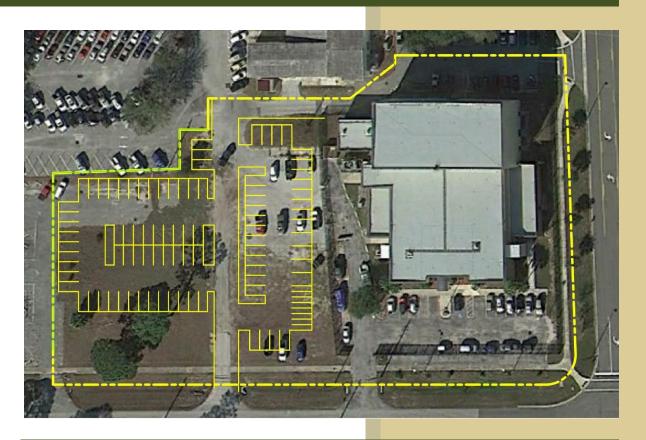


Florida Army National Guard-Jacksonville, Cecil Commerce Center

Project No. FS1004-Cecil1822PK

BUILDING 1822 READINESS CENTER



Parking Study/Conceptual Designs





dbs Architects PLLC May 30, 2014

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1.0 INTRODUCTION

1.1 Introduction	The Florida Department of Military Affairs (DMA) Construction & Facility Management Office (CFMO) retained the services of <i>dbs Architects PLLC</i> on February 25, 2014, for the purpose of preparing a parking study containing conceptual site plans and analysis for the unimproved property adjacent to the existing Readiness Center (Bldg. 1822) at Cecil Commerce Center.
1.2 Background	"The Florida Army National Guard operates and maintains a Readiness Center within the Cecil Commerce Center. The Readiness Center is located at 13433 Crossover Street, Building 1822, Jacksonville, Florida 32221. The overall property associated with the Building 1822 Readiness Center comprises approximately 2.75 acres, with approximately 1.2 acres on the west side of the property currently undeveloped. The eastern extent of the 1.2 acre study area is defined by the existing six foot (6') tall AT/FP fence that surrounds the FLARNG's Building 1822 Readiness Center." (Taken from original RFP.)
1.3 Objective	"The objective of this project is to utilize an architectural firm to prepare conceptual plans for the development of a paved, privately owned vehicle (POV) parking lot, on the aforementioned 1.2 acre area, for the soldiers that work and train at the Building 1822 Readiness Center." (Taken from original RFP.)

2.0 SCOPE OF WORK

The scope of work associated with this parking study was established in the RFP with the task to provide detailed information that would address the parking requirements for this specific location. The enumerated topics in this section represent the subjects listed in the RFP requiring additional detail.

2.1 COJ Parking Lot Development Requirements

The location of the proposed (POV) parking lot is adjacent to the existing Building 1822 Readiness Center in the Cecil Commerce Center. As such the property resides within the jurisdiction of the City of Jacksonville (COJ), Florida, and is subject to the regulations and requirements contained in the Zoning Code, *Chapter 656, Part 6 for Off-Street Parking and Loading Regulations for Motor Vehicles.* The following represents portions of the COJ Zoning Code for off-street parking that correspond to this project:

Sec. 656.607. Design standards for off-street parking and loading facilities.

(c) Size: Each off-street parking space shall be not less than nine feet by 18 feet; provided, that not more than 30 percent of the spaces may be reduced to eight feet by 16 feet and specifically designated by striping for compactsize automobiles.

NOTE: It was decided that all vehicular parking spaces will be 9 feet by 18 feet and will not use a reduced parking space size.

(d) Parking Reductions:

(4) Motorcycle parking space. Up to 5 percent of the required parking may be provided as motorcycle parking space with dimension of five feet by ten feet per space.

NOTE: Motorcycle parking spaces will be provided.

(g) *Lighting:* If the facilities are lighted, lighting shall be designed and installed so as to prevent glare or excessive light on adjacent property.

NOTE: The COJ gives the option for parking lot lighting. However, the Cecil Commerce Center (CCC) Design Guidelines make parking lot lighting mandatory (see 2.2 this section).

(k) **Design Requirements:** Minimum required design standards for alternative parking layouts are shown in the table below.

