

Memorandum



Date: February 22, 2021

To: Honorable Chairman Jose “Pepe” Diaz
and Members, Board of County Commissioners

Agenda Item No. 2(B)(2)
March 16, 2021

From: Daniella Levine Cava
Mayor

A handwritten signature in blue ink that reads "Daniella Levine Cava".

Subject: Resolution No. R-967-19: Report Analyzing Potential Impacts to Miami International Airport from Proposed Development on the International Links Melreese Country Club - Directive No. 192075

At the September 4, 2019, Board of County Commissioners (Board) meeting, Resolution No. R-967-19 was adopted by Board members directing the County Mayor or County Mayor’s designee to prepare a report analyzing the potential impacts to Miami International Airport (MIA) from the development of stadiums, hotels, or commercial space on the International Links Melreese County Club. The Resolution references potential impacts to traffic, road closures, aviation and airport operations, Federal Aviation Administration (FAA) requirements, commercial and environmental impacts as well as costs to MIA to mitigate such impacts.

As part of my operation to catch up on the backlog of items, we are bringing you reports that were pending from the previous administration. This memorandum highlights the findings of the reports prepared by the Aviation Department, the Regulatory and Economic Resources Department, and the Transportation & Public Works Department (attached as Exhibits A, B, C and D) by summarizing the potential impacts of the elements listed above prior to the “coronavirus disease 2019” (COVID-19) pandemic, as the long term impacts of the pandemic are unknown.

Miami-Dade Aviation Department (MDAD)

A. Aviation and Airport Operations Impacts and FAA Considerations – Exhibit A

MDAD’s report on the proposed International Links Melreese County Club development is based on publicly published information, which shows a site plan consisting of a 25,000-seat soccer stadium, hotels, practice fields, and commercial retail space.

On December 3, 2019, the Capitol Airspace Group filed with MDAD a request on behalf of the developer for a MDAD-issued “Preliminary Airspace and Land-Use Letter of Determination.” The filing included the submittal of a specific use survey with eight points (GPS Coordinates), along with one architectural elevation associated with the proposed soccer stadium. Other than this preliminary information, to date no additional drawings, or site plans with the proposed locations of the development have been submitted to MDAD. As mentioned previously, the concerns bulletined below are based on publicly available information and artistic renderings. The Capitol Airspace Group also informed the Aviation Department that it was concurrently filing with the FAA for a federal airspace determination.

MDAD consulted with both airline partners and air cargo carriers for additional input on the potential operational and safety effects of the proposed development. The following is a summary of concerns voiced by MDAD, the airlines and cargo operators.

- Compliance with Miami-Dade County Code in that four of the eight GPS Coordinates of the proposed stadium would be too high and penetrate the obstacle clearance surfaces described in the Code, in addition, they would also penetrate the standard departure surfaces prescribed by the FAA. On April 1, 2020, MDAD received notice that the height of the four points that would have been too high will be redesigned (i.e., reduced) to bring the stadium into compliance with the new, more restrictive height requirements of the Airport Zoning Code. This statement has not yet been corroborated by the Aviation Department.
- Compliance with the compatibility criteria specified in the Miami-Dade County Code as it relates to land use within three different zones, the Outer Safety Zone, the Critical Approach Zone and the 65-74 DNL Noise Compatibility Zone.
 1. The Outer Safety Zone prohibits new residential construction, as well as the construction of educational facilities (excluding aviation-related schools and structures used in connection with public transportation), buildings for public assemblage, hospitals and religious facilities. Because the stadium is a building for public assemblage, it must be located outside the Outer Safety Zone. The preliminary sketch submitted shows that the stadium is located adjacent to the Outer Safety Zone. The Code does not permit variances from these restrictions in the Outer Safety Zone.
 2. The Critical Approach Zone prohibits construction of hospitals, stand-alone emergency rooms, skilled nursing facilities, adult day care facilities, day nurseries, and educational facilities (excluding aviation-related schools) and uses that emit smoke, gases, or dust in quantities sufficient to jeopardize the safe use of MIA. The Code does not permit variances from these restrictions in the Critical Approach Zone. The proposed development site is partially contained within this Zone.
 3. The 65-74 DNL Noise Compatibility Restriction Zone dictates that all new uses shall incorporate at minimum a 25-decibel outdoor-to-indoor noise level reduction into design and construction. The proposed development site is fully contained within this Zone.
- Visual impacts to pilots and air traffic controller personnel resulting from lighting and glare from the proposed stadium, practice fields, and other associated support facilities.
- Reduction in MIA’s air traffic capacity due to potential airspace restrictions during sporting and other events.
- Airspace conflicts with helicopters, blimps, drones, and banner tower operations associated with the proposed stadium and its uses.
- Aircraft operational impacts during the prolonged construction due to the presence of cranes within the arrival and departure paths of MIA’s longest runway, Runway 9-27.
- Conflicts with aircraft operations due to the use of lasers and pyrotechnics during stadium activities and events.
- Impact to FAA’s communications or navigation facilities including but not limited to radio coverage, radio transmissions and electrical interference of navigational aids. These impacts would be discovered after construction is completed and would be resolved at the expense of the developer.

It should be noted that MDAD is not able to quantify the costs that would be incurred to mitigate the various impacts described herein. However, the developer would need to consider a design and development budget for any mitigation they would be responsible for.

B. Commercial Impacts - Exhibit B

MDAD has determined that if the proposed development includes the construction of a new hotel with conference rooms that use modern technology, there could be an impact to MIA, as there is limited modern technology available in meeting rooms currently being used inside airport property and in surrounding areas. This impact can be mitigated through the implementation of projects scheduled in MDAD’s Capital Improvements Program, which includes the development of two new hotels within MIA’s perimeter with meeting space rooms in at least one of the hotels with state-of-the-art conference room solutions. Because MIA’s customer base is predominantly the traveling public, business travelers planning an overnight stay in Miami would select an on-site MIA hotel as a convenient meeting place as long as modern technology is available in the business conference rooms.

MDAD provides shuttle services out of MIA to the Dolphin Mall and other retail destinations for passengers. MDAD is confident that the construction of food and beverage and retail stores at the proposed development site will have a minimal impact to MIA, if any. This is largely because passengers typically prefer to shop and eat at post security locations inside the airport as their time at MIA is limited. Ordinarily, domestic and international passengers do not shop in areas located away from the airport the day they travel.

Regulatory and Economic Resources Department

C. Environmental Impacts – Exhibit C

The proposed development site has documented on-site solid waste, as well as soil and groundwater contamination. At this time, the Division of Environmental Resources Management (DERM) has no record of off-site contamination associated with the subject site. However, if additional site assessment activities reveal off-site contamination impacts that originate from the above referenced site, the City (as the party responsible for site rehabilitation) will be required to address and remediate those off-site impacts. Furthermore, due to the existing on-site solid waste and soil contamination, any redevelopment of the subject site will require further coordination with DERM. Any plans for proposed redevelopment will require prior DERM review and approval to ensure proper handling and/or disposal of contaminated material. This will include conditions for proper site management to ensure hazardous materials (solid waste and contaminated soils) are not allowed to impact off-site properties, including but not limited to the MIA property.

Any proposal for stormwater system improvements expansion/redesign at the subject site (e.g., during any proposed development) will also require DERM review and approval. At that time, DERM technical staff will conduct a thorough review to ensure that any proposed stormwater system modifications comply with Miami-Dade County Code and that applicable regulations are adhered to in order to ensure that stormwater is properly managed and that stormwater is properly managed and that discharges will not disperse the groundwater contaminate plume to offsite

properties. Additionally, such stormwater improvements will require groundwater monitoring to verify that no off-site dispersion of said contaminants occur.

Transportation & Public Works Department

D. Traffic & Road Closures – Exhibit D

After review of the Miami Freedom Park and Soccer Village Traffic Study (Study) dated June 2019, the Transportation & Public Works Department (DTPW) expressed concern with a number of factors in the Study including but not limited to: 1) the Study area is limited to the vicinity of the site, 2) the traffic data for the Study was collected in 2018 while the SR 836/Dolphin Expressway was undergoing construction in the vicinity of the Study, 3) the Study showed lower traffic counts at on- and off-ramps from SR 836 on LeJeune Road and those in the vicinity of the Miami Intermodal Center compared to the historical Florida Department of Transportation (FDOT) traffic count data, 4) 10 of the 28 intersections in the Study area are approaching capacity under existing conditions and/or future conditions, and 5) traffic volumes from FDOT Traffic Online website indicates that SR-836/Dolphin Expressway in the Study area is approaching capacity. Based on these concerns and others outlined in DTPW’s report attached in Exhibit D, it was concluded that insufficient information has been provided in the Study to address the concerns of the Board as stated in Resolution No. 967-19, rather, DTPW recommends that a new detailed study encompassing a larger area would need to be prepared by the developer since much of the study depends on the scope and intensity of the development they are proposing.

Pursuant to Ordinance No. 14-65, this memorandum shall be placed on a Board meeting agenda for review.

c: Geri Bonzon-Keenan, Successor County Attorney
Office of the Mayor Senior Staff
Lester Sola, Aviation Director
Jennifer Moon, Chief, Office of Policy and Budgetary Affairs
Yinka Majekodunmi, CPA, Commission Auditor
Eugene Love, Agenda Coordinator
Melissa Adames, Director, Clerk of the Board

EXHIBIT A

Airspace and Land Use Impacts from Proposed Miami Freedom Park Development

Miami-Dade Aviation Department
Aviation Planning Land Use and Grants Division



Table of Contents

1.	Executive Summary	1
2.	Background	3
2.1	Site Location.....	3
2.2	Importance of Runway 9-27	3
3.	FAA Airspace Review	6
3.1	FAA Air Traffic Control.....	6
4.	Miami-Dade County Zoning	8
4.1	Land Use Zoning	8
4.2	Local Height Zoning	11
4.3	Penetration to Zoning Surfaces.....	11
4.4	Conflicting Regulations.....	16
5.	Lighting and Glare Concerns	17
5.1	Miami Freedom Park Lighting and Glare Concerns	17
6.	Stadium Restrictions	19
6.1	Excessive Noise	20
6.2	Impacts During Construction	20
7.	Summary.....	21

List of Appendices

- Appendix A Airline and Cargo Operators Meeting Notes
- Appendix B MDAD Issued Preliminary Airspace and Land Use Determination Letter
- Appendix C Miami Airline Liaison Office (ALO) Letter

List of Figures

Figure 1 – International Links Melreese Country Club Location	3
Figure 2 – Proposed Miami Freedom Park Site Plan.....	4
Figure 3 – Proposed Miami Freedom Park’s Proximity to Runway 9-27	5
Figure 4 – Miami-Dade County Zoning Land Use Compatibility Restriction Zones: Runway Protection Zone, Outer Safety Zone and Critical Approach Zone	9
Figure 5 – Miami-Dade County Zoning Land Use Compatibility Restriction Zones: 75 DNL Zone and 65-74 DNL Zone.....	10
Figure 6 – Height Restrictions Over Proposed Miami Freedom Park: Miami-Dade County Zoning (Approach Surface)	12
Figure 7 – Height Restrictions Over Proposed Miami Freedom Park: Miami-Dade County Zoning (Approach, Transitional, and Horizontal Surfaces).....	13
Figure 8 – Height Restrictions Over Proposed Miami Freedom Park: Miami-Dade County Zoning (Departure Surface).....	14
Figure 9 – Height Restrictions Over Proposed Miami Freedom Park: Miami-Dade County Zoning (Composite Airspace Surface)	15
Figure 10 – Proposed Miami Freedom Park’s Lighting and Glare Impacts	18
Figure 11 – Proposed Miami Freedom Park’s Practice Fields Lighting and Glare Impacts	19

1. Executive Summary

The City of Miami is proposing the construction of Miami Freedom Park, a mixed-use complex consisting of a 25,000-seat Major League Soccer stadium, along with a hotel, offices, retail space, numerous lighted practice fields and public park. Miami Freedom Park would be constructed at International Links Miami - Melreese Country Club (Melreese), located just east of Miami International Airport (MIA or the Airport).

On September 4, 2019, the Miami-Dade Board of County Commissioners passed Resolution No. R-967-19 directing the County Mayor or County Mayor's designee to analyze potential impacts to MIA from the proposed re-development of Melreese, including the development of a stadium, hotels, or commercial space at that location. This analysis shall consider:

- Traffic impacts
- Potential road closures
- Environmental impacts
- Commercial impacts
- Airport operations and aviation impacts, if any, and costs to MIA to mitigate any such impacts

This report addresses potential impacts to airport operations, primarily focusing on aircraft operations, airspace, and land use compatibility. This includes consideration for both FAA requirements and compliance with the Miami-Dade County, Chapter 33, Article XXXVII Airport Zoning (the "Code").

To assist in the preparation of this report, and to obtain input from airlines and air cargo carriers operating out of MIA, the Miami-Dade County Aviation Department (MDAD or the Aviation Department) hosted a meeting on November 5, 2019 to solicit input regarding potential airspace impacts and other operational and safety concerns associated with the proposed development. A summary of this meeting is attached to this report as **Appendix A**.

On December 3, 2019, Capitol Airspace Group filed with MDAD a request on behalf of the developer for a MDAD-issued "Preliminary Airspace and Land-Use Letter of Determination." The filing included the submittal of a specific use survey with eight points (GPS Coordinates), along with one architectural elevation associated with the proposed soccer stadium. Other than this preliminary information, to date no additional drawings, or site plans with the proposed locations of the development have been submitted to MDAD. Therefore, discussions described herein are based on publicly-available artist's renderings.¹ Capitol Airspace also informed the Aviation Department that it was concurrently filing with the FAA for a federal airspace determination.

MDAD has conducted a preliminary analysis of the project and MDAD's Preliminary Airspace and Land-Use Determination Letter is contained in **Appendix B** of this report. MDAD's analysis

¹ These renderings are available on the architect of record's website at:
<https://arquitectonica.com/architecture/project/inter-miami-cf-stadium-and-miami-freedom-park>.

concluded that four of the eight points of the proposed stadium would be too high and would penetrate the obstacle clearance surfaces prescribed by the Code. They would also penetrate the standard departure surfaces prescribed by the FAA. These penetrations range from 1.25 to 36.84 feet. MDAD also concluded that the proposed Miami Freedom Park parcel is located within the Outer Safety Zone (OSZ), Critical Approach Zone (CAZ), and the 65-74 DNL Zone prescribed in the Code. Each of these zones have specific land use compatibility criteria, which precludes specific types of land uses within each zone. At this time, MDAD has not been provided with enough information regarding specific land uses within each of these zones and their exact locations on the parcel to conclude if the proposed facilities would be compatible with the Code.

In addition to ensuring compliance with the land use and height limitations contained in the Code, the Aviation Department and the Miami Airline Liaison Office have identified the following potential operational and safety concerns with the proposed Freedom Park Development:

- Visual impacts to pilots and Air Traffic Controller (ATC) personnel resulting from lighting and glare from the proposed soccer stadium, practice fields, and other associated support facilities;
- Reduction in MIA's air traffic capacity due to potential airspace restrictions during sporting and other events;
- Airspace conflicts with helicopters, blimps, drones, and banner tower operations associated with the proposed stadium and its uses;
- Aircraft operational impacts during the prolonged construction due to the presence of cranes within the arrival and departure paths of MIA's longest runway, Runway 9-27;
- Conflicts with aircraft operations due to the use of lasers and pyrotechnics during stadium activities and events.

Appendix C contains a copy of the letter submitted by the Miami Airline Liaison Office expressing its concerns with the proposed project. It should also be noted that any mitigation costs to address these concerns would be incurred by the developer, some of which may not be realized until after construction of the stadium is underway.

2. Background

The City of Miami is considering a proposal by Miami Beckham United, a partnership that includes David Beckham and the developer Mas Group that would include development of Miami Freedom Park. This development would transform Melreese by constructing a soccer stadium and supporting facilities to include a hotel, offices, retail space, numerous lighted practice fields, and a public park. The Miami Freedom Park would be located immediately east of MIA along LeJeune Road, beneath the flight path of aircraft landing on MIA Runway 27 or departing from Runway 9, as shown in **Figure 1**.

