

Global Logistics At Cecil Commerce Center

5.0 SERVICE PLAN:

- 5.1 **UTILITIES:** The Cecil Field conceptual master water and sewer plans are based on existing water and sewer utility information as received from JEA on September 19, 2007. This information included aerial maps showing existing water, sewer, and force main lines at and adjacent to the Cecil Field South property.

Water will be provided to the site by future and existing water lines within the site property that will connect at multiple locations into an existing 24" water main along 103rd Street. It is our opinion that this 24" water main will have sufficient capacity to meet Cecil Field's needs well into the future. Further evaluation should be done during final master planning and once final site plans are complete. The future water lines within Cecil Field will be sized to serve all future development based on site layouts and building square footages as provided to Prosser Hallock. The Prosser Hallock "Conceptual Master Water Service Plan", as shown in **Exhibit 5.1.1**, delineates the conceptual master water service layout for the site to date.

The site will be served by proposed and existing sewer lines to each building or facility that will gravity flow to approximately twenty seven (27) lift stations spread throughout the site. These lift stations will then pump the flow to an existing 20" force main located along 103rd Street. It is our opinion that this existing 20" force main will have sufficient capacity to meet Cecil Field's needs well into the future. Further evaluation should be done during final master planning and once final site plans are complete. The future sewer lines and force mains are sized to serve all future development based on site layouts and building square footages as provided to Prosser Hallock. The Prosser Hallock "Conceptual Master Sanitary Sewer Plan", as shown in **Exhibit 5.1.2**, delineates the conceptual master sewer and force main layout for the site to date.

In the effort to attain information from Jacksonville Electric Authority (JEA) concerning the present and future availability of electrical power for the Cecil Field Commerce Center planned development, Eng Engineering Inc. contacted JEA Engineering and JEA Records Department. JEA currently has 2 overhead and 1 underground 26kV services entering the Cecil Field Commerce Center property. A review of JEA switch maps shows that these services are fed from different locations and different substations. These 3 service feeders have sufficient capacity to serve the build-out of the northwest corner of the

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Commerce Center. Attached is a drawing showing the current electrical primary power distribution at Cecil Commerce Center, see **Exhibit 5.1.3**.

JEA has purchased land for 2 future substations. These substations will be built as the demand load in the area increases to justify the construction cost. The timeline for construction of substations from start to finish is approximately 3 years. According to JEA, they have plans to have enough capacity available for any and all future usage plans for Cecil Commerce Center.

A high pressure natural gas line currently serves the Cecil Commerce Center. The main enters along Aviation Avenue and distributed from that point. There are no gas line feeds serving the remainder of the Cecil Commerce Center properties. A high pressure transmission line runs east and west along Normandy Boulevard. This gas transmission line is owned by Florida Gas Transmission Company, a division of Pan Handle Energy/El Paso. TECO gas taps off this transmission line and serves Cecil Field. A map from TECO is attached showing gas lines serving the site, see **Exhibit 5.1.4**. TECO has the capacity to serve the entire Cecil Commerce Center.

- 5.2 STORMWATER MANAGEMENT & DRAINAGE:** Prosser Hallock's understanding of the Cecil Field Stormwater/Environmental permitting status is based on a meeting with the St. Johns River Water Management District (SJRWMD) staff on April 26, 2007, a brief review of limited permit modification documents, discussions with Kim Allerton of ERS and our general knowledge based on previous projects.

Stormwater runoff and discharge at Cecil Field falls under the jurisdiction of the City of Jacksonville and the St. Johns River Water Management District. Development on Cecil Field will require permitting with these two agencies at a minimum.

A portion of Cecil Field is currently under an existing SJRWMD conceptual permit - permit No. 4-031-70452. This conceptual permit establishes some stormwater, wetland and wildlife parameters for future development at Cecil Field. The conceptual permit establishes a drainage area served by Lake Fretwell. This drainage area is roughly bounded on the north by 103rd Street/Normandy, and on the south by Crossover Street and on the east by Aviation Avenue. This conceptual permit calls for expansion of Lake Fretwell as

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the area it will ultimately serve is developed. Much of the Fretwell drainage area can be developed to a higher degree of impervious area as long as Lake Fretwell is expanded accordingly.

However, some areas within the Lake Fretwell drainage area are not contemplated for development under the conceptual permit. For example, the conceptual permit considers the golf course to remain a golf course with no impervious area. Additional stormwater management facilities would be required for development of these portions to account for the added impervious area.