Parking Angle	Aisle Width	Traffic Direction
30	12'	One-Way
45	13'	One-Way
75	24'	Two-Way
60	16'	One-Way
60	24'	Two-Way
90	24'	Two-Way

The aisle may be reduced to 20 feet for two-way traffic and ten feet for one-way traffic where no parking occurs or where necessary to provide sufficient landscape area around a preserved tree.

Where parking spaces are adjacent to private sidewalks, such sidewalks shall be a minimum of six feet on width in order to accommodate vehicle overhang. Alternatively, a minimum four feet landscape strip may be provided adjacent to the curb. In such case the sidewalk may be reduced to four feet.

NOTE: It was decided to go with 90 degree parking and 24' wide aisles. The main entry drive aisle that runs north/south from the street entrance will be 24' wide.

2.2 CCC Parking Lot Development Requirements

Not only does this property reside within the City of Jacksonville, but because of its location within the Cecil Commerce Center is subject to "Appendix C" of the Cecil

Commerce Center Business Plan, comprising the Cecil Commerce Center (CCC) Design Guidelines. Parking lots are covered under section "2.3 Site Design" of the CCC Design Guidelines. The following represents areas of the CCC Design Guidelines that correspond to this study.

2.3.2. Parking Lots

Guideline: Parking areas should provide safe, convenient, and efficient access. They should be distributed around large buildings in order to shorten the distance to other buildings and public sidewalks and to reduce the overall scale of the paved surface. The frontage of development parcels along primary streets needs to present an enhanced visual streetscape, which includes a minimum of off-street parking spaces between the roadway and the building(s) façade. If buildings are located closer to streets, the scale of the complex is reduced, pedestrian traffic is encouraged, and architectural details take on added importance.

2.3.2.2. Parking Lot Design

The layout of the parking lot shall conform to the design standards of the City of Jacksonville (see item 2.1).

2.3.2.3 Parking Lot Lighting

Parking Lot lights shall be single or double fixtures; poles mounted, and have cutoff luminaries.

NOTE: This is the regulation that makes site lighting a requirement.

2.3	Permitting	A detailed description of commercial permitting requirements can be found on the <i>"Official Website of the City of</i> <i>Jacksonville, FL"; Building Inspection Division;</i> <i>Guidelines-Commercial Permits.</i>		
		COJ.net/Departments/Planning and Development/Building Inspection Division/Commercial Permits		
		Where are construction documents submitted? FINAL PLAN REVIEW PROCESS (Building Permit)		
		 Two complete sets (all disciplines) of plans, drawings and specifications together with the building permit application shall be submitted and logged in at the Plan Review Counter, Ed Ball Building 214 N. Hogan Street Room 280, Jacksonville, Florida 32202. The sets will be reviewed by all disciplines including the fire marshal. Once the review is completed, the applicant will be notified of any comments. 		
	2.4 Grading	The site for the proposed parking lot is currently unimproved land and is relatively flat with a very mild slope from north to south. At the extreme south side (or lower side) is an existing swale system that is being used for storm water drainage. The storm water collects at the lowest point, which is immediately west of the proposed entrance to the parking lot, and where a culvert is located to direct the storm water under Crossover Avenue to continue downstream to the south. The St. Johns River Water Management District (SJRWMD) has recommended that we do not combine with or disturb the existing swale system and provide a retention pond on site to collect the storm water for this project. We propose to follow the natural north to south slope of the site to direct the storm water to the new retention pond, located on the southwest area of the site. Excessive excavating, grading and fill should not be necessary.		
	2.5 Fencing	COJ Zoning Code, Chapter 656, Part 12, Sec. 656.1215, Perimeter Landscaping		
		All VUA's (Vehicular Use Areas) which are not entirely screened by an intervening building from any abutting		

dedicated public street or approved private street, to the extent such areas are not so screened, shall contain the following:

(2) A durable opaque landscape screen along at least 75 percent of the street frontage excluding driveways. Shrubs, walls, **fences**, earth mounds and preserved existing understory vegetation, or combination thereof, may be used so long as the screen is no less than three feet high measured from the property line grade two years after installation.

Shrubs and preserved existing understory vegetation shall be evergreen, a minimum of 18 inches in height and spaced so that 85 percent opacity is achieved within two years. Walls or **fences** shall be no more than four feet in height and of wood or masonry at least 85 percent opaque. Earth mounds shall not exceed a slope of three to one. No less than 25 percent of the street side frontage of walls or **fences** shall be landscaped with shrubs or vines.