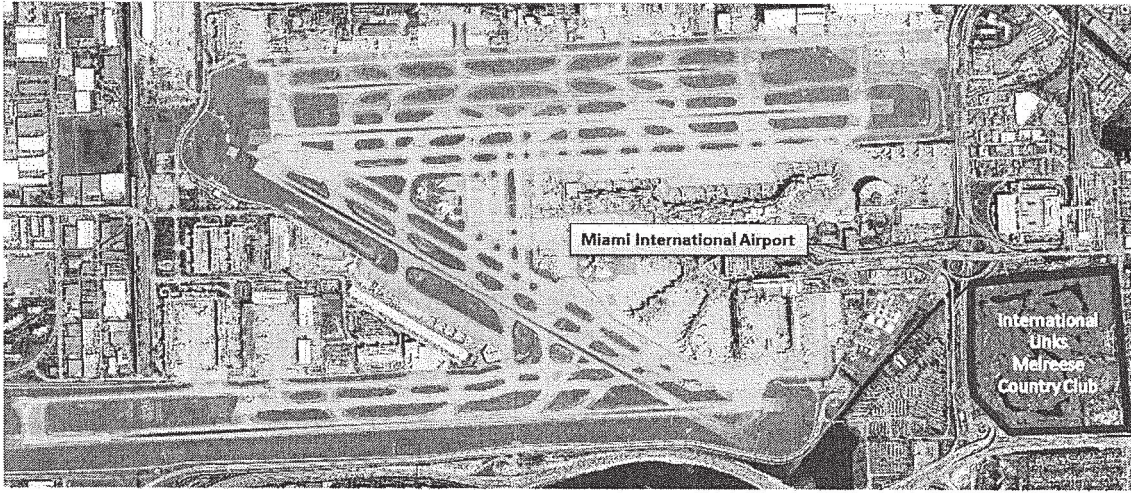


Figure 1 – International Links Melreese Country Club Location

2.1 Site Location

Figure 2 illustrates a conceptual rendering of the proposed build-out of Melreese. This would include a 25,000-seat stadium, as well as numerous practice fields and ancillary buildings. For the purpose of this analysis, the nearest portion of the stadium shown on the north side of the parcel is estimated at approximately 4,500 feet from the departure end of Runway 9 and approximately 1,180 feet from the Runway 9-27 extended centerline as shown in **Figure 3**.

2.2 Importance of Runway 9-27

Runway 9-27 is the longest runway at MIA with a total length of 13,016 feet. Therefore, aircraft requiring a long take-off roll due to carrying heavy payloads and/or serving long-haul destinations will often request this runway. As the longest runway at MIA, the preservation of its operational capability is essential for MIA to maintain its role as a premier International gateway. This is equally important for passenger aircraft and cargo freighter aircraft.

Additionally, increased heat and humidity are factors that reduce aircraft lift capability. Therefore, a flight that may be able to accept a shorter runway during cooler winter months may require this longer runway during hotter, more humid conditions that are prevalent during the majority of the year in South Florida.



Figure 2 – Proposed Miami Freedom Park Site Plan²

² Source: Arquitectonica, <https://arquitectonica.com/architecture/project/inter-miami-cf-stadium-and-miami-freedom-park>, January 15, 2020

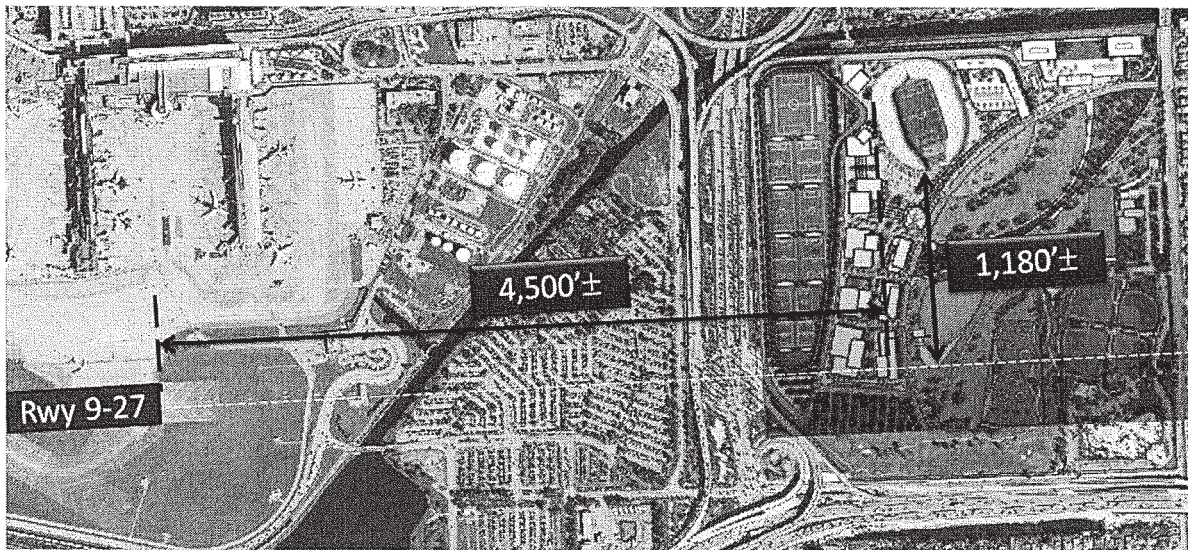


Figure 3 – Proposed Miami Freedom Park's Proximity to Runway 9-27³

The runways at MIA in order of take-off distance available are:

- Runway 9-27 = 13,016 Feet
- Runway 8R – 26L = 10,506 Feet
- Runway 12-30 = 9,360 Feet
- Runway 8L-26R = 8,600 Feet

The operation of MIA's airfield is dictated by prevailing weather conditions. Historically, approximately 80 percent of the aircraft departures are conducted to the east. Therefore, imposing additional operational restrictions to departures from Runway 9 would have a greater impact to MIA's airfield capacity than when aircraft landings and departures are conducted to the west.

³ Source: Arquitectonica, <https://arquitectonica.com/architecture/project/inter-miami-cf-stadium-and-miami-freedom-park>, January 15, 2020.

3. FAA Airspace Review

Both the FAA and MDAD have a responsibility for ensuring the safe and efficient operation of the Airport and its surrounding airspace. In doing so, the FAA is responsible for reviewing proposed development that could adversely impact the national airspace system. The FAA's process for conducting these reviews is prescribed in 14 Code of Federal Regulation Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace* (FAR Part 77). The FAA's review process includes an evaluation of proposed structures and/or associated construction equipment to determine whether a structure is an obstruction and/or a hazard.

- **Obstruction** - Any structure that exceeds the minimum heights prescribed in FAR Part 77 is considered an obstruction by the FAA. The consequence of such determination is that the FAA requires the obstruction to be lit and marked in accordance with AC 70/7460-1K, Obstruction, Lighting and Marking.
- **Hazard** - A hazard is an obstruction that would exceed an obstruction standard **and** would have a substantial aeronautical impact. A substantial aeronautical impact would include any of the following:
 - The impact on arrival, departure, and en-route procedures
 - The impact on existing and planned public use airports;
 - Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination;
 - Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures;
 - The potential effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems;
 - The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.

Upon its review, the FAA will issue either a Determination of Hazard or a Determination of No Hazard. The Determination made by the FAA is not intended to be a zoning approval document. It is intended to itemize what FAA-published flight procedures, if any, may be impacted. Should any impacts to flight procedures be identified, the FAA's Determination describes which measures would be required to mitigate the obstruction in the event that the obstacle is erected. Should the proponent proceed with erecting the structure without mitigation, air traffic procedures would need to be modified accordingly, thereby reducing the operational efficiency of the airport and/or overall national airspace system. Therefore, the Code stipulates that a Determination of No Hazard from the FAA is required prior to the County issuing a building permit.

3.1 FAA Air Traffic Control

To ensure safety of the travelling public, FAA air traffic control operates under strict regulations with regard to the sequencing of operations. This includes separation standards between aircraft

operating on the same runway (i.e. arrival/arrival, departure/departure, arrival/departure, departure/arrival), and dependencies between aircraft operating on parallel or intersecting runways, as well as many other factors. Because of these strict safety standards, the airfield is limited in the number of operations (arrivals/departures) it can achieve over any given time period.

ATCs are trained to move operations around the airfield as necessary to accommodate many variables, including peak arrival or departure periods, runway preferences of airlines to reduce taxi times, and weather conditions that may affect which runway can be used for arrivals or departures forcing all operations onto other available runways.

Any additional factors that create a disturbance to the flow and efficient movement of aircraft cannot be supported by MDAD. This would include the addition of obstacles that further restrict an aircraft's ability to use a particular runway, or light-emitting venues that could impair a pilot's vision.

Part of the FAA's NextGen initiatives include development of "Area Navigation (RNAV) off-the-ground" departure routes and "Equivalent Lateral Spacing Operations" that increase airport efficiency and minimize delays. These procedures are also useful during weather conditions such as thunderstorms that are frequently experienced at MIA. It was noted by the airlines that a stadium in this location could inhibit the ability to fully leverage this technology for Runway 9 departures at MIA. This would, however, require further analysis to identify and if necessary, mitigate any potential impacts that may result from the proposed stadium.

4. Miami-Dade County Zoning

In accordance with the Code, MDAD reviews all proposed construction in and around airports within Miami-Dade County and issues a Letter of Determination for land use and maximum allowable height of structures. MDAD's review considers the specific local conditions of MIA and the surrounding general aviation airports. MDAD's determination is based on the height zoning surfaces and land use compatibility measures that have been enacted in the interest of protecting the County's investment in its public-use airports. Collectively, the local height and land use zoning is comprised of a series of airport restrictive zones, as outlined in the following subsection.

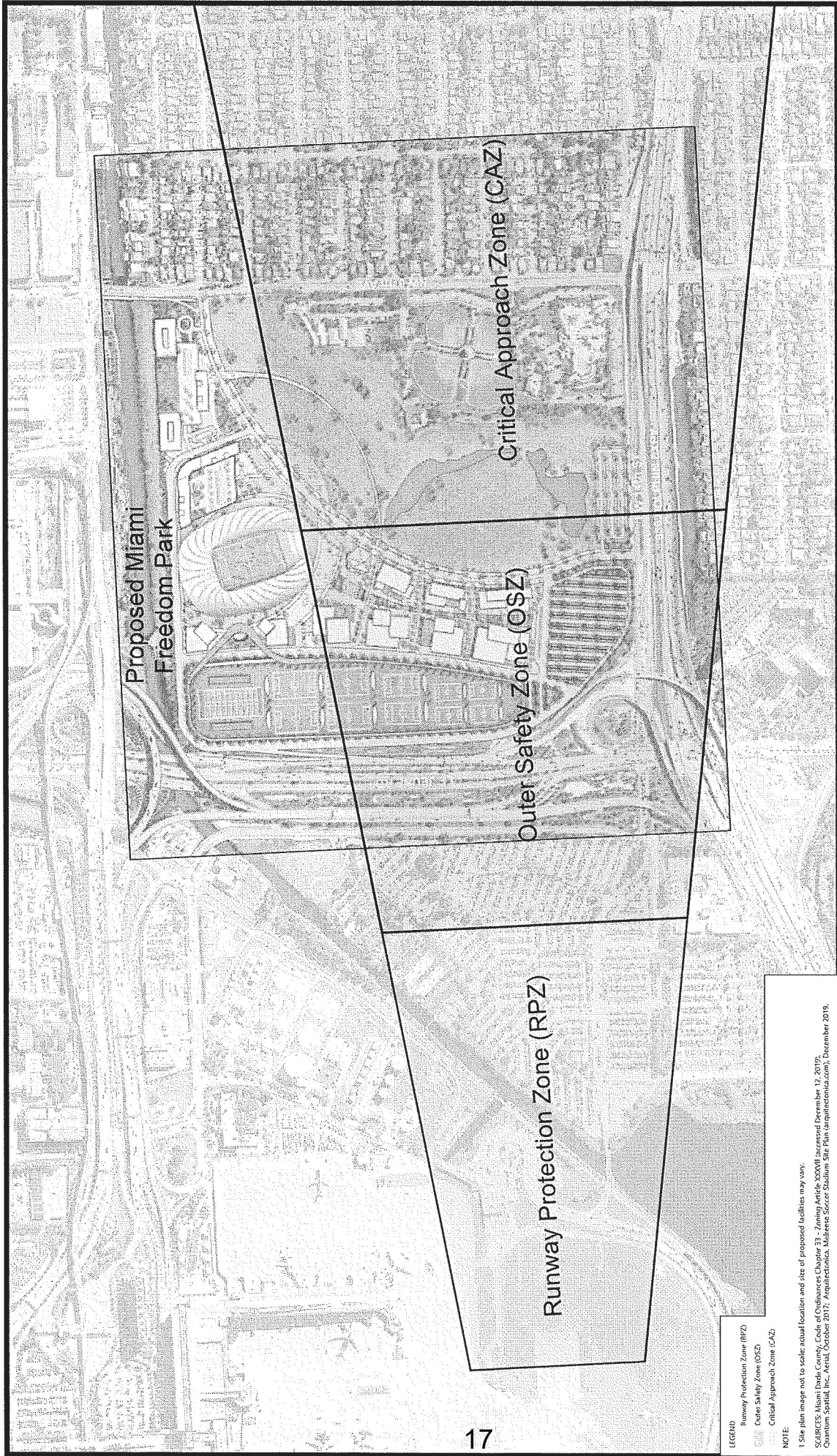
4.1 Land Use Zoning

In accordance with the Code, the site is partially impacted by the Outer Safety Zone (OSZ), which prohibits new residential construction, educational facilities (excluding aviation-related schools), buildings for public assemblage, hospitals, and religious facilities. The Code does not permit variances from these prohibitions in the areas surrounding MIA. Accordingly, because the proposed stadium would be a building for public assemblage, it must be located outside the OSZ to conform with the requirements of the Code.

The site is also partially impacted by the Critical Approach Zone (CAZ), which prohibits hospitals, stand-alone emergency rooms, skilled nursing facilities, adult day care facilities, day nurseries, and educational facilities (excluding aviation-related schools). In this zone, the prohibition on educational facilities is not subject to variance. Pursuant to chapter 333, Florida Statutes, the CAZ also prohibits establishments that emit smoke, gases, dust, establishments that create electrical interference with radio communications between the airport and aircraft, establishments or uses that make it difficult for aircraft pilots and tower control operators to distinguish between airport lights, aircraft and others; result in glare in the eyes of aircraft pilots using the airport, or tower control operators; impair visibility in the vicinity of the airport; or otherwise endanger the landing, taking off, or maneuvering of aircraft. Landfills, as defined in section 403.703, Florida Statutes, and any associated uses that attract or sustain birds and bird movements are also prohibited. The aforementioned statutory prohibitions are not subject to variance. **Figure 4** illustrates the land use compatibility restriction zones associated with Runway 9-27.

To conform with the Code, all lighting associated with the stadium, practice fields, stadium boards, signage, and ancillary development must not impair the pilot's and/or ATC's vision at night or during poor visibility conditions. Preservation of optimal night vision is important for pilots operating aircraft during low-light conditions. Accordingly, the proposed development of Miami Freedom Park must include mitigation measures of any light emissions that could adversely impact aircraft operations and safety.

As shown on **Figure 5**, the site is fully contained in the 65-to-74 DNL Noise Compatibility Restriction Zone. The 65-to-74 DNL Zone is a contour depicting concentrations of aircraft noise around an airport based on day and night noise levels averaged over a year at 65-to-74 decibels. All new uses shall incorporate at least a 25-decibel outdoor-to-indoor Noise Level Reduction (NLR) into design and construction. This means that any development on the Melreese parcel must include the required noise reduction elements mandated by the Code.



