>CREDITS</td> <td>TOTAL AVAILABLE</td> <td>AWARDED</td> <td>ACHIEVED</td> <td>POSSIBLE</td> <td>NA</td> <td></td> </tr> <tr> <td></td> <td>30</td> <td>4</td> <td>1</td> <td>1</td> <td></td> <td>Points Below Category Minimum 1</td> </tr> </table>							CREDITS	TOTAL AVAILABLE	AWARDED	ACHIEVED	POSSIBLE	NA			30	4	1	1		Points Below Category Minimum 1
CREDITS	TOTAL AVAILABLE	AWARDED	ACHIEVED	POSSIBLE	NA															
	30	4	1	1		Points Below Category Minimum 1														
MATERIALS																				
M 1	REQUIREMENTS																			
M 1.1	3	NA	Waste Management Building Reuse	Rehabilitate existing building. Maintain 50% of the existing shell (exterior skin and framing, excluding window assemblies) and non structural roofing material.	Floor plan of existing building, demolition plan, and new building floor plan.	JMH														
SUBMITTAL						DESIGNATED PROFESSIONAL COMMENTS														

M 1.2	4	NA	<p>Recycled Content 1 point: > 5% - 10% 2 points: > 10% - 15% 3 points: > 15% - 20% 4 points > 20%</p>	<p>Incorporate recycled materials (based on materials cost). Use materials with recycled content such that post-consumer and/or post-industrial recycled content constitutes a minimum of 5% of the total project cost. Earn one additional point for each additional 5% of recycled content materials. The value of the recycled content portion of a material or furnishing shall be determined by dividing the weight of recycled content in the item by the total weight of all material in the item, then multiplying the resulting percentage by the total value of the item. Mechanical and electrical components shall not be included in this calculation. Recycled content materials shall be defined in accordance with the Federal Trade Commission document, Guide for the Use of Environmental Marketing Claims, 15 CFR 260.7 (e), available at www.ftc.gov/bcp/gmrule/guides980427.htm.</p>	<p>Submit recycled content calculations. Refer to the "Materials Worksheet" for calculations.</p>	JMH
M 1.3	1		<p>Recyclable Materials</p>	<p>Use materials that at the end of their useful lifecycle can be recycled by the manufacturer into the raw materials stream of another product. The value of such products will constitute a minimum of 10% of the total value of the materials in the project</p>	<p>Submit recyclable materials calculations. Refer to the "Materials Worksheet" for calculations.</p>	
M 1.4	1	NA	<p>Rapidly Renewable > 3%</p>	<p>Incorporate rapidly renewable (plant to harvest cycle <10 years) for 3% of the total value of all building materials and products used in the project.</p>	<p>Submit calculations demonstrating that the project incorporates the required percentage of rapidly renewable products. Refer to the "Materials Worksheet" for calculations.</p>	JMH
M 1.5	1	NA	<p>Certified Wood</p>	<p>Wood products are FSC, SFI or CSA certified. Use a minimum of 50% of wood-based materials and products, certified in accordance with the Forest Stewardship Council (FSC) Guidelines, for wood building components, including but not limited to, structural framing and general dimensional framing, flooring, finishes, furnishings and non-rented temporary construction applications such as bracing, concrete form work and pedestrian barriers.</p>	<p>Submit a copy of the wood certification and the calculations showing 50% (based on cost) of the wood purchased for the project is certified. Refer to the "Materials Worksheet" for calculations.</p>	JMH
M 1.6	1	NA	<p>Bio-based > 3%</p>	<p>Earn one point if 3% of the materials, based on cost, are bio-based such as solid wood, engineered wood, bamboo, wool, cotton, cork, agricultural fibers, or other bio-based materials having at least 50% bio-based content.</p>	<p>Cut sheets of materials used and the calculations showing 3% (based on cost) of the materials purchased for the projects are bio-based. Refer to the "Materials Worksheet" for calculations.</p>	JMH
M 1.7	2	NA	<p>Resource Efficient or Panelized Wall Systems</p>	<p>Install a minimum of 80% of the non-structural exterior walls must be Autoclaved Aerated Concrete (AAC), Insulated Concrete Forms (ICF), or Structural Insulated Panels (SIPs) or a combination thereof.</p>	<p>Photo, detailed plans, or material cut sheets. Refer to the "Materials Worksheet" for calculations.</p>	JMH
M 1.8	2	NA	<p>Efficient Drywall Installation: T Walls with Drywall Clips, 2-Stud Corners or Ladder Framing</p>	<p>Use 2-stud corners, ladder T-wall framing, and drywall clips in all possible locations.</p>	<p>Construction details on plans and photos</p>	JMH
M 2			<p>Material Efficiency and Global Responsibility</p>			

DMD 1.1	2			Hurricane, Impact Resistance of Openings	ALL installed glazing is impact resistant.	Provide the manufacturer's cut sheets for the impact resistant products indicating the required approvals and classifications. Provide a door and window schedule listing impact-resistant products used on the project.	TJH	
DMD 1.2	2	NA		Flood, Slab Elevation	FFE must be 12" above 100-year flood plain or finished grade adjacent to building, whichever is higher. All grades around building must slope away from the foundation a minimum of 6" at 10'-0" distance. The 100-year flood plain is determined by FEMA.	Provide the appropriate drawings illustrating the foundation design, floor elevation and grading requirements. Include a copy of the NFIP Elevation Certificate certified by the surveyor, engineer or architect showing the 100-year flood plain elevation or grade.	no mention of whether this is for FFE for first habitable level or lowest level	
DMD 1.3	2			Wildfire, Fire Resistant Exterior Finishes	Project must utilize fire-resistant exterior wall cladding, roof covering or sub-roof, soffit and vent materials. An exterior cladding other than wood or vinyl must be used on all exterior walls. A roof covering other than asphalt shingles or wood shakes must be used on the entire roof. Credit is also available if the sub-roof (roof deck) is of a fire-resistant material, instead of the covering. Soffit and vent materials must be other than wood or vinyl. When these parts of the building are compromised, embers from nearby fires can enter into the attic.	Provide appropriate drawings and manufacturer's cut sheets illustrating the fire resistance of the exterior finish materials.	TJH	
DMD 1.4	2	NA		Termite Prevention	Provide a permanent sign, posted near the water heater or electrical panel, identifying the termite treatment provider, the need for re-inspection and treatment contract renewal. A single slab must be poured monolithically or must have area treated for termites before each portion of slab is poured. After the slab has substantially cured, any penetration through the slab such as piping or conduit shall be sealed around its perimeter with an elastomeric sealer. Any foam insulation must terminate above ground such that none of it extends below grade. The exterior cladding of the building must terminate at least 8" above grade. All wood products must be treated with Borate or ACO. Rain gutters must be installed to collect water from all roof slopes and convey it at least 3 feet away from the building foundation. All HVAC condensate line(s) must discharge at least 3 feet away from the building. All plants and irrigation should be at least 3 feet from building. Florida law requires that a contract be issued whenever a termite treatment is conducted. The warranty shall include the pest control company to restore any property damaged by wood-destroying organisms during a specified period after the treatment.	Provide project photos, copy of warranty, and appropriate construction details	TJH believes requirements for cladding and planting do not appear to conform with current design	

DMD 1.5	2	NA	Termite, Non-Toxic Termite Pretreatment	The building uses an alternative to traditional soil poison for termite treatment. Systems may include the use of borate or Alkaline Copper Quaternary (ACQ) treated lumber or termite bait systems. To achieve this credit any and all plants, turf and irrigation lines must be a minimum of 3' from the foundation. Additionally, any foam insulation must terminate above ground. The exterior cladding of the building must also terminate a least 8" above grade. Rainwater from the roof must also be dispersed a minimum of 3' from the building foundation (by the use of downspouts or scuppers and extensions or splash blocks). All AC condensate lines must also discharge a minimum of 3' from the building.	Provide appropriate drawings and specifications, illustrating compliance to all requirements.	TJH believes requirements for cladding and planting do not appear to conform with current design
DMD 2						
DMD 2.1	1	1	Durability Durable Materials, Exterior Finish Materials	Use finish systems and materials capable of withstanding the moisture and heat impacts of the local climate for a period of 30 years on 100% of the exposed exterior surfaces. Structure shall be Type IA, exterior materials shall be approved by Miami-Dade County, or have a 30-year warranty.	Plan detail identifying all the systems and materials used for the exterior finish of the building. Attach copies of the NOA for Miami-Dade, manufacturer's warranties or documentation supporting the established history for any material without a written warranty.	TJH / KK to specify
DMD 2.2	1	1	Lever-Style Clothes Washer Water Shutoff	Install a lever style shutoff valve that only requires a 90o turn to shut off water supply	Provide construction detail, signed approved submittal, and photos of installed valves	FES
DMD 2.3	1	1	Water Sensors/Shutoff system	Receive one point if a sensor/shutoff system is installed to cut off water supply to a clothes washer and water heater located inside conditioned space. Alternatively, one point is available for a whole-house system that detects any sign of water leakage anywhere inside the conditioned space, and cuts off the main water supply to the unit.	Construction detail, cut sheet, and photo of system installed	FES - water detection systems are available but coverage to be determined
DMD 2.4	1	1	Durability: Use Armored/Metal Hoses from Service to All Fixtures/Appliances	Install armored, braided, pex, or otherwise reinforced hoses to all water using fixture or appliances.	Cut sheet, construction detail, signed approved submittal, site photos	FES - ok
DMD 2.5	1	1	Low-Maintenance Finishes	Use materials (on the floors, walls and ceilings) that can be maintained in a serviceable condition using green cleaning products for 100% of the interior finishes of the building and 50% (by surface area) of the exterior finishes.	Provide a copy of the manufacturers recommended maintenance procedures, the type and area of materials that comply.	TJH / KK to specify

E

REPORT ON COMPATIBILITY
of
PROPOSED DESIGNS
with the
CRITERIA for ARCHITECTURAL SIGNIFICANCE
per
TOWN of SURFSIDE ORDINANCE #16-1655

FOR:

8995 COLLINS AVENUE

SURFSIDE, FLORIDA 33154

COMPLETED BY:

ARTHUR J. MARCUS ARCHITECT P.A.
1800 NORTH ANDREWS AVENUE #7F
FORT LAUDERDALE, FLORIDA 33311

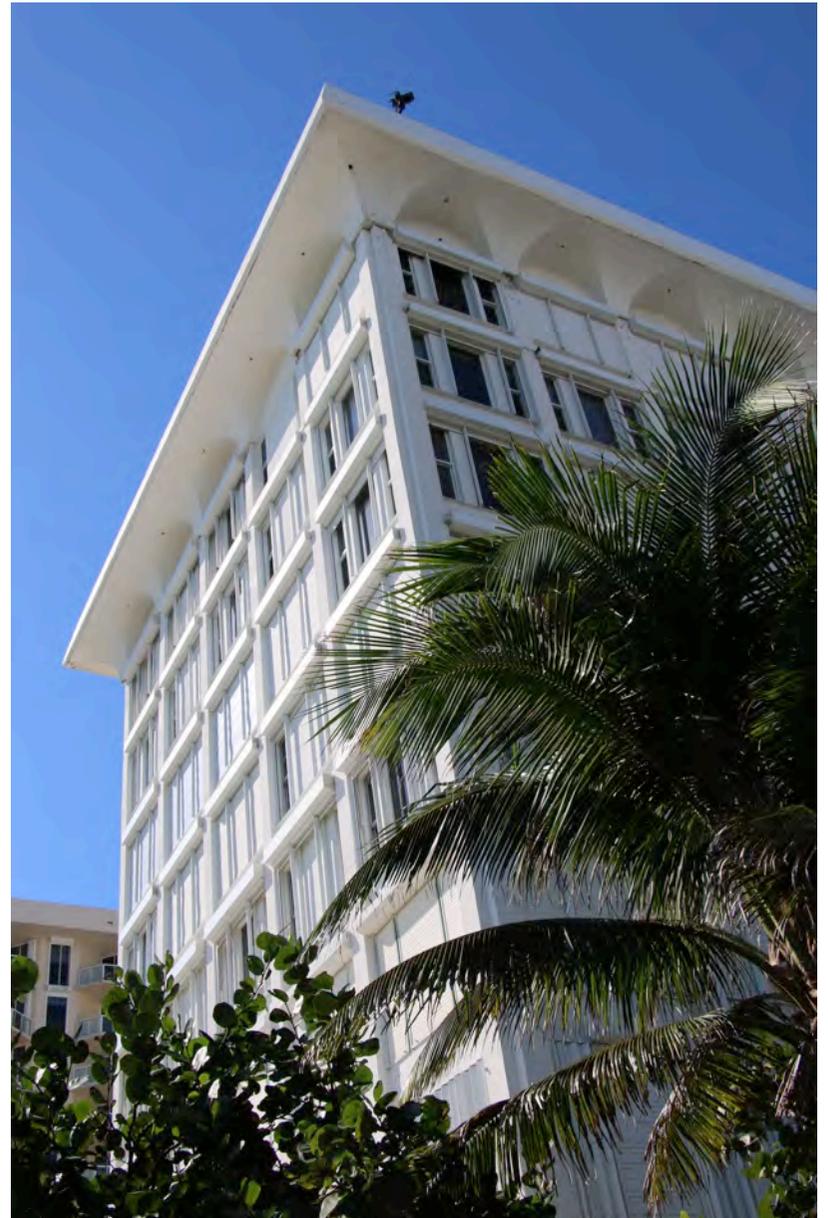
COMPLETED FOR:

JMH DEVELOPMENT, LLC
184 KENT AVENUE
BROOKLYN, NEW YORK 11249

FOR PRESENTATION TO:

TOWN of SURFSIDE
9293 HARDING AVENUE
SURFSIDE, FLORIDA 33154

JANUARY 1, 2018



COMPATIBILITY of PROPOSED DESIGNS
with the
CRITERIA for ARCHITECTURAL SIGNIFICANCE
per
TOWN of SURFSIDE ORDINANCE #16-1655

8995 COLLINS AVENUE
SURFSIDE, FLORIDA 33154

The proposed architectural plans and elevations for 8995 Collins Avenue call for a respectful re-interpretation of this Mid-Century Modern building which has stood at this site since 1966. This review is based upon the features of architectural significance as defined by the Town of Surfside Ordinance No. 16-1655 as well as comments on additional issues affecting historic elements..

The re-interpretation of these existing significant architectural features looks toward maintaining the essential architectural character of this historic building. There is a rationale for each of these architectural decisions as they affect the significant architectural elements of the building - as elaborated below.

SIGNIFICANT ARCHITECTURAL DETAILS:

*** OVERHANGING ROOF**

The overhanging roof is proposed to be raised up to the new roof level of the building above the 12th floor. Currently the building is 8 floors tall. From an architectural viewpoint it seems more appropriate to raise the roof to the new taller scale of the building - rather than to build new above the roof-top in place. This relocated location still serves to celebrate this arched overhanging roof as a detail of architectural significance. This particular overhanging roof in a mid-building location would be an awkward design challenge quite difficult to design around.

*** ARCHES @ OVERHANGING ROOF**

The existing arches at the overhanging roof are proposed to be raised up to the new roof level of the building. As with the overhanging roof it does seem more appropriate to raise these arches - rather than to build new above the roof-top in place. The arches at the overhanging roof are a significant architectural feature.

*** CURVED CONCRETE COLUMN BASES**

The curved concrete column bases for the vertical concrete columns running the height of the building are a significant architectural feature. These curved concrete column bases are typical at the beginning of each vertical column. These curved concrete column bases comprise a significant architectural feature.

TOP PHOTO: OVERHANGING ROOF & ARCHES @ 8995 COLLINS AVENUE.
LOWER PHOTO: CURVED CONCRETE COLUMN BASES @ 8995 COLLINS AVE.



SIGNIFICANT ARCHITECTURAL DETAILS:

* REPETITIVE MOTIFS

One of the major design elements of this building is the window fenestration pattern. The Architects have re-interpreted the basic building structure as the rationale for fenestration and for re-interpreting this building to work in the 21st century.

The repetitive motif in both the existing and proposed facades provides distinctive elevations. An overall pattern for a building is a typical feature of Mid-Century / MiMo architecture. This repetitive structural grid on the major elevations has become the point of inspiration for the Architects.

The original facades of this building have become hidden over the years with storm shutter frames in place on the elevations. These storm shutter systems provide hurricane protection for approximately 50% of the building's windowed elevations. On one hand there is the original irregular motif pattern with some window bays and some blank walls or on the other hand there is the storm shutter system gridded to the elevations and the de-facto viewed elevation for generations of Surfsiders.

The repetitive motif of the facades - especially with the storm shutters - actually masks different conditions throughout the building. Sometimes there are windows and sometimes there are walls. The storm shutter system has gone a long way to morph the view of the building into a geometric grid.

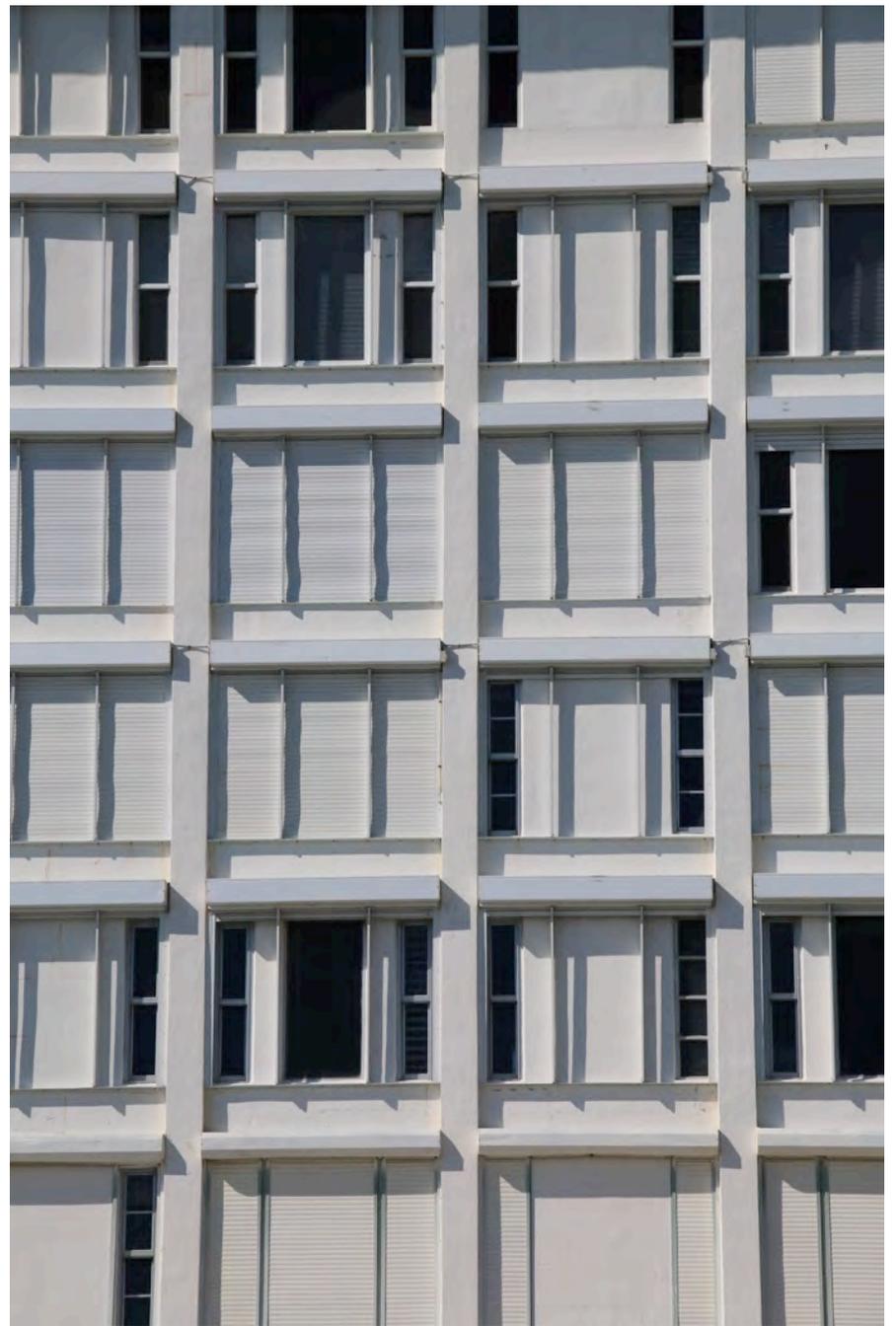
* EXEMPLIFIES REGIONAL STYLE OF ARCHITECTURE

In the original Architectural Significance Report for 8995 Collins Avenue completed by this author and dated March 3, 2017 - this was one of the qualifying significant architectural features.

There is a common design thread of tall columns topped by arches in mid-century architecture - especially in Surfside with 8801 Collins Avenue completed in 1965 and 8995 Collins Avenue completed in 1966. Also in 1966 this regional style made its debut at Lincoln Center in New York City in 1966. Yet it was the 301 Arthur Godfrey Road office building in Miami Beach by Charles Giller Architect that actually began this regional style in 1963.

This thoughtful re-interpretation for 8995 Collins Avenue respects and reflects the historic significant architectural elements of the building - and celebrates their significance in its proposed re-design. At the same time 8995 Collins Avenue continues to highlight the architecturally significant elements of this regional architectural style.

TOP PHOTO: TYPICAL PARTIAL ELEVATION @ 8995 COLLINS AVENUE
MIDDLE PHOTO: ROOFTOP @ 301 ARTHUR GODFREY RD. IN MIAMI BEACH.
LOWER PHOTO: 8801 COLLINS AVENUE WHEN COMPLETED IN 1963
BY CHARLES GILLER ARCHITECTS



ADDITIONAL IMPROVEMENTS :

OPENING UP of REAR (SOUTH) FACADE

The provision of new windows into the formerly forbidding 8-story blank walled south elevation - is a great improvement both for the surrounding neighborhood who must look at the building - as well as opening up the interior of the building to daylight.

The proposed south elevation responds to the surrounding neighborhood with a much improved neighborhood-friendly building elevation. This will definitely be a great improvement over the existing overwhelming blank wall. These new window openings also respect the historic repetitive structural motif of the building and tie in with adjacent building elevations. A building is meant to be read from all four elevations.

NEW TERRACES

The addition of new terraces has been achieved within the existing horizontal architectural building lines. The light-well openings between terraces provides a kinetic visual relief from the overall horizontality on the facade.

The glass railings further reinforce the existing lines of the building by essentially disappearing when viewing the building. These new terraces respect the existing structural lines of the building and strive to blend with the existing structural lines.

RELOCATION OF GARAGE ENTRANCE FROM

COLLINS AVENUE TO 90 STREET

The garage entrance has always been accessed directly from Collins Avenue. With the steady increase in the volume of traffic over the years this garage entrance creates traffic back-ups into oncoming traffic.

Thus the developer has worked with the Town of Surfside to provide an improved solution for garage access from 90th Street.

CONCLUSION

As the author of this report I believe that the proposed plans for 8995 Collins Avenue meet the standards for Architectural Significance as described in the Town of Surfside Ordinance No. 16-1655.