CCC Design Guidelines, 2.3.5. Outdoor Storage, Trash Collection, and Loading Areas;

2.3.5.f A minimum 20 foot buffer including solid walls or metal **fencing** combined with walls/columns and landscaping resulting in 85% opacity shall be used to screen service areas and Industrial/Warehouse except for entry drives, that face a public street(s) or adjoining developments. No metal, vinyl or wood slates shall be used to obtain the opacity standard.

NOTE: The requirement for a perimeter fence was unclear based on the COJ Zoning Code and CCC Design Guidelines. Section 656.1215 of the COJ Zoning Code mentions fencing as an option but is not specifically required. Section 2.3.5f of the CCC Design Guidelines provides criteria for the fencing of outdoor storage, trash collection, and loading areas, but not for parking lots.



Photo of existing perimeter AT/FP high security fence surrounding bldg. 1822



Proposed perimeter fence for parking lot without AT/FP elements. Impasse II by Ameristar.

dbs Architects PLLC contacted the COJ official over Cecil Commerce Center (Ed Randolph) to seek clarification on whether perimeter fencing is a requirement or not. Mr. Randolph stated that parking lots at Cecil Commerce Center are not required to be fenced. However, if the owner desires a perimeter fence it must comply with the CCC Design Guidelines 2.3.5f. If the fence is a 6 foot high chain link type, it must comply with the 85% opacity landscape requirement. If it is a decorative fence (similar to the fence used for the adjacent existing Readiness Center) it will need to comply with Section 656.1215 of the COJ Zoning Code requiring a minimum of 25 percent of the street side frontage of walls or fences be landscaped with shrubs or vines. If fences are not used a minimum three foot high opaque screen of shrubs or earth mound (or combination) is required for at least 75% of the street frontage (excluding driveways).

Mr. Randolph stated that the adjacent decorative fence surrounding the existing Building 1822 Readiness Center qualified as a decorative fence that can be matched for the new parking lot. It should be noted that the Readiness Center fence is a K-4 (minimum) anti-terrorism force protection (AT/FP) high security fence. The fence around the proposed parking lot can match the adjacent fence style (see photos), but without the AT/FP high security elements.

2.6 Drainage See item 2.4 Grading. It is anticipated that drainage will follow the natural slope of the site from north to south. A retention pond is located in the lower southwest area of the site, which should allow for positive drainage to the pond from most locations. Storm water catch basins will be required in a few locations to transfer the storm water from the impervious paving to the retention pond.

COJ Zoning Code, Section 656.1211

- (f) Standards for efficient irrigation design. The irrigation system may consist of an automatic underground system, micro irrigation, quick coupling valves, or hose bibs located within 75 feet of any landscaped area.
 - Irrigation systems shall be designed to meet the needs of the plants in the landscape and to separately serve turfgrass and non-turfgrass areas.

2.7 Irrigation

- (2) The system design shall consider soil, slope, and other site characteristics in order to minimize waste water, including overspray on hardscape and other impervious surfaces and off-site runoff;
- (3) Automatic irrigation controllers, when utilized, shall contain a functional sensor device for rain or soil moisture which shall be capable of being set for one minute run times, days of the week, seasons, and time of day, and which shall maintain a battery backup capability to retain programming in the event of a power failure.
- (4) Sensor devices, when utilized, shall be placed on a stationary structure, free and clear of any overhead obstructions and above the height of the irrigation sprinkler coverage;
- (5) Irrigation zones . . . (TBD)
- (6) Irrigation systems shall be fitted with backflow prevention to protect the water source against backflow using a pressure regulating device;
- (7) Irrigation systems shall not be required for preserved plant communities that are maintained in their natural state and barricaded and not impacted by development. (NOTE: Does not apply to this project. Irrigation needs to be provided.)
- (8) Irrigation systems shall be designed to use the lowest quality water feasible.