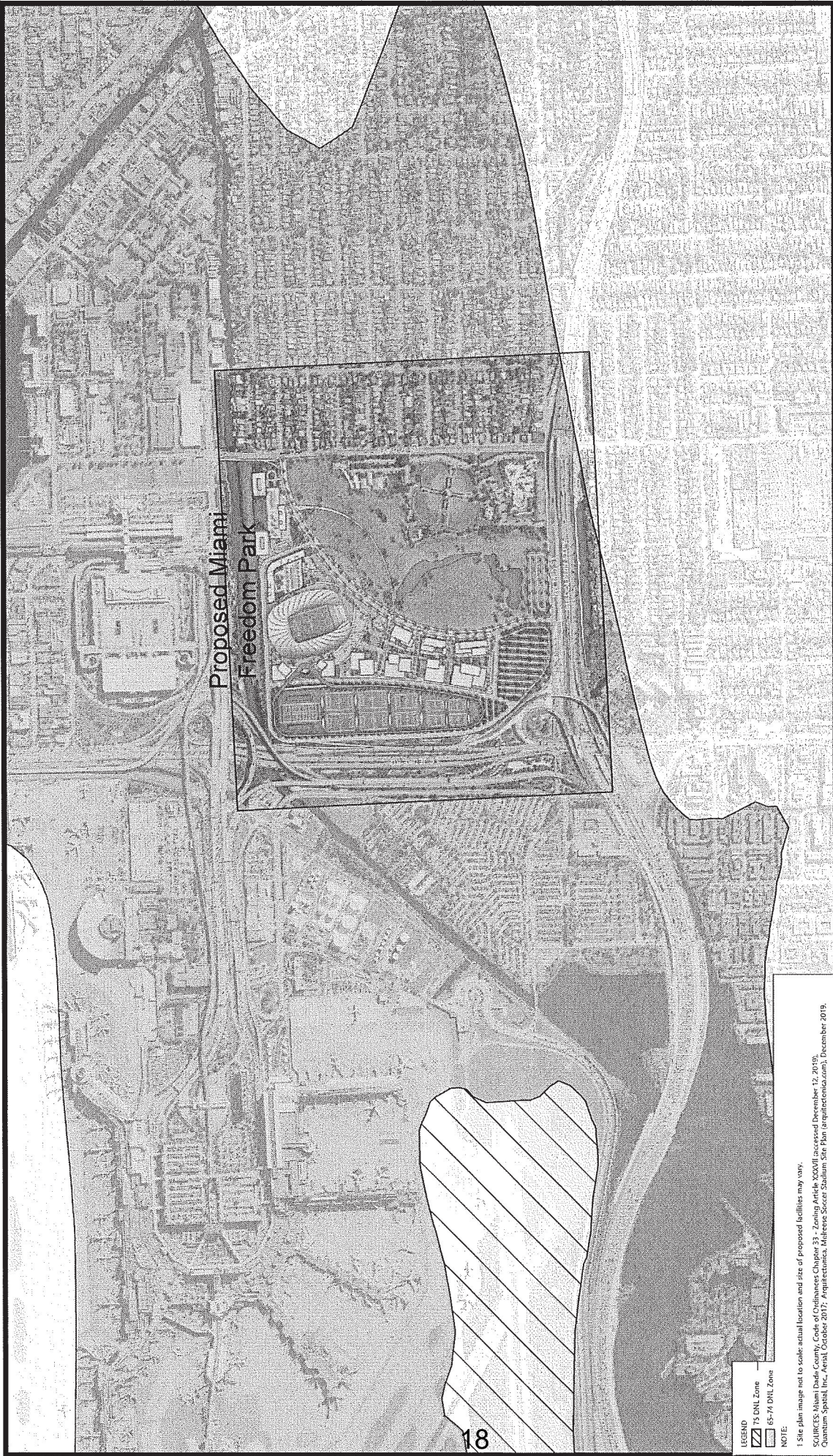


Figure 5: Miami-Dade County Zoning Land Use Compatibility Restriction Zones
 75 DNL Zone and 65-74 DNL Zone

4.2 Local Height Zoning

The Code prescribes the maximum allowable height of structures surrounding MIA that would preserve and maintain the Airport's operational capacity and capability and ensure an adequate level of safety for aircraft arrivals and departures. These height limitations are defined in accordance with a variety of "Airport Height Restriction Zones." Each Airport Height Restriction Zone is associated with an overlying obstacle clearance surface that establishes the maximum heights that structures may be constructed in the vicinity of MDAD's airports.

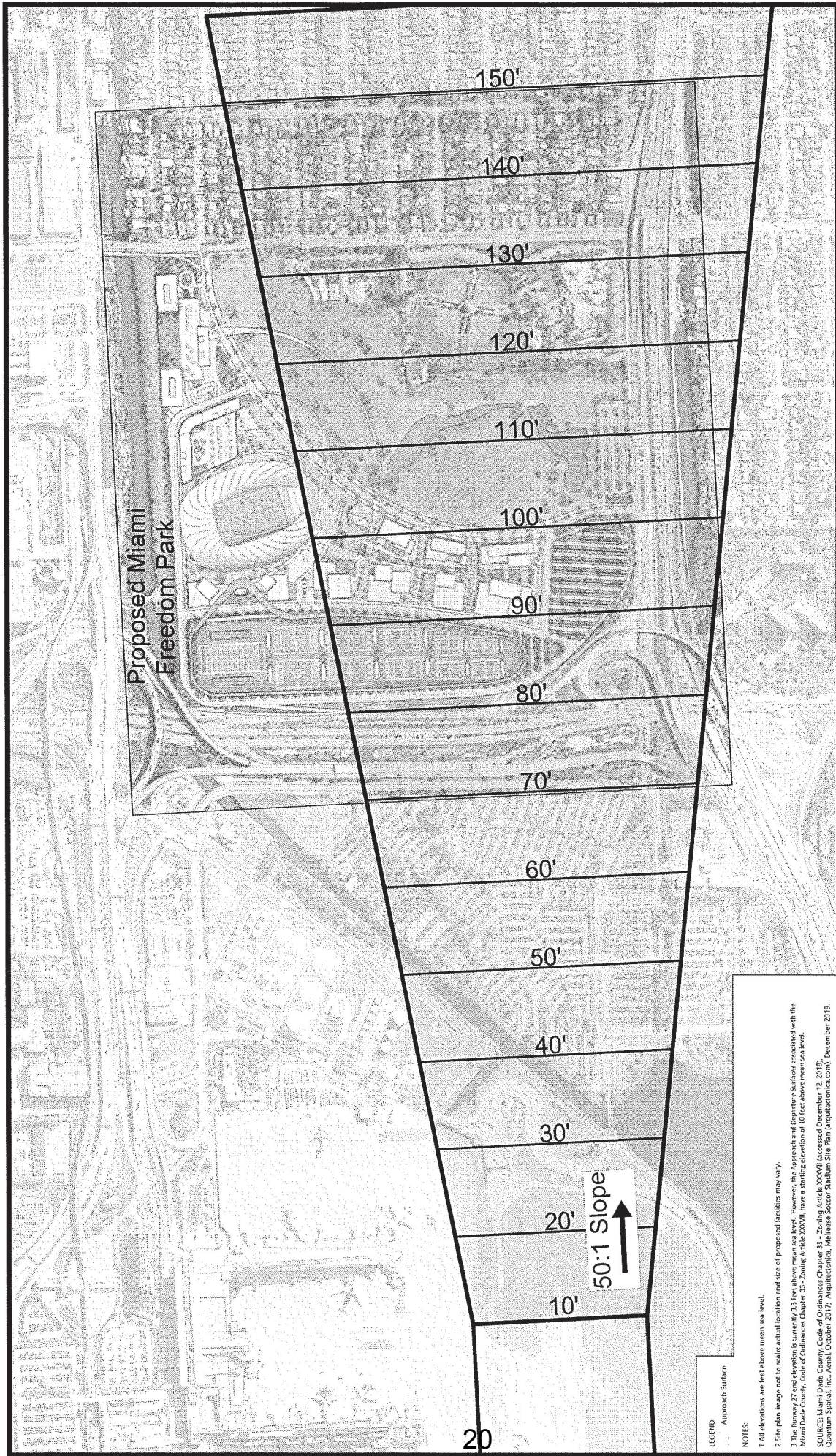
As illustrated in **Figures 6** through **8**, there are four airport height restriction zones/obstacle clearance surfaces prescribed by the Code that overlie the Melreese parcel, each with unique configuration and slope:

- **Approach Surface** – This surface is established to ensure adequate obstacle clearance for aircraft on approach to the associated runway end. It is comprised of a trapezoidal shaped area that is centered on the extended runway centerline. For Runway 9-27 at MIA, the Approach Surface has an initial elevation of nine feet above mean sea level (AMSL) and extends out from the runway end at a slope of 50:1.
- **Transitional Surfaces** – Similar to the Approach Surface, this surface is established to ensure adequate obstacle clearance for aircraft on approach to the associated runway end. The Transitional Surfaces extend out laterally from the edges of the Approach Surface at a slope of 7:1 until reaching an elevation of 160 feet AMSL.
- **Horizontal Surface** - The area beyond the edge of the Transitional Surface is governed by a Horizontal Surface with a constant elevation of 160 feet AMSL. The surface is intended to ensure adequate obstacle clearance for aircraft that may be circling the airfield.
- **Departure Surface** – Similar to the Approach Surface, the Departure surface is comprised of a trapezoidal shaped area that is centered on the extended runway centerline. However, the Departure Surface encompasses a wider area and has a steeper slope of 40:1. The Departure Surface is wider than the Approach Surface, as departing aircraft may initiate a turn closer to the runway end, whereas landing aircraft are typical aligned with the runway for a distance of two to five nautical miles. The steeper slope associated with the Departure Surface is due to the fact that climb gradient for departing aircraft is typically steeper than that of an approaching aircraft.

Figure 9 includes a composite illustration of the most restrictive obstacle clearance surfaces that overlie the Melreese parcel. The most restrictive surfaces would result in the lowest permissible heights of structures.

4.3 Penetration to Zoning Surfaces

At the time this study was initiated, the developer of the stadium had only provided artist's renderings of the proposed stadium, and not actual dimensions for analysis. However, on December 3, 2019, Capitol Airspace Group submitted eight points (GPS coordinates), along with an architect's profile elevation drawing as part of a request for a Preliminary Letter of Determination. As mentioned above, MDAD's preliminary analysis concluded that four of the



LEGEND
Approach Surface

NOTES:

- 1. All elevations are feet above mean sea level.
 - 2. Site plan image not to scale; actual location and size of proposed facilities may vary.
 - 3. The Runway 27 and elevation is correct; 93 feet above mean sea level. However, the Approach and Departure Surfaces associated with the Miami Dade County Code of Ordinances Chapter 33 - Zoning Article XXVII, have a starting elevation of 10 feet above mean sea level.
- SOURCE: Miami Dade County Code of Ordinances Chapter 33 - Zoning Article XXVII (accessed December 12, 2019);
 Conitum Spatial, Inc., April, October 2017; Airport/Growth, Reference Sector Subarea Site Plan (approved January 1, December 2019).



Figure 6: Height Restrictions Over Proposed Miami Freedom Park
 Miami-Dade County Zoning - Approach Surface

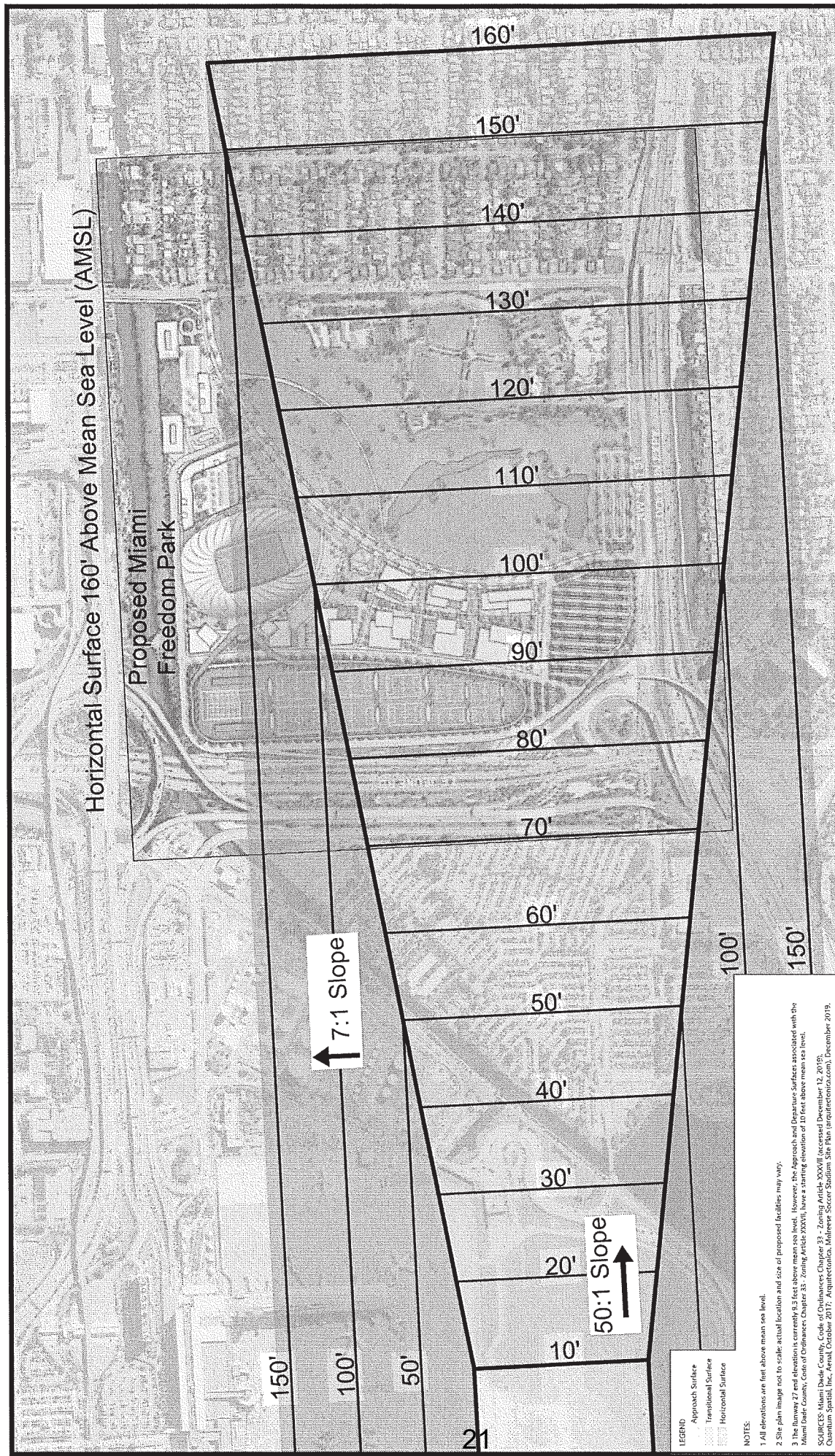
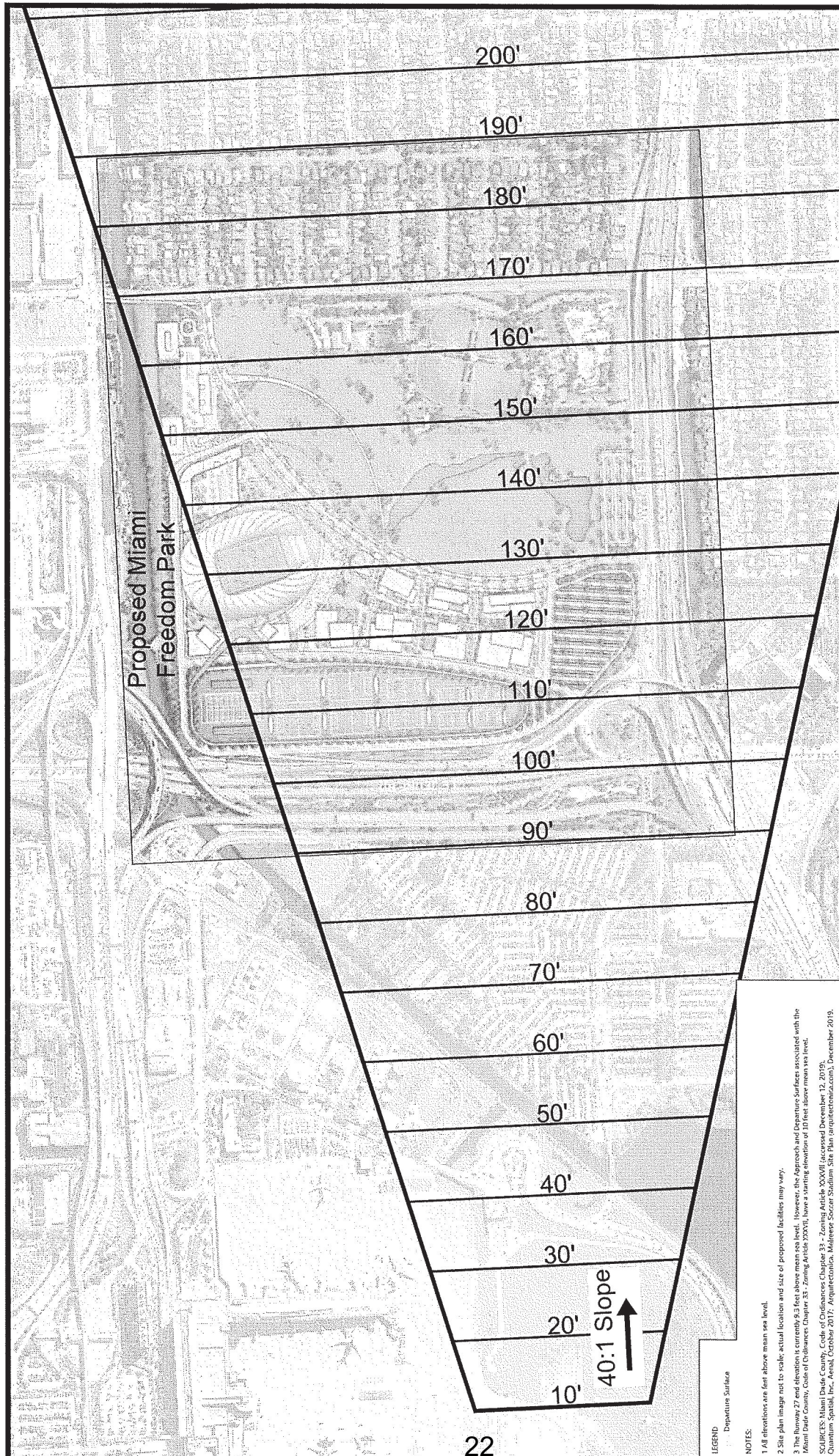


Figure 7: Height Restrictions Over Proposed Miami Freedom Park
 Miami-Dade County Zoning - Approach, Transitional, and Horizontal Surfaces



LEGEND
 - Departure Surface

NOTES:
 1 All elevations are feet above mean sea level.
 2 Site plan image not to scale; actual location and size of proposed facilities may vary.
 3 The Runway 27 and adjacent taxiway is currently 9.5 feet above mean sea level. However, this Runway and Taxiway Surface associated with the Miami Dade County Code of Ordinances, Chapter 337, Zoning Article 337.07, have a starting elevation of 10 feet above mean sea level.
 SOURCE: Miami Dade County, Code of Ordinances Chapter 337 - Zoning Article 337.07 (revised December 12, 2019).
 Quantum Spatial, Inc., Miami, October 10, 2019. Project: Miami Freedom Park, 10000 Freedom Park Blvd, Miami, FL 33126.