We understand that a request for modification to this permit is currently being considered by the SJRWMD. The modification includes adding Cecil Field lands north of Normandy Boulevard to the Lake Fretwell service (drainage) area. It is our opinion that this would reduce the capacity of Lake Fretwell to serve the current drainage area which is entirely south of Normandy Boulevard. This modification would result in the need for additional stormwater treatment facilities to be constructed in the current Lake Fretwell drainage area.

Areas outside of the Lake Fretwell drainage area are not currently served by a stormwater management facility. Development in these areas will require construction of stormwater management facilities such as a wet detention pond or a dry retention pond. We anticipate that the soils and geotechnical conditions at Cecil Field will favor the use of wet detention ponds, and would not support the creation of efficient dry pond facilities. This assumption will need to be evaluated on a case by case basis. During master planning, we have assumed the stormwater treatment facilities will cover a minimum of 18% of the developable land area it will serve. Thus, each "drainage basin" will be served by a stormwater facility that is a minimum of 18% of that drainage basin's developable area. This approach is supported by experience on similar master planned projects. The Prosser Hallock "Conceptual Master Drainage Plan", as shown in **Exhibit 5.2**, outlines these drainage basins, wet detention ponds, and overall master drainage of the site.

Final environmental resource permitting, or ERP, with the SJRWMD would be required prior to construction of any proposed development. Similar permitting with the City of Jacksonville would also be required through the City's development review process. In general, stormwater facilities that meet SJRWMD regulations typically meet City of Jacksonville requirements.

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Other agencies may also have jurisdiction related to stormwater issues. Mostly this would involve construction activities by the contractor when constructing improvements. This may include Florida Department of Environmental Protection (FDEP) discharge permitting, National Pollution Discharge Elimination System (NPDES) and Consumptive Use Permit to use surface or groundwater for irrigation.

- 5.3 TOPOGRAPHY:** Information on the topography of the site was received on October 24, 2007 from CDM. The data received included three DVDs containing LIDAR contours. These contours can be used to get an overall feel for the topography of the site, but more accurate information on the topography of the site will best be evaluated from a topographic survey. On examination of the contour data, the site typically starts at higher elevations at the northern portion of the site, then slopes down as the west side of the site drains into the Lake Fretwell system which outfalls to adjacent Rowell Creek, and the east side of the site drains southeast into Taylor Creek. Minimum fill elevations have been determined according to future wet detention pond design as shown on Prosser Hallock's "Conceptual Master Drainage Plan", **Exhibit 5.2**. These are conceptual elevations based on the locations of the ponds as shown on the plan, and are the absolute minimum grade that drainage area will be at, or the existing elevation will be the minimum grade, whichever is higher. Minimum fill elevations and amount of fill will vary considerably across the site.

Prosser Hallock has generated Contour Map exhibits for the site to provide a general feel of the existing contour elevations of the site in relation to the proposed building layouts and the existing wetlands. These maps are provided as **Exhibits 5.3 through 5.3.11** and cover the entire area under consideration in the scope of this report. These exhibits along with the conceptual minimum site grade per Exhibit 5.2 should provide a basis for a preliminary understanding of fill requirements for each development area. For accurate fill quantities a detailed topographic study will need to be performed for each proposed building site and factored into the final design.

- 5.4 WETLANDS:** The SJRWMD conceptual permit also covers some aspects of wetland and wildlife permitting required by the SJRWMD. The Army Corps of Engineers (ACOE) also has wetland and wildlife jurisdiction and their permitting typically coincides with SJRWMD permitting. The conceptual permit identifies

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conservation/preservation corridors in exchange for a limited amount of wetland impact mitigation. It is our understanding that wetland lines at Cecil Field have only been estimated at this time and that finalizing the exact location of wetland lines needs to be accomplished as part of the final permitting. A conceptual wetland impact plan, by Ware Malcomb, is provided as **Exhibit 5.4**. Based on the findings of this plan, 699.27 acres of wetlands would be preserved, 47.58 acres would be newly created and 339.42 acres would be impacted. Establishing the exact locations of wetland lines with the SJRWMD and ACOE would also greatly assist with final master planning and site layout. The environmental consultant, Environmental Resource Solutions, has a great deal of experience at Cecil Field related to wetland and environmental issues. We recommend that they be consulted for better understanding of these issues.