TOP PHOTO: REAR (SOUTH) ELEVATION of 8995 COLLINS AVENUE
courtesy KOBİ KARP ARCHITECTURE

LOWER PHOTO: RENDERING OF PROPOSED NEW 8995 COLLINS AVENUE
courtesy KOBİ KARP ARCHITECTURE



TRAFFIC ENGINEERING STAFF REVIEW COMMENTS & CONFLICT POINT GRAPHICS



TOWN OF SURFSIDE PLANNING COMMENTS SITE PLAN REVIEW COMMENTS

Discipline: Traffic Engineering
Reviewed by: Eric Czerniejewski, P.E., ENV SP
Date: May 19, 2018
Phone No.: (954) 921-7781
Fax No.: (954) 921-8807

Application No.: 08-1763.33
Project Name: 8995 Collins

Comments Based on Plan Submittal: 2nd submittal (revised plan)

 No comments
 X Comments as followed or attached

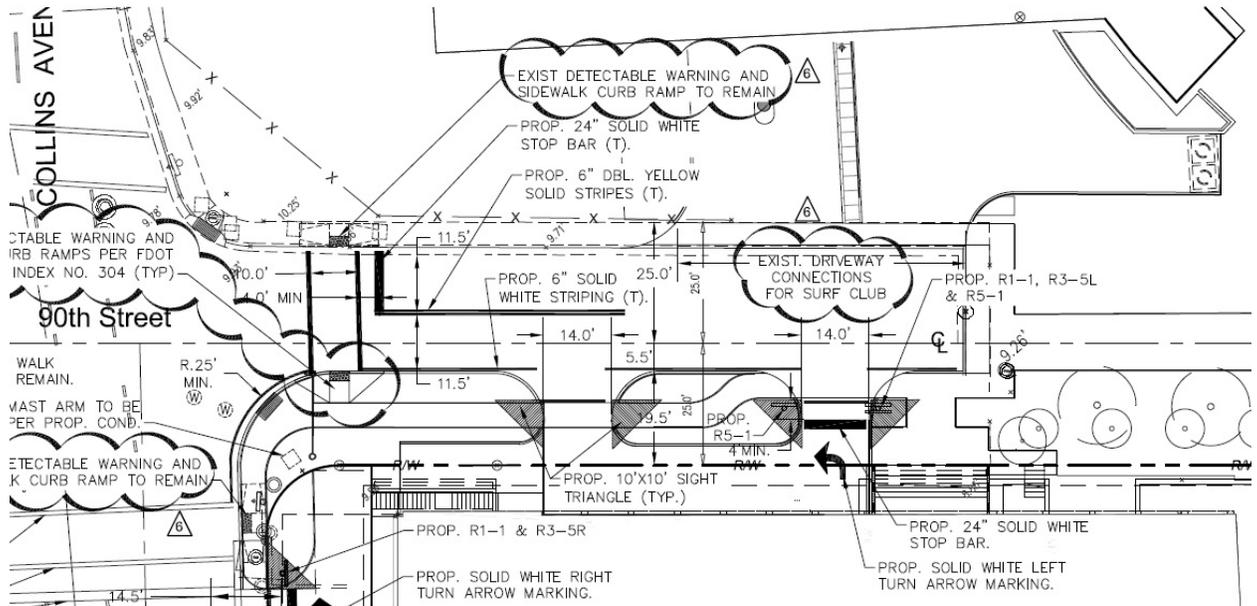
1. Projects that have direct or immediate access or is within one-half block of Collins Avenue, Harding Avenue or 96th Street shall be subject to the review and approval by FDOT for compliance with FDOT standards. Please provide an approval letter from FDOT as part of your resubmittal. (Town of Surfside Code Section 90-81.11)

Tom Hall 04/23/18 Response: The Permits Section of the Florida Department of Transportation's District VI office does not provide "Pre-App" letters in the manner of District IV. Therefore, it is not possible to provide the requested letter until the time that a Driveway Permit is applied for. As soon as the Driveway Permit is obtained, a copy will be provided to the Town.

CGA response: Addressed.

2. The pavement marking and signage plan needs to show the existing driveway connection details for the Surf Club on the north side of 90th Street.

Ocean Engineering, Inc. 04/23/18 Response: The pavement marking and signage plans have been revised to show the existing driveway along the north side of 90th Street. (WL)



CGA response: Addressed. Applicant updated pavement marking and signage plans and provided a supplemental narrative that discusses the number of trips using the Surf Club entrance on to 90th Street.

3. Please update the pavement marking and signage plan to include the complete linework for the proposed sidewalk infrastructure. There is linework not shown on this plan that is shown in the proposed site plan drawing. Please include the proposed ADA handicap ramps for the north south crosswalk proposed on 90th Avenue just east of Collins Avenue.

Ocean Engineering, Inc. 04/23/18 Response: *The pavement marking and signage plan has been revised to show the same linework as the proposed site plan and the proposed ADA handicap ramp for the north south crosswalk on 90th St. (WL)*

CGA response: Addressed. Applicant updated pavement marking and signage plans that shows the additional sidewalk infrastructure and the proposed handicap ramps for the north south crosswalk proposed on 90th Avenue.

4. Please confirm if paver bricks will be reinstalled at the proposed north south crosswalk proposed on 90th Avenue just east of Collins Avenue. The paving, grading and drainage plan calls out for 90th Street to be milled and resurfaced.

Ocean Engineering, Inc. 04/23/18 Response: *The paver bricks will be reinstalled at the north/south crosswalk on 90th St. (WL)*

CGA response: Addressed.

5. The location of the proposed stop sign, left turn only and do not enter signs are not shown on the pavement marking and signage plan at the egress only driveway connection on 90th Street. Please show location of the proposed signs that match the labels.

Ocean Engineering, Inc. 04/23/18 Response: *The proposed signs are shown on the pavement marking and signage plan. (WL)*

CGA response: Addressed.

- The proposed solid white left turn arrow marking should be positioned perpendicular and set back to the proposed stop bar at the egress only driveway connection on 90th Street.

Ocean Engineering, Inc. 04/23/18 Response: *The proposed turn arrow has been modified to be perpendicular and set back to the stop bar. (WL)*

CGA response: Addressed.

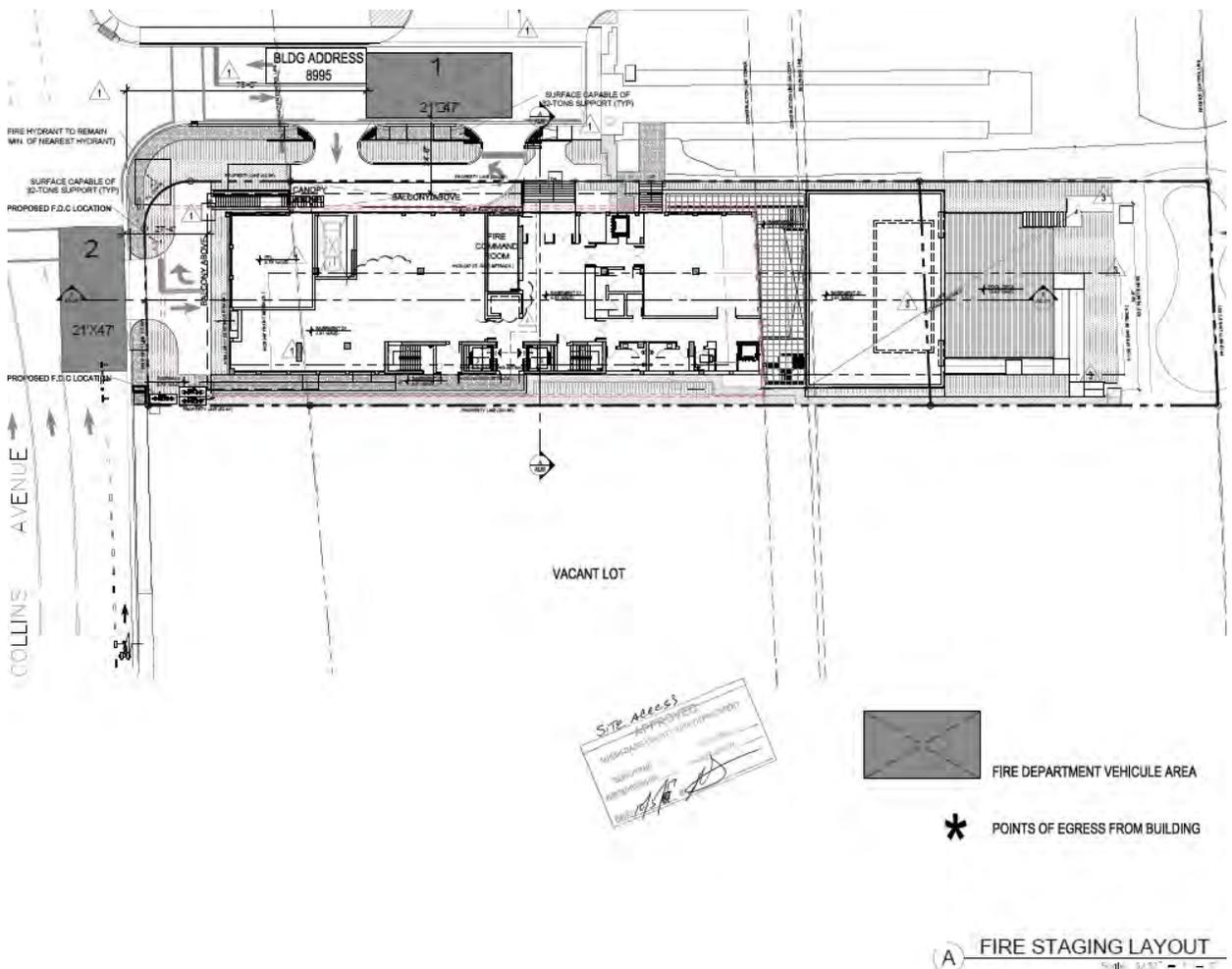
- Please either label the directional arrows that are shown on the pavement marking and signage plan as "informational only" or remove the symbols from the plans. It is unclear from the design plans if these are to be installed as part of the project.

Ocean Engineering, Inc. 04/23/18 Response: *the directional arrows have been removed from the pavement marking and signage plan. (WL)*

CGA response: Addressed.

- A Fire Staging area is being proposed in both the Collins Avenue and 90th Street public right-of-way. Please confirm that Fire Rescue and FDOT have reviewed and approved these two locations.

Ocean Engineering, Inc. 04/23/18 Response: *A fire staging area both on Collins Avenue and 90th Street right of way have been reviewed and approved by Fire. Please refer to the stamped drawing provided with this submittal.*



CGA response: Addressed.

9. An additional traffic analysis will be required to evaluate the proposed conversion of 90th Street to a one-way roadway facility between Harding Avenue and Collins Avenue. Additional comments may be issued for these proposed off-site improvements.

Tom Hall 04/23/18 Response: *Response: The proffer of a project to make 90th Street a one-way roadway between Collins Avenue and Harding Avenue is contingent upon approval by the Town of Surfside for the proposed 8995 Collins Avenue redevelopment project. Once the residential project has been approved, the requested traffic analysis will be prepared for the proposed one-way roadway modification. It should be noted that the Town has been performing its own empirical test of one-way operation on this portion of 90th Street and has concluded that it should become permanent. The Town Commission unanimously agreed, on April 10, 2018, to seek all approvals necessary to make this happen.*

CGA response: Addressed.

10. The valet parking analysis should be updated to address the following traffic operational concerns:

- Because the vehicles of the residents leaving the building also “arrive” at the valet station their number needs to be added to the hourly arrival rate. The most current study utilizes the 12 PM peak entering trips as the queue arrival rate rather than adding the 8 exiting vehicles and expanding it to 20 vehicles. The queue to analyze is the one that forms at the very head of the line, which is fed both by arriving occupants waiting to turn their vehicle over to the arrivals valet, and departing vehicles emerging from the ascending (east) lift being returned to their owners.

Tom Hall 04/23/18 Response: *As the reviewer can well imagine, the rush to update the traffic study was done while the site plan was still being revised. An assumption was made that, with a mere 12 entering vehicles in the peak hour of the day, all 12 could be handled by entering directly into the entry lift. Of course, it is likely that more than one vehicle may arrive at the same time or so closely behind another that the entry lift is already in use and, thus, requires the second vehicle to have to wait in the queue storage area. A revised analysis is enclosed.*

CGA response: Addressed. Applicant’s revised traffic study dated 05/03/18 used 16 entering vehicles and 16 exiting vehicles in the revised queuing analysis to be conservative. Peer Reviewer, Traf Tech, provided 05/04/18 letter (copy attached) that corroborates the results of the Applicants traffic study.

- Because of this, the worst-case condition is based on the entering plus exiting hourly total, not the entering volume alone.

Tom Hall 04/23/18 Response: *The worst-case condition is some combination of entering and exiting vehicles. However, it isn't likely to be 20 vehicles, as asserted by the reviewer. It is expected that some entering vehicles may be dropped off by their owner and driven straight into the entry lift. It is only those who must wait for an entry opportunity that will be stored in the vehicle queue storage area. The revised analysis examines this queuing probability to estimate the combined total of vehicles expected to use the vehicle queue storage area. See the discussion in the response to comments 10.D and 10.E for the analysis methodology.*

What is germane to comment 10.B is this, the average queue for entering vehicles is 17 feet, or less than one vehicle length. This means that, for most of the peak hour, a single vehicle is waiting to enter the lift. Of course, the lift may already be in use delivering another vehicle to a parking space when this vehicle arrives, but, over the course of the three minutes required to park the first vehicle in the lift, no other vehicle arrives so the waiting vehicle may sit in the entrance without ever being moved to the queue storage area. Consequently, since the vehicle enters directly into the entry lift, there is no circular pattern of entering the queue storage area and circling around through the exit lane onto 90th Street and reentering the site from westbound 90th Street. In spite of this, and to be conservative in our analysis, we increased the entering volume to 16 vehicles and added eight (8) vehicles making the westbound-to-southbound left turn into the site (see the enclosed Synchro intersection report).

CGA response: Applicant's revised traffic study dated 05/03/18 used 16 entering vehicles and 16 exiting vehicles in the revised queuing analysis to be conservative.

- The average service time at the valet station should appropriately reflect the mix of service times (for arriving vs departing residents) and their proportions.

Tom Hall 04/23/18 Response: *We cannot agree with this assertion. Exiting vehicles are queued within the underground parking area and in no way affect the potential queue backup on eastbound 90th Street. The only wait time for exiting vehicles that affects the potential backup on eastbound 90th Street is that time required for the valet attendant over to the owner and for the owner to then exit the queue storage area onto westbound 90th Street.*



CGA response: Addressed. The applicant provided a new 8995 Collins Valet Parking Operational Plan which depicts the staged valet operation.

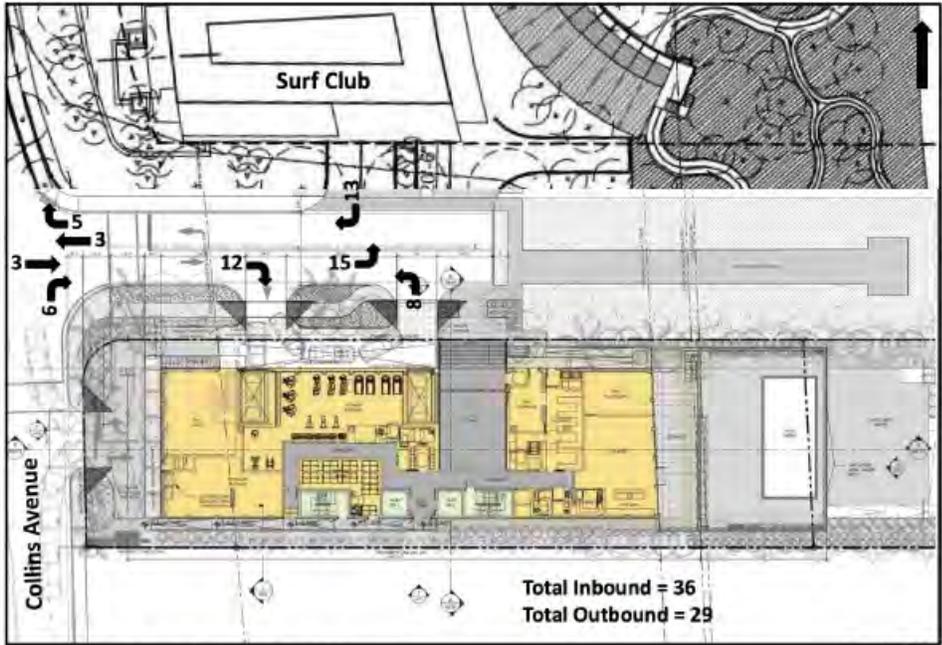
- One hour is far too long to be an appropriate analysis interval. The result of this type of analysis is sensitive to the choice of analysis "interval" length. For any sufficiently short interval the most likely number of arrivals is zero and there is of course no chance of any queue. In undersaturated conditions like this, given a sufficiently long analysis interval, any queue buildups within the interval due to the variable arrival rate involved are inevitably discharged.

Tom Hall 04/23/18 Response: *While the reviewer may believe an hour to be too long an interval for estimating queues for the project, that is the method prescribed in the Institute of Transportation Engineer's Transportation and Land Development manual. In an effort to think through another method for considering the random arrival of vehicles to form a queue of entering vehicles, it occurred to us that Simtraffic could provide such an estimate. As a microscopic simulation model, it looks at every vehicle on a random arrival basis.*

The intersection of 90th Street at the project driveway/Surf Club driveway was treated as a signalized intersection with a 180-second-long north-south phase to simulate the 180 seconds assumed to be required to drop off a vehicle to the valet attendant and have that vehicle parked in the underground garage on a parking lift. The east-west phase was given a nominal 30 seconds for a total cycle length of 210 seconds, or 3.5 minutes. To simulate the storage within the project site, eastbound 90th Street was given a 75-foot-long right-turn lane (equivalent to three vehicle lengths of queue storage in Synchro). The eastbound right-turning vehicles were not permitted to turn right on red so that during the 180-second time that one vehicle was being parked, no other vehicle could leave the queue.

The Synchro network, including the new signal at the project entrance, was then imported into Simtraffic and four, hour-long runs were completed. A copy of both the Synchro intersection report and the average of the four Simtraffic queue reports are enclosed.

As the reviewer can see by perusing the enclosed four-run-average Simtraffic queue report, the maximum queue, which is the total queue, not a percentage of the queue, is 49 feet in length. Simtraffic considers one vehicle length to be 19.5 feet in its queuing analysis so the average maximum queue observed in the four runs, 49 feet, is equivalent to 2.51 vehicles, or for practical purposes, three vehicles.



CGA response: Addressed. The applicant provided a new 8995 Collins Valet Parking Operational Plan which depicts the staged valet operation. It should be noted that there is limited space for eastbound left turning vehicles into the Surf Club development to queue on 90th Street. The Simtraffic queue report identifies an EBL queue of 54 LF (around 3 vehicles). The post development valet operational analysis study will need to evaluate not only the valet operations at 8995 Collins but also the traffic operations within 90th Street including the driveway operations at the Surf Club and 90th Street.

- The applicant needs to demonstrate that enough interval lengths have been tested to identify the “worst” condition i.e. the interval length that produces the highest likelihood of the queue exceeding three vehicles.

Tom Hall 04/23/18 Response: *While the reviewer may believe an hour to be too long an interval for estimating queues for the project, that is the method prescribed in the Institute of Transportation Engineer's Transportation and Land Development manual. In an effort to think through another method for considering the random arrival of vehicles to form a queue of entering vehicles, it occurred to us that Simtraffic could provide such an estimate. As a microscopic simulation model, it looks at every vehicle on a random arrival basis.*

The intersection of 90th Street at the project driveway/Surf Club driveway was treated as a signalized intersection with a 180-second-long north-south phase to simulate the 180 seconds assumed to be required to drop off a vehicle to the valet attendant and have that vehicle parked in the underground garage on a parking lift. The east-west phase was given a nominal 30 seconds for a total cycle length of 210 seconds, or 3.5 minutes. To simulate the storage within the project site, eastbound 90th Street was given a 75-foot-long right-turn lane (equivalent to three vehicle lengths of queue storage in Synchro). The eastbound right-turning vehicles were not permitted to turn right on red so that during the 180-second time that one vehicle was being parked, no other vehicle could leave the queue.

The Synchro network, including the new signal at the project entrance, was then imported into Simtraffic and four, hour-long runs were completed. A copy of both the Synchro intersection report and the average of the four Simtraffic queue reports are enclosed.

As the reviewer can see by perusing the enclosed four-run-average Simtraffic queue report, the maximum queue, which is the total queue, not a percentage of the queue, is 49 feet in length. Simtraffic considers one vehicle length to be 19.5 feet in its queuing analysis so the average maximum queue observed in the four runs, 49 feet, is equivalent to 2.51 vehicles, or for practical purposes, three vehicles.

CGA response: Addressed. The applicant provided a new 8995 Collins Valet Parking Operational Plan which depicts the staged valet operation. It should be noted that there is limited space for eastbound left turning vehicles into the Surf Club development to queue on 90th Street. The Simtraffic queue report identifies an EBL queue of 54 LF (around 3 vehicles). The post development valet operational analysis study will need to evaluate not only the valet operations at 8995 Collins but also the traffic operations within 90th Street including the driveway operations at the Surf Club and 90th Street.

- When an arriving vehicle has been given to the valet and is headed for the descending lift, the valet approaching the west drive entrance will either:
 1. Proceed straight into the descending lift without delay; or
 2. Stop in the street because the queue has blocked access to the descending lift.

The queue in the 2nd condition won't discharge since the person needed to serve it isn't at the valet station, they're at the back of the queue, blocking street traffic. This geometry and process thus considerably exacerbates the consequence of a queue that exceeds three vehicles from the usual (vehicle temporarily in the travel lane) to a complete standstill. The statistical standard chosen for this situation (likelihood should not exceed X) should probably be far stricter than the usual ten percent. Any chosen standard (one percent, one half of one percent) could be tested, but the inputs still need to reflect the blend of arriving and departing vehicles as previously mentioned. This should be addressed in the section narrative.

Tom Hall 04/23/18 Response: We disagree. With a maximum queue requirement, even considering random arrivals, of three vehicle lengths, as demonstrated above, there is room for every vehicle to be accommodated. First of all, as the reviewer notes, the first arriving vehicle can simply be loaded onto the entry lift. Those vehicles that follow may be stored in the entrance and storage area. In effect, there is room in the east-west storage area for three vehicles with another vehicle stored in the entrance driveway for a combined total of five vehicles of storage (1 vehicle in the lift + 3 vehicles in the queue storage area + 1 vehicle in the entrance driveway = 5 vehicles) while still leaving the departure/vehicle pick-up area free to be used by a departing vehicle.



CGA response: Addressed. The applicant provided a new 8995 Collins Valet Parking Operational Plan which depicts the staged valet operation. It should be noted that there is limited space for eastbound left turning vehicles into the Surf Club development to queue on 90th Street. The Simtraffic queue report identifies an EBL queue of 54 LF (around 3 vehicles). The post development valet operational analysis study will need to evaluate not only the valet operations at 8995 Collins but also the traffic operations within 90th Street including the driveway operations at the Surf Club and 90th Street.

- Please confirm and define the valet service position. Site plan sheet A3.01 labels this midway of the canopy area which leaves just one queuing space behind the service position. An exhibit needs to be provided in the Appendix that defines this set-up. If this is in fact one, the queuing analysis for the valet needs to be updated accordingly.

Tom Hall 04/23/18 Response: The reviewer is right to be concerned. The site plan sheet A3.0J doesn't really indicate the location of valet attendants. A revised site plan sheet A3.0J has been prepared (and is enclosed) that shows the valet attendant station for arriving vehicles being dropped off and a second valet attendant station where departing vehicles are returned to their owners. This sheet also shows the total number of entering vehicles that may be stored at one time on the project site.

CGA response: Addressed. The applicant provided a new 8995 Collins Valet Parking Operational Plan which depicts the staged valet operation.

- The proposed pedestrian sidewalk path will be affected by the vehicles entering the valet drop off area multiple times. This includes the initial arrival at the ingress, the circulating lap across the egress opening and the crossing of the ingress to enter the proposed intake elevator. This additional number of trips across the entrance is a safety concern.

Tom Hall 04/23/18 Response: It is true that vehicles entering and exiting from the parking garage will conflict with pedestrians walking to and from the beach along the south side of 90th Street. However, we would ask the reviewer how this is different from any other parking lot or garage? All parking lot and garage traffic crosses the sidewalks adjacent to the streets to which the parking lots and garages connect. In this case, the volume of entering and exiting vehicles in an entire day do not equal the volume in a single hour of, for example, parking garages in any downtown setting and yet those downtown garages are not known for their high incidences of vehicle/pedestrian crashes or even conflicts.

CGA response: Addressed. The applicant provided a new 8995 Collins Valet Parking Operational Plan which depicts the staged valet operation

- The queuing analysis provided in Appendix G should provide justification for the tabled values used in the calculation. Please provide copy of tables in the Appendix.

Tom Hall 04/23/18 Response: A copy of the tabled values used in the queuing analysis provided in the recent traffic impact study is enclosed per the reviewer's request.