Figure 8: Height Restrictions Over Proposed Miami Freedom Park
 Miami-Dade County Zoning - Departure Surface

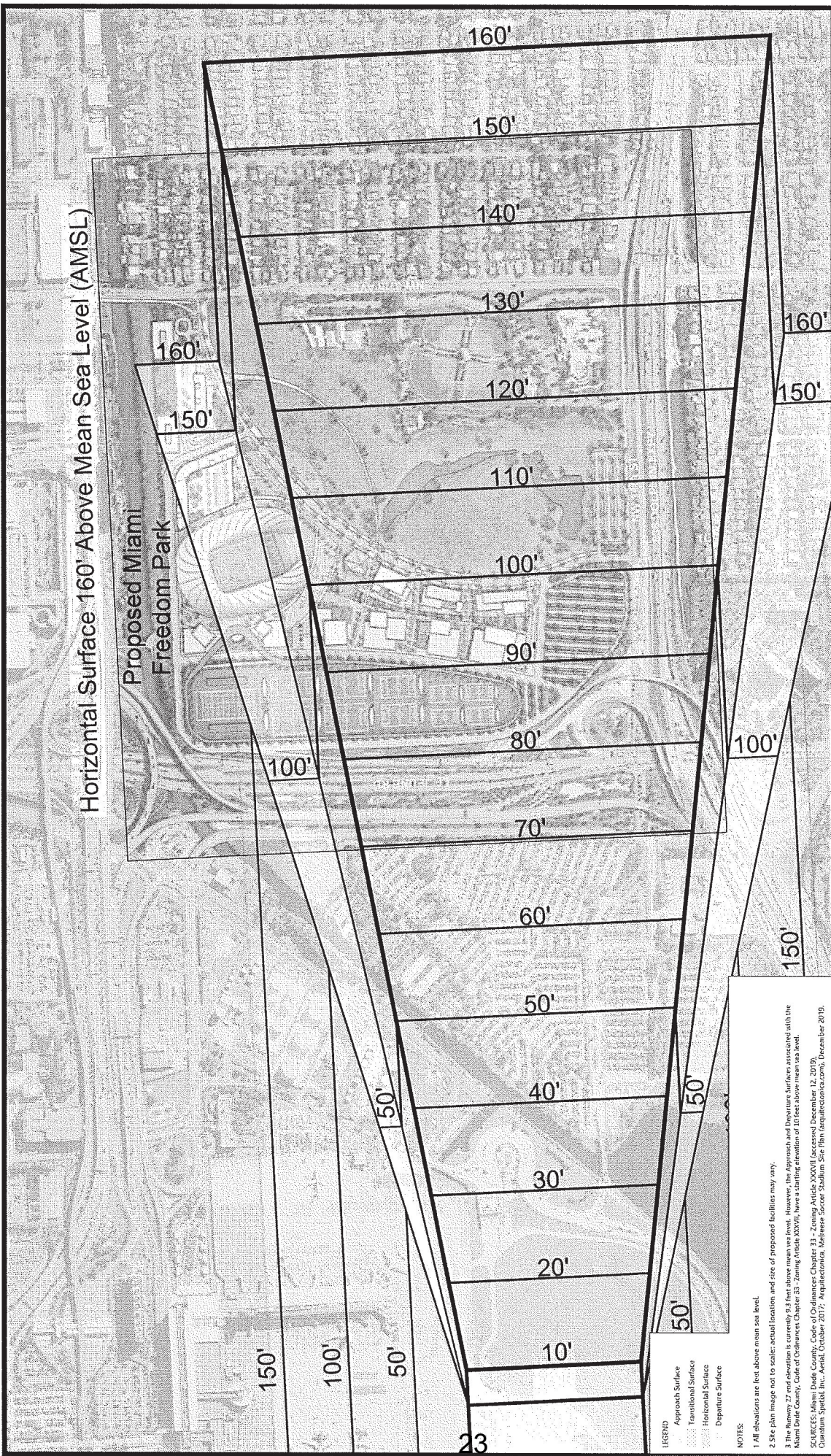


Figure 9: Height Restrictions Over Proposed Miami Freedom Park
 Miami-Dade County Zoning - Composite Airspace Surfaces

eight points exceed the height limitations prescribed in the Code. A copy of MDAD's Preliminary Airspace and Land Use Determination Letter is contained in **Appendix B**.

4.4 Conflicting Regulations

While it is MDAD's responsibility to administer and enforce the regulations prescribed in the Code, the FAA will conduct its own independent review of the proposed development. The Airport Zoning Code, Section 33-336, states that in the event of a conflict of regulations, the most restrictive shall apply and that no Certificate of Use or Certificate of Occupancy shall be issued by the County until approval is obtained from MDAD certifying that the structure was built no higher than the height approved in the MDAD-issued Airspace and Land Use Letter of Determination. This is also consistent with paragraph Florida Statutes that state the following:

"In the event of conflict between any airport zoning regulations adopted under this chapter and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or trees, the use of land, or any other matter, and whether such regulations were adopted by the political subdivision which adopted the airport zoning regulations or by some other political subdivision, the more stringent limitation or requirement shall govern and prevail."⁴

In addition to conforming with FAA requirements, this development must conform with the code, since the FAA recommends that local government codes address some requirements not enforced by the FAA. Since MIA receives federal funding through the FAA's Airport Improvement Program for various planning and construction initiatives, MDAD is obligated to adhere to a set of grant assurances. FAA Grant Assurance 21, *Compatible Land Use*, states the following:

"It (the Airport Sponsor) will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended."⁵

⁴ 2019 Florida Statute Title XXV (Aviation), Chapter 333, Airport Zoning, Paragraph 333.04(2).

⁵ Federal Aviation Administration, Airport Improvement Program Assurances for Airport Sponsors, March 2014,

5. Lighting and Glare Concerns

Airline Safety Management Systems (SMS) include a safety policy, formal methods for identifying hazards and mitigating risk, and promotion of a positive safety culture.⁶ The pilot-in-command of any aircraft is the one responsible for the safe operation of the aircraft, and is therefore, the final authority on how it is navigated. Pilots will often file safety concerns through appropriate channels of the airlines' SMS. As identified by the airlines, this chapter presents some relevant case studies in which the lighting and glare produced by stadiums that have been constructed in close proximity to existing air carrier airports has caused pilots submit their concerns to their respective SMS.

5.1 Miami Freedom Park Lighting and Glare Concerns

MDAD has concerns that the lighting associated with the proposed soccer stadium and numerous practice fields, including LED screens/scoreboards, could create visual distractions for pilots and FAA ATC personnel. As experienced at similar stadiums, the lighting and glare impacts can create a significant hazard and practical difficulties to aircraft operations on arrival or departure.

Miami Freedom Park's promotional renderings emphasize large luminous LED panels and glowing lights emanating from the stadium. Light emissions are often caused by lights that shine upwards in the flight path. A pilot's ability to identify an airport during low-level flight altitudes can be hindered by light emissions during low visibility conditions at night or during inclement weather. Bright lights, including laser lights are a major concern because they are distracting and can cause a blurred or momentary loss of vision for pilots as they pass from darkness into well-lit areas. Light/glare from the stadium could prevent controllers from seeing aircraft on the final approach to Runway 27 or even taxiing in the South Terminal Area. There may also be potential safety concerns with the stadium's use of signage, fireworks, and helicopters.

The conceptual renderings of the stadium depict an illuminated roof. If this depiction is accurate, the light generated by the stadium could produce a hazard to aircraft operations. Furthermore, potential glare resulting from the reflection of the sun off the stadium's roof could cause temporary blindness or simply distract pilots during low-level flight operations. Therefore, further evaluation of the potential glare impacts resulting from the stadium roof is warranted.

Figure 10 includes a few samples of the artistic renderings that are depicted on the Miami Freedom Park website. These renderings highlight MDAD's concerns with the lighting and glare impacts associated with the proposed soccer stadium, practice fields, and other ancillary facilities. **Figure 11** illustrates the soccer and football practice fields oriented in a north to south configuration along NW 42nd Avenue, which are expected to include field lighting. These lights will create an array of lights perpendicular to the approach and departure path of Runway 9-27.

Aside from the safety issue of potentially impairing a pilot's vision by bright lights while on final approach, the lighting and glare concerns resulting from the construction of a stadium on the Melreese parcel may also affect airfield capacity. As described above in the Air Traffic Control section of this report, the flow of air traffic is dependent upon many issues. Accommodating pilot requests for runways other than Runway 27 due to the glare from stadium lights would impact the capacity of the airfield as a whole.

⁶ FAA Advisory Circular 120-92B

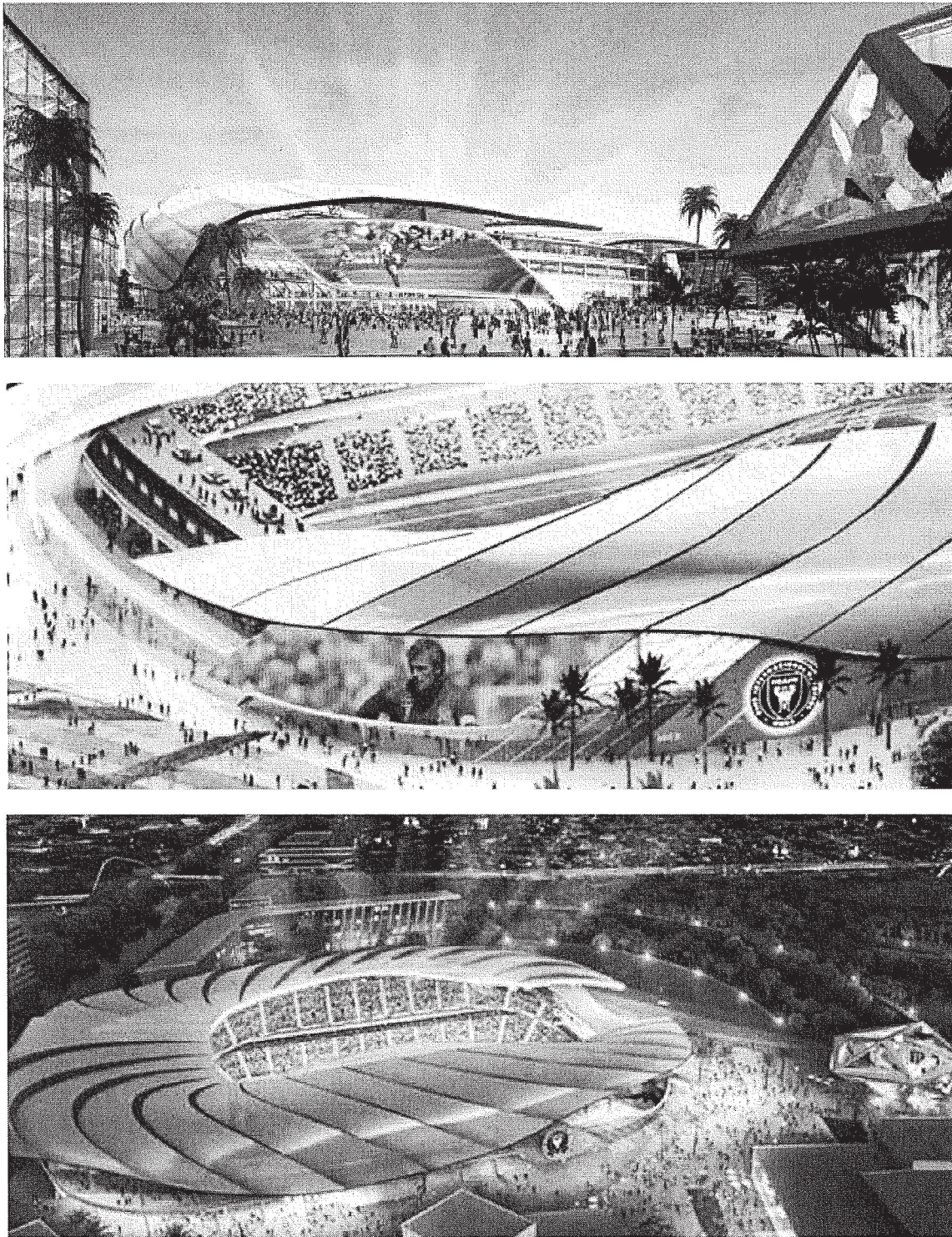


Figure 10 – Proposed Miami Freedom Park's Lighting and Glare Impacts⁷

⁷ Source: Arquitectonica, <https://arquitectonica.com/architecture/project/inter-miami-cf-stadium-and-miami-freedom-park>, January 15, 2020

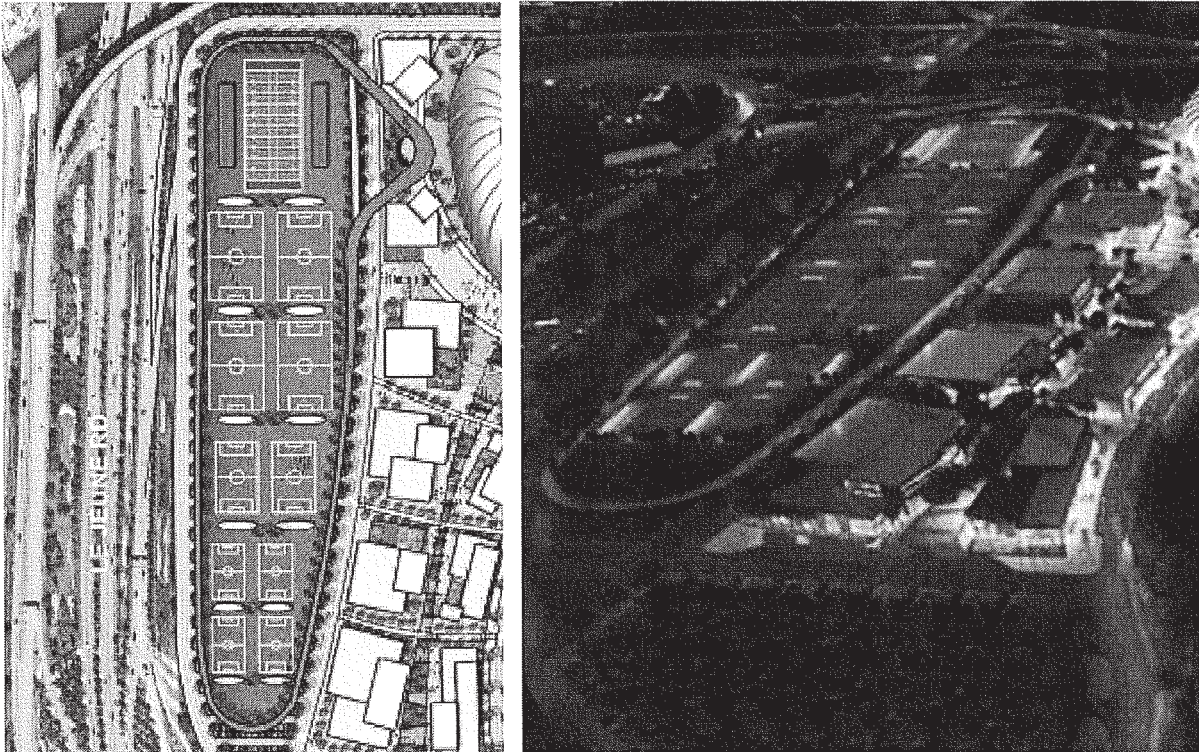


Figure 11 – Proposed Miami Freedom Park's Practice Fields Lighting and Glare Impacts⁸

6. Stadium Restrictions

The developer must be made fully aware of the restrictions that would be placed on the use of the facility and impacts to events held at the facility in this location due to its proximity to the Airport. The sections below describe these anticipated restrictions/impacts in the areas of visual attractions, noise, constructability, and mitigating measures.

As per Section 33-334 of the County Code, temporary events within any airport restrictive zone must be reviewed by MDAD. MDAD would prohibit or restrict the following temporary events on the site:

- Prohibition of fireworks / smoke machines
- Prohibition of laser light shows
- Limitations on lighting / video boards / signage
- Prohibition of drones, radio-controlled aircraft and balloons
- Restrictions on helicopters / blimps and banner towing aircraft.

⁸ Sources: Arquitectonica, <https://arquitectonica.com/architecture/project/inter-miami-cf-stadium-and-miami-freedom-park>, January 15, 2020; https://us.as.com/us/2019/11/12/futbol/1573592551_212137.html, January 15, 2020.