- 5.5 CIRCULATION, ROADWAY NETWORK, AND ACCESS:** Excellent highway access is available for the Cecil Commerce Center. The three main roads, New World Avenue, Normandy Boulevard and 103rd Street, connect to the First Coast Expressway, a freeway facility that will form an outer beltway around the southeast Jacksonville metropolitan area serving Duval, Clay and St Johns Counties and crossing the St Johns River at a new crossing point ultimately connecting to I-95 in St Johns County. I-10 is immediately north of the Commerce Center and is connected to the First Coast Expressway with a freeway system interchange. Downtown Jacksonville is east on I-10 and other southeastern U.S. coastal destinations are accessible via the I-295 West Beltway and I-95. Major Jacksonville and northeast Florida intermodal facilities are also accessible via I-295 like the JaxPort Talleyrand, Blount Island, and Dames Point seaport facilities, and the Jacksonville International Airport. Other southeastern U.S. locations are accessible west on I-10 and via I-75.

The Cecil Commerce Center roadway network builds on the existing grid runway layout which is oriented to cardinal compass directions, and has dominated the Cecil Commerce Center site layout throughout its existence. Buildings, parcels, and access roads are generally laced together in a grid pattern that provides excellent access to the aviation areas. The grid layout is simple to understand, yet provides a high degree of flexibility and efficiency.

The Cecil Commerce Center grid road network depends on three north-south spine roads described generally below, and illustrated on the Conceptual Roadway Plan, **Exhibit 5.5**.

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- Road A (FKA Residence Ave) – This new roadway will provide site access at Normandy Boulevard, and will serve the western warehousing parcels. In addition, this route will skirt the western end of the runway grid to serve aviation parcels south of the runways.
- New World Avenue – This roadway provides site access at 103rd Street and Normandy Boulevard, and continues northward through the Cecil Commerce Center north portion to an interchange with I-10. It serves the central core of the western half of the site extending south to Lake Fretwell Street the primary cross road serving aviation parcels.
- Road D (FKA 10th Street) - This new roadway will provide access at 103rd Street, and will serve the eastern aviation and warehouse parcels, as well as the proposed commercial town center which borders the site on BCX. This road continues south to link into Cecil Commerce Connector Rd. providing an important secondary southern access between the Cecil Commerce Center and First Coast Expressway as it enters Clay County.

The grid is completed by other parallel and cross roads as illustrated, a few of which provide important access functions.

- Aviation Avenue – This roadway provides site access at 103rd Street and serves the western aviation parcels. It extends south to Lake Fretwell Street and provides access to the aviation terminal and tower.
- Proposed Avenue – This roadway provides site access at 103rd Street and serves aviation parcels between the north-south runways. It also extends across 103rd Street to serve development area, and provide an interconnection to Normandy Blvd.
- 103rd Street Service Road – This secondary cross road is important because it provides access to numerous development parcels with aviation access, while preserving the access management criteria on 103rd Street.

Roadways are envisioned as open industrial roads configured as two-lane or three-lane typical sections or as four-lane divided typical sections. Conceptual roadway sections are defined in **Exhibit 5.5.1** for each of these roadway types in the Service Plan. All road typical sections are consistent with City of Jacksonville construction standards, and will include bike lanes and sidewalks. The proposed typical sections are generally described below.

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- Two-Lane Secondary Road – This road type is the local access road for parcels. It will service relatively low traffic volumes, but it provides ample space for turning trucks.
- Three-Lane Secondary / Collector Road – This road type is also primarily a local access road, but it can serve higher traffic volumes because the center turn lane provides storage for turning vehicles at driveways and cross roads. This configuration is appropriate within the low speed areas where turning trucks and service vehicles need maximum space without the restriction of median islands.
- Four-Lane Divided Collector Road – This road type is intended primarily for traffic movement. The median will provide space for turn lanes at cross streets and other major access points. Generally these roads will have a posted speed of 35 or 45 MPH.
- Four-Lane Divided Collector Road with Retention in Median – This is a special four-lane typical section which provides the same traffic function described above, but also includes space in the median for stormwater retention.

Conceptual cost estimates for each of the roadway types are provided on a lineal foot basis in the accompanying table, **Exhibit 5.5.2**. These lineal foot cost estimates are reflective of current construction cost values in the Jacksonville area, and should be satisfactory for general budget planning purposes. Based on the Conceptual Roadway Plan layout, the total lineal centerline distance of each type of road is indicated resulting in a total cost estimate for each road type and therefore a total budget estimate for road construction. Recently constructed existing roads that meet the approximate typical section standards defined above do not need reconstruction and therefore are not included in the total amounts.