2.8 Storm Water Retention See item 2.4 Grading and item 2.6 Drainage. Storm water retention is required as per SJRWMD regulations stating:

A standard general or individual environmental resource storm water permit is required for construction of a storm water management system which serves a project that exceeds any of the following thresholds:

(a) Construction of 4,000 square feet or more of impervious or semi-impervious surface area subject to vehicular traffic. This area includes roads, parking lots, driveways, and loading zones. (b) Construction of 9,000 square feet or more of impervious surface.

dbs Architects PLLC consulted with Everett Fry of the SJRWMD regarding the potential for retention requirements for this parking study. The designated 1.2 acres for the parking area exceeds criteria (a) and (b) for impervious surface coverage and, therefore, requires some form of retention on site. Mr. Fry recommended going with a dry retention system, either a dry retention pond or dry swale system. Mr. Fry calculated 1 ³/₄" of storm water to be retained for each SF of impervious paving. He also stated that we would **NOT** be able to tie into the existing storm water swale system along Crossover Street, and to leave it undisturbed.

2.9 Parking Islands Landscape (Parking) Island requirements shall follow COJ Zoning Code Chapter 656.1214.d:

"Each row of parking spaces shall be terminated by a landscape island with inside dimensions of not less than five feet wide and 17 feet long, or 35 feet long if a double row of parking. Each terminal island shall contain one tree. Each side of the terminal island adjacent to a travel lane shall have a continuous six inch high curb of concrete . . . "

NOTE: It is preferred to place palm trees on the landscape islands wherever possible.

2.10 Easements Affecting the Development Area CCC Design Guidelines, 3.0 Public Infrastructure: Design Standards and Guidelines; 3.2 Street Right-of-Way Standards.

The Master Plan has determined that two streets right-of-way requirements are needed for the Commerce Center. A 150-foot-right-of-way for the main North-South corridor in the

Center will be required. An 85-foot-right-of-way will handle other streets and roadways in the Center. These right-of-ways will also handle utility requirements such as potable water, irrigation water, storm drainage, street lighting and sanitary sewer.

NOTE: Crossover Avenue qualifies as "other streets" and therefore requires an 85-foot-right-of-way.

2.11 Lighting

CCC Design Guidelines; 2.3 Site Design; 2.3.2 Parking Lots;

- **2.3.2.3 Parking Lot Lighting -** *Parking lot lights shall be single or double fixtures; pole mounted, and have cutoff luminaires.*
- 2.12 Utility Requirements and Connections for Lighting And Automatic Entry Gate

It is presumed that utilities along Crossover Avenue are located underground and within the 85-foot-right-of way. A civil investigation (not included in this study) will better define the type and location of these utilities. However, the photos on the following page indicate underground utilities that extend beyond the 85-foot-right-of-way and into the site property. Care should be taken with any proposed excavation on either side of the existing sidewalk.





2.13 Landscaping

COJ-Zoning Section, Chapter 656 Part 12: Landscape and Tree Protection Regulations-Subpart A: General Provisions: Sec. 656.1203. Definitions:

(bb) Protected tree includes all of the following:

- (1) Private protected tree means any tree with a DBH (diameter breast height, or 4'-6" from base) of six inches or more located on any lot within 20 feet of a street rightof-way (including an approved private street or other access easement) or a tree with a DBH of eight inches or more located within ten feet of any other property line, or a tree with a DBH of 11.5 inches or more located elsewhere on the lot.
- (2) Public protected tree means any tree located on lands owned by the City . . . (not applicable).
- (3) Exceptional specimen tree means any hardwood tree with a DBH of 24 inches or greater.

NOTE: There are two trees within the 1.2 acres that need further evaluation for determining protected tree status. They are two large pine trees and may be "protected" by definition. The two large pine trees may fall within item (1) above because one may be within 20 feet of the street right-of-way and the other (more inland) could exceed 11.5 DBH.

COJ- Zoning Section, Chapter 656 Part 12: Landscape and Tree Protection Regulations-Subpart B: Tree Protection: Sec.656.1206. Permit Procedure and criteria for tree removal, relocation and replacement of protected trees.

(h) Protected trees identified for removal on the site clearing or tree removal permit application shall be replaced with new planted trees, unprotected trees or transplanted trees. Protected live oaks removed shall be replaced only with live oaks. The total caliper inches of replacement live oaks shall equal the total caliper inches of protected live oaks removed; for other removed protected trees, the total caliper inches of replacement trees shall equal one-third the total caliper inches removed, unless otherwise approved by the Chief. New palms may be used only to replace protected palms removed. (1) No replacement will be required for protected trees which are determined by the Chief to be dead or deteriorated as a result of age, insects, disease, storm, fire, lighting, or other acts of nature.