CGA response: Addressed.

11. The 8995 Collins Valet Parking Operational Plan was submitted and I have the following comments:

- Proposed Operational Conditions for Parking and Loading
 - ❖ Item #2- The parking system should be staffed with a minimum of three valet operators and should have an additional valet operator staffed initially when the development is opened during the first year evaluation period.
 - ❖ Item #5- If the report determines that the system is causing unacceptable traffic operations including but not limited to a negative impact on the safety of pedestrians and/or the reasonable flow of traffic on 90th Street because of the queuing of vehicles entering or exiting the system, the applicant shall be required to undertake modifications to the system or staffing to resolve the issue.
- Methodology for Follow up Study
 - ❖ Traffic Data Collection will be by video data collection. The traffic data collection will be made at the 8995 Collins Avenue ingress and egress driveway location on 90th Street. Traffic counts will be collected at this driveway and the Surf Club driveway with 90th Street. The manual turning movement counts will be collected during the morning and evening peak hours. Manual Turning Movement Counts should also be collected at Collins Avenue and 90th Street signalized intersection.
 - ❖ Aerial Drone video will be collected along the 90th Street and 8995 Collins main driveway documenting the valet traffic operations and vehicles interactions within 90th Street during peak times on a weekday and weekend.
 - ❖ Field calculations of the valet operations will be taken and documented in the follow up study. This should include the processing time for arriving and departing vehicles.



Eric Czerniejewski, P.E., ENV SP

May 4, 2018

Graham Penn, Esq.
Bercow Radell Fernandez & Larkin
200 S. Biscayne Boulevard, Suite 850
Miami, Florida 33131

**Re: 8995 Collins Avenue – Surfside, Florida
Traffic Study Review**

Dear Graham:

8995 Collins Avenue is a proposed redevelopment of an existing residential building located in the southeast quadrant of the intersection at Collins Avenue and 90th Street in Surfside, Florida. The proposed development program consists of 55 residential condominium dwelling units with 108 parking spaces to be located in the basement of the building. Access to the parking area will be provided by two (2) vehicle elevators and vehicles will be stored on lifts. As a result of the access to the parking area and the parking operations, all vehicles will be processed by valet personnel.

A traffic impact study and operational analysis for this project was prepared by Thomas A. Hall, Inc. and the most recent report is dated May 3, 2018. As requested, we have conducted an independent review of the analyses and documentation presented in this report. Specifically, we have conducted an independent trip generation analysis, we have reviewed the trip distribution and intersection operations, and we have conducted a separate queuing analysis with respect to the vehicle drop-off and pick-up process. Based upon our review and independent analyses, we generally concur with the findings presented in Mr. Hall's report.

If you have any questions or comments, please do not hesitate to contact us.

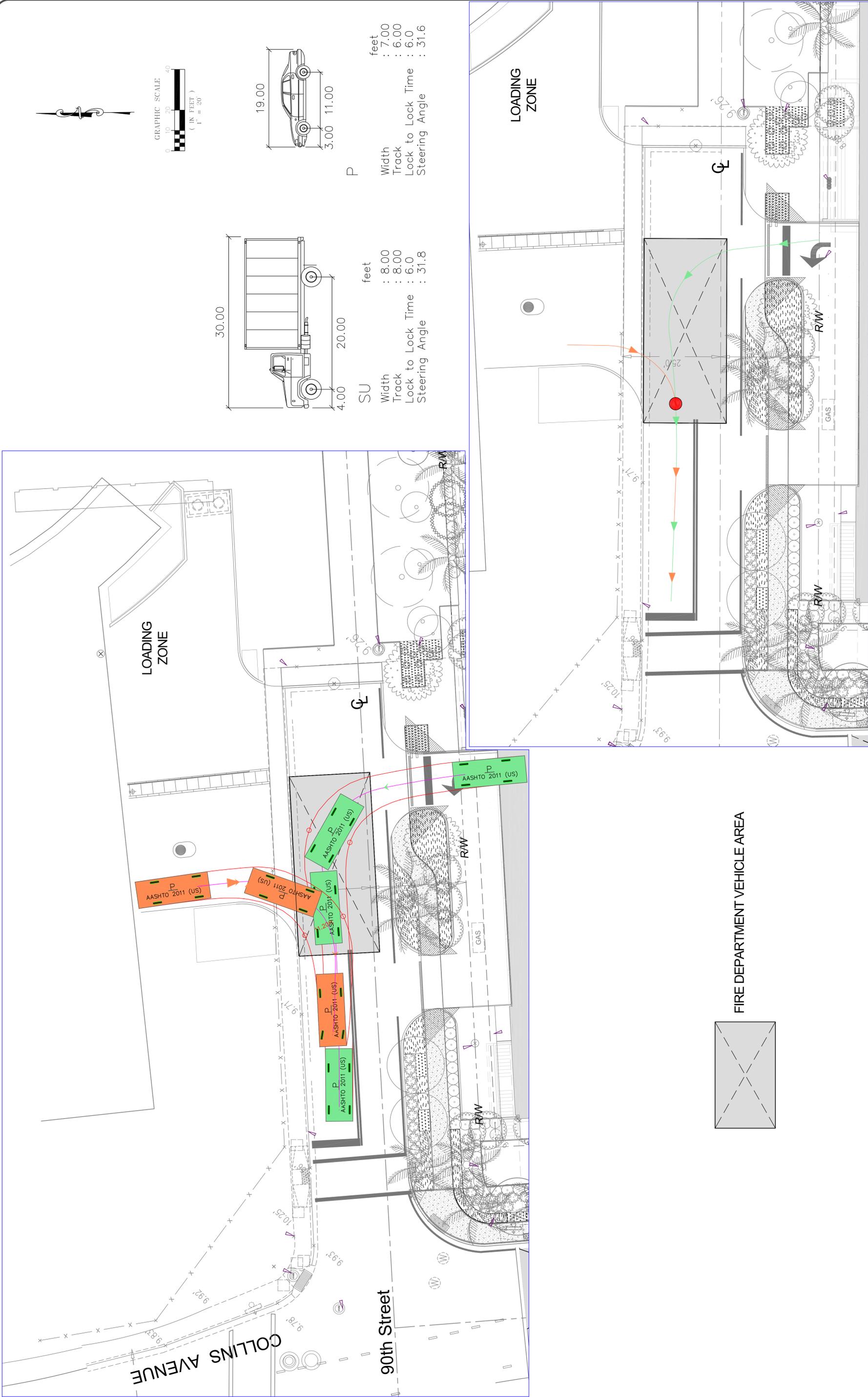
Sincerely,

TRAF TECH ENGINEERING, INC.



Karl B. Peterson, P.E.
Florida Registration Number 49897
Engineering Business Number 26605

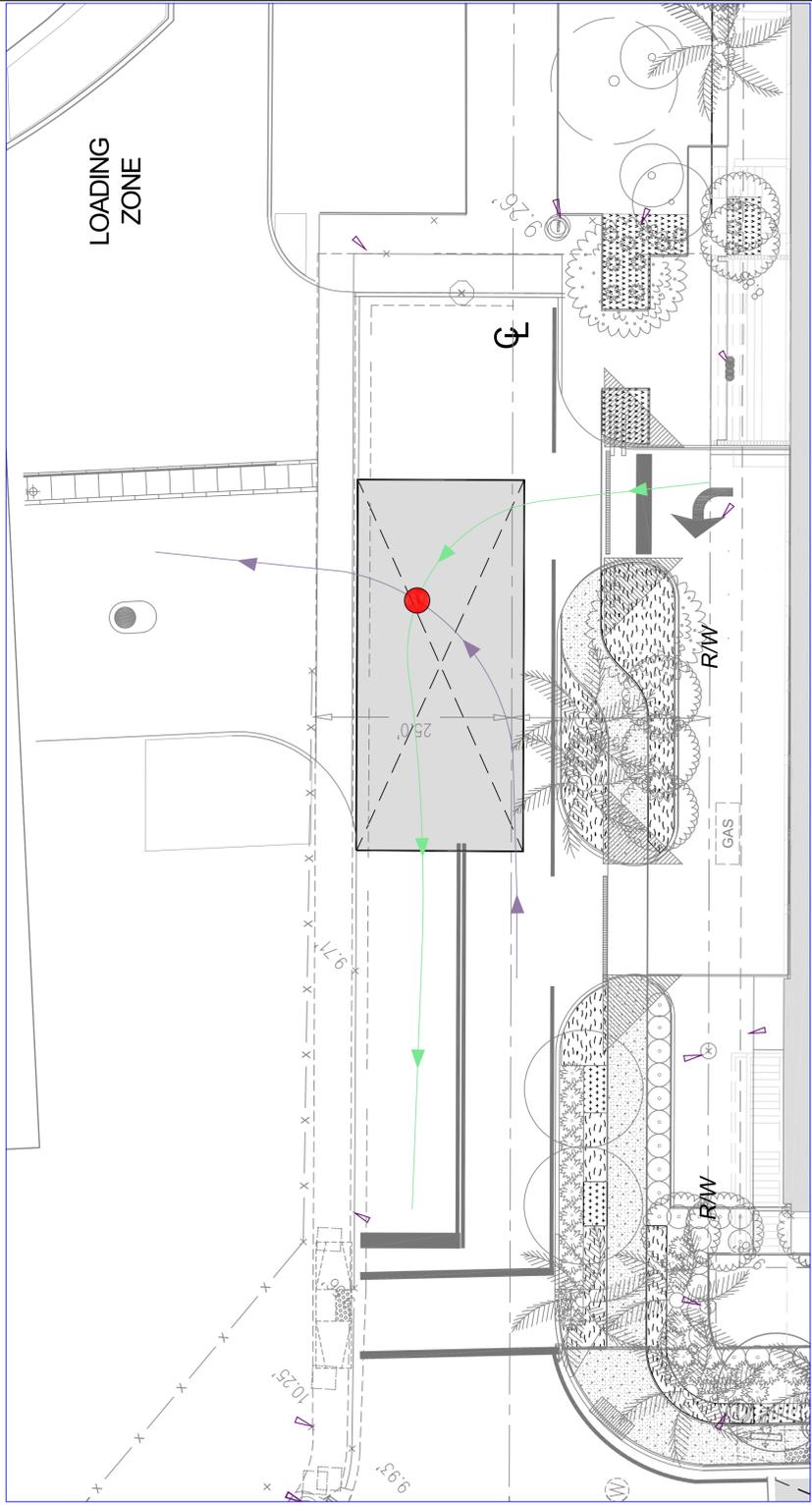
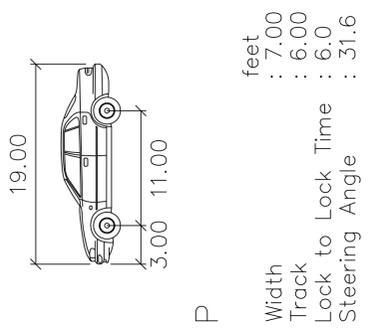
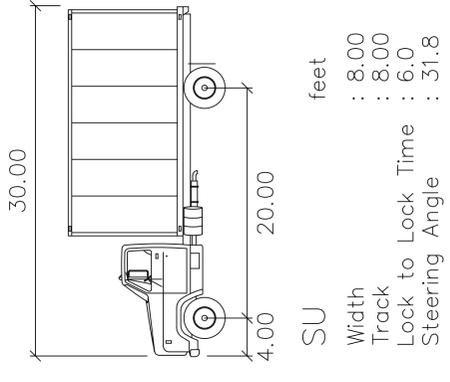
Copy to: Joaquin E. Vargas



Calvin, Giordano & Associates, Inc.
 EXCEPTIONAL SOLUTIONS
 1800 Eller Drive, Suite 600, Fort Lauderdale, Florida 33316
 Phone: 954.921.7781 • Fax: 954.921.8807
 Certificate of Authorization 514
 VENDOR I.D. NO. 65-001-3869

CONFLICT POINTS DIAGRAM

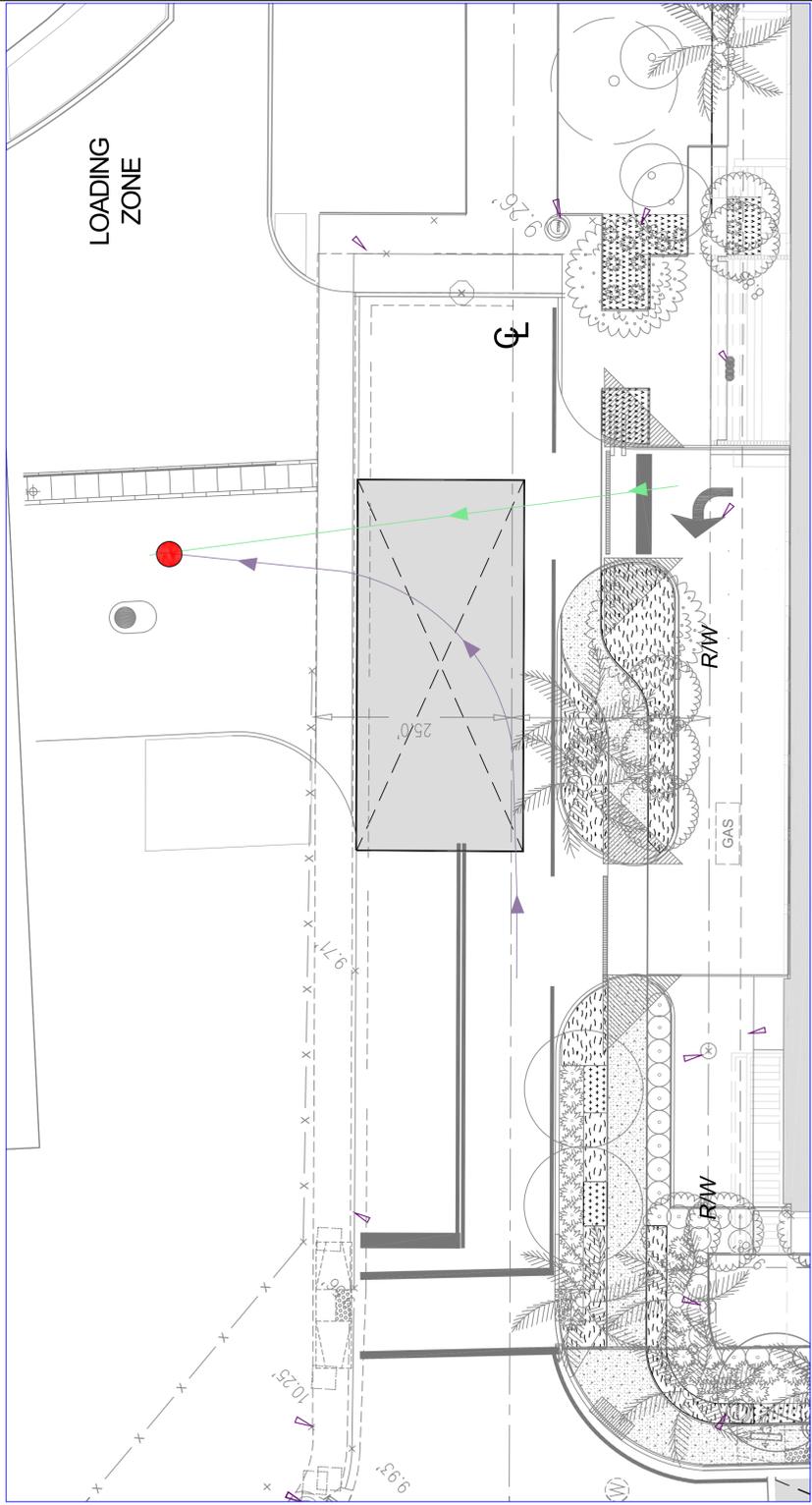
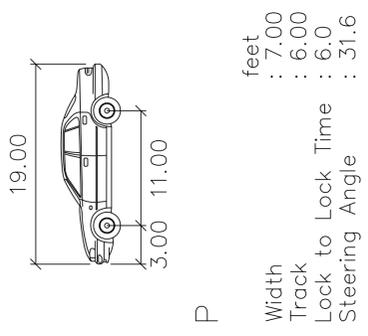
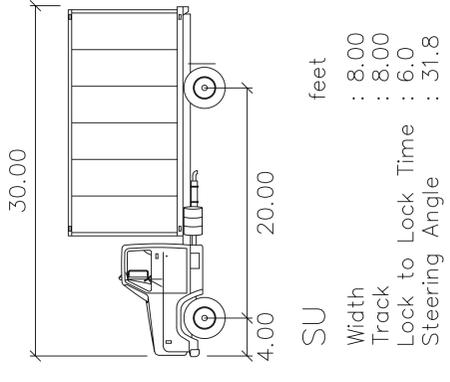
EXHIBIT **A**



Calvin, Giordano & Associates, Inc.
 EXCEPTIONAL SOLUTIONSSM
 1800 Eller Drive, Suite 600, Fort Lauderdale, Florida 33316
 Phone: 954.921.7781 • Fax: 954.921.8807
 Certificate of Authorization 514
 VENDOR I.D. NO. 65-001-3869

**CONFLICT
 POINTS
 DIAGRAM**

EXHIBIT
B



Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS
 1800 Eller Drive, Suite 600, Fort Lauderdale, Florida 33316
 Phone: 954.921.7781 • Fax: 954.921.8807
 Certificate of Authorization 514
 VENDOR I.D. NO. 65-001-3869

**CONFLICT
POINTS
DIAGRAM**

EXHIBIT
D

8995 Collins Avenue Traffic Impact Study (Revised)

Town of Surfside, Florida



Prepared for
SURF HOUSE OCEAN VIEWS, LLC

Prepared by
THOMAS A. HALL, INC.

May 3, 2018

8995 Collins Avenue Traffic Impact Study (Revised)

Town of Surfside, Florida

Prepared for:

SURF HOUSE OCEAN VIEWS, LLC

Prepared by:

THOMAS A. HALL, INC.

May 3, 2018



Dan A. Tintner, P.E.
FL Registration No. 39656
814 S. Military Trail
Deerfield Beach, FL 33442

Table of Contents

Introduction.....	1
Figure 1 – Site Location.....	2
Data Collection.....	3
Figure 2 – Permitted Intersection Movements.....	4
Analyses.....	5
Adjustment Factors.....	5
Table 1 – Peak Hour Turning-Movement Counts.....	6
Existing Conditions.....	7
Table 2 – AM Peak-hour Queue Length, Level of Service and Delay Findings.....	8
Table 3 – PM Peak-hour Queue Length, Level of Service and Delay Findings.....	9
Background Traffic Conditions.....	10
Project Trip Generation.....	10
Project Distribution and Assignment.....	10
Table 4 – Daily Trip Generation.....	12
Table 5 – Mid-Day Peak-hour Trip Generation.....	12
Table 6 – PM Peak-hour Trip Generation.....	12
Figure 3 – Project Traffic Distribution.....	13
Figure 4 – Project Trip Assignment.....	14
Total Traffic Conditions.....	15
Link Capacity Analysis.....	15
Table 7 – Daily Roadway Capacity Analysis.....	15
Site Circulation/Multi-Modal Travel.....	16
Valet Parking Analysis.....	18
Conclusions.....	19
Appendix A – Traffic Counts.....	20
Appendix B – Adjustment Factors.....	21
Appendix C – Existing Conditions Analyses.....	22
Appendix D – Background Traffic Conditions Analyses.....	23
Appendix E – Total Traffic Conditions Analyses.....	24
Appendix F – Site Plan.....	25
Appendix G – Queuing Analysis.....	26

Introduction

Surf House Ocean Views Development, LLC proposes to redevelop an existing 36-unit, multi-family residential development into a new, 55-unit Condominium Hotel in the Town of Surfside, Florida. The proposed project is located at 8995 Collins Avenue—and that is also the project’s name. 8995 Collins Avenue is expected to be built out in 2018.

The project previously was planned to include a café; however, that element has now been deleted resulting in this traffic impact study update. In addition, comments received from the Town of Surfside’s consultant reviewers regarding the proposed valet parking operation have been addressed in this revised report—including the addition of a second vehicle lift system elevator to bring vehicles into and out of the basement parking garage.

Although access to the existing building is via a driveway connection to Collins Avenue immediately south of 90th Street, the proposed project will only use that driveway connection to serve an on-site loading zone. Day-to-day traffic entering and exiting the site will be via new driveway connections to 90th Street.

Parking for 8995 Collins Avenue is to be provided in a 108-parking-space lot in the basement of the building. All parking is to be valet assisted. A drop-off/pick-up valet stand is proposed for the north side of the site along 90th Street east of Collins Avenue, as is a second loading zone that doubles as the USPS and FedEx drop off.

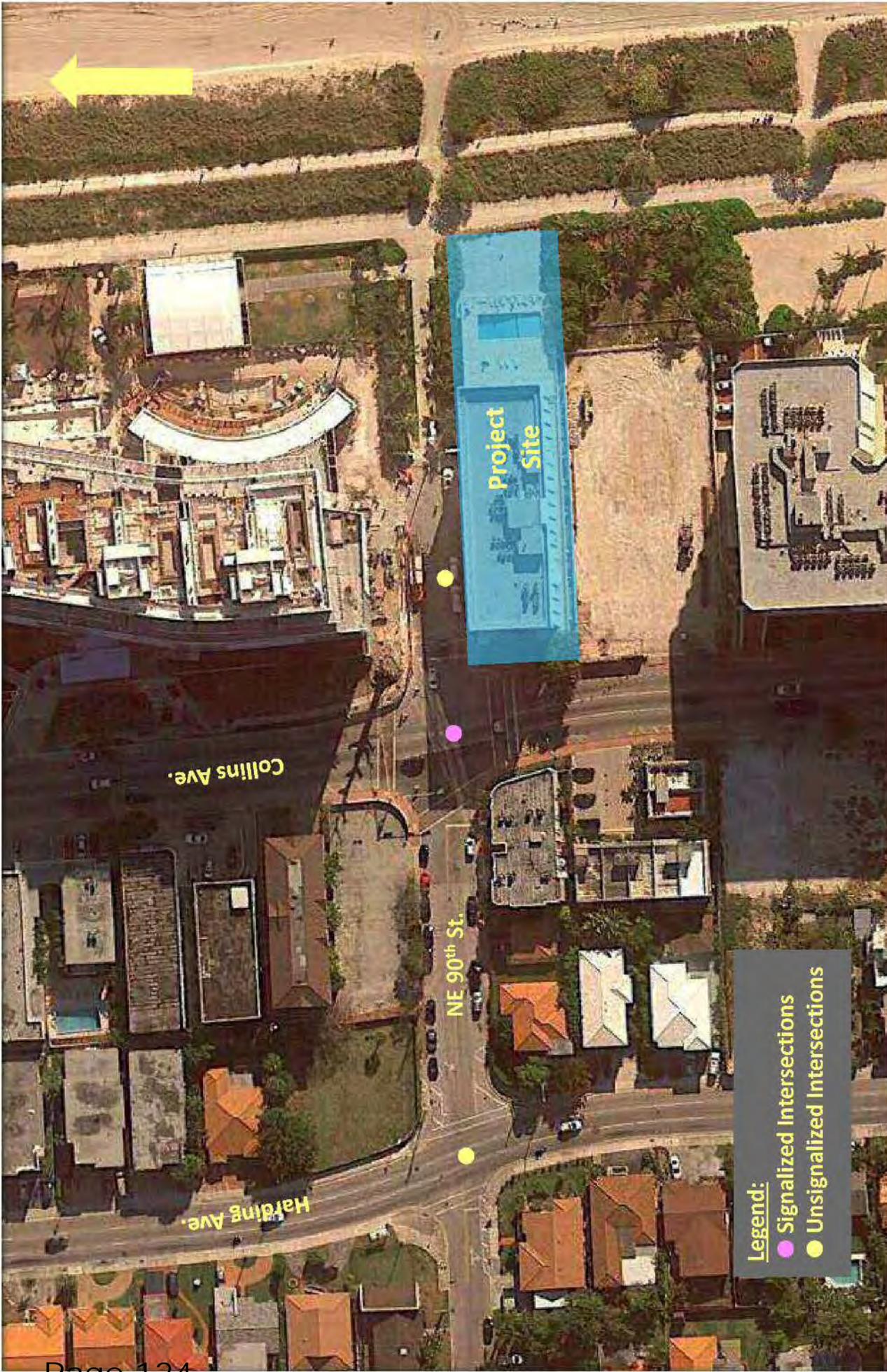
The purpose of this study is to analyze the impacts of trips generated by the proposed new development on the adjacent roadway network in accordance with the requirements of the Town of Surfside. The study area was defined in a May 18, 2017 study methodology letter to Mr. Eric Czerniejewski, P.E., the Town’s traffic consultant. The study area includes the following intersections:

- Collins Avenue at 90th Street
- Harding Avenue at 90th Street
- 90th Street at the Project Entrance

A copy of the Study Methodology Letter and project site plan may be found in **Appendix F – Site Plan and Study Methodology**.