6.1 Excessive Noise

Sporting events would likely not be affected by the sounds of the aircraft. However, the stadium and the surrounding support facilities would likely be used for other gatherings at times that would be more sensitive to aircraft noise on approach and departure. In the event that the stadium does get located as proposed, the developer must be made fully aware that requests to assign aircraft operations to other runways to reduce noise impacts, even if temporary in nature, would not likely be honored.

Additionally, the open-air design of the stadium with the partial canopy roof may lead to increased noise within the facility due to the reflection of sound waves within the stadium, thereby multiplying and/or prolonging the effects of a noise from aircraft operations.

6.2 Impacts During Construction

Normally, a project of this size will have numerous cranes that are considerably higher than the final structure and are operating for an extended number of months. Although no crane locations or heights have yet been identified, it is reasonable to expect cranes that could have a height of at least 150 feet above the top of the canopy (or approximately 300 feet above the departure end of Runway 9). Due to the proximity in relation to the end of the runway, this could require significant payloads restrictions for aircraft departing MIA Runway 9. Additionally, approaches to Runway 27 could be impacted or not authorized while the cranes are in operation. This would likely result in numerous flights being diverted to other runways, thus disrupting the efficiency and capacity of the Airport as described above. MDAD would not support a proposal that would impact the Airport, ATC, and/or aircraft operations in that would degrade the restrict aircraft payloads and/or reduce the capacity of the airfield.

7. Summary

MDAD was tasked with analyzing potential impacts to MIA from the proposed redevelopment of the Melreese site, including development of a 25,000-seat sports stadium, hotels, practice fields, and commercial space at this location. This report documents the potential impacts this development would have on airport operations and FAA requirements to be met by the developer. During this process, MDAD consulted with both international and domestic air carriers for additional input on the potential operational and safety effects of the proposed Miami Freedom Park. The following is a summary of MDAD's concerns, which are also supported by airlines and cargo operators that participated in this study:

- The developer will be required to file an FAA Form 7460-1 Notice of Proposed Construction or Alteration with the FAA due to the notice criteria found in FAR Part 77 being exceeded. Although the FAA may issue a Determination of No Hazard on any or all aspects of the proposal, this alone is not a basis for MDAD's approval.
- Based on the preliminary information submitted by the developer for the issuance of a Preliminary Land-Use/Airspace Letter of Determination, the stadium would penetrate the Departure Surface on the north side of the Runway 9 extended centerline. The proposed stadium site is not in an allowed variance area. Therefore, MDAD does not have the authority to permit new construction that would penetrate the surfaces defined in the Miami Zoning Code.
- The site plan submitted by the developer depicts a stadium with a capacity of 25,000 people on the border of the OSZ. Even though the proposed location of the stadium proper is technically outside of the OSZ, the fact that it abuts a safety zone is concerning. MDAD is tasked with protecting the public health, safety, and welfare by limiting the type and densities of land use activities in high risk safety areas near runway ends. The FAA entrusts MDAD to be the enforcing agency and do all within its powers to not permit incompatible uses in close proximity to the Airport. By accepting federal grants, MDAD agrees to maintain and operate the Airport in a safe and efficient manner. Acceptance of the grant invokes certain conditions and assurances with which MDAD must comply.
- FAA Grant Assurance Number 21 states that the sponsor "will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft." MDAD relies heavily on grants from the FAA to develop and operate MIA. Approval of incompatible uses may jeopardize MDAD's ability to secure future grants.
- The outcome of this analysis finds concern for the visual impacts including lights and/or glare that could emanate from the venue. Either of these impacts could impair pilots' vision during a critical phase of flight. It could also impair ATC's ability to maintain visual contact with aircraft both in the air and while operating on the airfield.
- Additionally, there is concern for how the potential impacts to air traffic flow to avoid the stadium may impact airfield capacity. The use of new technology being employed as part

of the FAA's NextGen initiative such as RNAV and other initiatives may likely be restricted for Runway 9 departures.

- MDAD through this report also must alert the developer and the County Commission that a stadium in this location may not be allowed to have many of the features of modern-day stadiums. Due solely to the proximity of the site to the Airport, there would be a prohibition on fireworks, smoke machines, laser lights and other limitations on the use of video boards, signage, and light displays. Likewise, there would be prohibition on helicopters, banner towers, and blimps over and around the facility.
- Construction methods would require cranes that can be "boomed-down" when not in use. Due to the impact that normal "tower" cranes would have on the Runway 9-27 operations, construction would have to be timed and phased on a daily basis and only be used during off-peak periods when Runway 9-27 is not required to meet airfield capacity needs.

MDAD was unable to quantify the costs that would be incurred to mitigate the various items described herein. However, the developer would need to consider design and development budget for any mitigation they would be responsible for.

Appendix A Airline and Cargo Operators Meeting Notes

On November 5, 2019, the Miami-Dade Aviation Department hosted a meeting with airline and cargo operators at Miami International Airport (MIA). The FAA's Orlando Airport District Office, Obstruction Evaluation Group, Florida Department of Transportation, and MIA's Airline Liaison's Office were also in attendance. The purpose of the meeting was to discuss potential aircraft operational impacts associated with the proposed development of Miami Freedom Park.

It should be noted that on November 19, 2019, the Miami-Dade Board of County Commission passed Resolution R-967-19 which amended the MIA Zoning Code. Among the various changes to the Code, this Resolution incorporated a change in the Departure Surface that is prescribed by FAA. Due to recent changes in the enforcement of the TERPS departure surface by the FAA, the amendment of the zoning surface was unanimously adopted by the Miami-Dade County Board of County Commissioners. At the time of the meeting with the Airline and Cargo Operators, the Code did **not** provide consideration for the Departure Surface. In addition, MDAD had not received any detailed elevation information from the developer prior to this meeting that would allow it to assess potential airspace impacts associated with the proposed Miami Freedom Park.

The following is a summary of the discussions that occurred during this meeting.

Mr. Jose A. Ramos, Division Director of Aviation Planning, Land Use and Grants for the Miami-Dade County Aviation Department opened the meeting and provided an overview of the meeting objectives. Mr. Ramos noted that The Miami-Dade County Board of County Commissioners passed a resolution on September 4, 2019 requiring County to study the potential impacts to operations at MIA. Although the Study is to assess a variety of potential impacts to the Airport, the primary intent of this meeting was to solicit input from the airlines and cargo tenants regarding potential concerns in regard to aircraft operations, with particular emphasis on arrivals and departures to/from Runway 9-27 at MIA.

Mr. Ramos introduced Mr. Ken Scarborough, a Senior Airport Planner from Planning Technology, Inc. to give an overview of the current airspace constraints over the proposed development site.

At the time of the meeting, no actual drawings, or site plans with proposed locations and building heights have been submitted to Miami-Dade County Aviation Department Officials, the analysis was conducted based on artist renderings available to the public.

The airspace considerations included obstacle clearance requirements prescribed within the following documents: Federal Aviation Administration (FAA) Order 8260.3D, United States Standard for Terminal Instrument Procedures (TERPS); Airport imaginary surfaces prescribed under Code of Federal Regulation (CFR) Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace; one-engine inoperative (OEI) surfaces prescribed by the FAA and International Civil Aviation Organization (ICAO); and the Miami-Dade County zoning ordinance for MIA (MIA Zoning Code). The following is a summary of the key discussion points from Mr. Scarborough's presentation:

- The Airport Zoning Code gives the County the authority to review and approve/disapprove development projects throughout the County. The zoning review

includes consideration for land use compatibility planning, as well as protection of airspace. The Miami-Dade Aviation Department is responsible for conducting these reviews on behalf of the County. The proposed development site is located within the City of Miami.

- The current Airport Zoning Code has defined allowable heights around MIA since 1969 and provides consideration for the imaginary surfaces prescribed under CFR Part 77 and airline payload requirements.
- Although the exact configuration and overall height of the stadium is not known at this time, preliminary discussions with the developer indicated that the stadium might penetrate the standard departure surface (40:1) prescribed under FAA Terminal Instrument Procedures (TERPS).
- The proposed soccer stadium is north of the OEI surfaces prescribed by both the FAA and ICAO and therefore, should not impact aircraft departure performance from an engine out perspective.

Following Mr. Scarborough's presentation, Mr. Ramos invited airport operators an opportunity to present any concerns, comments or questions.

Mr. Anderson of Atlas Air presented a review of aircraft performance for the B747-400 at maximum takeoff weight. Atlas Air's analysis concluded that the proposed soccer stadium would have no impact on landings on Runway 27 and would not impact aircraft departure performance from Runway 9. Therefore, it was concluded that the proposed development would not impact operation of their B747-400 aircraft on Runway 9-27.

General Questions:

Q: Was the proposed amendment to the County's zoning ordinance a result of the proposed development?

A: No, the proposed amendment to the MIA Zoning Code had been under development for several years. The pending amendment to the zoning ordinance for MIA was actually triggered by the construction of the 826/836 interchange, as it became apparent that the current zoning ordinance did not identify potential impacts the TERPS departure surface.

Q: What are the potential impacts of construction cranes? Is there also concern with blimps, drones, banner towers, etc.?

A: The developer has not provided any detailed information regarding these issues and those impacts would be raised in the Study, additionally, the FAA is responsible for controlling the airspace and the Aviation Department expects that they would ensure protection of the airspace.

Q: Can a crane penetrate the zoning surfaces?

A: It is permissible, under certain conditions and would require coordination between the MDAD, FAA Air Traffic Control, and the developer.

Q: How does Miami-Dade County propose to control parking, in particular to parking at the proposed stadium?

A: MDAD is tasked specifically for review potential airspace impacts and that traffic impacts were being assessed separately by others.

Q: Will there be any potential TFRs (Temporary Flight Restrictions) that might be imposed on the stadium?

A: TFRs should not impact operations at MIA, as the purpose of the TFRs is to limit overflights by recreational pilots, banner towers, etc. Since the stadium is located within the confines of Class B airspace, a TFR would generally not impact commercial flights arriving/departing MIA.

Q: How is Miami-Dade County planning to control parking? It may be possible for someone to park at the airport and take the Automated People Mover (APM) to the rental car facility and then walk over to the stadium.

A: MDAD is tasked specifically for review potential airspace impacts and that traffic impacts were being assessed separately by others.

Q: Will the FAA also have to review and approve the development?

A: Yes, however at this point, the FAA has not studied this particular development. A representative from the FAA Obstacle Evaluation Group explained that the FAA's analysis is not intended to be a zoning recommendation but is in place to identify what FAA procedures would have to be modified if Miami decides to build a stadium in this location. Mr. Shoulders emphasized that the procedure that is in place in Miami, wherein the local zoning restrictions dictate allowable height, is exactly how it should be done; the FAA is not able to protect the local airspace to the degree that it needs to be protected. In addition to the analysis done by MDAD, the FAA will also model the development to ensure protection of the communication and radar facilities.

General Comments/Concerns:

MDAD should explore potential aircraft departure impacts if departure routes are implemented that would require departing aircraft make a left turn immediately after departure. Departure routes are being considered to increase the capacity of the south runway. During severe weather, Air Traffic Control typically uses Navigation (RNAV) off the ground, that allows aircraft to avoid isolated thunderstorms within the Runway 9 departure corridor, the Study should consider potential impacts associated these types of operations

There have been some issues with other stadiums that are in close proximity to airports throughout the country, including impacts to the radar and glare (Los Angeles). The latter required that a supplemental radar be installed at the developer's expense. Las Vegas stadium has caused significant vehicular traffic impacts around the airport due to the stadium for the Raiders football team. There is discussion of constructing a remote parking facility and busing the users to the stadium. Phoenix had issues with pyrotechnics during certain events by Arizona State University. It may also be possible that the stadium operator objects to aircraft noise impacts during soccer games and other events, such as concerts and other events at the stadium.

Representatives from several airlines expressed concerns with secondary development on the site that is within the confines of the One Engine Inoperative (OEI) surface. Not only are they concerned with the heights of the buildings, but also construction cranes. Departure from other runways at MIA are not viable for long-range destinations.

MDAD should review traffic movement during events and look at the airline flight schedules to assess potential impacts to passengers.

Mr. Ramos concluded the meeting by requesting that all participants submit their concerns via e-mail; to be addressed to Jose Ramos. (Note: a copy of the response letter from the Airline Liaison's office is included in Appendix C of this Report)

Appendix B MDAD Issued Preliminary Airspace and Land Use Determination Letter



Miami-Dade Aviation Department

P.O. Box 025504
Miami, Florida 33102
T 305-876-7000 F 305-876-0948
www.miami-airport.com

Commercial Airport:
Miami International Airport

miamidade.gov

General Aviation Airports:
Dade-Collier Training & Transition Airport
Miami Homestead General Aviation Airport
Miami Executive Airport
Miami-Opa Locka Executive Airport

January 22, 2020

Ms. Katie Doyle
Capitol Airspace Group
5400 Shawnee Road, Suite 304
Alexandria, VA 22312

RE: Determination Number **DN-19-12-2947** Preliminary Land-Use/Airspace Analysis for the 131-Acre Site of the Proposed "Miami Freedom Park" project located at 1400 NW 37 Avenue, Miami, FL 33137 (Folio Number 01-3132-000-0080)

Dear Ms. Doyle:

The Miami-Dade Aviation Department (MDAD) is in receipt of your submittal for a preliminary land-use/airspace analysis and determination for a proposed soccer stadium to be located on a portion of the 131-acre City of Miami owned Melreese Golf Course and Country Club. The site is roughly bounded by NW 42 Avenue, NW 14 Street, NW 37 Avenue and South of NW 21 Street and the address is 1400 NW 37 Avenue in Miami, Florida. In addition to the 25,000-seat stadium, it has been reported that the Miami Freedom Park, designed by Arquitectonica, will include 750 hotel rooms, at least 1 million square feet of office, retail and commercial space, numerous soccer fields, and 58 acres allocated for a public park. The proposed stadium would have a range of heights with the highest point having a maximum elevation of 160 feet Above Mean Sea Level (AMSL). The site is located immediately east of Miami International Airport (MIA) beneath a flight path of aircraft landing on MIA's Runway 27 or departing from Runway 9. As such, it would experience frequent and direct overflights from commercial air traffic at very low altitudes.

In the interest of completeness, MDAD is providing the following preliminary comments for the 131-acre parcel:

Land Use Review:

Any proposed development this close in proximity to MIA warrants special attention in the planning process, as it is important to assess any potential safety issues; avoid any potential restrictions on airport operations; and to provide for quick and efficient access to the airport for

all users. All land uses adjacent to MIA must be compatible to ensure that their capacity and function are complementary with airport and flight operations.

Please be advised that the site is partially or fully impacted by the following airport land use and noise compatibility restriction zones referenced in Article XXXVII of Chapter 33 of the Code of Miami-Dade County Airport Zoning (Airport Zoning Code), Sec. 33-333:

The 131-acre Miami Freedom Park site is partially contained within the **Outer Safety Zone (OSZ)**. Within the OSZ, new residential construction, educational facilities, hospitals, religious facilities, *and other buildings for public assemblage*, shall be prohibited. In no event shall these prohibitions be varied with respect to MIA. It is provided, however, that aviation-related schools, hotels and motels and their ancillary uses, and structures used in connection with public transportation shall not be subject to this prohibition. Uses prohibited in the Critical Approach Zone (CAZ) shall also be prohibited in the OSZ.

The sketch submitted by the developer depicts only the stadium with no other information except for building elevation points. The sketch locates the stadium adjacent to the OSZ. Even though the stadium appears to be outside of the OSZ, the fact that it abuts a safety zone is concerning. Before MDAD can evaluate the impacts, the applicant must submit floor plans inclusive of all corridors, circulation and ancillary spaces for the proposed stadium. MDAD is tasked with protecting the public health, safety and welfare by limiting the type and densities of land use activities in high risk safety areas near runway ends. The FAA entrusts MDAD to be the enforcing agency and do all within its powers to not permit incompatible uses in close proximity to the airport. By accepting federal grants, MDAD agrees to maintain and operate the airport in a safe and efficient manner. Acceptance of the grant invokes certain conditions and assurances with which MDAD must comply. FAA Grant Assurance Number 21 states that the sponsor "will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft." MDAD relies heavily on grants from the FAA to develop and operate MIA. To encourage the encroachment of incompatible uses may jeopardize future grants.

It should be noted that the airlines have expressed concern with the anticipated high volume of roadway traffic to Miami Freedom park as well as the expected congestion that could impede or delay MIA passengers and airport employees. Scheduled flight operations could be cancelled if crew or support staff cannot gain timely access to MIA. As per Miami-Dade County's Comprehensive Development Master Plan Aviation Subelement Policy AV-4A, MDAD must give priority consideration to on-site and off-site roadway *capacity enhancements that provide or will improve airport access*. As such, MDAD expects the developer to mitigate traffic impacts especially to the main access points at MIA which must remain unimpeded. The traffic for the stadium must not disrupt airport operations. MDAD must do everything it can to protect MIA's capacity. Capacity planning typically relates to standard operating conditions. If operating conditions are not optimal, then they have a negative impact on capacity. When MIA is operating

at levels near to its theoretical capacity, then any disruption results in delays. These delays have a significant cost, thus reinforcing the need to maximize capacity.

