SOUTH AIRPORT APM AND INTERMODAL TERMINAL COMPLEX – TERMINAL BUILDING:

The South Airport APM and Intermodal Terminal Facility (referred to as the “Terminal”), consists of a four story building with Mezzanine of approximately 200,000 square feet (conditioned space). This terminal facility is planned for operation accommodating two rail modes of transportation initially, the APM and Intercity Rail (All Aboard Florida) as well as Ground Transportation consisting of public busing, shuttle busses, taxis, and limousines. The Ground Transportation element for busing and shuttles at the SA APM/ITF is intended to accommodate similar current NTC operations serving as a capacity reliever to that facility. Additionally the SA APM/ITF is planned for two future modes of rail transportation, Light Rail and Commuter Rail. The Terminal structure is anticipated as a combination of concrete columns on pilings and steel beams, girders and long span trusses.

Exterior Terminal Envelope

Concept Design of Curtain Wall Systems: Two different curtain wall systems are envisioned for the APM/ITF Terminal. These are intended to be used on different areas of the building in order to distinguish one area of the building relative to the other. One system is envisioned to be smooth and planar, while the other will be more textural.

The smooth system will be a frameless curtain wall system. The materials in this system will be glass and white metal panels. The frameless system does not have any curtain wall framing members expressed on the exterior of the building. The cladding elements should be in the same plane, therefore no shadow lines are created and the joints between the glazing and metal panels should be very minimal. This system will be used on the east/west spine of the Terminal which connects the Ground Transportation hammerhead entry element to the future Hotel. This system will also be used as the exterior skin on the hammerhead element.

In contrast to the frameless system, the remaining exterior curtain walls of the Terminal will be clad with a system that incorporates off-white precast concrete column and spandrel panels with horizontal accent elements. These panels should create a frame inside of which there will be metal and glass infill cladding. Framing elements of this system should be visible on the exterior. The elements of this system should be in different planes creating shadow lines and much more texture than the system along the east/west spine. Certain areas of the building which are back-of-house or mechanical/electrical rooms will be precast panels without glass/metal panel infill.

There are additional back-of-house areas located on Level 1, under the Intercity rail platform that are a combination of utility and service rooms. These areas are intended to have exposed masonry block with painted finish.

Roofing

There are three types of roofing structures at the Terminal: “Flat” roofs sloped to internal roof drains; Rail Platform Canopies; and Curbside Canopies. The first is a standard Modified Bitumen Roofing System that meets GOAA technical standards on insulated lightweight concrete on metal deck.
The second, the platform canopy above the Intercity rail has a concept of a system of nested barrels that each step up 8 feet in height relative to each other. These barrels shaped canopies cover the entire 150 feet width of the platform and are supported by exposed roof structure. The roof structure is supported on each side outboard of the outermost rails and in the center between the two center rails. Each of these spans is approximately 75 feet. There are no columns on the platforms. The ends of the barrel forms are supported by angled structural elements that span approximately 100 feet. The vertical offset between the barrels is accommodated within these angled girders.

Skylights approximately 25 feet wide are centered above each of the passenger platforms. These will bring natural light onto the platforms and emphasize the paths of the passenger movement to and from the vertical cores which serve the platform. The edges, or fascia of the barrel forms will have a louver treatment to keep blowing rain off of the platform. These louvered sections will step vertically along with the barrels and will be made of laminated glass vertical and horizontal elements. These louvered sections should have very minimal, if any non-glass elements. The entire platform is open and airy, contributing to the next generation of The Orlando Experience™.

The third system is the canopy system at the Level 1 Curbside for Ground Transportation. This will be similar to that described for the Garage canopies as PTFE (Teflon) coated glass cloth fabric covered membrane canopy architectural tensile structures, similar to that found at the NTC Enplane Drive.

**Interior Finishes**

The interior finish scheme is still under development at time of this writing. The design concept will follow the same high quality standard established at the North Terminal Complex as indicative of The Orlando Experience™. General planning guidelines will follow and will comply with all applicable GOAA standards:

- Natural stone tile and/or terrazzo floors in transition (circulation) areas
- Carpet in waiting and standing areas
- High Impact wall finishes in high traffic areas
- All Offices to have painted drywall unless otherwise stated in the guidelines
- All columns exposed to passages shall be ceramic coated steel column covers
- Ceilings with painted drywall soffits and acoustical panels
- Ceilings with LED lights fixtures, sprinklers, speakers and fire strobes (accessible and secure)
- General design concept for application of mechanical devices to ceilings is to incorporate this into the architecture utilizing slot diffusers in soffits, conceal within coves where possible, organized patterns where exposed and well thought out placement of equipment access panels coordinated with the ceiling design
- Wayfinding, Directional and Informational Signage are viewed as critical elements in any Terminal and must not only convey the required information but must work harmoniously within the design of the spaces of the Terminal

A general description for the Heating, Ventilation and Air Conditioning (HVAC) system is a chilled water supply and return with a separate Central Building Chilled Water Plant (Central Plant). The Central Plant design concept plans accommodate the Terminal requirements, with the flexibility for expansion to support a 1 million square feet facility of office, retail, entertainment, food and beverage (referred as ATOD in next section). Chilled water to the Terminal will be distributed throughout the building via a piping network to air handlers. The Level 1 service area under the Intercity Rail platform is planned for location of the required large air handling units as well as other mechanical and electrical equipment.

The Terminal shall be a fully Fire Protected (sprinklered) building.

Electrical power shall include both normal AC power as well as emergency power supplied by diesel generators.

Communication and data requirements shall be coordinated with GOAA Information Technology (IT).

**Accommodations for Future Development**

The concept planning for this facility anticipates future Aviation Transit Oriented Development (ATOD) to occur above and adjacent to certain Terminal components that will be constructed in the initial phases. As such, there will be specific locations where structural components will need to be sized for the future loading and expansion. The concept drawings provide the extent of this future development.

**LEED**

GOAA has established a goal for this project and the South Airport APM and Intermodal Terminal Complex to achieve LEED v4 certification. The Garage will also be utilized to achieve site credits.

**GENERAL DESCRIPTION OF SOUTH AIRPORT APM and INTERMODAL TERMINAL FLOOR PLANS:**

Level 1 (Ground)
- Central Plant
- Ground Transportation
  - Curbside
  - Lobby
  - Support Offices
- Future Baggage Makeup Area
  - Baggage System Right-Of-Way
- Intercity Rail Service Area
- Primary Facility Electrical Room
- Primary Facility Mechanical Room
- Service Area(s)
- Loading Dock
- Receiving Area – Commissary
- Future Hotel Service Area
Level 2 (Interstitial)
- Interstitial Level Lobby (Future Commuter Rail Lobby & Holdroom)

Level 3 (Rail Platforms)
- Rail Lobby
- Future Light Rail Platform
- Future Commuter Rail Platform
- Intercity Rail Platform(s)
- APM Platform
- Concessions
- Connector to Garage Level 3

Level 4 (Transfer Level)
- Intercity Rail Lobby
- Transfer Level Lobby
- Concessions
- Rail Ticket Control
- Back Of House Offices
- Baggage Handling Check-In
- Restrooms
- Intercity Rail Holdroom
- Self-Service Ticketing
- Connector Lobby to Garage Level 5

Level 5 (Mechanical Mezzanine)
- Mechanical Room

At completion of this contract the site will be at Phase 2 of a planned six phase expansion program as noted in the visuals below.