Routes H, S and 120 – Beach Max Miami-Dade County Transit network runs along Collins Avenue directly in front of the 8995 Collins Avenue. Although the proposed site is well served by these local transit routes, as a conservative measure, all traffic oriented to/from the proposed development is assumed to be personal passenger vehicles.

Figure 1 – Site Location, shows the location of the proposed development.



Thomas A. Hall, Inc.

Figure 1 – Site Location
8995 Collins Avenue
Town of Surferside, Florida

Data Collection

Four-hour (7:00-9:00 a.m. and 4-6:00 p.m.), turning-movement counts were collected in June 2017 at the study area intersections of:

- Collins Avenue at 90th Street
- Harding Avenue at 90th Street

Copies of the traffic counts may be found in **Appendix A – Traffic Counts. Figure 2 – Permitted Intersection Movements** shows both the location of the studied intersections as well as the vehicular movements permitted at each intersection.

The turning-movement counts were collected to provide a baseline of existing traffic operational conditions at the significant intersections within the study area.

A preliminary field review was conducted June 5, 2017 to obtain pertinent roadway geometry, pavement markings, signing, etc. In addition to the field review, aerial maps were consulted to verify intersection spacing, storage lane lengths and lane assignments. Existing traffic signal timing for the intersection of Collins Avenue at 90th Street was obtained from Miami-Dade County Public Works Department's online database.

A description of the studied roadways follows:

Collins Avenue is a three-lane, one-way (northbound), north-south major arterial highway. It has a posted speed limit of 30 mph.

Harding Avenue is a three-lane, one-way (southbound), north-south major arterial highway. The posted speed limit is 30 mph.

90th Avenue is an east-west, two-lane, undivided local roadway with a posted speed limit of 20 mph.

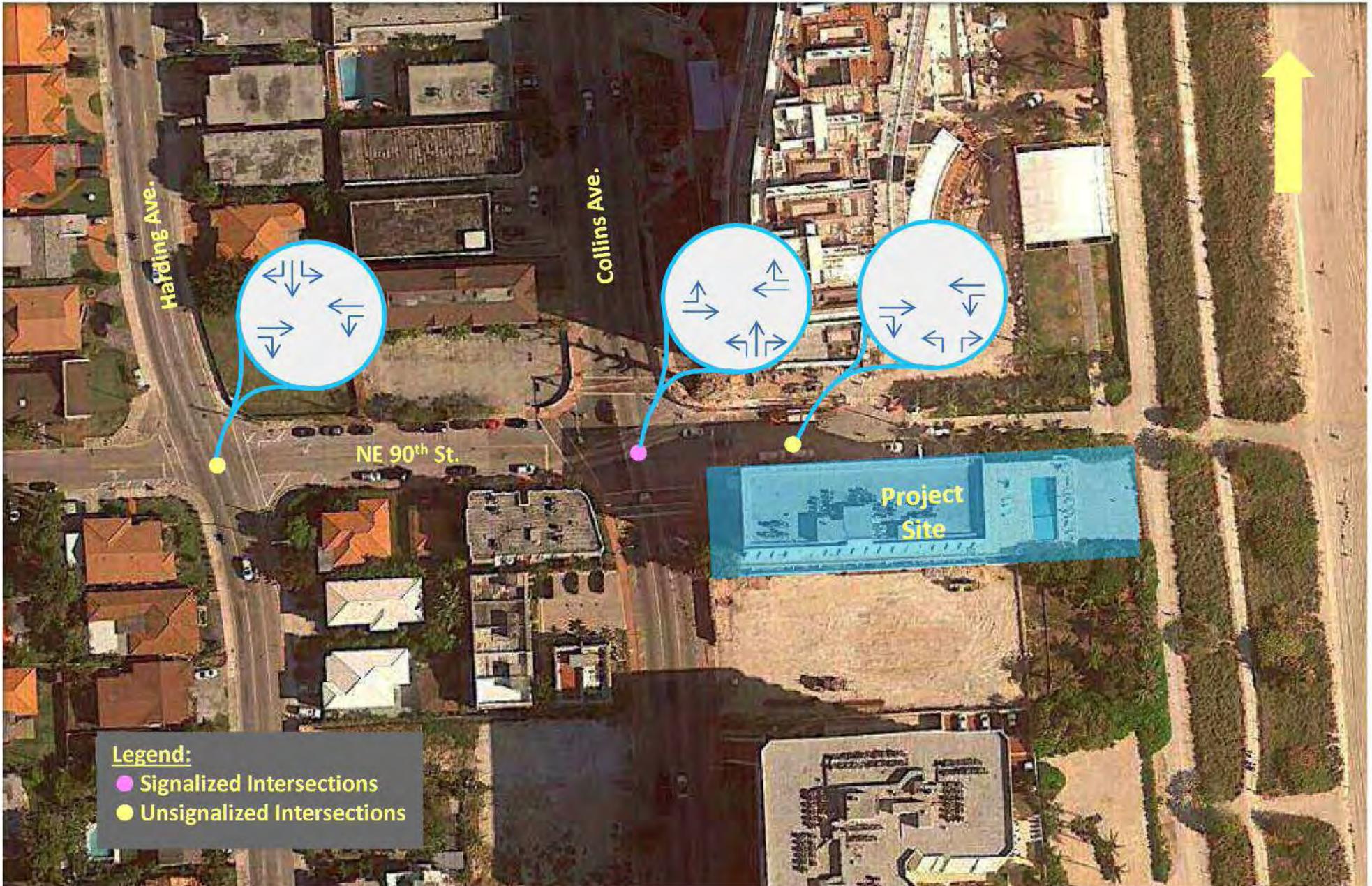


Figure 2 – Permitted Intersection Movements

8995 Collins Avenue
 Town of Surfers Paradise, Florida

Analyses

Adjustment Factors

The June 2017 turning-movement counts were adjusted to peak season by the application of a Peak Season Conversion Factor (1.02) obtained from the Florida Department of Transportation's (FDOT) *2016 Peak Season Factor Category Report*. **Table 1 – Peak Hour Turning-Movement Counts** shows the adjusted peak season, morning and afternoon peak-hour traffic volumes within the study area.

An Annual Growth Factor was derived from historic Annual Average Daily Traffic (AADT) reports obtained from FDOT's *2016 Florida Online Traffic Information* for nearby count stations. A five-year growth analysis was conducted for the two nearby count stations. A review of the count data, and a comparison of 2012 volumes to 2016 volumes, revealed that there was a significant reduction in annual growth in traffic volumes in the study area. In spite of this, as a conservative measure, a 0.5 percent Annual Growth Factor was assumed. Copies of the annual growth rate worksheet and seasonal adjustment factors are provided in **Appendix B – Adjustment Factors**.

Table 1
Peak Hour Turning-Movement Counts
8995 Collins Avenue

Intersection	Adjustment	From West				From East				From South				From North				Total	
		Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right		
A.M. Peak Hour	Collins Avenue at 90th Street	Raw Count	0	37	14	0	0	0	3	17	0	21	1,433	4	0	0	0	0	1,529
		Peak Season Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
		2017 Peak Season Traffic	0	38	14	0	0	0	3	17	0	21	1,462	4	0	0	0	0	1,560
		Annual Growth Factor	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%
		2018 Peak Season Traffic	0	38	14	0	0	0	3	17	0	22	1,469	4	0	0	0	0	1,567
		Committed Development Traffic												36					
		2018 Background Traffic	0	38	14	0	0	0	3	17	0	22	1,505	4	0	0	0	0	1,567
		Project Traffic			1				1	2									4
		Total Future Traffic	0	38	15	0	0	0	4	19	0	22	1,505	4	0	0	0	0	1,571
	Harding Avenue at 90th Street	Raw Count	0	1	3	31	0	23	5	0	0	0	0	0	0	35	2,261	22	2,381
		Peak Season Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
		2017 Peak Season Traffic	0	1	3	32	0	23	5	0	0	0	0	0	0	36	2,306	22	2,429
		Annual Growth Factor	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%
		2018 Peak Season Traffic	0	1	3	32	0	24	5	0	0	0	0	0	0	36	2,318	23	2,441
		Committed Development Traffic															46		
		2018 Background Traffic	0	1	3	32	0	24	5	0	0	0	0	0	0	36	2,364	23	2,441
		Project Traffic						1								1			2
		Total Future Traffic	0	1	3	32	0	25	5	0	0	0	0	0	0	37	2,364	23	2,443
90th Street at Project Entrance	Raw Count	0	0	18	0	0	0	20	0	0	0	0	0	0	0	0	0	38	
	Peak Season Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	
	2017 Peak Season Traffic	0	0	18	0	0	0	20	0	0	0	0	0	0	0	0	0	39	
	Annual Growth Factor	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	
	2018 Peak Season Traffic	0	0	18	0	0	0	21	0	0	0	0	0	0	0	0	0	39	
	Committed Development Traffic																		
	2018 Background Traffic	0	0	18	0	0	0	21	0	0	0	0	0	0	0	0	0	39	
	Project Traffic				4							13						17	
	Total Future Traffic	0	0	18	4	0	0	21	0	0	0	13	0	0	0	0	0	56	
P.M. Peak Hour	Collins Avenue at 90th Street	Raw Count	0	31	3	0	0	0	3	5	0	72	2,132	6	0	0	0	2,252	
		Peak Season Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	
		2017 Peak Season Traffic	0	32	3	0	0	0	3	5	0	73	2,175	6	0	0	0	2,297	
		Annual Growth Factor	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	
		2018 Peak Season Traffic	0	32	3	0	0	0	3	5	0	74	2,186	6	0	0	0	2,308	
		Committed Development Traffic											32						
		2018 Background Traffic	0	32	3	0	0	0	3	5	0	74	2,218	6	0	0	0	2,309	
		Project Traffic			1				1	1				1					4
		Total Future Traffic	0	32	4	0	0	0	4	6	0	74	2,218	7	0	0	0	2,313	
	Harding Avenue at 90th Street	Raw Count	1	0	4	12	0	22	3	0	0	0	0	0	0	30	2,138	23	2,233
		Peak Season Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
		2017 Peak Season Traffic	1	0	4	12	0	22	3	0	0	0	0	0	0	31	2,181	23	2,278
		Annual Growth Factor	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	
		2018 Peak Season Traffic	1	0	4	12	0	23	3	0	0	0	0	0	0	31	2,192	24	2,289
		Committed Development Traffic															55		
		2018 Background Traffic	1	0	4	12	0	23	3	0	0	0	0	0	0	31	2,247	24	2,289
		Project Traffic						1								1			2
		Total Future Traffic	1	0	4	12	0	24	3	0	0	0	0	0	0	32	2,247	24	2,291
90th Street at Project Entrance	Raw Count	0	0	9	0	0	0	8	0	0	0	0	0	0	0	0	0	17	
	Peak Season Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	
	2017 Peak Season Traffic	0	0	9	0	0	0	8	0	0	0	0	0	0	0	0	0	17	
	Annual Growth Factor	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%	0.500%		
	2018 Peak Season Traffic	0	0	9	0	0	0	8	0	0	0	0	0	0	0	0	0	17	
	Committed Development Traffic																		
	2018 Background Traffic	0	0	9	0	0	0	8	0	0	0	0	0	0	0	0	0	17	
	Project Traffic				12							8						20	
	Total Future Traffic	0	0	9	12	0	0	8	0	0	0	8	0	0	0	0	0	37	

Existing Conditions

Synchro 10 intersection operations analysis software was used to construct a model of the existing roadway network in the study area. The model relied upon the peak-season, peak-hour, turning-movement counts shown in Table 1 and the geometric, pavement marking and signing information obtained from field reviews. In addition, traffic signal timing and phasing information was obtained from Miami-Dade County Public Works Department's online database for the signalized intersection of Collins Avenue at 90th Street. Copies of the Synchro reports for existing weekday peak-hour, peak-season conditions may be found in **Appendix C – Existing Conditions Analyses**. Note that two runs are provided for the signalized intersection: 1) A Highway Capacity Manual (HCM), 6th Edition output and, 2) Synchro's own intersection analysis. The HCM, 6th Edition method is the latest standard in intersection analyses, but the Synchro intersection analysis provides a more complete record of analysis inputs.

Table 2 – AM Peak-hour Queue Length, Level of Service and Delay Findings and **Table 3 – PM Peak-hour Queue Length, Level of Service and Delay Findings**, summarize the critical elements of the analyses. As Tables 2 and 3 show, the existing signalized intersection of Collins Avenue at 90th Street currently operates at Level of Service (LOS) A during both the morning and afternoon peak hour.

The unsignalized intersection of Harding Avenue at 90th Street also operates very well although the westbound lane operates at LOS E in the morning peak hour. In spite of the level of service, the actual westbound queue storage required is less than two vehicle lengths during the peak hour.

Note that the queue storage lengths shown on Tables 2 and 3 for the intersection of Collins Avenue at 90th Street are from the default Synchro analysis output since the HCM, 6th Edition doesn't report the 95th percentile queue storage length. All unsignalized intersections display the 95th percentile queue storage required per the HCM, 6th Edition, unsignalized intersection analyses.

Table 2
AM Peak Hour Queue Length, Level of Service and Delay Summary
8995 Collins Avenue

Intersection	Turn Lane Length	Existing Conditions				Background Traffic Conditions				Total Traffic Conditions			
		Movement	LOS	Delay	Queue Length	Movement	LOS	Delay	Queue Length	Movement	LOS	Delay	Queue Length
Collins Avenue at 90th Street (Signalized)	N/A	Overall	A	7.0	N/A	Overall	A	7.0	N/A	Overall	A	7.2	N/A
	N/A	EBL	D	42.0	0.0	EBL	D	42.0	0.0	EBL	D	41.8	0.0
	N/A	EBT	A	0.0	57'	EBT	A	0.0	57'	EBT	A	0.0	57'
	N/A	WBT	A	0.0	15'	WBT	A	0.0	16'	WBT	A	0.0	19'
	N/A	WBR	D	38.5	0.0	WBR	D	38.5	0.0	WBR	D	38.4	0.0
	N/A	NBL	A	4.5	0.0	NBL	A	4.6	0.0	NBL	A	4.7	0.0
	N/A	NBT	A	4.3	160'	NBT	A	4.4	166'	NBT	A	4.5	168'
	N/A	NBR	A	4.2	0.0	NBR	A	4.3	0.0	NBR	A	4.4	0.0
Harding Avenue at 90th Street (Stop Control)	N/A	Overall	N/A	1.1	N/A	Overall	N/A	1.2	N/A	Overall	N/A	1.2	N/A
	N/A	EBLTR	D	25.7	0.8	EBLTR	D	27.1	0.9	EBLTR	D	27.1	0.9
	N/A	WBLTR	E	36.9	1.2	WBLTR	E	39.6	1.3	WBLTR	E	39.4	1.4
	N/A	SBL	A	0.0	0.0	SBL	A	0.0	0.0	SBL	A	0.0	0.0
	N/A	SBT	A	0.0	0.0	SBT	A	0.0	0.0	SBT	A	0.0	0.0
	N/A	SBR	A	0.0	0.0	SBR	A	0.0	0.0	SBR	A	0.0	0.0
Project Drive at 90th Street (Stop Control)	N/A	Overall	N/A	N/A	N/A	Overall	N/A	N/A	N/A	Overall	N/A	1.5	N/A
	N/A	EBT	N/A	N/A	N/A	EBT	N/A	N/A	N/A	EBT	A	0.0	0.0
	100	EBR	N/A	N/A	N/A	EBR	N/A	N/A	N/A	EBR	A	0.0	0.0
	N/A	WBT	N/A	N/A	N/A	WBT	N/A	N/A	N/A	WBT	A	0.0	0.0
	N/A	NBL	N/A	N/A	N/A	NBL	N/A	N/A	N/A	NBL	A	8.9	0.0

**Table 3
PM Peak Hour Queue Length, Level of Service and Delay Summary
8995 Collins Avenue**

Intersection	Turn Lane Length	Existing Conditions				Background Traffic Conditions				Total Traffic Conditions			
		Movement	LOS	Delay	Queue Length	Movement	LOS	Delay	Queue Length	Movement	LOS	Delay	Queue Length
Collins Avenue at 90th Street (Signalized)	N/A	Overall	A	6.3	N/A	Overall	A	6.4	N/A	Overall	A	6.6	N/A
	N/A	EBL	D	42.3	0.0	EBL	D	42.3	0.0	EBL	D	42.2	0.0
	N/A	EBT	A	0.0	45'	EBT	A	0.0	45'	EBT	A	0.0	46'
	N/A	WBT	A	0.0	13'	WBT	A	0.0	14'	WBT	A	0.0	17'
	N/A	WBR	D	40.3	0.0	WBR	D	40.3	0.0	WBR	D	40.3	0.0
	N/A	NBL	A	5.8	0.0	NBL	A	6.0	0.0	NBL	A	6.1	0.0
	N/A	NBT	A	5.2	278'	NBT	A	5.4	290'	NBT	A	5.5	294'
	N/A	NBR	A	5.1	0.0	NBR	A	5.2	0.0	NBR	A	5.3	0.0
Harding Avenue at 90th Street (Stop Control)	N/A	Overall	N/A	0.7	N/A	Overall	N/A	0.7	N/A	Overall	N/A	0.7	N/A
	N/A	EBLTR	D	32.0	0.4	EBLTR	D	34.4	0.4	EBLTR	D	34.4	0.4
	N/A	WBLTR	D	26.0	0.7	WBLTR	D	27.7	0.8	WBLTR	D	27.3	0.8
	N/A	SBL	A	0.0	0.0	SBL	A	0.0	0.0	SBL	A	0.0	0.0
	N/A	SBT	A	0.0	0.0	SBT	A	0.0	0.0	SBT	A	0.0	0.0
	N/A	SBR	A	0.0	0.0	SBR	A	0.0	0.0	SBR	A	0.0	0.0
Project Drive at 90th Street (Stop Control)	N/A	Overall	N/A	N/A	N/A	Overall	N/A	N/A	N/A	Overall	N/A	1.5	N/A
	N/A	EBT	N/A	N/A	N/A	EBT	N/A	N/A	N/A	EBT	A	0.0	0.0
	100	EBR	N/A	N/A	N/A	EBR	N/A	N/A	N/A	EBR	A	0.0	0.0
	N/A	WBT	N/A	N/A	N/A	WBT	N/A	N/A	N/A	WBT	A	0.0	0.0
	N/A	NBL	N/A	N/A	N/A	NBL	N/A	N/A	N/A	NBL	A	8.7	0.0

Background Traffic Conditions

Future 2018 build-out year (background) traffic volumes without the project were obtained by applying the 0.5 percent annual growth rate to the existing peak-season, turning-movement counts. In addition to the application of the annual growth rate, committed development traffic information provided by the Town's traffic consultant, Mr. Eric Czerniejewski, P.E., was also reviewed. The approved, but not yet occupied, developments were:

- 8955 Collins Avenue
- Surf Club I and II
- Surf Club NW
- 9300 Collins Avenue
- 8800 Collins Avenue

As it happens, all of the committed developments were actually reducing trips on the area roadways. However, Surf Club I and II were under construction at the time of this report's data collection. Because this project is so large, it was assumed that it has reduced traffic volumes on the studied area roadways. Therefore, the Surf Club I and II project trips were added to the background traffic. Table 1 shows the peak-season background traffic volumes expected during the future build-out year of 2018.

Appendix D – Background Traffic Conditions Analyses contains copies of the Synchro reports for the studied intersections. As a review of Tables 2 and 3 indicate, the existing level of service at the studied intersections is expected to continue in 2018.

Project Trip Generation

Table 4 – Daily Trip Generation, Table 5 – AM Peak-hour Trip Generation and **Table 6 – PM Peak-hour Trip Generation** depict the trip generation for the project site. Trip generation characteristics were obtained from the Institute of Transportation Engineers' (ITE) *Trip Generation* manual, 10th Edition. As the tables show, the proposed Multifamily Housing (High Rise) development is anticipated to generate 49 net new daily trips, 4 net new a.m. peak-hour trips and 4 net new p.m. peak-hour trips.

Project Distribution and Assignment

Cardinal distribution information was obtained from Miami-Dade County's *2040 Long Range Transportation Plan Direction Trip Distribution Report*. A copy of the cardinal trip distribution data for Traffic Analysis Zone (TAZ) 602 may be found in Appendix B. Project trips were assigned in accordance with the cardinal distribution and manual adjustments required to reflect the fact that both Collins Avenue and Harding Avenue are one-way roadways. **Figure 3 – Project Traffic Distribution** shows the traffic distribution on study area roadways.

Figures 4 – Project Trip Assignment shows the peak-hour project trips assigned to the study area roadway network in accordance with the trip distribution and the permitted intersection movements shown in Figure 2.

Table 4
Daily Trip Generation
8995 Collins Avenue

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips				Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total		
Existing Use																		
Multifamily Housing (Mid Rise)	221	36 du	T=5.44(X) (50/50)	98	98	196	0	0	0	0.00%	98	98	196	0	0.00%	98	98	196
Proposed Use																		
Multifamily Housing (High Rise)	222	55 du	T=4.45(X) (50/50)	122	123	245	0	0	0	0.00%	122	123	245	0	0.00%	122	123	245
Net Difference				24	25	49	0	0	0		24	25	49	0		24	25	49

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 5
AM Peak-hour Trip Generation
8995 Collins Avenue

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips				Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total		
Existing Use																		
Multifamily Housing (Mid Rise)	221	36 du	T=0.36(X) (26/74)	3	10	13	0	0	0	0.00%	3	10	13	0	0.00%	3	10	13
Proposed Use																		
Multifamily Housing (High Rise)	222	55 du	T=0.31(X) (24/76)	4	13	17	0	0	0	0.00%	4	13	17	0	0.00%	4	13	17
Net Difference				1	3	4	0	0	0		1	3	4	0		1	3	4

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 6
PM Peak-hour Trip Generation
8995 Collins Avenue

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips				Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total		
Existing Use																		
Multifamily Housing (Mid Rise)	221	36 du	T=0.44(X) (61/39)	10	6	16	0	0	0	0.00%	10	6	16	0	0.00%	10	6	16
Proposed Use																		
Multifamily Housing (High Rise)	222	55 du	T=0.36(X) (61/39)	12	8	20	0	0	0	0.00%	12	8	20	0	0.00%	12	8	20
Net Difference				2	2	4	0	0	0		2	2	4	0		2	2	4

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.



Thomas A. Hall, Inc.

Figure 3 – Project Trip Distribution
8995 Collins Avenue
Town of Surfside, Florida

Total Traffic Conditions

Future total traffic volumes including project traffic were obtained by adding the 2018 background traffic volumes to the project traffic volumes shown in Figure 4. The resulting future total traffic volumes are also shown in **Table 1 – Peak Hour Turning-Movement Counts**.

Appendix E – Total Traffic Conditions Analyses contains copies of the Synchro reports for this third analysis condition. Tables 2 and 3 provide a summary of the critical elements of these analyses and demonstrate that the studied intersections remained at the same level of service as in the Background Conditions. However, the westbound lane at the intersection of Harding Avenue at 90th Street is expected to operate at LOS E in both the morning and afternoon peak hour under this scenario instead of just the morning peak hour. Queue storage requirements increased by less than one car length for every movement at the studied intersections. All intersections are expected to continue to operate in the same manner as under Existing and Background Conditions.