The 131-acre Miami Freedom Park site is partially contained within the **Critical Approach Zone (CAZ)**. The following uses shall be prohibited within this zone: Hospitals, stand-alone emergency rooms, urgent care facilities, skilled nursing facilities, assisted living facilities, adult day care facilities, day nurseries, and educational facilities, excluding aviation-related schools; establishments or uses that emit smoke, gases, or dust in quantities or densities sufficient to jeopardize the safe use of the airport; establishments or uses that create electrical interference with radio communications between the airport and aircraft; make it difficult for aircraft pilots and tower control operators to distinguish between airport lights, aircraft and others; result in glare in the eyes of aircraft pilots using the airport, or tower control operators; impair visibility in the vicinity of the airport; or otherwise endanger the landing, taking off, or maneuvering of aircraft; landfills, as defined in section 403.703, Florida Statutes; and any associated uses that attract or sustain birds and bird movements. In no event shall these prohibitions be varied.

In light of the above Code imposed restrictions, MDAD has serious concerns that the proposed soccer stadium lighting, the proposed numerous practice fields' (an estimated 24 acres) lighting, and LED screens/scoreboards will create visual distractions for pilots. Miami Freedom Park's publicly advertised promotional renderings emphasize large luminous LED panels and glowing lights emanating from the stadium. Light emissions are often caused by lights that shine upwards in the flight path. A pilot's ability to identify an airport during low-level flight altitudes can be hindered by emissions during evening hours, storm events or times of reduced visibility such as fog. Bright lights, including laser lights are a major concern because they are distracting and can cause a blurred or momentary loss of vision for pilots as they pass from darkness into well-lit areas. The lights and glare from the stadium could prevent controllers from seeing aircraft on the final approach to Runway 27 or even taxiing in the South Terminal Area. There may also be potential safety concerns with the stadium's use of signage, fireworks, and helicopters.

The publicly advertised promotional renderings of the stadium appear to depict an illuminated roof or reflective roof. The assumed reflective nature of the roof is also a serious concern for MDAD. Glare produced from reflective surfaces can blind or distract pilots during low-level flight operations. The developer will need to evaluate the angle of reflection from the stadium relative to the angle of approach/departure that aircraft may take upon ascent and descent from a runway surface. Additionally, the amount of sun exposure to the roof's reflective surface may also have a negative impact. The developer must be able to demonstrate to MDAD that all lighting associated with the stadium and practice fields does not negatively impact airport operations.

The 131-acre site is fully contained in the **65-to-74 DNL Noise Compatibility Restriction Zone**. The 65-to-74 DNL Zone is a contour depicting concentrations of aircraft noise around an airport based on day and night noise levels averaged over a year at 65-to-74 decibels. New residential construction and educational facilities shall incorporate at least a 25-decibel outdoor-to-indoor Noise Level Reduction (NLR) into design and construction.

Airspace Review:

Our review of the plans and data provided finds that the range of architectural elevations, referenced in the table below, with a maximum elevation of 160' AMSL/NAVD88 for the proposed project, *does not conform* to the requirements of the Airport Zoning Code. The height reference is an estimated height provided by you on behalf of the developer, therefore this letter is issued on a preliminary or advisory basis. The impacts are noted in the following table:

LOCATION	HEIGHT REQUESTED	MAXIMUM CODE ALLOWED HEIGHT	EXCEEDS MIA HEIGHT ZONING BY:
Pt. 1 Lat: 25° 47' 37.08" Long: 80° 15' 43.23"	160 ft. AMSL	160 ft. AMSL	
Pt. 2 Lat: 25° 47' 37.31" Long: 80° 15' 36.63"	160 ft. AMSL	160 ft. AMSL	
Pt. 3 Lat: 25° 47' 34.05" Long: 80° 15' 35.93"	160 ft. AMSL	138.19 ft. AMSL	21.81 ft. AMSL
Pt. 4 Lat: 25° 47' 32.68" Long: 80° 15' 35.62"	140 ft. AMSL	138.75 ft. AMSL	1.25 ft. AMSL
Pt. 5 Lat: 25° 47' 30.89" Long: 80° 15' 35.24"	114 ft. AMSL	115.17 ft. AMSL	
Pt. 6 Lat: 25° 47' 29.74" Long: 80° 15' 41.64"	103 ft. AMSL	103.25 ft. AMSL	
Pt. 7 Lat: 25° 47' 32.00" Long: 80° 15' 42.13"	135 ft. AMSL	123.81 ft. AMSL	11.19 ft. AMSL
Pt. 8 Lat: 25° 47' 33.72" Long: 80° 15' 42.50"	160 ft. AMSL	123.16 ft. AMSL	36.84 ft. AMSL

The developer is required to lower the height of the proposed stadium to be in compliance with the Airport Zoning Code. The Miami Freedom Park site is outside of any Airport Height Variance Eligible Areas, so no height variances are allowed. Miami-Dade County's

Comprehensive Development Master Plan Aviation Subelement Policy Objective AV-3 requires MDAD to minimize hazards and obstructions to airspace and ground operations so as to protect the safety and welfare of aircraft users/operators and residents of Miami-Dade County in order to assure the economic vitality, safety, efficiency and capacity of the airport system.

MDAD and aviation industry stakeholders are concerned with the impact to aircraft operations from 1-2 years of construction cranes for the stadium and its mixed-use development. All construction cranes for this project at this location must be filed by the construction contractor using FAA form 7460-1. The form is available through the FAA website: <https://oeaaa.faa.gov> where the contractor may e-file the information. Because of the development proximity to MIA, this office will also need to review and approve the construction cranes heights and locations associated with this construction project.

Based on the information provided, MDAD cannot approve the current submission of the project since the proposed structure exceeds MDAD's established airport zoning height restrictions at the referenced locations. In addition, the proposed stadium lights may create a visual distraction which can threaten the safety of aircraft operations. MDAD maintains that any proposed development in close proximity to MIA must be compatible with airport operations and cannot compromise safety or airport viability. In order to properly analyze the project, MDAD will need the developer to resubmit the data and plans to reflect the development for the entire site. MDAD will not be able to provide a final determination on the project until the following occurs:

1. The developer submits a fully developed site plan which depicts the stadium, numerous soccer practice fields and lighting, and ancillary mixed-use development. The stadium's corridors, circulation and ancillary spaces for the proposed stadium must be completely outside the OSZ.
2. The developer reduces the height of the stadium so that it complies with Article XXXVII of Chapter 33 of the Code of Miami-Dade County Airport Zoning.
3. The FAA issues "Determination of No Hazard to Air Navigation" for the stadium.
4. The project is required to comply with all applicable federal, state and local aviation regulations, including the Airport Zoning Code.
5. MDAD respectfully requests a proffered covenant running with the land in the re-submittal application package. The terms of the covenant should include, but not be limited to the following:
 - An aviation easement. MDAD cannot be responsible for noise generated from frequent and direct overflights of commercial air traffic at very low altitudes which may create an uncomfortable environment for both fans and players alike.
 - The entire stadium inclusive of all corridors, circulation and ancillary spaces must be outside of the Outer Safety Zone.

- The architect's plans must illustrate mitigation of any light emissions for the stadium, numerous practice fields, and video boards.
- The exterior of the stadium and roof are required to contain materials that are not reflective or can degrade the airport's surface radar signals and strength.
- Prohibition of drone, radio-controlled aircraft and balloons, restrictions on helicopter, blimps and banner towing aircraft, prohibition of fireworks, smoke machines and laser light shows.
- Prohibition of establishments or uses that emit smoke, gases or dust in quantities or densities sufficient to jeopardize the safe use of the airport.
- The stadium's electronic gear cannot interfere with radar, voice communications and other navigational aids to aircraft.
- Prohibition of any associated uses that attract or sustain birds and bird movements.
- Provide traffic mitigation

Any real estate transactions of the parcel are subject to the airport land use and noise compatibility restriction area disclosure statement referenced in the Airport Zoning Code.

All construction cranes for this project at this location must be filed by the construction contractor using FAA form 7460-1. The form is available through the FAA website: <https://oeaaa.faa.gov> where the contractor may e-file the information. Because of the development proximity to MIA, this office will also need to review and approve the construction cranes heights and locations associated with this construction project.

Please note that the airspace review process is governed by two different regulations: the Airport Zoning Code and Federal Regulation Title 14 Part 77. The FAA has its own airspace evaluation requirements, and issues airspace determinations for structures and cranes based on the particular facts then presented before the FAA. MDAD determines whether the County's height limitations are met, and the FAA determines whether FAA building, marking and height requirements are met. It is the responsibility of MDAD to administer and enforce the regulations prescribed in the Airport Zoning Code.

As per the Code of Miami-Dade County, Chapter 33, Article XXXVII, Airport Zoning Section 33-336 - Conflicting Regulations:

"Nothing contained in this article shall be interpreted to conflict with or supersede any federal regulation pertaining to the control of airport hazards, except in those instances in which this article imposes lower height limitations or more stringent restrictions upon the use of land or water than are imposed or required by other County ordinance or resolution, or federal rules or regulations, in any of which instances the provisions of this article shall govern. Furthermore, please note that upon completion of this project, no Certificate of Use or Certificate of Occupancy shall be issued by Miami-Dade County

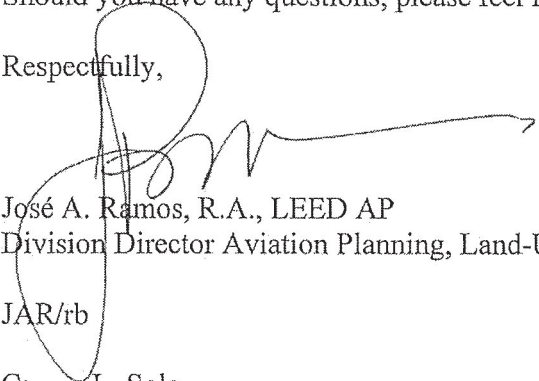
until approval is obtained from MDAD certifying that the structure was built no higher than the height approved by this letter. The approval shall be issued by this office after submittal by applicant of the required information as outlined in Section 33-349(A)(2).”

The analysis in this letter is based, in part, on the information you provided which includes the stadium location with eight points to indicate the height of the structure at specific locations. Any changes in building locations/layouts or heights will void this analysis. Any future construction or alteration, including an increase to heights requires separate notice to the FAA and MDAD.

MDAD respectfully requests that you resubmit the project to MDAD to include a revised site plan depicting the stadium with its ancillary mixed-use development as well as addressing our comments. This preliminary determination expires one year from the date of issuance unless extended, revised or terminated by MDAD’s Aviation Planning, Land-Use and Grants Division. Any requests for an extension of the effective period of this determination must be submitted by the applicant prior to the expiration date. At such time, staff will re-evaluate the application or structure to determine if any significant changes to the structure and/or to the review criteria have occurred. MDAD’s Aviation Planning, Land-Use and Grants Division will then decide if the determination in this letter may be eligible for an extension of the effective period.

Should you have any questions, please feel free to contact me at 305-876-8080.

Respectfully,



José A. Ramos, R.A., LEED AP
Division Director Aviation Planning, Land-Use & Grants

JAR/rb

C: L. Sola
K. Pyatt
P. Hernández
A. Riaz
D. Murray
Dennis Kerbel, County Attorney’s Office
Nathan Kogan, Department of Regulatory & Economic Resources
Jerry Bell, Department of Regulatory & Economic Resources
Francisco J. Garcia, City of Miami Planning and Zoning Department
Jacqueline Ellis, City of Miami Planning & Zoning Department
Efren Nunez, City of Miami Planning & Zoning Department
Jacob Keirn, City of Miami Planning & Zoning Department

Appendix C Miami Airline Liaison Office (ALO) Letter



MIAMI AIRLINE LIAISON OFFICE

Sandra Cisneros – Officer-in-Charge

2045 W. North Ave, Ste 2B
Chicago IL, 60647

312.498.4170

December 10, 2019

Mr. Jose A. Ramos
Division Director
Aviation Planning
Miami Dade Aviation Department
Miami International Airport
P.O. Box 025504
Miami, FL 33102-5504
VIA ELECTRONIC MAIL

RE: Miami Freedom Park Development

Dear Mr. Ramos,

I am writing on behalf of the Miami Airport Affairs Committee (MAAC) to provide the Miami Dade Aviation Department (MDAD) with airline (including air cargo carrier) comments and to request additional information regarding the Miami Freedom Park Development (Freedom Park). We have outlined initial concerns expressed by the airlines based on the available information for the proposed Freedom Park and the data presented at the MDAD-hosted meeting held on Tuesday, November 5, 2019.

The chief concern of the airlines is the potential for Freedom Park to adversely impact their ability to operate flights safely without the loss of operational capacity or efficiency and to impede roadway access to Miami International Airport (MIA) for passengers and employees. The proposed Freedom Park would be located less than one mile east of Runway 9-27, Miami International Airport's (MIA's) longest runway. This runway is especially critical for the many long haul operations departing MIA. To ensure operational safety, Runway 9-27's extended centerline must remain clear of obstructions as per FAA regulations and at this point it is not clear whether the Freedom Park development complies with this requirement. In addition, it is unclear whether or not Freedom Park will present obstructions to the One-Engine-Inoperable surface for all aircraft in the airlines' respective fleets. Beyond flight operations concerns, the airlines are also alarmed by the proximity and expected high volume of roadway traffic to Freedom Park and the expected congestion that could impede or delay access to MIA by passengers and airport employees. A number of destinations from MIA, including to South America, may have only one daily frequency, increasing the adverse impact to customers who miss a flight due to surrounding traffic congestion. Flight operations could be delayed or cancelled if crew or support staff cannot gain timely access to MIA.

The following is a list of operating concerns compiled from airline input and requests for information regarding the proposed Freedom Park:

Operating Concerns:

- Miami ATC often uses a vector from the runway to avoid thunderstorm cells on departure. The stadium and additional buildings will restrict the available open departure headings, limiting capacity.

- Development of the stadium and facility may encourage further potentially disruptive development around the airport
- Payload impacts from ancillary lighting, obstacle clearance, or alternate runway
- Structural heights should not impede departure or arrival minimums or have any impact to revenue cargo
- Light interference to pilots during night operations and potential for laser events
- Restrictions which may be proposed to mitigate noise with the development of the proposed soccer stadium; instead noise levels associated with normal flight operations should be expected at the stadium
- The potential for increased drone activity, as evident at other stadiums in the country; drone usage is difficult to prevent and police
- Event day vehicular traffic causing traffic delays to the airport and blocking airport access on Le Jeune Road
- Potential for construction cranes to create obstructions, adversely affecting operations and impacting minimums; communication of crane UP/DOWN status will be critical
- Potential for structures to interfere with navigational signals
- Banner towing impacting air traffic arrivals and departures at MIA
- Evaluation of proposed roofing material of Freedom Park structures should be required to ensure no light, including sunlight, is reflected into aircraft cockpits
- Helicopter traffic
- Potential loss of efficiency due to temporary flight restrictions during VIP events

This preliminary list of concerns may be amended as additional information, analyses, studies are provided for review and/or airline participation surrounding the development of the stadium.

Requests for Information:

- A comprehensive traffic study analyzing current traffic, anticipated traffic at the airport and, upon completion, anticipated traffic related to the proposed Freedom Park
- A copy of an airspace analysis and any airspace related coordination between the FAA and MDAD
- Proposed structure plans and renderings for all facilities at Freedom Park with GPS coordinates and structure heights
- The construction schedule and phasing for Freedom Park with details on how construction will be coordinated with MDAD and the airlines
- An expected usage analysis of Freedom Park, inclusive of expected games and events
- Confirmation that the construction will comply with the FAA's Advisory Circular 150-5300 13A, the One-Engine-Inoperable surface, and all Miami-Dade County Ordinances
- Benchmark analyses and impacts of other airports with nearby stadiums
- Recently approved MIA Zoning Amendment documents

Outlined below are observed impacts at other airports with a stadium nearby:

- LAX- The roof at the new Los Angeles Rams Stadium in Inglewood has been determined to cause multiple radar issues including duplicate targets for the same aircraft and inaccurate targets. After one year of debate and troubleshooting, the stadium finally agreed to purchase a secondary radar for LAX airport.
- LAS- The new Las Vegas Raiders football stadium in downtown Las Vegas presents a significant impact to vehicular access to McCarran Airport LAS. The Raiders and LAS have not yet reached an agreeable solution for this problem.

- PHX- FAA discovered they did not have the authority to prevent Arizona State University from detonating fireworks during football games at Sun Devil Stadium. PHX TRACON facility was forced to shut down landing access to the south runway complex at PHX due to firework usage.
- SJC- San Francisco 49ers stadium in Santa Clara creates routine concerns for flight crews due to bright lights.

The MAAC looks forward to continued engagement with MDAD and other airport stakeholders to ensure safe airport operations and reasonable access to the airport in light of the proposed Freedom Park.