Note that the project driveway on 90th Street is across from a new driveway serving the Surf Club. The Surf Club driveway was not analyzed as a part of this study because a) there were no traffic estimates provided in the Surf Club traffic impact study and, b) the driveway was still under construction when traffic data was collected.

Link Capacity Analysis

Table 7 – Daily Roadway Capacity Analysis provides a comparison of the expected daily traffic volumes in the 2018 build-out year for the study area roadway links. As the table shows, all studied roadways are expected to be well under the required level of service standards per the Town of Surfside Transportation Element, which, for State maintained roadways, is LOS E+20 and, for local roads, LOS D.

**Table 7
Daily Two-Way Roadway Capacity Analysis
8995 Collins Avenue**

Roadway	Current AADT	Annual Growth Factor	2018 AADT	Daily Project Traffic	2018 Total Daily Volume	LOS D	LOS E+20	Over Capacity? Y/N
						Max Service Volume ⁽²⁾	Max Service Volume ⁽²⁾	
Collins Avenue	25,000	0.50%	25,021	26	25,047	N/A	36,648	N
Harding Avenue	27,000	0.50%	27,023	26	27,049	N/A	36,648	N
90th Street	531 ⁽¹⁾	0.50%	534	49	583	14,800	N/A	N

⁽¹⁾AADT volume derived from p.m. peak-hour count and study area K factor of 9.

⁽²⁾LOS D and E+20 maximum service volumes obtained from the Florida Department of Transportation's 2013 Quality/LOS Handbook.

Site Circulation/Multi-Modal Travel

A review of the proposed project site plan, included in **Appendix F – Site Plan**, revealed that traffic accessing the 8995 Collins Avenue development will have excellent access from the local roadway network. One loading zone will rely upon the existing ingress/egress driveway connection to Collins Avenue, but, of course, will be used infrequently—perhaps once a week—while the other loading zone will be located on 90th Street.

The main project access driveways are now proposed to be located on the north side of the property along 90th Street. All vehicles entering the site are expected to pull into the west driveway's valet drop-off/pick-up lane. Once the valet attendant has received the vehicle, they will drive the vehicle into the vehicle transport system elevator that lowers the vehicle to the basement parking area.

The site plan has been revised to permit vehicles to enter the west driveway and, if it is already occupied, then turn east and store in the three-vehicle queue storage lane. An analysis of the queue storage was completed using SimTraffic microscopic analysis software. SimTraffic examines the random arrival of individual vehicles in the model. A description of the queuing analysis follows:

Over the course of the afternoon peak hour, the highest volume hour of the day, a mere 12 vehicles are expected to arrive and eight (8) vehicles are expected to depart from the valet drop-off/pick-up area. As shown on the enclosed site plan, a valet attendant will receive an arriving vehicle on the east side of the west driveway and a second valet attendant will deliver vehicles to departing drivers on the east side of the east driveway. Because some vehicles may be stored in the east-west vehicle storage queue area and, thus, may circle around and enter the west driveway again, the number of vehicles entering the western driveway, and exiting the eastern driveway, was increased in the analysis from twelve and eight vehicles, respectively, to 16 and 16.

The intersection of 90th Street at the project driveway/Surf Club driveway was treated as a signalized intersection with a 180-second-long north-south phase to simulate the 180 seconds assumed to be required to drop off a vehicle to the valet attendant and have that vehicle parked in the underground garage on a parking lift. The east-west phase was given a nominal 30 seconds for a total cycle length of 210 seconds, or 3.5 minutes. To simulate the storage within the project site, eastbound 90th Street was given a 75-foot-long right-turn lane (equivalent to three vehicle lengths of queue storage in Synchro). The eastbound right-turning vehicles were not permitted to turn right on red so that during the 180-second time that one vehicle was being parked, no other vehicle could leave the queue.

The Synchro network, including the new signal at the project entrance, was then imported into SimTraffic and four, hour-long runs were completed. A copy of both the Synchro intersection report and the average of the four SimTraffic queue reports are enclosed in **Appendix G – Queuing Analysis**.

As can be seen from the enclosed four-run-average SimTraffic queue report, the maximum queue, which is the total queue, not a percentage of the queue, is 49 feet in length. SimTraffic considers one vehicle length to be 19.5 feet in its queuing analysis so the average maximum queue observed in the four runs, 49 feet, is equivalent to 2.51 vehicles, or for practical purposes, three vehicles. Note that the actual vehicle queue storage is well in excess of the maximum three vehicle demand:

The first arriving vehicle can simply be loaded onto the entry lift. Those vehicles that follow may be stored in the entrance and storage area. In effect, there is room in the east-west storage area for three vehicles with another vehicle stored in the entrance driveway for a combined total of five vehicles of storage (1 vehicle in the lift + 3 vehicles in the queue storage area + 1 vehicle in the entrance driveway = 5 vehicles) while still leaving the departure/vehicle pick-up area free to be used by a departing vehicle.

Of course, another method for avoiding the use of 90th Street that can be used on site is to bring vehicles stored in the east-west queue storage area forward into the eastside exit driveway and then back them into the second vehicle transport system elevator when it is not needed for exiting vehicles from the parking garage. This maneuver could substantially reduce the number of entering vehicles that must make a northbound-to-westbound left-turn maneuver into the site.

Pedestrian access is also well laid out with a sidewalk on the north, west and east sides of the building. There are also sidewalk connections proposed to the existing pedestrian path that connects the end of 90th Street to the beach. Note that the proposed narrowing of 90th Street east of Collins Avenue will reduce the width of pavement that pedestrians must cross when proceeding north or south across 90th Street from 36 feet to 24 feet thus reducing crossing times and potential pedestrian/vehicle conflicts. This pavement narrowing is necessitated, according to the project development team, by the Town of Surfside's requirement that an off-street valet drop-off and pick-up location be provided.

Had the project been starting with an empty lot, an off-street valet lane might have been more easily accommodated, but the footprint of the existing building that is being redeveloped does not leave sufficient space for vehicle stacking without narrowing the pavement. Given the low volume of vehicles anticipated on this portion of 90th Street, even including the traffic associated with the Surf Club on the north side of the street, the proposed road narrowing is not expected to have a negative impact on either capacity or roadway traffic operations.

There is an existing bicycle lane on the east side of Collins Avenue that facilitates bicycle travel through the Town of Surfside. The existing driveway connection to Collins Avenue requires motor vehicles to cross the bicycle lane to enter or exit the building. In the proposed new configuration, this driveway will only be used to provide access to a loading zone. Therefore, it is expected that the redevelopment of the project site will improve bicyclists' travel through the project area along Collins Avenue.

Valet Parking Analysis

One hundred eight (108) parking spaces are to be provided for 8995 Collins Avenue in the basement of the building. In order to have 108 parking spaces in the basement of the building, it is proposed that a vehicle lift system be used to store up to three (3) vehicles in each of 36 parking spaces. Two vehicle transport system elevators will be operated by the valet staff to bring vehicles to and from the basement parking area.

Vehicles parked in the basement will default to the top slot in the parking lifts, which will be collapsed to the floor until additional vehicles require parking. As more vehicles require parking, the first vehicle will be raised to the middle position and, if a third vehicle is parked, the top position on the lift. The lift mechanism specifics are shown in Sheet A6.0 of the site plan package. That sheet may be found in **Appendix F – Site Plan**.

Based on field measurements at the nearby Cadillac Hotel in Miami Beach, which has a parking system from the same supplier (although not exactly the same), arriving vehicles are expected to require approximately 157 seconds to arrive, be handed over to the valet attendant, be lowered down the vehicle transport system elevator, and parked in an available parking space. Departing vehicles are expected to be turned over to the owners in approximately 142 seconds after a request for the vehicle is received by the valet attendants. At least one valet attendant is expected to be at the project entrance at all times while another valet attendant will be stationed in the basement parking area and another will deliver vehicles to departing drivers.

A queuing analysis was performed, as described previously, to determine whether the three vehicle queue storage available in the valet pick-up/drop-off area is sufficient to ensure that vehicles aren't backing up onto 90th Street. As a conservative measure, the 157 second parking time was increased to 180 seconds (three minutes). The queuing analysis relied upon Synchro and SimTraffic models. A copy of the queuing analysis worksheet is contained in **Appendix G – Queuing Analysis**.

As a review of the queuing analysis reveals, a maximum queue storage length of 49 feet is expected to be required during the p.m. peak hour of the day to accommodate vehicles waiting to be parked by the valet attendants. This is equivalent to slightly less than three vehicles, yet the available queue storage length is for five vehicles (1 vehicle in the lift + 3 vehicles in the queue storage area + 1 vehicle in the entrance driveway = 5 vehicles).

Note that departing vehicles will be queued in the basement parking garage and will be delivered one by one to their owners at the valet pick-up location on the east side of the eastern driveway.

Conclusions

Based on the results of this analysis, it is concluded that the proposed 8995 Collins Avenue development will not have a significant impact on the adjacent roadway network. All intersections will continue to operate at the same high levels of service after the project is completed as they do at present. With the extremely low volume of traffic anticipated to be generated by the development, the valet parking can be operated in such a manner that it requires no vehicle to be stored on 90th Street at the project entrance.

Appendix A – Traffic Counts

COLLINS AVENUE AT 90TH STREET
 DADE COUNTY, FLORIDA
 COUNTED BY:
 SIGNALIZED

THOMAS A. HALL, INC.
 1355 ADAMS STREET
 HOLLYWOOD, FL 33019
 954-288-4447

Site Code: 10031
 Start Date: 6/6/2017
 File I.D.: SURFSIDE
 Page: 1

ALL VEHICLES

Date	90TH STREET From West				90TH STREET From East				COLLINS AVENUE From South				COLLINS AVENUE From North				Total
	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	
6/6/2017																	
7:00	0	4	1	0	0	0	3	4	0	4	172	5	0	0	0	0	193
7:15	0	8	5	0	0	0	0	3	0	4	224	2	0	0	0	0	246
7:30	0	5	5	0	0	0	1	4	0	4	262	0	0	0	0	0	281
7:45	0	8	2	0	0	0	0	4	0	4	301	4	0	0	0	0	323
Hr Total	0	25	13	0	0	0	4	15	0	16	959	11	0	0	0	0	1043
8:00	0	8	4	0	0	0	1	7	0	5	340	3	0	0	0	0	368
8:15	0	6	5	0	0	0	0	4	0	5	384	0	0	0	0	0	404
8:30	0	17	5	0	0	0	1	4	0	6	327	0	0	0	0	0	360
8:45	0	6	0	0	0	0	1	2	0	5	382	1	0	0	0	0	397
Hr Total	0	37	14	0	0	0	3	17	0	21	1433	4	0	0	0	0	1529
* BREAK *																	
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* BREAK *																	
16:00	0	2	0	0	0	0	0	2	0	2	569	2	0	0	0	0	577
16:15	0	10	0	0	0	0	0	0	0	24	622	1	0	0	0	0	657
16:30	0	7	1	0	0	0	1	1	0	38	469	1	0	0	0	0	518
16:45	0	11	0	0	0	0	0	1	1	31	428	1	0	0	0	0	473
Hr Total	0	30	1	0	0	0	1	4	1	95	2088	5	0	0	0	0	2225
17:00	0	5	0	0	0	0	0	2	0	29	528	2	0	0	0	0	566
17:15	0	8	2	0	0	0	1	2	0	17	518	1	0	0	0	0	549
17:30	0	11	1	0	0	0	2	1	0	13	584	2	0	0	0	0	614
17:45	0	7	0	0	0	0	0	0	0	13	502	1	0	0	0	0	523
Hr Total	0	31	3	0	0	0	3	5	0	72	2132	6	0	0	0	0	2252
TOTAL	0	123	31	0	0	0	11	41	1	204	6612	26	0	0	0	0	7049

COLLINS AVENUE AT 90TH STREET
 DADE COUNTY, FLORIDA
 COUNTED BY:
 SIGNALIZED

THOMAS A. HALL, INC.
 1355 ADAMS STREET
 HOLLYWOOD, FL 33019
 954-288-4447

Site Code: 10031
 Start Date: 6/6/17
 File I.D.: SURPSIDE
 Page: 2

ALL VEHICLES

90TH STREET From West		90TH STREET From East			COLLINS AVENUE From South			COLLINS AVENUE From North			Total
Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	
Date 6/6/2017											

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 6/6/2017

Peak start 08:00				08:00				08:00				08:00				Total	
Volume	0	37	14	0	0	0	3	17	0	21	1433	4	0	0	0		0
Percent	0%	73%	27%	0%	0%	0%	15%	85%	0%	1%	98%	0%	####	####	####	####	
Pk total	51				20				1458				0				
Highest	8:30				8:00: AM				8:15				8:15				
Volume	0	17	5	0	0	0	1	7	0	5	384	0	0	0	0	0	
Hi total	22				8				389				0				
PHF	0.58				0.63				0.94				####				

Peak Hour Analysis By Entire Intersection for the Period: 11:00 to 01:00 on 6/6/2017

Peak start 12:00				12:00				12:00				12:00				Total		
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Percent	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	
Pk total	0				0				0				0					
Highest	12:15				12:45				12:15				12:30					
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Hi total	0				0				0				0					
PHF	####				####				####				####					

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 6/6/2017

Peak start 17:00				17:00				17:00				17:00				Total	
Volume	0	31	3	0	0	0	3	5	0	72	2132	6	0	0	0		0
Percent	0%	91%	9%	0%	0%	0%	38%	63%	0%	3%	96%	0%	####	####	####	####	
Pk total	34				8				2210				0				
Highest	17:30				17:30				17:30				17:45				
Volume	0	11	1	0	0	0	2	1	0	13	584	2	0	0	0	0	
Hi total	12				3				599				0				
PHF	0.71				0.67				0.92				####				

HARDING AVENUE AT 90TH STREET
 DADE COUNTY, FLORIDA
 COUNTED BY:
 UNSIGNALIZED

THOMAS A. HALL, INC.
 1355 ADAMS STREET
 HOLLYWOOD, FL 33019
 954-288-4447

Site Code: 10031
 Start Date: 6/8/2017
 File I.D.: SURFSIDE
 Page: 3

ALL VEHICLES

Date	90TH STREET From West				90TH STREET From East				HARDING AVENUE From South				HARDING AVENUE From North				Total
	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	
6/8/2017																	
7:00	0	0	1	6	0	6	1	0	0	0	0	0	0	6	333	2	355
7:15	0	0	0	4	0	11	1	0	0	0	0	0	0	5	477	3	501
7:30	0	0	0	5	0	4	2	0	0	0	0	0	0	2	566	4	583
7:45	0	0	2	10	0	2	1	0	0	0	0	0	0	16	556	9	596
Hr Total	0	0	3	25	0	23	5	0	0	0	0	0	0	29	1932	18	2035
8:00	0	0	0	8	0	6	1	0	0	0	0	0	0	9	621	3	648
8:15	0	1	1	8	0	11	1	0	0	0	0	0	0	8	518	6	554
8:30	0	0	2	9	0	4	2	0	0	0	0	0	0	9	458	2	486
8:45	0	0	0	6	0	2	1	0	0	0	0	0	0	7	421	8	445
Hr Total	0	1	3	31	0	23	5	0	0	0	0	0	0	33	2018	19	2133
* BREAK *																	
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* BREAK *																	
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* BREAK *																	
16:00	0	0	2	7	1	3	1	0	0	0	0	0	0	4	397	3	418
16:15	0	0	3	2	0	1	2	0	0	0	0	0	0	9	423	9	449
16:30	0	0	4	5	0	1	4	0	0	0	0	0	0	6	482	4	506
16:45	0	1	6	4	0	2	4	0	0	0	0	0	0	8	485	4	514
Hr Total	0	1	15	18	1	7	11	0	0	0	0	0	0	27	1787	20	1887
17:00	1	0	2	2	0	7	1	0	0	0	0	0	0	4	514	9	540
17:15	0	0	1	4	0	10	1	0	0	0	0	0	0	15	457	8	496
17:30	0	0	1	4	0	3	0	0	0	0	0	0	0	8	564	2	582
17:45	0	0	0	2	0	2	1	0	0	0	0	0	0	3	603	4	615
Hr Total	1	0	4	12	0	22	3	0	0	0	0	0	0	30	2138	23	2233
TOTAL	1	2	25	86	1	75	24	0	0	0	0	0	0	119	7875	80	8288

HARDING AVENUE AT 90TH STREET
 DADE COUNTY, FLORIDA
 COUNTED BY:
 UNSIGNALIZED

THOMAS A. HALL, INC.
 1355 ADAMS STREET
 HOLLYWOOD, FL 33019
 954-288-4447

Site Code: 10031
 Start Date: 6/8/17
 File I.D.: SURPSIDE
 Page: 4

ALL VEHICLES

90TH STREET From West		90TH STREET From East		HARDING AVENUE From South		HARDING AVENUE From North		Total
Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	
Date 6/8/2017								

Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 6/8/2017

7:30		7:30		7:30		7:30														
Volume	0	1	3	31	0	23	5	0	0	0	0	0	0	0	0	0	35	2261	22	2381
Percent	0%	3%	9%	89%	0%	82%	18%	0%	#####	#####	#####	#####	0%	2%	98%	18%				
Pk total	35				28				0				2318							
Highest	7:45				8:15				8:00				8:00							
Volume	0	0	2	10	0	11	1	0	0	0	0	0	0	0	9	621	3			
Hi total	12				12				0				633							
PHF	0.73				0.58				#####				0.92							

Peak Hour Analysis By Entire Intersection for the Period: 11:00 to 01:00 on 6/8/2017

12:00		12:00		12:00		12:00														
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
Pk total	0				0				0				0							
Highest	12:00				12:00				12:30				12:30							
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hi total	0				0				0				0							
PHF	#####				#####				#####				#####							

Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 6/8/2017

17:00		17:00		17:00		17:00													
Volume	1	0	4	12	0	22	3	0	0	0	0	0	0	0	30	2138	23	2233	
Percent	6%	0%	24%	71%	0%	88%	12%	0%	#####	#####	#####	#####	0%	1%	98%	18%			
Pk total	17				25				0				2191						
Highest	17:30				17:15				17:30				17:45						
Volume	0	0	1	4	0	10	1	0	0	0	0	0	0	0	3	603	4		
Hi total	5				11				0				610						
PHF	0.85				0.57				#####				0.90						

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2016 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0525 - SR A1A/COLLINS AV/ONE-WAY PAIR NB, 100' N 87 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2016	25000 C	N 25000	0	9.00	99.90	7.80
2015	24500 C	N 24500	0	9.00	99.90	4.60
2014	21500 C	N 21500	0	9.00	99.90	5.10
2013	25000 C	N 25000	0	9.00	99.90	6.10
2012	32500 C	N 32500	0	9.00	99.90	8.40
2011	22000 C	N 22000	0	9.00	99.90	7.50
2010	22500 C	N 22500	0	8.98	99.99	8.80
2009	22500 C	N 22500	0	8.99	99.99	8.40
2008	24500 C	N 24500	0	9.09	99.99	5.30
2007	26000 C	N 26000	0	8.01	99.99	4.90
2006	24000 C	N 24000	0	7.97	99.99	2.20
2005	25000 C	N 25000	S	8.80	99.90	5.50
2004	24000 C	N 24000	S	9.00	99.90	8.20
2003	26500 C	N 26500	S	8.80	99.90	4.90
2002	26000 C	N 26000	S	9.80	99.90	2.60
2001	27000 C	N 27000	S	8.20	99.90	3.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2016 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0520 - SR A1A/HARDING AV/ONE-WAY PAIR SB, 100' N 87 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2016	27000 C	S 27000	0	9.00	99.90	9.10
2015	26500 C	S 26500	0	9.00	99.90	7.60
2014	26000 C	S 26000	0	9.00	99.90	5.40
2013	25500 C	S 25500	0	9.00	99.90	3.00
2012	26000 C	S 26000	0	9.00	99.90	3.80
2011	23500 C	S 23500	0	9.00	99.90	7.50
2010	24000 C	S 24000	0	8.98	99.99	8.80
2009	23000 C	S 23000	0	8.99	99.99	8.40
2008	24000 C	S 24000	0	9.09	99.99	5.30
2007	24000 C	S 24000	0	8.01	99.99	4.90
2006	24000 C	S 24000	0	7.97	99.99	2.20
2005	27000 C	S 27000	0	8.80	99.90	5.50
2004	27500 C	S 27500	0	9.00	99.90	8.20
2003	26000 C	S 26000	0	8.80	99.90	4.90
2002	27500 C	S 27500	0	9.80	99.90	2.60
2001	28500 C	S 28500	0	8.20	99.90	3.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix B – Adjustment Factors

2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8700 MIAMI-DADE NORTH

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2016 - 01/02/2016	1.02	1.04
2	01/03/2016 - 01/09/2016	1.03	1.05
3	01/10/2016 - 01/16/2016	1.04	1.06
4	01/17/2016 - 01/23/2016	1.03	1.05
5	01/24/2016 - 01/30/2016	1.02	1.04
6	01/31/2016 - 02/06/2016	1.00	1.02
7	02/07/2016 - 02/13/2016	0.99	1.01
* 8	02/14/2016 - 02/20/2016	0.97	0.99
* 9	02/21/2016 - 02/27/2016	0.97	0.99
*10	02/28/2016 - 03/05/2016	0.98	1.00
*11	03/06/2016 - 03/12/2016	0.98	1.00
*12	03/13/2016 - 03/19/2016	0.98	1.00
*13	03/20/2016 - 03/26/2016	0.98	1.00
*14	03/27/2016 - 04/02/2016	0.98	1.00
*15	04/03/2016 - 04/09/2016	0.98	1.00
*16	04/10/2016 - 04/16/2016	0.98	1.00
*17	04/17/2016 - 04/23/2016	0.98	1.00
*18	04/24/2016 - 04/30/2016	0.98	1.00
*19	05/01/2016 - 05/07/2016	0.98	1.00
*20	05/08/2016 - 05/14/2016	0.99	1.01
21	05/15/2016 - 05/21/2016	0.99	1.01
22	05/22/2016 - 05/28/2016	0.99	1.01
23	05/29/2016 - 06/04/2016	1.00	1.02
24	06/05/2016 - 06/11/2016	1.00	1.02
25	06/12/2016 - 06/18/2016	1.01	1.03
26	06/19/2016 - 06/25/2016	1.02	1.04
27	06/26/2016 - 07/02/2016	1.02	1.04
28	07/03/2016 - 07/09/2016	1.03	1.05
29	07/10/2016 - 07/16/2016	1.03	1.05
30	07/17/2016 - 07/23/2016	1.03	1.05
31	07/24/2016 - 07/30/2016	1.03	1.05
32	07/31/2016 - 08/06/2016	1.02	1.04
33	08/07/2016 - 08/13/2016	1.02	1.04
34	08/14/2016 - 08/20/2016	1.02	1.04
35	08/21/2016 - 08/27/2016	1.02	1.04
36	08/28/2016 - 09/03/2016	1.02	1.04
37	09/04/2016 - 09/10/2016	1.02	1.04
38	09/11/2016 - 09/17/2016	1.01	1.03
39	09/18/2016 - 09/24/2016	1.01	1.03
40	09/25/2016 - 10/01/2016	1.00	1.02
41	10/02/2016 - 10/08/2016	1.00	1.02
42	10/09/2016 - 10/15/2016	0.99	1.01
43	10/16/2016 - 10/22/2016	1.00	1.02
44	10/23/2016 - 10/29/2016	1.00	1.02
45	10/30/2016 - 11/05/2016	1.01	1.03
46	11/06/2016 - 11/12/2016	1.01	1.03
47	11/13/2016 - 11/19/2016	1.02	1.04
48	11/20/2016 - 11/26/2016	1.02	1.04
49	11/27/2016 - 12/03/2016	1.02	1.04
50	12/04/2016 - 12/10/2016	1.02	1.04
51	12/11/2016 - 12/17/2016	1.02	1.04
52	12/18/2016 - 12/24/2016	1.03	1.05
53	12/25/2016 - 12/31/2016	1.04	1.06

* PEAK SEASON

21-FEB-2017 10:54:35

830UPD

6_8700_PKSEASON.TXT

**Annual Growth Factor Worksheet
8995 Collins Avenue**

Count Station	2012 AADT	2016 AADT	Annual Compound Growth	Adjusted Annual Compound Growth
Site 870525 - Collins Ave. North of 87th Avenue	32500	25000	-5.10%	-5.10%
Site 870520 - Harding Ave. North of 87th Avenue	26000	27000	0.76%	0.76%
Assumed Annual Compound Growth Rate				0.50%



Miami-Dade 2040 Directional Distribution Summary

Origin TAZ			Cardinal Directions								Total
County TAZ	Regional TAZ		NNE	ENE	ESE	SSE	SSW	WSW	WNW	NNW	
595	3495	PERCENT	27.5	9.9	0.0	1.5	2.7	15.0	20.1	23.2	
596	3496	TRIPS	1,007	281	29	83	178	1,090	1,230	1,046	4,944
596	3496	PERCENT	20.4	5.7	0.6	1.7	3.6	22.1	24.9	21.2	
597	3497	TRIPS	714	317	17	84	238	1,188	2,012	1,703	6,273
597	3497	PERCENT	11.4	5.1	0.3	1.3	3.8	18.9	32.1	27.2	
598	3498	TRIPS	573	211	1	70	74	1,022	1,223	1,193	4,367
598	3498	PERCENT	13.1	4.8	0.0	1.6	1.7	23.4	28.0	27.3	
599	3499	TRIPS	320	106	4	14	40	326	344	423	1,577
599	3499	PERCENT	20.3	6.7	0.3	0.9	2.5	20.7	21.8	26.8	
600	3500	TRIPS	2,328	379	15	96	136	1,546	1,735	2,021	8,256
600	3500	PERCENT	28.2	4.6	0.2	1.2	1.7	18.7	21.0	24.5	
601	3501	TRIPS	96	0	0	76	554	377	219	317	1,639
601	3501	PERCENT	5.9	0.0	0.0	4.6	33.8	23.0	13.4	19.3	
602	3502	TRIPS	153	26	0	223	847	558	796	522	3,125
602	3502	PERCENT	4.9	0.8	0.0	7.1	27.1	17.9	25.5	16.7	
603	3503	TRIPS	150	0	0	44	724	550	683	582	2,733
603	3503	PERCENT	5.5	0.0	0.0	1.6	26.5	20.1	25.0	21.3	
604	3504	TRIPS	234	0	0	64	1,290	935	1,199	1,091	4,813
604	3504	PERCENT	4.9	0.0	0.0	1.3	26.8	19.4	24.9	22.7	
605	3505	TRIPS	229	84	0	183	770	376	633	576	2,851
605	3505	PERCENT	8.0	3.0	0.0	6.4	27.0	13.2	22.2	20.2	
606	3506	TRIPS	1,711	0	0	1,794	2,366	3,529	1,669	3,475	14,544
606	3506	PERCENT	11.8	0.0	0.0	12.3	16.3	24.3	11.5	23.9	
607	3507	TRIPS	414	226	0	251	1,228	912	930	1,238	5,199
607	3507	PERCENT	8.0	4.4	0.0	4.8	23.6	17.5	17.9	23.8	
608	3508	TRIPS	337	0	0	90	1,580	1,165	1,113	1,472	5,757
608	3508	PERCENT	5.9	0.0	0.0	1.6	27.4	20.2	19.3	25.6	
609	3509	TRIPS	342	0	0	112	1,328	1,596	680	1,847	5,905
609	3509	PERCENT	5.8	0.0	0.0	1.9	22.5	27.0	11.5	31.3	
610	3510	TRIPS	1,060	377	0	627	1,850	2,297	1,452	3,154	10,817
610	3510	PERCENT	9.8	3.5	0.0	5.8	17.1	21.2	13.4	29.2	
611	3511	TRIPS	935	229	0	332	1,273	1,314	1,405	1,905	7,393
611	3511	PERCENT	12.7	3.1	0.0	4.5	17.2	17.8	19.0	25.8	
612	3512	TRIPS	259	0	0	70	836	906	870	1,266	4,207
612	3512	PERCENT	6.2	0.0	0.0	1.7	19.9	21.5	20.7	30.1	
613	3513	TRIPS	24	0	0	46	95	45	63	111	384
613	3513	PERCENT	6.3	0.0	0.0	12.0	24.7	11.7	16.4	28.9	
614	3514	TRIPS	451	0	0	610	1,291	1,540	810	1,739	6,441
614	3514	PERCENT	7.0	0.0	0.0	9.5	20.0	23.9	12.6	27.0	
615	3515	TRIPS	920	379	0	1,112	1,477	1,214	907	1,482	7,491
615	3515	PERCENT	12.3	5.1	0.0	14.8	19.7	16.2	12.1	19.8	

Appendix C – Existing Conditions Analyses

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

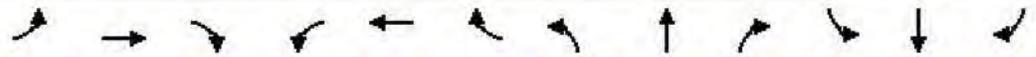
07/24/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔			↕↕↕				
Traffic Volume (vph)	38	14	0	0	3	17	21	1462	4	0	0	0
Future Volume (vph)	38	14	0	0	3	17	21	1462	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.886							
Flt Protected		0.965						0.999				
Satd. Flow (prot)	0	1798	0	0	1650	0	0	4798	0	0	0	0
Flt Permitted		0.763						0.999				
Satd. Flow (perm)	0	1421	0	0	1650	0	0	4798	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			1				
Link Speed (mph)		25			25			30				30
Link Distance (ft)		357			122			472				520
Travel Time (s)		9.7			3.3			10.7				11.8
Peak Hour Factor	0.58	0.58	0.58	0.63	0.63	0.63	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	8%	8%	8%
Adj. Flow (vph)	66	24	0	0	5	27	22	1555	4	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	32	0	0	1581	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	30			30		20	30				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	30			30		20	30				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0				
Minimum Split (s)	29.4	29.4			29.4		24.3	24.3				
Total Split (s)	33.0	33.0			33.0		57.0	57.0				
Total Split (%)	36.7%	36.7%			36.7%		63.3%	63.3%				
Maximum Green (s)	26.6	26.6			26.6		50.7	50.7				

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

07/24/2017

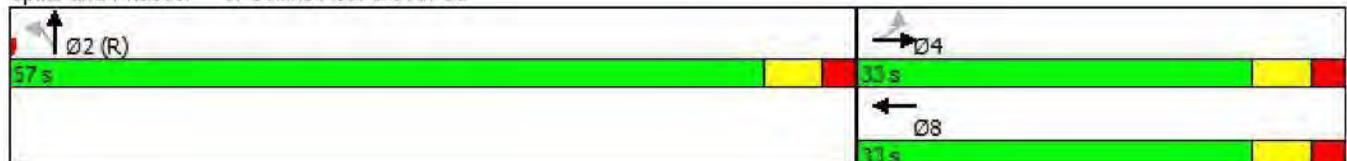


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.4	2.4			2.4		2.3	2.3				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		6.4			6.4			6.3				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		1.0	1.0				
Recall Mode	None	None			None		C-Max	C-Max				
Walk Time (s)	5.0	5.0			5.0		7.0	7.0				
Flash Dont Walk (s)	18.0	18.0			18.0		9.0	9.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		10.7			10.7			70.5				
Actuated g/C Ratio		0.12			0.12			0.78				
v/c Ratio		0.53			0.15			0.42				
Control Delay		48.1			17.1			4.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		48.1			17.1			4.8				
LOS		D			B			A				
Approach Delay		48.1			17.1			4.8				
Approach LOS		D			B			A				
Queue Length 50th (ft)		49			3			102				
Queue Length 95th (ft)		57			15			160				
Internal Link Dist (ft)		277			42			392			440	
Turn Bay Length (ft)												
Base Capacity (vph)		419			505			3759				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.21			0.06			0.42				

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 66 (73%), Referenced to phase 2:NBTL and 6:, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 7.3
 Intersection Capacity Utilization 48.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

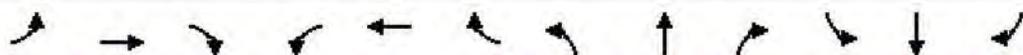
Splits and Phases: 3: Collins Ave. & 90th St.



HCM 6th Signalized Intersection Summary

3: Collins Ave. & 90th St.

07/22/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔↔↔				
Traffic Volume (veh/h)	38	14	0	0	3	17	21	1462	4	0	0	0
Future Volume (veh/h)	38	14	0	0	3	17	21	1462	4	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1781	1900			
Adj Flow Rate, veh/h	66	24	0	0	5	27	22	1555	4			
Peak Hour Factor	0.58	0.58	0.58	0.63	0.63	0.63	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	0	8	0			
Cap, veh/h	148	39	0	0	23	124	52	3918	10			
Arrive On Green	0.09	0.09	0.00	0.00	0.09	0.09	0.77	0.77	0.77			
Sat Flow, veh/h	866	430	0	0	254	1370	68	5097	14			
Grp Volume(v), veh/h	90	0	0	0	0	32	577	479	525			
Grp Sat Flow(s),veh/h/ln	1296	0	0	0	0	1624	1778	1621	1779			
Q Serve(g_s), s	4.7	0.0	0.0	0.0	0.0	1.6	10.0	8.7	8.7			
Cycle Q Clear(g_c), s	6.4	0.0	0.0	0.0	0.0	1.6	10.0	8.7	8.7			
Prop In Lane	0.73		0.00	0.00		0.84	0.04		0.01			
Lane Grp Cap(c), veh/h	186	0	0	0	0	147	1367	1246	1367			
V/C Ratio(X)	0.48	0.00	0.00	0.00	0.00	0.22	0.42	0.38	0.38			
Avail Cap(c_a), veh/h	490	0	0	0	0	480	1367	1246	1367			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	40.5	0.0	0.0	0.0	0.0	38.0	3.6	3.4	3.4			
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	0.0	0.5	1.0	0.9	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.0	0.0	0.7	2.8	2.3	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	0.0	0.0	0.0	0.0	38.5	4.5	4.3	4.2			
LnGrp LOS	D	A	A	A	A	D	A	A	A			
Approach Vol, veh/h		90			32			1581				
Approach Delay, s/veh		42.0			38.5			4.4				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		75.5		14.5				14.5				
Change Period (Y+Rc), s		* 6.3		6.4				6.4				
Max Green Setting (Gmax), s		* 51		26.6				26.6				
Max Q Clear Time (g_c+1), s		12.0		8.4				3.6				
Green Ext Time (p_c), s		0.9		0.2				0.0				

Intersection Summary

HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑					↑↑↑		
Traffic Vol, veh/h	0	3	32	23	5	0	0	0	0	36	2306	22
Future Vol, veh/h	0	3	32	23	5	0	0	0	0	36	2306	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	58	58	58	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	8	8	8	8	8	8
Mvmt Flow	0	4	44	40	9	0	0	0	0	39	2507	24

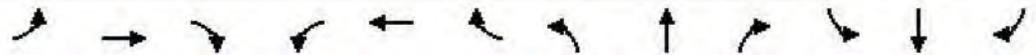
Major/Minor	Minor2		Minor1			Major2		
Conflicting Flow All	-	2597	1266	1083	2609	-	-	0
Stage 1	-	2597	-	0	0	-	-	-
Stage 2	-	0	-	1083	2609	-	-	-
Critical Hdwy	-	5.5	5	5	5.5	-	-	5.46
Critical Hdwy Stg 1	-	5.54	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.74	5.54	-	-	-
Follow-up Hdwy	-	4.02	3.3	3.5	4.02	-	-	3.18
Pot Cap-1 Maneuver	0	52	318	370	51	0	-	-
Stage 1	0	51	-	-	-	0	-	-
Stage 2	0	-	-	219	50	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	52	318	300	51	-	-	-
Mov Cap-2 Maneuver	-	52	-	300	51	-	-	-
Stage 1	-	51	-	-	-	-	-	-
Stage 2	-	-	-	174	50	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	25.7	36.9	
HCM LOS	D	E	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	221	160	-	-	-
HCM Lane V/C Ratio	0.217	0.302	-	-	-
HCM Control Delay (s)	25.7	36.9	-	-	-
HCM Lane LOS	D	E	-	-	-
HCM 95th %tile Q(veh)	0.8	1.2	-	-	-

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

07/24/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Traffic Volume (vph)	32	3	0	0	3	5	73	2175	6	0	0	0
Future Volume (vph)	32	3	0	0	3	5	73	2175	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.914							
Flt Protected		0.956						0.998				
Satd. Flow (prot)	0	1781	0	0	1703	0	0	4793	0	0	0	0
Flt Permitted		0.736						0.998				
Satd. Flow (perm)	0	1371	0	0	1703	0	0	4793	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			1				
Link Speed (mph)		25			25			30				30
Link Distance (ft)		357			122			472				520
Travel Time (s)		9.7			3.3			10.7				11.8
Peak Hour Factor	0.71	0.71	0.71	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	8%	8%	8%
Adj. Flow (vph)	45	4	0	0	4	7	79	2364	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	11	0	0	2450	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	30			30		20	30				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	30			30		20	30				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0				
Minimum Split (s)	29.4	29.4			29.4		24.3	24.3				
Total Split (s)	29.6	29.6			29.6		60.4	60.4				
Total Split (%)	32.9%	32.9%			32.9%		67.1%	67.1%				
Maximum Green (s)	23.2	23.2			23.2		54.1	54.1				

Existing PM.syn

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

07/24/2017

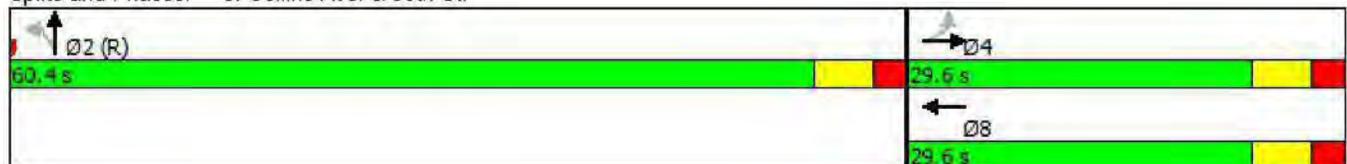


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.4	2.4			2.4		2.3	2.3				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		6.4			6.4			6.3				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		1.0	1.0				
Recall Mode	None	None			None		C-Max	C-Max				
Walk Time (s)	5.0	5.0			5.0		7.0	7.0				
Flash Dont Walk (s)	18.0	18.0			18.0		9.0	9.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		8.6			8.6			76.6				
Actuated g/C Ratio		0.10			0.10			0.85				
v/c Ratio		0.38			0.07			0.60				
Control Delay		42.1			28.9			4.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		42.1			28.9			4.8				
LOS		D			C			A				
Approach Delay		42.1			28.9			4.8				
Approach LOS		D			C			A				
Queue Length 50th (ft)		27			3			187				
Queue Length 95th (ft)		m45			13			278				
Internal Link Dist (ft)		277			42			392			440	
Turn Bay Length (ft)												
Base Capacity (vph)		353			442			4079				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.14			0.02			0.60				

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 1 (1%), Referenced to phase 2:NBTL and 6:, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 5.6
 Intersection LOS: A
 Intersection Capacity Utilization 62.8%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Collins Ave. & 90th St.



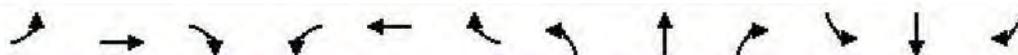
Existing PM.syn

Synchro 10 Report
Page 2

HCM 6th Signalized Intersection Summary

3: Collins Ave. & 90th St.

07/22/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Traffic Volume (veh/h)	32	3	0	0	3	5	73	2175	6	0	0	0
Future Volume (veh/h)	32	3	0	0	3	5	73	2175	6	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1781	1900			
Adj Flow Rate, veh/h	45	4	0	0	4	7	79	2364	7			
Peak Hour Factor	0.71	0.71	0.71	0.67	0.67	0.67	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	8	0			
Cap, veh/h	148	10	0	0	37	65	125	3993	12			
Arrive On Green	0.06	0.06	0.00	0.00	0.06	0.06	0.80	0.80	0.80			
Sat Flow, veh/h	1181	158	0	0	610	1068	157	5001	15			
Grp Volume(v), veh/h	49	0	0	0	0	11	894	742	815			
Grp Sat Flow(s),veh/h/ln	1339	0	0	0	0	1678	1774	1621	1779			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	0.0	0.6	18.4	15.3	15.3			
Cycle Q Clear(g_c), s	3.4	0.0	0.0	0.0	0.0	0.6	18.4	15.3	15.3			
Prop In Lane	0.92		0.00	0.00		0.64	0.09		0.01			
Lane Grp Cap(c), veh/h	158	0	0	0	0	101	1416	1294	1420			
V/C Ratio(X)	0.31	0.00	0.00	0.00	0.00	0.11	0.63	0.57	0.57			
Avail Cap(c_a), veh/h	440	0	0	0	0	433	1416	1294	1420			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	41.5	0.0	0.0	0.0	0.0	40.0	3.7	3.4	3.4			
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.3	2.1	1.8	1.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.2	4.7	3.6	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	0.0	0.0	0.0	40.3	5.8	5.2	5.1			
LnGrp LOS	D	A	A	A	A	D	A	A	A			
Approach Vol, veh/h		49			11			2450				
Approach Delay, s/veh		42.3			40.3			5.4				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		78.2		11.8				11.8				
Change Period (Y+Rc), s		* 6.3		6.4				6.4				
Max Green Setting (Gmax), s		* 54		23.2				23.2				
Max Q Clear Time (g_c+1), s		20.4		5.4				2.6				
Green Ext Time (p_c), s		1.5		0.1				0.0				

Intersection Summary

HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑					↑↑↑		
Traffic Vol, veh/h	0	4	12	22	3	0	0	0	0	31	2181	23
Future Vol, veh/h	0	4	12	22	3	0	0	0	0	31	2181	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	57	57	57	92	92	92	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	8	8	8	8	8	8
Mvmt Flow	0	5	14	39	5	0	0	0	0	34	2423	26

Major/Minor	Minor2		Minor1			Major2				
Conflicting Flow All	-	2504	1225	1040	2517	-	-	0	0	0
Stage 1	-	2504	-	0	0	-	-	-	-	-
Stage 2	-	0	-	1040	2517	-	-	-	-	-
Critical Hdwy	-	5.5	5	5	5.5	-	-	5.46	-	-
Critical Hdwy Stg 1	-	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.74	5.54	-	-	-	-	-
Follow-up Hdwy	-	4.02	3.3	3.5	4.02	-	-	3.18	-	-
Pot Cap-1 Maneuver	0	58	331	386	57	0	-	-	-	-
Stage 1	0	57	-	-	-	0	-	-	-	-
Stage 2	0	-	-	233	56	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	58	331	347	57	-	-	-	-	-
Mov Cap-2 Maneuver	-	58	-	347	57	-	-	-	-	-
Stage 1	-	57	-	-	-	-	-	-	-	-
Stage 2	-	-	-	205	56	-	-	-	-	-

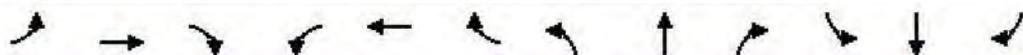
Approach	EB	WB	SB
HCM Control Delay, s	32	26	
HCM LOS	D	D	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	152	215	-	-	-
HCM Lane V/C Ratio	0.124	0.204	-	-	-
HCM Control Delay (s)	32	26	-	-	-
HCM Lane LOS	D	D	-	-	-
HCM 95th %tile Q(veh)	0.4	0.7	-	-	-

Appendix D – Background Traffic Conditions Analyses

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

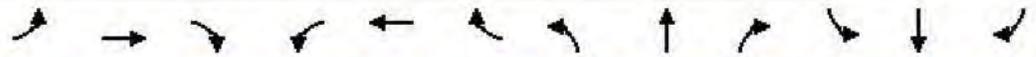
07/26/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔			↕↕↕				
Traffic Volume (vph)	38	14	0	0	3	17	22	1505	4	0	0	0
Future Volume (vph)	38	14	0	0	3	17	22	1505	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.886							
Flt Protected		0.965						0.999				
Satd. Flow (prot)	0	1798	0	0	1650	0	0	4798	0	0	0	0
Flt Permitted		0.763						0.999				
Satd. Flow (perm)	0	1421	0	0	1650	0	0	4798	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23			1				
Link Speed (mph)		25			25			30				30
Link Distance (ft)		357			122			472				520
Travel Time (s)		9.7			3.3			10.7				11.8
Peak Hour Factor	0.58	0.58	0.58	0.63	0.63	0.63	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	8%	8%	8%
Adj. Flow (vph)	66	24	0	0	5	27	23	1601	4	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	32	0	0	1628	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	30			30		20	30				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	30			30		20	30				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0				
Minimum Split (s)	29.4	29.4			29.4		24.3	24.3				
Total Split (s)	33.0	33.0			33.0		57.0	57.0				
Total Split (%)	36.7%	36.7%			36.7%		63.3%	63.3%				
Maximum Green (s)	26.6	26.6			26.6		50.7	50.7				

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

07/26/2017

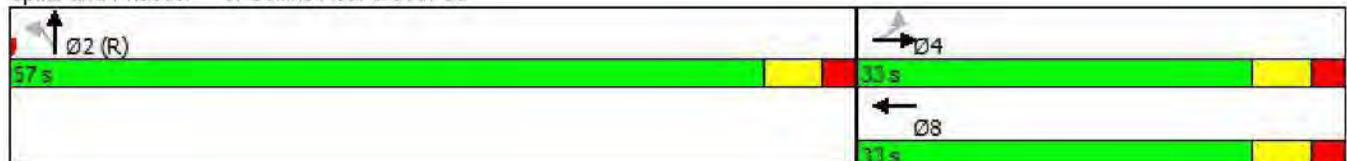


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.4	2.4			2.4		2.3	2.3				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		6.4			6.4			6.3				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		1.0	1.0				
Recall Mode	None	None			None		C-Max	C-Max				
Walk Time (s)	5.0	5.0			5.0		7.0	7.0				
Flash Dont Walk (s)	18.0	18.0			18.0		9.0	9.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		10.7			10.7			70.5				
Actuated g/C Ratio		0.12			0.12			0.78				
v/c Ratio		0.53			0.15			0.43				
Control Delay		48.1			18.9			4.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		48.1			18.9			4.9				
LOS		D			B			A				
Approach Delay		48.1			18.9			4.9				
Approach LOS		D			B			A				
Queue Length 50th (ft)		49			5			108				
Queue Length 95th (ft)		57			17			166				
Internal Link Dist (ft)		277			42			392			440	
Turn Bay Length (ft)												
Base Capacity (vph)		419			503			3759				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.21			0.06			0.43				

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 66 (73%), Referenced to phase 2:NBTL and 6:, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 7.4
 Intersection Capacity Utilization 49.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

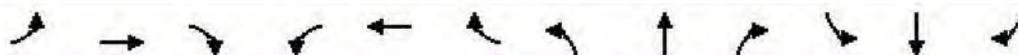
Splits and Phases: 3: Collins Ave. & 90th St.



HCM 6th Signalized Intersection Summary

3: Collins Ave. & 90th St.