Respectfully,

A handwritten signature in black ink, appearing to read 'Sandra Cisneros', with a stylized flourish at the end.

Sandra Cisneros
Miami Airline Liaison Office

CC:
MAAC Chairperson, Kendra Kennedy
MIA MAAC
Ken Scarborough, Planning Technology, Inc.
Lenore Diamond, American Airlines

EXHIBIT B

Memorandum



Date: February 20, 2020

To: Lester Sola
Director and Chief Executive Officer

From: Robert Warren *Robert Warren*
Assistant Director

Subject: Response for BCC Resolution - Business Impacts on MIA from the new Freedom Park Development at Mel Reece Golf Course in The City of Miami

Please see the comments below related to the potential impacts to the commercial activities at Miami International Airport from the proposed development of International Links Mel Reese Country Club by the City of Miami.

Based on the limited information available on the Miami Freedom Park's website, the potential development envisions to have a Hotel and Conference Center with 750 rooms and a restaurant and retail village.

The customer base for an on-airport hotel is primarily the traveling public. These hotels serve as a transfer point in a passenger's greater travel plans for a short-term connection or a longer stay before they reach their final destination. By contrast, special event participants choose hotel properties with easy access to the city and more amenities than an airport property.

The potential conflicts would arise if the "Miami Freedom Park" proposed hotel would incorporate modern technology in meeting rooms thus competing for the meeting space business. Meeting rooms in the surrounding area are limited in modern technology. However, if the Airport moves forward with the development of two hotels within the Airport's footprint, meeting space will be built out at least in one of the hotels and modern technology can be installed. This will counteract some of the impact of a new hotel at Freedom Park and also provide a competitive advantage over a hotel at Freedom park for small meetings and conferences that need to use the airport as a convenient meeting place for business travelers planning to stay only one day in Miami for a meeting.

The food and beverage and retail impacts to the Airport are very difficult to analyze due to the limited data currently available. The Aviation Department received information from other U.S. airports with similar competitive environments (e.g. major malls within a 2 to 3 miles radius).

Tampa International Airport has two malls and multiple hotels within a three (3) mile radius such as the International Plaza which is Tampa's premier shopping mall with many sit-down and quick service dining options. Westshore Plaza is more mainstream with many sit-down and quick service dining options. The former Director of Concessions at Tampa International informed MIA that these venues and hotels had no impact on concession and airport hotel revenues.

Similarly, Chicago O'Hare International Airport has the Fashion Outlets, and numerous hotels within a two (2) mile radius of the Airport and they do not impact the airport's concession program.

The Aviation Department currently has shuttle services operating out of the Airport to Dolphin Mall and other retail destinations for long layover passengers. Therefore, given the existing data conditions, the Aviation Department does not believe that the Miami Freedom Park will have a major impact on concession revenues at Miami International Airport. The effect on post-security food and beverage and retail should be minimal, because most domestic passengers have a limited time period to shop and eat and most prefer doing these activities post security. These passengers are not typically customers of a new shopping area off Airport grounds on the day of their travel.

Once more detailed information about the project is made available such as what type of retail and food and beverage venues are built, further evaluations can be performed.

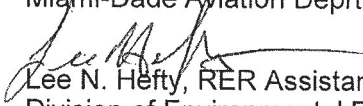
EXHIBIT C

Memorandum



Date: November 22, 2019

To: Lester Sola
Aviation Director
Miami-Dade Aviation Deptment (MDAD)

From: 
Lee N. Hefty, RER Assistant Director
Division of Environmental Resources Management

Subject: Report on Possible Impacts to Miami International Airport (MIA) by the Proposed Development on the International Links Melreese Country Club

Please see comments below in response to your request for assistance in responding to the directive issued by the BCC via Resolution No. R-967-19, specifically the analysis of the potential environmental impacts to MIA from the stormwater runoff or movement of existing hazardous materials due to the proposed development by the City of Miami at the above referenced site.

The International Links Melreese Golf Course has documented on-site solid waste, as well as soil and groundwater contamination. At this time DERM has no record of off-site contamination associated with the subject site. However, if additional site assessment activities reveal off-site contamination impacts that originate from the above referenced site, the City (as the party responsible for site rehabilitation) will be required to address and remediate those off-site impacts. Furthermore, due to the existing on-site solid waste and soil contamination, any redevelopment of the subject site will require further coordination with DERM. Any plans for proposed redevelopment will require prior DERM review and approval to ensure proper handling and/or disposal of contaminated material. This will include conditions for proper site management to ensure hazardous materials (solid waste and contaminated soils) are not allowed to impact off-site properties, including but not limited to the MIA property.

In addition, please be advised that any proposal for stormwater system improvements / expansion / redesign at the subject site (e.g., during any proposed development) will also require DERM review and approval. At that time, DERM technical staff will conduct a thorough review to ensure that any proposed stormwater system modifications comply with Miami-Dade County Code and that applicable regulations are adhered to in order to ensure that stormwater is properly managed and that discharges will not disperse the groundwater contaminant plume to off-site properties. Additionally, such stormwater improvements will require groundwater monitoring to verify that no off-site dispersion of said contaminants occur.

If you have any question, please feel free to contact Wilbur Mayorga, P.E., Chief of the Environmental Monitoring and Restoration Division via telephone ((305)372-6708) or via email (Wilbur.Mayorga@miamidade.gov).

EXHIBIT D

Date:

To: Honorable Carlos A. Gimenez
Mayor

From:  Alice N. Bravo, P.E., Director
Department of Transportation and Public Works

Subject: Resolution directing the County Mayor to provide a report on possible impacts to Miami International Airport from the proposed development of International Links Melreese Country Club by the City of Miami; directing the County Mayor to place such report before the Board within 90 days pursuant to Ordinance No. 14-65

At the September 4, 2019 Board of County Commissioners (Board) meeting, the Board approved Resolution No. R-967-19 sponsored by Vice Chairwoman Rebeca Sosa, directing the County Mayor to provide a report on the possible impacts to Miami International Airport (MIA) from the proposed development at the International Links Melreese Country Club in the City of Miami.

Since then, Miami-Dade County (Transportation and Public Works Department and Aviation Department) have completed a review of the available information provided in the report, “Miami Freedom Park and Soccer Village Traffic Study” dated June 2019. The intent of the report is to provide a preliminary impact analysis of the traffic to be generated by the proposed development on the surrounding area.

After review of the subject traffic impact study, the following summary of concerns are offered:

- The study area is very limited to the vicinity of the site.
- The traffic data used for the study showed lower traffic counts when compared to the Average Daily Traffic (ADT) between historical Florida Department of Transportation (FDOT) traffic count data and field data (traffic counts). The counts were collected in 2018 while the SR-836/Dolphin Expressway was under construction in the vicinity of the project.
- Specifically, of concern are the lower traffic counts at on-ramps and off-ramps from SR 836 on LeJeune Road and those in the vicinity of the Miami Intermodal Center (MIC) used in the analysis. This may understate the traffic impacts generated by the development and/or the infrastructure improvements needed for the development.
- 10 of the 28 intersections in the study area are approaching capacity under existing conditions and/or future conditions with the “project” including three key intersections each along NW 42nd Avenue and NW 37th Avenue.
- Traffic volumes from FDOT Traffic Online website indicates that SR-836/Dolphin Expressway in the study area is approaching capacity with Level of Service (LOS) E (*2013 Quality and Level of Service Handbook, FDOT*).
- There are 3 specific improvements that are an integral part of the study that have not been proposed or presented to the agencies with jurisdiction for concurrency, acceptance, or review:
 1. New off-ramp from NB 42nd Avenue/LeJeune Road towards the development
 2. New signalized full-access driveway on NW 14th Street between NW 42nd Avenue and the newly constructed WB SR-836/Dolphin Expressway off-ramp
 3. Pedestrian bridge from the MIC (over NW 21st Street, a private property, and Tamiami Canal C-4v) to the proposed stadium

To fully understand the impacts of the proposed Freedom Park and Soccer Village on the surrounding roadway network and specifically the airport (post SR-836/Dolphin Expressway construction activities), it is required that the development submits a traffic study that includes but is not limited to:

1. Approved methodologies from MDC DTPW, MDC Aviation Department, FDOT, MDX, Florida Water Management District, and City of Miami
2. New traffic counts
3. Analysis during the peak hours including the peak airport hours of operation
4. Regional transportation model (SERPM)
5. Comprehensive Transportation Management Plan (TMP)
6. Parking analysis
7. Pedestrian connectivity improvements
8. Analysis and improvements (if needed) to transit facilities

The detailed review and comments from MDC and comments provided by FDOT are included as Appendix A for reference.

Based on the analysis conducted, it was found that insufficient information was provided by the applicant to address the concerns of the Board of County Commissioners, as stated in the Resolution No. R-967-19 . Please note that to provide a response to the Board, a new detailed study encompassing a larger area would need to be prepared by the applicant since much of the study depends on the scope and intensity of the development they are proposing. The parameters of the development have yet to be finalized by the City of Miami. A new analysis that encompasses the appropriate study area would cost at a minimum \$750,000.

Pursuant to Ordinance 14-65, this memorandum will be placed on the next available Board meeting.

If additional information is required, please contact Alice N. Bravo, P.E., Director, DTPW, at 786-469-5406.

cc: Abigail Price-Williams, County Attorney
Geri Bonzon-Keenan, First Assistant County Attorney
Jennifer Moon , Deputy Mayor, Office of the Mayor
Alice N. Bravo, P.E., Director, Department of Transportation and Public Works
Yinka Majekodunmi, CPA Commission Auditor
Christopher Agrippa, Clerk of the Board
Eugene Love, Agenda Coordinator

APPENDIX A

To: Miami-Dade Department of Transportation and Public Works

From: T.Y.Lin International

RE: MIAMI FREEDOM PARK & SOCCER VILLAGE
Traffic Study dated June 2019

As requested, TYLI has reviewed the traffic impact study for the above referenced project. TYLI's comments are summarized below in the following categories:

1. Overall Methodology

- 1.1 A methodology meeting should be conducted with agencies affected by the proposed project to determine the project scope and study area. It appears no such meeting took place with Miami-Dade County, FDOT, SFWMD, MDX, etc.
- 1.2 Section 1.3, Methodology – The study mentioned it used “the methodology for a typical study for the City of Miami”. However, there were no specific standards mentioned.

2. Project Study Area

- 2.1 Section 2.0, Study Area – The study does not discuss how the limits of the study area were determined or how the studied intersections were identified.

3. Site Plan and Access/Egress

- 3.1 Exhibit 13, Game Day Departure – There are concerns with trip egress assumptions for traffic exiting the project driveway onto NW 37th Avenue. Traffic is shown to continue north to NW 21st Street, then to northbound and southbound NW 42nd Avenue. However, based on the existing roadway configuration, **this routing is not possible**, motorists would have to enter and exit through the MIC in order to access northbound and southbound NW 42nd Avenue. Please note that under the current roadway configuration, this maneuver is not possible. If this maneuver is proposed, impacts to the **MIC traffic should be evaluated**. Please refer to **Attachment 1-1 and 1-2**.

4. Intersection Turning Movement Counts

- 4.1 Section 2.0, Data Collection – Data was collected between September 6-15, 2018. This time period concurred with the construction and Maintenance of Traffic (MOT) of the NW 57th Avenue DDI at FL-836 that opened in January 2019. The TIS count data collected should be compared to available Florida Department of Transportation Online data for consistency purposes. Please refer to the traffic count ADT comparison table that compares the TIS 2018 count data to FDOT's 2018 and 2017 count data and notes the major discrepancies. Based on the table, it appears FDOT ADT's in 2018 yielded lower volumes than the previous year in 2017 most likely due to MOT conditions. The table also shows several locations where the TIS 2018 counts are significantly different from the FDOT counts. In summary, new count data is

needed during typically non-MOT conditions and with major area wide improvements in place at the studied locations as identified in agency methodology meetings.

ADT Comparison Table:

Ramp Locations	ADT Collected for TIS**	ADT FDOT Online 2018***	FDOT Count Dates	% of Discrepancy 2018	ADT FDOT Online 2017	% of Discrepancy 2017
SR 836 EB On Ramp (Bet. SB NW 42 nd Ave – EB SR 836)	4,509	4,600 C	July 24-25	-2%	5200 F	-13%
SR 836 WB On Ramp (Bet. NB NW 42 nd Ave – WB SR 836)	13,538	11,500 F		18%	11,500 C	18%
SR 836 WB Off Ramp (Bet. WB SR 836 – NB NW 42 nd Ave)	5,219	3,300 C*	June 20-21 Aug 1-2	58%	4,400 F*	19%
NW 21 st St EB On Ramp (Bet. SB NW 42 nd Ave – EB NW 21 st St)	2,747	1,900 C	Aug 15-16	45%	2,300 F	19%
NW 21 st St WB On Ramp (Bet. NB NW 42 nd Ave – WB NW 21 st St)	NA	15,500 C		--	15,000 F	--
SR 112 On (Bet. NB NW 42 nd Ave Under Overpass – EB SR 112)	11,505	12,500 C	Feb 27-28	-8%	12,500 F	-8%
SR 112 On (Bet. WB SR 112 – SB NW 42 nd Ave)	17,036	9,700 C	Feb 27-28	76%	13,500 F	26%
SR 836 EB On (SB NW 27 th Ave – EB SR 836)	5,843	NA		--	NA	--
SR 836 WB Off (WB SR 836 – NB NW 27 th Ave)	6,447	NA		--	NA	--
MIC & NW 42 nd Ave SR 953 NB On Ramp	3,323	3,900 C	Aug 1-2	-15%	4,100 F	-19%
MIC & NW 42 nd Ave SR 953 SB On Ramp	1,741	2,000 C	Aug 15-16	-13%	2,200 F	-21%

Segment Locations	ADT Collected for TIS**	ADT FDOT Online 2018***	% of Discrepancy 2018	ADT FDOT Online 2017	% of Discrepancy 2017
NW 17 th St Bet. NW 33 rd Ave & NW 32 nd Ave	9,596	5,900 T	63%	6,600 S	45%
NW 34 th Ave Bet. SR 836 & NW 11 th St	9,186	4,900 T	87%	5,400 S	70%
NW 14 th St Bet. NW 31 st Ave & NW 30 th Ave	9,437	5,200 T	81%	5,800 S	63%
NW 11 th St Bet. NW 32 nd Pl & NW 32 nd Ave	8,064	7,100 T	14%	8,000 S	1%

Note: * ADT was calculated based on FDOT Online data available.

** TIS count data September 6-15, 2018.

***NW 57th Avenue DDI at FL-836 opened January 2019. MOT during 2018 counts.

C = Computed

F = First Year Estimate (uses the counted the year before in most cases)

S = Second Year Estimate

T = Third Year Estimate

Green highlight shows FDOT 2017 volumes higher than FDOT 2018.

Yellow highlight shows TIS Counts are closer to the older 2017 counts.

Red highlight indicates the most significant discrepancies.

- 4.2 A map identifying the studied TMC intersections and roadway segment locations (as shown in Appendix C) as well as the peak hour data collected would be helpful in assessing the study area in the body of the report. In addition, a map identifying the ADT volume data collected should be including in the report.
- 4.3 The map identifying the count locations as shown in Appendix C includes 9 ramp locations. However, Appendix C included data for 10 locations. It appears the two (2) MIC ramps were not shown on the map and the NW 21st WB on ramp data was not included in Appendix C. In addition, several 24-hour count locations identified on the Map in Appendix C did not include the count data in the appendix or the location did not correlate to the data included.

5. Trip Generation & Distribution

- 5.1 Section 4.1, Trip Generation – A 20% reduction was applied to account for other modes of transportation for each land use. The rationale for this assumption should be explained in more detail. Different percentages may need to be considered. For example, retail use may have a different percentage of trips generated using other modes of transportation than office use may have.
- 5.2 Trip Generation – Section 5.0 mentions the project is in the County’s Urban Infill Area. Was the ITE Trip Generation Handbook criteria for Infill Areas taken into consideration when calculating the trip generation and internalization discounts?
- 5.3 Section 4.4 Trip Distribution – A clear rationale for trip distribution was not included in the report. It is suggested that the adopted regional travel demand model (SERPM 8.0) be used to evaluate traffic impacts on a weekday.
- 5.4 Based on the assumption that approximately 7,500 patrons would use transit, it is anticipated that additional transit service (supply) would be required on game days. An estimate of additional Tri-Rail and Metrorail trips or reduction in headways is not included in the report.

6. Traffic Analysis

- 6.1 Section 5.2, Growth Rate – A 0.25% growth rate was used which seems low even with a negative historical growth rate calculated. Typically, at least 0.5% is used per year for unforeseen background traffic.
- 6.2 Section 5.2, Background Traffic – In addition to the planned improvement projects that were included in this traffic study, all committed developments in the project area and the trips associated with them need to be included as background traffic volumes. For example, the proposed Palmer Lake District Hotel (3677 NW 24th Street) trip generation and distribution should be included as background traffic volumes.