07/22/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕↕↕				
Traffic Volume (veh/h)	38	14	0	0	3	17	22	1505	4	0	0	0
Future Volume (veh/h)	38	14	0	0	3	17	22	1505	4	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1781	1900			
Adj Flow Rate, veh/h	66	24	0	0	5	27	23	1601	4			
Peak Hour Factor	0.58	0.58	0.58	0.63	0.63	0.63	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	0	8	0			
Cap, veh/h	148	39	0	0	23	124	53	3917	10			
Arrive On Green	0.09	0.09	0.00	0.00	0.09	0.09	0.77	0.77	0.77			
Sat Flow, veh/h	866	430	0	0	254	1370	69	5096	13			
Grp Volume(v), veh/h	90	0	0	0	0	32	594	493	541			
Grp Sat Flow(s),veh/h/ln	1296	0	0	0	0	1624	1778	1621	1779			
Q Serve(g_s), s	4.7	0.0	0.0	0.0	0.0	1.6	10.5	9.1	9.1			
Cycle Q Clear(g_c), s	6.4	0.0	0.0	0.0	0.0	1.6	10.5	9.1	9.1			
Prop In Lane	0.73		0.00	0.00		0.84	0.04		0.01			
Lane Grp Cap(c), veh/h	186	0	0	0	0	147	1367	1246	1367			
V/C Ratio(X)	0.48	0.00	0.00	0.00	0.00	0.22	0.43	0.40	0.40			
Avail Cap(c_a), veh/h	490	0	0	0	0	480	1367	1246	1367			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	40.5	0.0	0.0	0.0	0.0	38.0	3.6	3.5	3.5			
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	0.0	0.5	1.0	0.9	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.0	0.0	0.7	3.0	2.4	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	0.0	0.0	0.0	0.0	38.5	4.6	4.4	4.3			
LnGrp LOS	D	A	A	A	A	D	A	A	A			
Approach Vol, veh/h		90			32			1628				
Approach Delay, s/veh		42.0			38.5			4.5				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		75.5		14.5				14.5				
Change Period (Y+Rc), s		* 6.3		6.4				6.4				
Max Green Setting (Gmax), s		* 51		26.6				26.6				
Max Q Clear Time (g_c+1), s		12.5		8.4				3.6				
Green Ext Time (p_c), s		0.9		0.2				0.0				

Intersection Summary

HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑					↑↑↑		
Traffic Vol, veh/h	0	3	32	24	5	0	0	0	0	36	2364	23
Future Vol, veh/h	0	3	32	24	5	0	0	0	0	36	2364	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	58	58	58	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	8	8	8	8	8	8
Mvmt Flow	0	4	44	41	9	0	0	0	0	39	2570	25

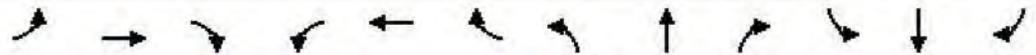
Major/Minor	Minor2		Minor1			Major2		
Conflicting Flow All	-	2661	1298	1108	2673	-	-	-
Stage 1	-	2661	-	0	0	-	-	-
Stage 2	-	0	-	1108	2673	-	-	-
Critical Hdwy	-	5.5	5	5	5.5	-	5.46	-
Critical Hdwy Stg 1	-	5.54	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.74	5.54	-	-	-
Follow-up Hdwy	-	4.02	3.3	3.5	4.02	-	3.18	-
Pot Cap-1 Maneuver	0	48	308	361	47	0	-	-
Stage 1	0	47	-	-	-	0	-	-
Stage 2	0	-	-	211	46	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	48	308	289	47	-	-	-
Mov Cap-2 Maneuver	-	48	-	289	47	-	-	-
Stage 1	-	47	-	-	-	-	-	-
Stage 2	-	-	-	165	46	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	27.1	39.6	
HCM LOS	D	E	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	210	153	-	-	-
HCM Lane V/C Ratio	0.228	0.327	-	-	-
HCM Control Delay (s)	27.1	39.6	-	-	-
HCM Lane LOS	D	E	-	-	-
HCM 95th %tile Q(veh)	0.9	1.3	-	-	-

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

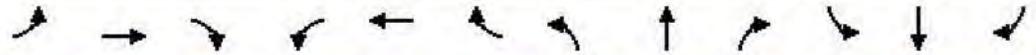
07/24/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Traffic Volume (vph)	32	3	0	0	3	5	74	2218	6	0	0	0
Future Volume (vph)	32	3	0	0	3	5	74	2218	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.914							
Flt Protected		0.956						0.998				
Satd. Flow (prot)	0	1781	0	0	1703	0	0	4793	0	0	0	0
Flt Permitted		0.736						0.998				
Satd. Flow (perm)	0	1371	0	0	1703	0	0	4793	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			1				
Link Speed (mph)		25			25			30				30
Link Distance (ft)		357			122			472				520
Travel Time (s)		9.7			3.3			10.7				11.8
Peak Hour Factor	0.71	0.71	0.71	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	8%	8%	8%
Adj. Flow (vph)	45	4	0	0	4	7	80	2411	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	11	0	0	2498	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	30			30		20	30				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	30			30		20	30				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0				
Minimum Split (s)	29.4	29.4			29.4		24.3	24.3				
Total Split (s)	29.6	29.6			29.6		60.4	60.4				
Total Split (%)	32.9%	32.9%			32.9%		67.1%	67.1%				
Maximum Green (s)	23.2	23.2			23.2		54.1	54.1				

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

07/24/2017

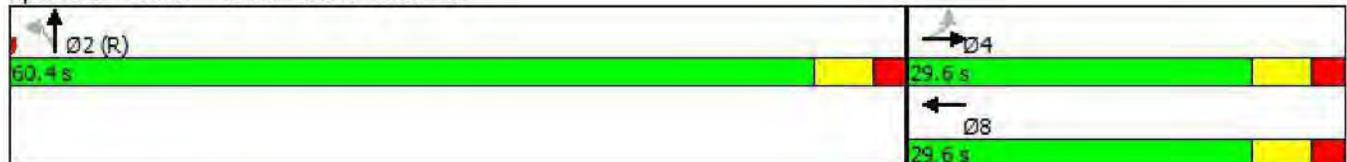


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.4	2.4			2.4		2.3	2.3				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		6.4			6.4			6.3				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		1.0	1.0				
Recall Mode	None	None			None		C-Max	C-Max				
Walk Time (s)	5.0	5.0			5.0		7.0	7.0				
Flash Dont Walk (s)	18.0	18.0			18.0		9.0	9.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		8.6			8.6			76.6				
Actuated g/C Ratio		0.10			0.10			0.85				
v/c Ratio		0.38			0.07			0.61				
Control Delay		42.1			30.4			4.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		42.1			30.4			4.9				
LOS		D			C			A				
Approach Delay		42.1			30.4			4.9				
Approach LOS		D			C			A				
Queue Length 50th (ft)		27			4			195				
Queue Length 95th (ft)		m45			14			290				
Internal Link Dist (ft)		277			42			392			440	
Turn Bay Length (ft)												
Base Capacity (vph)		353			441			4079				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.14			0.02			0.61				

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 1 (1%), Referenced to phase 2:NBTL and 6:, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 5.7
 Intersection LOS: A
 Intersection Capacity Utilization 63.7%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Collins Ave. & 90th St.



HCM 6th Signalized Intersection Summary

3: Collins Ave. & 90th St.

07/22/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Traffic Volume (veh/h)	32	3	0	0	3	5	74	2218	6	0	0	0
Future Volume (veh/h)	32	3	0	0	3	5	74	2218	6	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1781	1900			
Adj Flow Rate, veh/h	45	4	0	0	4	7	80	2411	7			
Peak Hour Factor	0.71	0.71	0.71	0.67	0.67	0.67	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	8	0			
Cap, veh/h	148	10	0	0	37	65	124	3995	12			
Arrive On Green	0.06	0.06	0.00	0.00	0.06	0.06	0.80	0.80	0.80			
Sat Flow, veh/h	1181	158	0	0	610	1068	156	5003	15			
Grp Volume(v), veh/h	49	0	0	0	0	11	911	756	830			
Grp Sat Flow(s),veh/h/ln	1339	0	0	0	0	1678	1774	1621	1779			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	0.0	0.6	19.2	15.9	15.9			
Cycle Q Clear(g_c), s	3.4	0.0	0.0	0.0	0.0	0.6	19.2	15.9	15.9			
Prop In Lane	0.92		0.00	0.00		0.64	0.09		0.01			
Lane Grp Cap(c), veh/h	158	0	0	0	0	101	1416	1294	1420			
V/C Ratio(X)	0.31	0.00	0.00	0.00	0.00	0.11	0.64	0.58	0.58			
Avail Cap(c_a), veh/h	440	0	0	0	0	433	1416	1294	1420			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	41.5	0.0	0.0	0.0	0.0	40.0	3.8	3.4	3.4			
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.3	2.3	1.9	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.2	4.9	3.8	4.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	0.0	0.0	0.0	40.3	6.0	5.4	5.2			
LnGrp LOS	D	A	A	A	A	D	A	A	A			
Approach Vol, veh/h		49			11			2498				
Approach Delay, s/veh		42.3			40.3			5.5				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		78.2		11.8				11.8				
Change Period (Y+Rc), s		* 6.3		6.4				6.4				
Max Green Setting (Gmax), s		* 54		23.2				23.2				
Max Q Clear Time (g_c+1), s		21.2		5.4				2.6				
Green Ext Time (p_c), s		1.6		0.1				0.0				

Intersection Summary

HCM 6th Ctrl Delay	6.4
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑					↑↑↑		
Traffic Vol, veh/h	0	4	12	22	3	0	0	0	0	31	2247	24
Future Vol, veh/h	0	4	12	22	3	0	0	0	0	31	2247	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	57	57	57	92	92	92	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	8	8	8	8	8	8
Mvmt Flow	0	5	14	39	5	0	0	0	0	34	2497	27

Major/Minor	Minor2		Minor1			Major2		
Conflicting Flow All	-	2579	1262	1069	2592	-	-	0
Stage 1	-	2579	-	0	0	-	-	-
Stage 2	-	0	-	1069	2592	-	-	-
Critical Hdwy	-	5.5	5	5	5.5	-	-	5.46
Critical Hdwy Stg 1	-	5.54	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.74	5.54	-	-	-
Follow-up Hdwy	-	4.02	3.3	3.5	4.02	-	-	3.18
Pot Cap-1 Maneuver	0	53	319	375	52	0	-	-
Stage 1	0	52	-	-	-	0	-	-
Stage 2	0	-	-	224	51	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	53	319	334	52	-	-	-
Mov Cap-2 Maneuver	-	53	-	334	52	-	-	-
Stage 1	-	52	-	-	-	-	-	-
Stage 2	-	-	-	195	51	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	34.4	27.7	
HCM LOS	D	D	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	141	202	-	-	-
HCM Lane V/C Ratio	0.134	0.217	-	-	-
HCM Control Delay (s)	34.4	27.7	-	-	-
HCM Lane LOS	D	D	-	-	-
HCM 95th %tile Q(veh)	0.4	0.8	-	-	-

Appendix E – Total Traffic Conditions Analyses

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

12/30/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔			↕↕↕				
Traffic Volume (vph)	38	15	0	0	4	19	22	1505	4	0	0	0
Future Volume (vph)	38	15	0	0	4	19	22	1505	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.887							
Flt Protected		0.965						0.999				
Satd. Flow (prot)	0	1798	0	0	1652	0	0	4798	0	0	0	0
Flt Permitted		0.765						0.999				
Satd. Flow (perm)	0	1425	0	0	1652	0	0	4798	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23			1				
Link Speed (mph)		25			25			30				30
Link Distance (ft)		357			130			472				520
Travel Time (s)		9.7			3.5			10.7				11.8
Peak Hour Factor	0.58	0.58	0.58	0.63	0.63	0.63	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	8%	8%	8%
Adj. Flow (vph)	66	26	0	0	6	30	23	1601	4	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	36	0	0	1628	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	30			30		20	30				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	30			30		20	30				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0				
Minimum Split (s)	29.4	29.4			29.4		24.3	24.3				
Total Split (s)	33.0	33.0			33.0		57.0	57.0				
Total Split (%)	36.7%	36.7%			36.7%		63.3%	63.3%				
Maximum Green (s)	26.6	26.6			26.6		50.7	50.7				

Total AM 2.syn

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

12/30/2017

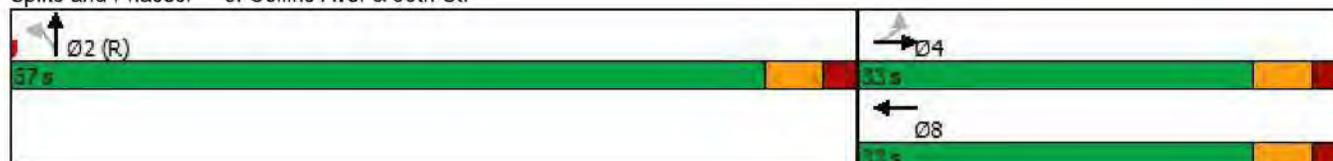


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.4	2.4			2.4		2.3	2.3				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		6.4			6.4			6.3				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		1.0	1.0				
Recall Mode	None	None			None		C-Max	C-Max				
Walk Time (s)	5.0	5.0			5.0		7.0	7.0				
Flash Dont Walk (s)	18.0	18.0			18.0		9.0	9.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		10.8			10.8			70.4				
Actuated g/C Ratio		0.12			0.12			0.78				
v/c Ratio		0.54			0.17			0.43				
Control Delay		48.2			20.1			4.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		48.2			20.1			4.9				
LOS		D			C			A				
Approach Delay		48.2			20.1			4.9				
Approach LOS		D			C			A				
Queue Length 50th (ft)		50			7			108				
Queue Length 95th (ft)		57			19			168				
Internal Link Dist (ft)		277			50			392			440	
Turn Bay Length (ft)												
Base Capacity (vph)		421			504			3754				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.22			0.07			0.43				

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 66 (73%), Referenced to phase 2:NBTL and 6:, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 7.5
 Intersection Capacity Utilization 49.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

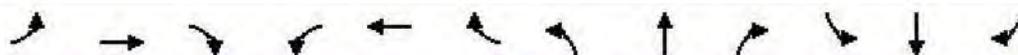
Splits and Phases: 3: Collins Ave. & 90th St.



HCM 6th Signalized Intersection Summary

3: Collins Ave. & 90th St.

12/30/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↖↗↘				
Traffic Volume (veh/h)	38	15	0	0	4	19	22	1505	4	0	0	0
Future Volume (veh/h)	38	15	0	0	4	19	22	1505	4	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1781	1900			
Adj Flow Rate, veh/h	66	26	0	0	6	30	23	1601	4			
Peak Hour Factor	0.58	0.58	0.58	0.63	0.63	0.63	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	0	8	0			
Cap, veh/h	146	43	0	0	25	126	53	3902	10			
Arrive On Green	0.09	0.09	0.00	0.00	0.09	0.09	0.77	0.77	0.77			
Sat Flow, veh/h	830	456	0	0	271	1355	69	5096	13			
Grp Volume(v), veh/h	92	0	0	0	0	36	594	493	541			
Grp Sat Flow(s),veh/h/ln	1286	0	0	0	0	1626	1778	1621	1779			
Q Serve(g_s), s	4.7	0.0	0.0	0.0	0.0	1.8	10.6	9.2	9.2			
Cycle Q Clear(g_c), s	6.6	0.0	0.0	0.0	0.0	1.8	10.6	9.2	9.2			
Prop In Lane	0.72		0.00	0.00		0.83	0.04		0.01			
Lane Grp Cap(c), veh/h	189	0	0	0	0	152	1361	1241	1362			
V/C Ratio(X)	0.49	0.00	0.00	0.00	0.00	0.24	0.44	0.40	0.40			
Avail Cap(c_a), veh/h	489	0	0	0	0	481	1361	1241	1362			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	40.4	0.0	0.0	0.0	0.0	37.8	3.7	3.5	3.5			
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	0.0	0.6	1.0	1.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.0	0.0	0.8	3.0	2.4	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	0.0	0.0	0.0	0.0	38.4	4.7	4.5	4.4			
LnGrp LOS	D	A	A	A	A	D	A	A	A			
Approach Vol, veh/h		92			36			1628				
Approach Delay, s/veh		41.8			38.4			4.6				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		75.2		14.8				14.8				
Change Period (Y+Rc), s		* 6.3		6.4				6.4				
Max Green Setting (Gmax), s		* 51		26.6				26.6				
Max Q Clear Time (g_c+1), s		12.6		8.6				3.8				
Green Ext Time (p_c), s		0.9		0.2				0.1				

Intersection Summary

HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↕					↔↕↔		
Traffic Vol, veh/h	0	3	32	25	5	0	0	0	0	37	2364	23
Future Vol, veh/h	0	3	32	25	5	0	0	0	0	37	2364	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	58	58	58	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	8	8	8	8	8	8
Mvmt Flow	0	4	44	43	9	0	0	0	0	40	2570	25

Major/Minor	Minor2		Minor1			Major2			
Conflicting Flow All	-	2663	1298	1110	2675	-	0	0	0
Stage 1	-	2663	-	0	0	-	-	-	-
Stage 2	-	0	-	1110	2675	-	-	-	-
Critical Hdwy	-	5.5	5	5	5.5	-	5.46	-	-
Critical Hdwy Stg 1	-	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.74	5.54	-	-	-	-
Follow-up Hdwy	-	4.02	3.3	3.5	4.02	-	3.18	-	-
Pot Cap-1 Maneuver	0	48	308	360	47	0	-	-	-
Stage 1	0	47	-	-	-	0	-	-	-
Stage 2	0	-	-	210	46	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	48	308	288	47	-	-	-	-
Mov Cap-2 Maneuver	-	48	-	288	47	-	-	-	-
Stage 1	-	47	-	-	-	-	-	-	-
Stage 2	-	-	-	164	46	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	27.1		39.4			
HCM LOS	D		E			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	210	155	-	-	-
HCM Lane V/C Ratio	0.228	0.334	-	-	-
HCM Control Delay (s)	27.1	39.4	-	-	-
HCM Lane LOS	D	E	-	-	-
HCM 95th %tile Q(veh)	0.9	1.4	-	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↑	↔	
Traffic Vol, veh/h	18	4	0	21	13	0
Future Vol, veh/h	18	4	0	21	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	58	58	63	63	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	7	0	33	14	0

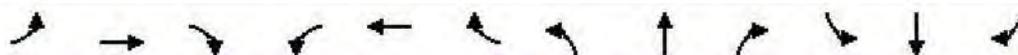
Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	-	68
Stage 1	-	-	-	35
Stage 2	-	-	-	33
Critical Hdwy	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	5.42
Follow-up Hdwy	-	-	-	3.518
Pot Cap-1 Maneuver	-	-	0	937
Stage 1	-	-	0	987
Stage 2	-	-	0	989
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	937
Mov Cap-2 Maneuver	-	-	-	937
Stage 1	-	-	-	987
Stage 2	-	-	-	989

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	937	-	-	-
HCM Lane V/C Ratio	0.015	-	-	-
HCM Control Delay (s)	8.9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

12/30/2017



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Traffic Volume (vph)	32	4	0	0	4	6	74	2218	7	0	0	0
Future Volume (vph)	32	4	0	0	4	6	74	2218	7	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.919							
Flt Protected		0.958						0.998				
Satd. Flow (prot)	0	1785	0	0	1712	0	0	4793	0	0	0	0
Flt Permitted		0.740						0.998				
Satd. Flow (perm)	0	1378	0	0	1712	0	0	4793	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			1				
Link Speed (mph)		25			25			30				30
Link Distance (ft)		357			140			472				520
Travel Time (s)		9.7			3.8			10.7				11.8
Peak Hour Factor	0.71	0.71	0.71	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	8%	8%	8%	8%	8%	8%
Adj. Flow (vph)	45	6	0	0	6	9	80	2411	8	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	51	0	0	15	0	0	2499	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1		1	1				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	30			30		20	30				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	30			30		20	30				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			8			2				
Permitted Phases	4						2					
Detector Phase	4	4			8		2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0	7.0				
Minimum Split (s)	29.4	29.4			29.4		24.3	24.3				
Total Split (s)	29.6	29.6			29.6		60.4	60.4				
Total Split (%)	32.9%	32.9%			32.9%		67.1%	67.1%				
Maximum Green (s)	23.2	23.2			23.2		54.1	54.1				

Total PM 2.syn

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
3: Collins Ave. & 90th St.

12/30/2017

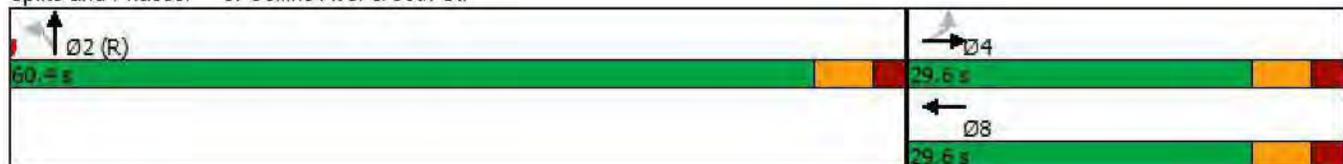


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	2.4	2.4			2.4		2.3	2.3				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		6.4			6.4			6.3				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		1.0	1.0				
Recall Mode	None	None			None		C-Max	C-Max				
Walk Time (s)	5.0	5.0			5.0		7.0	7.0				
Flash Dont Walk (s)	18.0	18.0			18.0		9.0	9.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		8.7			8.7			76.5				
Actuated g/C Ratio		0.10			0.10			0.85				
v/c Ratio		0.38			0.09			0.61				
Control Delay		42.2			31.6			5.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		42.2			31.6			5.0				
LOS		D			C			A				
Approach Delay		42.2			31.6			5.0				
Approach LOS		D			C			A				
Queue Length 50th (ft)		28			6			196				
Queue Length 95th (ft)		m46			m17			294				
Internal Link Dist (ft)		277			60			392			440	
Turn Bay Length (ft)												
Base Capacity (vph)		355			444			4074				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.14			0.03			0.61				

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 1 (1%), Referenced to phase 2:NBTL and 6:, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 5.9
 Intersection LOS: A
 Intersection Capacity Utilization 63.7%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

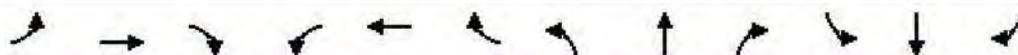
Splits and Phases: 3: Collins Ave. & 90th St.



HCM 6th Signalized Intersection Summary

3: Collins Ave. & 90th St.

12/30/2017



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕↕↕				
Traffic Volume (veh/h)	32	4	0	0	4	6	74	2218	7	0	0	0
Future Volume (veh/h)	32	4	0	0	4	6	74	2218	7	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1781	1900			
Adj Flow Rate, veh/h	45	6	0	0	6	9	80	2411	8			
Peak Hour Factor	0.71	0.71	0.71	0.67	0.67	0.67	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	8	0			
Cap, veh/h	145	14	0	0	42	64	124	3981	14			
Arrive On Green	0.06	0.06	0.00	0.00	0.06	0.06	0.80	0.80	0.80			
Sat Flow, veh/h	1102	226	0	0	675	1013	156	5000	17			
Grp Volume(v), veh/h	51	0	0	0	0	15	912	757	831			
Grp Sat Flow(s),veh/h/ln	1328	0	0	0	0	1688	1774	1621	1778			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	0.0	0.8	19.4	16.1	16.1			
Cycle Q Clear(g_c), s	3.6	0.0	0.0	0.0	0.0	0.8	19.4	16.1	16.1			
Prop In Lane	0.88		0.00	0.00		0.60	0.09		0.01			
Lane Grp Cap(c), veh/h	159	0	0	0	0	106	1412	1290	1416			
V/C Ratio(X)	0.32	0.00	0.00	0.00	0.00	0.14	0.65	0.59	0.59			
Avail Cap(c_a), veh/h	440	0	0	0	0	435	1412	1290	1416			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	41.4	0.0	0.0	0.0	0.0	39.9	3.9	3.5	3.5			
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	0.4	2.3	2.0	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.3	5.1	3.9	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	0.0	0.0	0.0	0.0	40.3	6.1	5.5	5.3			
LnGrp LOS	D	A	A	A	A	D	A	A	A			
Approach Vol, veh/h		51			15			2499				
Approach Delay, s/veh		42.2			40.3			5.7				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		77.9		12.1				12.1				
Change Period (Y+Rc), s		* 6.3		6.4				6.4				
Max Green Setting (Gmax), s		* 54		23.2				23.2				
Max Q Clear Time (g_c+1), s		21.4		5.6				2.8				
Green Ext Time (p_c), s		1.6		0.1				0.0				

Intersection Summary

HCM 6th Ctrl Delay	6.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔					↔↔↔		
Traffic Vol, veh/h	0	4	12	24	3	0	0	0	0	32	2247	24
Future Vol, veh/h	0	4	12	24	3	0	0	0	0	32	2247	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	57	57	57	92	92	92	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	8	8	8	8	8	8
Mvmt Flow	0	5	14	42	5	0	0	0	0	36	2497	27

Major/Minor	Minor2		Minor1				Major2			
Conflicting Flow All	-	2583	1262	1073	2596	-	-	0	0	0
Stage 1	-	2583	-	0	0	-	-	-	-	-
Stage 2	-	0	-	1073	2596	-	-	-	-	-
Critical Hdwy	-	5.5	5	5	5.5	-	-	5.46	-	-
Critical Hdwy Stg 1	-	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.74	5.54	-	-	-	-	-
Follow-up Hdwy	-	4.02	3.3	3.5	4.02	-	-	3.18	-	-
Pot Cap-1 Maneuver	0	53	319	373	52	0	-	-	-	-
Stage 1	0	51	-	-	-	0	-	-	-	-
Stage 2	0	-	-	222	51	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	53	319	332	52	-	-	-	-	-
Mov Cap-2 Maneuver	-	53	-	332	52	-	-	-	-	-
Stage 1	-	51	-	-	-	-	-	-	-	-
Stage 2	-	-	-	193	51	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	34.4		27.3			
HCM LOS	D		D			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	141	208	-	-	-
HCM Lane V/C Ratio	0.134	0.228	-	-	-
HCM Control Delay (s)	34.4	27.3	-	-	-
HCM Lane LOS	D	D	-	-	-
HCM 95th %tile Q(veh)	0.4	0.8	-	-	-

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑		↙					↗
Traffic Vol, veh/h	20	0	12	0	0	0	8	0	0	0	0	23
Future Vol, veh/h	20	0	12	0	0	0	8	0	0	0	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	71	71	67	67	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	0	17	0	0	0	9	0	0	0	0	25

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1	0	0	67
Stage 1	-	-	-	53
Stage 2	-	-	-	14
Critical Hdwy	4.12	-	-	7.12
Critical Hdwy Stg 1	-	-	-	6.12
Critical Hdwy Stg 2	-	-	-	6.12
Follow-up Hdwy	2.218	-	-	3.518
Pot Cap-1 Maneuver	1622	-	0	926
Stage 1	-	-	0	960
Stage 2	-	-	0	1006
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1622	-	-	895
Mov Cap-2 Maneuver	-	-	-	895
Stage 1	-	-	-	947
Stage 2	-	-	-	983

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.1	0	9.1	8.4
HCM LOS			A	A

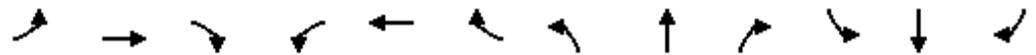
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	895	1622	-	-	-	1084
HCM Lane V/C Ratio	0.01	0.013	-	-	-	0.023
HCM Control Delay (s)	9.1	7.2	0	-	-	8.4
HCM Lane LOS	A	A	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	-	0.1

Appendix F – Site Plan

Appendix G – Queuing Analysis

Lanes, Volumes, Timings
12: Project Drive & 90th St.

04/23/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Volume (vph)	20	0	16	8	1	0	8	0	0	0	0	23
Future Volume (vph)	20	0	16	8	1	0	8	0	0	0	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.865
Flt Protected		0.950			0.956			0.950				
Satd. Flow (prot)	0	1770	1583	0	1781	0	0	1770	0	0	1611	0
Flt Permitted		0.749			0.816			0.741				
Satd. Flow (perm)	0	1395	1583	0	1520	0	0	1380	0	0	1611	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)									1080			
Link Speed (mph)		25			25			25				30
Link Distance (ft)		140			30			123				156
Travel Time (s)		3.8			0.8			3.4				3.5
Peak Hour Factor	0.92	0.71	0.71	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	23	12	1	0	9	0	0	0	0	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	23	0	13	0	0	9	0	0	25	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA				NA
Protected Phases		2			6			8				4
Permitted Phases	2		2	6			8			4		
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		180.0	180.0		180.0	180.0	
Total Split (%)	14.3%	14.3%	14.3%	14.3%	14.3%		85.7%	85.7%		85.7%	85.7%	
Maximum Green (s)	25.5	25.5	25.5	25.5	25.5		175.5	175.5		175.5	175.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		4.5	4.5		4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		25.5	25.5		25.5			175.5			175.5	
Actuated g/C Ratio		0.12	0.12		0.12			0.84			0.84	
v/c Ratio		0.13	0.12		0.07			0.01			0.02	

Queuing and Blocking Report
Baseline

04/23/2018

Intersection: 3: Collins Ave. & 90th St.

Movement	EB	WB	NB	NB	NB
Directions Served	LT	TR	LT	T	TR
Maximum Queue (ft)	96	56	256	226	172
Average Queue (ft)	35	13	110	79	39
95th Queue (ft)	76	44	251	197	120
Link Distance (ft)	325	59	443	443	443
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Harding Ave. & 90th St.

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	47	58
Average Queue (ft)	15	23
95th Queue (ft)	42	54
Link Distance (ft)	316	325
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Harding Ave.

Movement	EB	WB	SB	SB	SB
Directions Served	LTR	LT	LT	T	TR
Maximum Queue (ft)	53	92	230	192	150
Average Queue (ft)	16	20	91	53	29
95th Queue (ft)	44	58	240	156	96
Link Distance (ft)	288	180	197	197	197
Upstream Blk Time (%)			2	0	0
Queuing Penalty (veh)			0	0	0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report
Baseline

04/23/2018

Intersection: 12: Project Drive & 90th St.

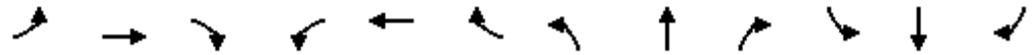
Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (ft)	58	49	17	22	36
Average Queue (ft)	23	17	4	2	5
95th Queue (ft)	54	45	16	10	24
Link Distance (ft)	59		2	81	128
Upstream Blk Time (%)	2	0	0		
Queuing Penalty (veh)	0	0	0		
Storage Bay Dist (ft)		75			
Storage Blk Time (%)	2	0			
Queuing Penalty (veh)	0	0			

Network Summary

Network wide Queuing Penalty: 1

Lanes, Volumes, Timings
12: Project Drive & 90th St.

04/23/2018

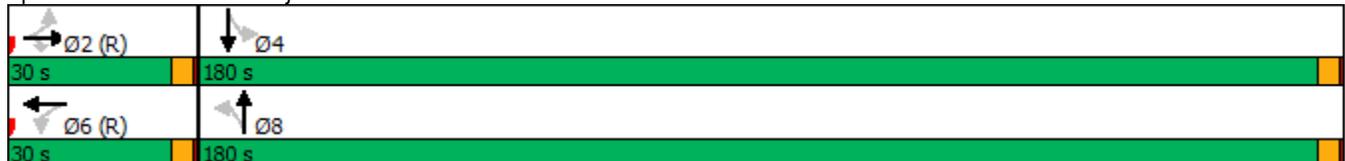


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		84.7	84.1		83.0			2.9			0.0	
Queue Delay		17.4	20.9		0.0			0.0			0.0	
Total Delay		102.0	105.1		83.0			2.9			0.0	
LOS		F	F		F			A			A	
Approach Delay		103.6			83.0			2.9				
Approach LOS		F			F			A				
Queue Length 50th (ft)		28	29		16			2			0	
Queue Length 95th (ft)		48	51		32			5			0	
Internal Link Dist (ft)		60			1			43			76	
Turn Bay Length (ft)			75									
Base Capacity (vph)		169	192		184			1153			1523	
Starvation Cap Reductn		131	155		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.58	0.62		0.07			0.01			0.02	

Intersection Summary

Area Type:	Other
Cycle Length:	210
Actuated Cycle Length:	210
Offset:	0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.13
Intersection Signal Delay:	62.7
Intersection LOS:	E
Intersection Capacity Utilization:	23.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 12: Project Drive & 90th St.



PLANNING & ZONING BOARD

1. Call to Order/Roll Call

Chair Lindsay Lecour called the meeting to order at 8:54 p.m.

Recording Clerk Duval called the roll with the following members present: Chair Lindsay Lecour, Vice Chair Judith Frankel, Board Member Peter Glynn, Board Member Brian Roller and Board Member Jorge Garcia. Liaison, Vice Mayor Daniel Gielchinsky was absent.

The meeting was turned over to the Town Attorney to elect a Planning and Zoning Board Chair and Vice Chair. Board Member Roller nominated Lindsay Lecour as Chair. The motion received a second from Board Member Glynn and all voted in favor. Board Member Roller nominated Judith Frankel as Vice Chair. The motion received a second from Board Member Glynn and all voted in favor.

2. Town Commission Liaison Report – Vice Mayor Daniel Gielchinsky

Vice Mayor Gielchinsky was not present to provide a report.

3. Approval of Minutes: March 29, 2018

Board Member Roller corrected the minutes on page 4 to read “there may or not be a better solution to one-way streets.” Board Member Glynn made a motion to approve the minutes. The motion received a second from Vice Chair Frankel and all voted in favor.

4. Quasi-Judicial Application:

A. 8995 Collins Avenue – Site Plan; Conditional Use for Hotel Pool and Alternative Parking System; Variances for Landscaping and Loading Space Size

Board Member Glynn made a motion to defer the item to the May 31, 2018 meeting at 6:00p.m. The motion received a second from Vice Chair Frankel and all voted in favor.

THIS SPACE INTENTIONALLY LEFT BLANK

5. Local Planning Agency Items:

A. Development Approval Procedures

AN ORDINANCE OF THE TOWN OF SURFSIDE, FLORIDA AMENDING DIVISION 3, "SPECIAL EXCEPTIONS, ZONING CHANGES, CONDITIONAL USES AND VARIANCES," OF ARTICLE II, "ADMINISTRATION AND ENFORCEMENT," OF CHAPTER 90 "ZONING" OF THE TOWN OF SURFSIDE CODE OF ORDINANCES TO ADDRESS DEVELOPMENT APPLICATION PROCEDURES AND REQUIREMENTS; PROVIDING FOR REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR SEVERABILITY; PROVIDING FOR INCLUSION IN THE CODE; AND PROVIDING FOR AN EFFECTIVE DATE.

Recording Clerk Duval read the title of the ordinance. Town Planner Sinatra presented the item. Town Manager Olmedillo gave further details on the item.

Board Member Roller made a motion to recommend to the Town Commission. The motion received a second from Board Member Glynn and all voted in favor.

B. Maximum Building Length

AN ORDINANCE OF THE TOWN OF SURFSIDE, FLORIDA AMENDING SECTION 90-51 "MAXIMUM FRONTAGE OF BUILDINGS AND FACADE ARTICULATIONS." OF "CHAPTER 90 ZONING" OF THE TOWN OF SURFSIDE CODE OF ORDINANCES TO ADDRESS FAÇADE ARTICULATIONS, MAXIMUM BUILDING LENGTHS AND BUILDING SEPARATIONS IN THE H30C AND H40 ZONING DISTRICTS; PROVIDING FOR REPEAL OF CONFLICTING PROVISIONS; PROVIDING FOR SEVERABILITY; PROVIDING FOR INCLUSION IN THE CODE; AND PROVIDING FOR AN EFFECTIVE DATE.

Recording Clerk Duval read the title of the ordinance. Town Planner Sinatra presented the item and recommended revisions to the ordinance regarding ground level connections and setbacks.

Chair Lecour opened the public hearing:

Public Speaker Neisen Kasdin for the record said that a letter is forthcoming from attorneys regarding the due process and for the limited number of properties affected. He then spoke on the item and presented some proposed changes.

The Board discussed the item and gave their views. Staff and legal will review the language revisions suggested by Mr. Kasdin.

Board Member Glynn made a motion to recommend to the Town Commission with revisions presented by Staff and discussed by the Board. Direction was also given to the Town Attorney and Town Planner to review any additional language additions/changes. The motion received a second from Board Member Garcia and all voted in favor.

6. Discussion Items:

A. Construction Fencing for Single Family

This item was moved to next month.

B. Walkability – Verbal Update

Town Manager Olmedillo gave a brief update.

C. Sustainability Subcommittee Priorities

This item was moved to next month.

D. Future Agenda Items

Highwater Line and Beachfront preservation was added to future agenda items.

7. Adjournment:

There being no further business to come before the Planning and Zoning Board, Board Member Glynn made a motion to adjourn the meeting. The motion received a second from Board Member Roller and all voted in favor. Meeting adjourned at 10:05 p.m.

Accepted this ____ day of _____, 2018

Chair Lindsay Lecour

Attest:

Sandra Novoa, MMC
Town Clerk

**BACKUP TO
THIS ITEM IS
UNDER
DRB TAB
4A**



Town of Surfside Planning & Zoning Communication

Agenda Date: May 31, 2018
Subject: Construction Fencing for Single Family
From: Guillermo Olmedillo, Town Manager

Background: It has come to staff's attention that chain-link fencing with windscreens are often eyesores when not maintained at construction sites. Staff is proposing to prohibit chain-link and require wood or metal fencing for construction sites in all zoning districts.

Staff Recommendation: The Town Commission approved this ordinance on first reading. Staff is recommending approval.

Sarah Sinatra Gould, AICP, Town Planner

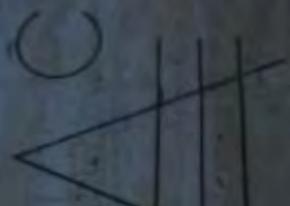
Guillermo Olmedillo, Town Manager



04/18/2018 09:41



04/18/2018 10:00



Page 108

SURFSIDE

ARJUNAVARMA



04/18/2018 10:01



AHEAD

TTERIO

ASFR

FOR DESIGN

Page 199

04/18/2018 10:01





Page 201

04/18/2018 10:19



Page 202

04/18/2018 10:19



Page 203

04/18/2018 10:19





Town of Surfside Planning & Zoning Communication

Agenda Date: May 31, 2018
Subject: Aggregation of Single Family Lots
From: Sarah Sinatra Gould, AICP, Town Planner

Background: The Town Commission requested that the Planning and Zoning Board (Board) address the effects of aggregation of single family lots. For reference, see attached memorandum from Commissioner Karukin.

Analysis:

Staff is recommending the following.

1. Increase side setbacks for lots over 75 feet in the H30B district and for lots over 100 feet in the H30A district to 15% of the frontage, while the current code requires setbacks of 10% of the frontage.
2. In connection with the additional side setbacks for the first floor, require that lots greater than 75 feet in the H30B district and 100 feet in the H30A districts not be permitted to have second stories greater than 65% of the first floor, while the current code permits up to 80% of the first floor.

Sarah Sinatra Gould, AICP, Town Planner

Guillermo Olmedillo, Town Manager



**Town of Surfside
Town Commission Meeting
January 9, 2018
7:00 pm**

Town Hall Commission Chambers - 9293 Harding Ave, 2nd Floor
Surfside, FL 33154

DISCUSSION ITEM MEMORANDUM

Agenda #:

Date: January 9, 2018

From: Michael Karukin, Commissioner

Subject: **Impact from aggregation of lots in single family home districts**

Objective: Mitigate risk of McMansions due to property aggregation in single family home districts H30A and H30B.

Consideration: Our zoning code has always reflected an overall intent to prevent McMansions. For example:

- In 2007, 2008 and April 2009, McMansion ordinances were adopted.
- In December 2012 I asked P and Z to develop policies and planning concepts that prevent large massive structures from being built on aggregated or very large lots. They agreed.
- In April 2016, Commissioner Paul sent us an article about McMansions.
<http://www.miaminewtimes.com/news/residents-and-preservationists-push-back-as-mcmansions-take-over-miami-beach-8382869>
- In March 2017, I asked the staff a question about the impact on continuous maximum wall frontage from property aggregation in the single-family district.

"In the single family home districts, if more than one 50x100 lot is aggregated resulting in a larger lot size can a single larger structure be built to the side setbacks? For example, if the new lot is now 100 x 100 can a new home or other structure have a 90 foot frontage?"

They said.....

"the side setbacks in single family are 5 ft or 10% of the lot width, whichever is greater. In this scenario the side setbacks would be 10 ft on either side and the house frontage could be 80 feet for the 1st floor but would need to provide greater setbacks on the 2nd floor."

Based on the answer to the question, there is a loophole that needs to be addressed. Apparently, in the single-family home district, an aggregated lot can result in a home with an 80-foot frontage. And if a house on that size lot, with the set back requirements for a second floor, that house can be huge.

The size and scale of such a home in the single-family home district resulting from property aggregation has the potential to be out of scale for surrounding homes, and not compatible with the overall character of the Town and inconsistent with our intent and policies and preventing such homes. Therefore, this loophole can be used as a way to get around our efforts to mitigate McMansions.

Recommendation: Direct the planning and zoning board to fix this loophole in our code.

ITEM	OUTCOME	NEXT STEPS	TENTATIVE SCHEDULE	COMPLETE
FUTURE PZ DISCUSSION ITEMS				
Aggregation of Single Family	Requested by the Town Commission	Discuss limitations on building length relating to single family lots, if aggregated.	May PZ	
Update to sign code	Need to make revisions to the sign code	Staff to prepare	Future PZ	
Stepback discussion	Commission has requested the PZ board analyze this requirement	Prepare visual and calculation of volume, how much square footage does this equate to	Future PZ	
Sidewalk aesthetics and crossing Collins Avenue	Prepare discussion item to determine if walkability can be improved. Combined with evaluating uses on the west side of Collins.		Future PZ	
Impact fee discussion			Proposed in FY19 Budget	
Ways to increase pervious area of lots	Place on PZ agenda for discussion. Provide PZ with current standards		Future PZ	
Landscape Plans	Require landscape plans for large scale renovations (renovations affecting more than 50% of the square footage of the house)	Future PZ	Future PZ	
Fences & Hedges in the front of single family residences	Discussion on hedge height in the front		Future PZ	
ON UPCOMING COMMISSION AGENDA				
Circulation pattern	PZ discussion on pedestrian safety and walkability	Pilot project	Ongoing	Ongoing
ON FUTURE COMMISSION AGENDA				

Commercial waste and recycling container screening	Screening for containers, green screen, vegetation, include pictures from Commissioner Kligman	Draft code amendment	Did not move forward
Driveway material regulations	Modify code to allow stamped concrete and concrete slabs with decorative rock or grass in between	Draft code amendment	Did not move forward
Painting _____ of commercial structures	Town Staff to prepare ordinance	Prepare ordinance for commission	Did not move forward
COMPLETED			
Limitation on building length in H40 & H30C	Revisit building limitations as well as green walls to soften the breaks in the building.	PZ Review- Commission heard on first reading, March 13	Completed
H40, H30 & SDB40 Architecturally Significant ordinance	Review with PZ options for architecturally significant ordinance for other zoning districts.	PZ discussion	No action
Green Roofs _____	Requested by the Town Commission	February PZ	No action
Photovoltaic Incentives	Requested by the Town Commission	February PZ	No action
Driveway	Prepare code modification that limits a driveway so that it does not exceed the front plane of the home.	January Commission	Complete
Give a foot, get a foot relating Sea Level Rise _____ Flat Roof vs. Pitch roof	Place on agenda for discussion on referendum	February Commission 2 nd reading	Complete
Roof Pitch of Single Family	Modify ordinance to include roof pitch above top of the truss as an architectural feature	February Commission 2 nd reading	Complete

			the flat roof to demonstrate it is 3 feet above the top of a pitched roof.			
Trellis	Review if a trellis attached to the house is considered an accessory structure.	Trellis	This has not been a reoccurring issue. Provide direction if this is necessary.		Review if a trellis attached to the house is considered an accessory structure.	This has not been a reoccurring issue. Provide direction if this is necessary.
Average side setback /Massing	Modify ordinance for additional side setbacks on upper floors for single family homes	Average side setback /Massing	Direction if this is necessary. The Town has already modified the code to prohibit covered balconies counted towards setbacks.		Modify ordinance for additional side setbacks on upper floors for single family homes	The Town has already modified the code to prohibit covered balconies counted towards setbacks.
Satellite dishes	Further review by staff	Satellite dishes	Direction if this is necessary. This issue has not come up as a problem and it is not clear if this is still desired to be regulated.		Further review by staff	This issue has not come up as a problem and it is not clear if this is still desired to be regulated.
Residential or commercial wind turbine regulations	Prepare ordinance regulating wind turbines including hurricane precautions, noise regulations, insurance considerations	Residential or commercial wind turbine regulations	Direction if this is necessary. This issue has not come up as a problem and it is not clear if this is		Prepare ordinance regulating wind turbines including hurricane precautions, noise regulations, insurance considerations	This issue has not come up as a problem and it is not clear if this is still desired to be regulated.

		still desired to be regulated.		precautions, noise regulations, insurance considerations	to be regulated.
Setback for parapet above 30 feet on single family homes	Prepare ordinance to require additional setback	Direction if this is still necessary as the code could be modified to encourage pitched roofs.	Setback for parapet above 30 feet on single family homes	Prepare ordinance to require additional setback	Direction if this is still necessary as the code could be modified to encourage pitched roofs.
Final _____ Zoning Inspections	Town Manager will analyze	Building performs inspections based on conditions on the plans. Need direction if anything further is necessary	Final _____ Zoning Inspections	Town Manager will analyze	Building performs inspections based on conditions on the plans. Yes
Requiring noticing for demolition of houses	Research option and place on agenda for discussion				
Sign-Definitions	Modify sign definitions for monument and sign area	Drafted code amendment			
Carports	Require improved surface on frame	Addressed in Code		September PZ	Yes
Provide summary on construction hours and noise ordinance	Place update on PZ agenda.			September PZ	Yes
Workforce housing update				September PZ	Yes
Add requirement for licensed architect for DRB submittals	Reviewing entire section relating to DRB	Draft code amendment			May Commission Agenda

Corridor Analysis	Study corridor between Collins & Harding	Prepare code amendments	Work authorization to be approved in NOVEMBER	January Commission	Complete
Single Family Paint Colors	Discussion with the Planning & Zoning Board to determine if a color palette is appropriate for single family homes and what colors/criteria should be included	Place on future Planning and Zoning agenda for discussion	In contract	Will add to Joint Meeting with PZ/Commission.	Complete
Parking Trust Fund	Discussion with the Planning & Zoning Board to provide a cap for payment into the fund	Ordinance on July PZ agenda	In contract	July Commission for 1 st reading, July PZ August Commission for 2 nd reading	Complete
Turtle Lighting	Town Staff to prepare review	No ordinance necessary. Turtle lighting already required in code.	COMPLETE	Turtle Lighting	Town Staff to prepare review
Downtown Color Palette	Discussion with the Planning & Zoning Board to determine if a color palette is appropriate and what colors/criteria should be included	Place on future Planning and Zoning agenda for discussion	In contract	Replaced with repainting of structures.	Complete
Bay Drive & 96 th Street	Open Bay Drive off 96 th Street	Staff will research	Police and Building to research	No change. Police Chief cited safety concerns	COMPLETE
Sign/awning code	Discussed at Joint Meeting	Staff beginning to work on draft	Work Authorization approved	July Commission August Commission	COMPLETE
As-built reviews for residential projects	Discuss increasing canopy in town, street trees, what can be planted in ROW	Research and prepare report for discussion and possible code amendment	In contract	March PZ	COMPLETE Added a program modification to FY2015 budget

Interpretation of base flood elevation for the H120 district	No change	No further action needed	N/A	COMPLETE
Solar panel regulations	Prepare ordinance regulating solar panels	Draft code amendment	In contract	COMPLETE
Car charging station regulations	Prepare ordinance regulating car charging stations requiring them in new multi-family, research what other communities are doing	Draft code amendment	In contract	COMPLETE
Pyramiding effects of setbacks in the H120 district	No action necessary since Planning and Zoning Board currently reviewing setbacks as part of wall frontage modifications		N/A	
Garage door clarification	Modify code to remove requirement for two separate garage doors	Draft code amendment	In contract	COMPLETE
10% window opening requirement per story	Discussion with the Planning & Zoning Board	Prepare ordinance for commission	In contract	November Commission for first reading
Landscaping in front of converted garage	Determine if landscaping planter is sufficient versus requiring landscaping.	Reviewed code and determined that planter is only permitted in cases where the driveway would be too short.	No further modification necessary	Yes
Sheds	Modify ordinance to increase square footage, but reduce height and add landscape requirements.	Draft code amendment	In contract	Commission 1st reading in May. PZ in May