7. Synchro Analysis LOS

- 7.1 Section 5.0 Intersection Capacity Analysis – A LOS analysis was done for Existing and Future Build scenarios. However, analysis of a Future No-Build scenario is a typically criteria analyzed for comparison purposes.
- 7.2 Multimodal LOS was not conducted as part of this report. This type and size development typically include pedestrian, bicycle, and transit LOS.
- 7.3 Section 5.1, LOS Standards – The City of Miami’s adopted LOS standards were not clearly described in this section.

- 7.4 Section 5.2.1, Exhibits 14-16 – The LOS tables only note overall intersection LOS and should provide additional information including turning movement LOS and seconds of delay. In addition, volume to capacity ratio's 1.0 or greater should be noted.
- 7.5 Appendix G, PHF – It appears the PHF's were calculated for the total intersection, however the PHF's should be calculated separately for each intersection approach.
- 7.6 Appendix G, LOS Analysis – At some locations, although the overall LOS shows acceptable levels, there are turning movements that currently fail or are projected fail with LOS 'F' and may need to be mitigated. For example, intersection 7 – NW 42nd Avenue/NW 14th Street during the PM peak the WBL and WBR movements fail as a result of the Future Build traffic.
- 7.7 Sections 1.3, 5.0, & Appendix G – It should be noted that the latest HCM 6th Edition intersection LOS summary reports were used and the HCM 2000 LOS was reported only when the latest edition did not support the intersection geometry.

8. Impacts to the Miami International Airport Operations

- 8.1 MIA internal streets are open to the public. Traffic from the proposed facility combined with traffic generated by the airport should be assessed for existing and future conditions. **In general, the study does not address traffic impacts to Perimeter Road for example or any other potential cut through traffic that could access the proposed stadium using NW 21st Street.** Please refer to **Attachment 2**.
- 8.2 Traffic impacts to vehicles entering and exiting MIA and terminal volumes were not used. For example, **will there be impacts to airport traffic with the additional new weaving movements for the proposed off-ramp from NB 42nd Avenue/LeJeune Road?** Will this ramp create a backup for traffic going into the airport? Will the access to the Airport from LeJeune Road become blocked?

9. Technical Soundness and Internal Consistency

- 9.1 Section 1.1, Paragraph 2, Project Phases – It mentions the project will be developed in multiple phases. Specific details regarding the time frame, intensity, etc. of each phase are not discussed. Additionally, capacity analysis may be needed for the interim phases.

10. Appropriateness of Proposed Mitigation Measures

- 10.1 Agency Coordination – The following transportation improvements that provide access to the proposed site need coordination with and approval of FDOT, MDX, County, and possible SFWMD:
 - New off-ramp from NB 42nd Avenue/LeJeune Road.
 - New signalized full-access driveway on NW 14th Street between NW 42nd Avenue and the WB SR-836 off ramp.
 - Pedestrian bridge to the proposed stadium from MIC over NW 21st Street.
- 10.2 New off-ramp from NW 42nd Avenue to Site – Does the addition of this new off-ramp to access the site meet FDOT design standards for merging traffic? The distance available to the north and south of the proposed off-ramp appears to be below standard distances. In addition, please provide details on the lane configuration of the new off-ramp. For example, is the NB 3-lane section being maintained or is an additional right lane being added for the off-ramp? A conceptual engineering drawing is needed to better understand the operational constrains. Please refer to **Attachment 2**.

- 10.3 Traffic Calming Improvements – The study lacks documentation of any public outreach related to the proposed traffic calming improvements in the Grapeland Heights Neighborhood.

11. Inter-agency Coordination

- 11.1 In an effort to provide a comprehensive review of the proposed development, MDTPW has contacted other relevant agencies such as Miami-Dade Expressway Authority, Florida Department of Transportation, the South Florida Water Management District and other internal Miami-Dade departments such as Transit to establish if the proposed development has been discussed with relevant stakeholders and if they had a chance to provide input. Based on our discussions to date, **none of the agencies noted have been approached by the applicant to review the subject TIS.** Because of the short schedule, feedback was received from FDOT (see comment #12 below), but not enough time was available for some of the other stakeholders to provide feedback.

12. FDOT Comments

- 12.1 The FDOT Traffic Operations has reviewed the traffic study and provided specific comments related to stakeholder coordination, study methodology, study area including Perimeter Road, trip generation adjustments and trip distribution questions. Technical comments related to the background growth rate, emission of a no-build analysis, parking analysis, capacity analysis summary and signal timing accuracy were also provided. Please refer to the specific FDOT Traffic Operations comments, dated February 14, 2020, detailed in **Attachment 3.**
- 12.2 The FDOT Planning and Environmental Management Office has reviewed the traffic study and provided specific comments related to public transit accessibility improvements including Metrorail vehicle needs, Metrorail incentive potential conflicts with daily commuters, Metrobus consideration, bus stop impacts, and coordination with the City of Miami Trolley. Additional information was requested for traffic calming and pedestrian improvements, parking prevention within Grapeland Heights Neighborhood (GHN), bike improvement considerations, and a comprehensive transportation management plan. Lastly, further explanation of the potential weave area at the park entrance point on LeJeune Road was requested to ensure there are no safety issues. Please refer to the specific FDOT Planning comments, dated March 10, 2020, detailed in **Attachment 4.**

Conclusions and Next Steps

After review of the subject traffic impact study, it was found that insufficient information was provided to address the concerns of the Board of County Commissioners of Miami-Dade County as stated in the resolution, dated September 4, 2019, “to analyze potential impacts to MIA from development of Melreese, including development of stadiums, hotels or commercial space at that location”. Also, the resolution states “to consider: traffic impacts, potential road closures, environmental impacts, commercial impacts, airport operations, and aviation impacts, if any, the costs to MIA to mitigate any such impacts, and Federal Aviation Administration requirements”.

The proposed next steps include providing a comprehensive traffic impact study including a methodology meeting with all agencies that have jurisdiction within the project study area. The estimated fee to conduct a comprehensive study is approximately \$750,000.

Meaghan Capuano

TYLI Review (Comment 12.1)

Subject: FW: Freedom Park and Soccer Village

From: Lu, Jinyan <Jinyan.Lu@dot.state.fl.us>

Sent: February 14, 2020 4:06 PM

To: Juan Nunez <juan.nunez@tylin.com>

Cc: Meitin, Omar <Omar.Meitin@dot.state.fl.us>; Iglesias, Daniel <Daniel.Iglesias@dot.state.fl.us>; Huynh, Dat <Dat.Huynh@dot.state.fl.us>; Jeffries, Ken <Ken.Jeffries@dot.state.fl.us>; Cartaya, Nilia <Nilia.Cartaya@dot.state.fl.us>; Freeman, Raymond <Raymond.Freeman@dot.state.fl.us>; Phani Allu <pallu@ctseinc.com>; Sheng Yang <Syang@ctseinc.com>

Subject: RE: Freedom Park and Soccer Village

Good Afternoon Juan,

Based on a review of the traffic study, please find below the comments from the Department Traffic Operations Office.

1. Given the size and location of the development, please clarify if there has been any coordination with other stakeholders such as MDX, Miami-Dade County, and the City of Miami. Also, please clarify if there has been any coordination with other offices, specifically the planning office and the modal office within the Department (FDOT). If so, please share any approved methodology. It is understood that the need for a transportation management plan (TMP) with these agencies for game days was identified within the report.
2. Page 1, the Study Objective indicates that the traffic impact analysis follows methodology for a typical study for the City of Miami. Considering the size of the proposed development, please clarify if there was an approved methodology to identify area of influence, analysis elements (intersections, segments, weave, merge, diverge, etc.), analysis software, measures of effectiveness (LOS, queues, etc.), and other assumptions (such as rideshare percentages, transit trips, etc.).
3. Pages 20/22, it was indicated that the US Census Bureau shows that 17.6% of the public within the area use other modes of transportation. However, 20% adjustment was used in the trip generation shown in Exhibit 6. This may lend to a non-conservative approach for assessing traffic impacts. Please verify/clarify. Also, please contact FDOT Modal Office and Miami Dade Transit to confirm such assumption from Census Bureau is reasonable.
4. Pages 22/23/25/26, based on the trip generation, it is estimated that the development will generate 640 trips during the AM peak hour, 1,550 trips during PM peak hour on a typical weekday. On a game day, it is estimated that the development will generate 3,125 before kickoff and 3,740 after the match concludes. Section 4.4 on page 26 indicates that cardinal distribution was used for the trip distribution. Given the size and location of the development that would draw trips from a relatively large area in comparison to a smaller development, it may be prudent to distribute traffic using the regional transportation model (SERPM) runs.
5. Page 32, a nominal annual growth rate of 0.25% was utilized for estimating background traffic growth for opening year 2025. Considering the affected area, a trends analysis using historical data and SERPM model data, especially for the surrounding major roadways should be undertaken to identify an appropriate annual growth rate. In addition, the analysis appears to compare the existing conditions and the built-out (opening year) conditions. For the subject development, a no-build (background + committed developments) vs build comparison for opening and future years (such as a determined design year, 2045) should be considered and identify improvements necessary to mitigate any impacts. Please consider including future year into the analysis.
6. Pages 31/33, Based on the analysis, the unsignalized intersection of NW 37th Avenue and NW 16th Street experiences delay in the westbound approach during the PM peak hour. It is mentioned that this may be due to the software tending to overestimate delay measurements for minor approaches at unsignalized intersections. Please elaborate ... was the delay compared to a field-observed/collected delay; and if attributes within software could be adjusted to estimate a reasonable delay reflecting field conditions.

7. Exhibits 14, 15, and 16 (pages 37 – 41), in the LOS summary tables, please summarize the LOS/Delay results by the movement, approach in addition to the overall intersection. Also, please summarize the 95th percentile queues (and identify any anticipated spillbacks from turn lanes). For stop-controlled intersection, please provide delay and level of service of the left-turn movements on major roads, and all applicable movements for side streets. It is suggested to compare results for the turning movements that the development has impact. Also, please elaborate on how the intersections for police control were identified.
8. Page 42, it appears SR 836 ramps in the vicinity of the development were included in the analysis. Please consider analysis of SR 836 mainline, ramp merge, diverge, and weaving sections. Along, SR 836, the analysis area included NW 27 Avenue interchange to the east, and LeJeune Road to the west. It may be prudent to extend the analysis area further west to include NW 57 Avenue interchange given that the subject development could be accessed from NW 57 Avenue interchange via NW 12 Street/Perimeter Road.
9. Page 50, for parking analysis, data from Atlanta United Games was referenced. The ridesharing use in Atlanta United games was approximately 10%. Since an annual increase was suggested in coming up with a 15% rideshare factor for the subject development, please verify the referenced time period/year for the Atlanta United Games.
10. Page 50, for parking for hotel use, data from a hotel on LeJeune Road was collected and identified that 58% of the hotel patrons used hotel shuttle, ridesharing, or other modes of transportation (and did not have to park). However, it was estimated that 80% of the hotel patrons from the development will not to park on-site. This may lend to a non-conservative approach for assessing parking needs. Please verify/clarify.
11. In Synchro analysis, please verify the signal timing input. For some of the intersections, the signal timings used in Synchro analysis were not consistent with the timings in the time-of-day (TOD) schedule report. For example, for the intersection of NW 42 Avenue & NW 14 Street, existing weekday PM analysis: The WBT green time (60 seconds) included in the Synchro report is not consistent with the WBT green time (54 seconds) included in the TOD schedule report. Also, the clearance intervals (yellow and red) used in the Synchro analysis were not consistent with the signal timing plans. For example, for the intersection of NW 42 Avenue & NW 36 Street, Existing Weekday AM: the red clearance time used for NBLT, SBLT< and EBT in Synchro were 4 seconds, 4 seconds, and 3 seconds, respectively. The signal timing plan indicates 3 seconds, 3 seconds, and 4 seconds, respectively.. Please review and revise the analysis accordingly.
12. Page 51, in conclusions, it was indicated that all signalized intersections are currently and projected to meet the City's LOS standards. Please include LOS standards for the City of Miami within the report.

Please let us know if you have any questions.

Thanks,
Jinyan (JY) Lu, PE, PTOE
Traffic Services Engineer II
FDOT District 6 Traffic Operations
305.470.5156
Jinyan.Lu@dot.state.fl.us

Meaghan Capuano

Subject: FW: Freedom Park and Soccer Village

From: Lu, Jinyan <Jinyan.Lu@dot.state.fl.us>

Sent: March 10, 2020 3:43 PM

To: Juan Nunez <juan.nunez@tylin.com>

Cc: Jeffries, Ken <Ken.Jeffries@dot.state.fl.us>; Iglesias, Daniel <Daniel.Iglesias@dot.state.fl.us>; Huynh, Dat <Dat.Huynh@dot.state.fl.us>; Meitin, Omar <Omar.Meitin@dot.state.fl.us>; Cartaya, Nilia <Nilia.Cartaya@dot.state.fl.us>; Freeman, Raymond <Raymond.Freeman@dot.state.fl.us>

Subject: FW: Freedom Park and Soccer Village

Good Afternoon Juan,

Per our conversation over the phone, please find below the review comments from the Department Planning Office. If you have any questions or feedback, please contact our Planning Manager Ken Jeffries.

Thank you,

Jinyan (JY) Lu, PE, PTOE

Traffic Services Engineer II

FDOT District 6 Traffic Operations

305.470.5156

Jinyan.Lu@dot.state.fl.us

From: Jeffries, Ken <Ken.Jeffries@dot.state.fl.us>

Sent: Tuesday, March 10, 2020 9:38 AM

To: Lu, Jinyan <Jinyan.Lu@dot.state.fl.us>; Huynh, Dat <Dat.Huynh@dot.state.fl.us>; Cartaya, Nilia <Nilia.Cartaya@dot.state.fl.us>; Freeman, Raymond <Raymond.Freeman@dot.state.fl.us>

Cc: Iglesias, Daniel <Daniel.Iglesias@dot.state.fl.us>; Meitin, Omar <Omar.Meitin@dot.state.fl.us>; Allu, Phani <pallu@ctseinc.com>; Sheng Yang <Syang@ctseinc.com>

Subject: RE: Freedom Park and Soccer Village

Hi Jinyan – These are the review comments from planning.

- 1) Public transit/transit accessibility improvements
 - a. Page vi/13, Please document/quantify in the report and the comprehensive transportation management plan (TMP) on:
 - i. How many Metrorail vehicles need to be provided to enhance transit service on game days?
 - ii. What is the best headways for Metrorail vehicles on game days?
 - b. Page vi/13, It was indicated that incentives will be provided to patrons to use the Metrorail. The weekday game day arrival period is 6:30 pm - 7:30 pm, which will influence the normal user of Metrorail (daily commuter). Please analyze how the game day will impact normal transit users pattern and how to solve the potential conflict between existing daily commuter and patrons to the game
 - c. Metrobus
 - i. Page vi/14, It is indicated that the Freedom Park is served by 9 Miami-Dade transit bus routes. Please consider improving Metrobus service to better serve the project.
 - ii. Page 48, Please confirm the 5 bus stops along NW 37th Ave between 14th St and NW 19th St will not be impacted by the prohibiting of vehicular game day traffic from using NW 37th Ave between NW 14th St and NW 19th St.
 - d. Trolley

- i. Page vi/14, Please coordinate with City of Miami Trolley and provide a trolley circulation plan map.
- 2) Traffic calming/pedestrian improvements
 - a. Page vi/47, Please provide enhanced crosswalks for the new access at NW 14th St.
 - b. Page 47, It is indicated that the traffic issues in the Grapeland Heights Neighborhood (GHN) are not due to Miami Freedom Park; however, Miami Freedom Park will worsen the existing conditions. Please consider the additional traffic that Miami Freedom Park will generate and adjust the
- 3) Parking recommendations accordingly.
 - a. Page 48, Regarding the topic of how to prevent vehicle from parking within Grapeland Heights Neighborhood (GHN) - consider residential parking permits.
 - b. Consider providing separate parking lots for employee and visitors.
 - c. Consider providing separate parking lots for hotel and office use.
- 4) Bike improvements
 - a. Consider providing bicycle racks near the stadium.
 - b. Consider providing incentives to patrons to use bike sharing services to/from the project site.
- 5) Please provide the comprehensive transportation management plan to the City/FDOT for review.
- 6) In reviewing Chapter 3, Exhibits 4 and 5, there appears to be a possible weaving section at the park entrance point from LeJeune Rd, mainly conflicting with the northbound movement coming from NW 14th street. However, it is difficult to conclude the extent and severity of the weave from the graphics provided. Please further explain the weave area and/or provide more detailed graphics in order to ensure there are no safety issues per the current design.

Kenneth Jeffries
District Six Transportation Planning Manager
Planning and Environmental Management Office
Florida Department of Transportation, District 6
Adam Leigh Cann Building
1000 NW 111th Avenue, Room 6111
Miami, Florida 33172

Phone: (305) 470-5445, Fax: (305) 470-5205
E-mail: Ken.Jeffries@dot.state.fl.us