NOTE: Tree removal is allowed provided they are replaced as per the above criteria. It is recommend that the large canopy tree closest to the sidewalk remain and the taller pine be removed. Replacement impact is only 1/3rd the total caliper inches of the tree removed.

COJ-Zoning Section, Chapter 656 Part 12: Landscape and Tree Protection Regulations-Subpart C: Landscaping Requirements: Sec.656.1211. Florida-Friendly Landscape and Irrigation design standards.

- (e)(3) General Criteria for Trees: Single-trunk trees shall be a minimum of two inch caliper and a minimum of ten feet overall height. Multi-trunk trees shall be a minimum of three trunks eight feet high. Trees shall be planted in no less than 16 square feet of planting area, with a minimum dimension of four feet on any side. Trees shall not be planted closer than two feet from any pavement edge or right-of-way, as measured from center of trunk.
- (i) Shade trees: Shade trees shall be a species having an average mature crown spread of no less than 30 feet; provided, trees having an average mature crown spread of less than 30 feet may be grouped so as to create a total average mature crown spread of no less than 30 feet and used in lieu of a shade tree. Shade trees at the time of planting shall be a minimum of two inch caliper and ten feet high. Shade trees shall be planted in no less than 150 square feet of planting area, with a minimum dimension on any side of eight feet. Shade trees shall not be planted closer than four feet from any pavement edge or right-of-way line, as measured from center of trunk.
- (ii) Palm Trees: Palms shall be a minimum clear trunk height of eight feet, measured from the ground level to the base of the palm fronds. Palms may be substituted for the required trees at the ratio of two palms for each required tree or four palms for each required shade tree,

except as provided below for Phoenix Palm. Each palm shall be planted in no less than 16 square feet of planting area, with a minimum dimension of four feet.

- (4) Criteria for shrubs, vines and ground covers: Hedges and shrubs used to form an opaque screen shall be no less than three-gallon container grown material or equivalent balled and burlap material. All other shrubs, dwarf shrubs, and groundcover shall be of a size and spaced in such a manner so as to provide 85 percent coverage within two years after planting. Vines shall be evergreen and shall have a minimum of four stems 12 inches long immediately after planting.
- (5) *Mulch:* A layer of organic mulch shall be applied and maintained in all tree, shrub, ground cover planting areas and bare preserved natural areas. The mulch layer shall not exceed three inches.

Sec.656.1214. Vehicular use area (VUA) interior landscaping.

- (c)(1) Criteria for distribution: At least 25 percent of the landscape areas shall be covered with shrubs; the remainder in shrubs, groundcover, mulch or grass, except that mulch shall cover no more that 25 percent of the landscape areas. Plants shall be spaced so as to achieve 90 percent coverage of the landscape areas within two years.
- (c)(2) Not less than one tree for every 4,000 square feet, or fraction thereof, of the VUA. At least 50 percent of the trees shall be shade trees. Trees shall be distributed so that all portions of the VUA area within a 55-foot radius of any tree.
- (d) Each row of parking spaces shall be terminated by a landscape island with inside dimensions of not less than five feet wide and 17 feet long, or 35 feet long if a double row of parking. Each terminal island shall contain one tree. Each side of the terminal island adjacent to a travel lane shall have a continuous six inch high curb of concrete

Sec.656.1215. Perimeter landscaping.

- (a) All VUA's which are not entirely screened by an intervening building from any abutting dedicated public street or approved private street, to the extent such areas are not so screened, shall contain the following:
 - (1) A landscape area of not less than ten square feet for each linear foot of VUA street frontage, 50 percent of which shall be at least a five-foot wide strip abutting the street right-of-way except for driveways. The landscape area is determined by the total number of parking spaces provided and the parking rate. The remaining required landscape area shall be located within 30 feet of the street right-of-way.
 - (2) A durable opaque landscape screen along at least 75 percent of the street frontage excluding driveways. Shrubs, walls, fences, earth mounds and preserved existing understory vegetation, or combination thereof, may be used so long as the screen is no less than three feet high measured from the property line grade two years after installation. Shrubs and preserved existing understory vegetation shall be evergreen, a minimum of 18 inches in height and spaced so that 85 percent opacity is achieved within two years.
 - (3) No less than one tree, located within 25 feet of the street right-of-way, for each 50 linear feet, or fraction thereof, of VUA street frontage. The trees may be clustered, but shall be no more than 75 feet apart. At least 50 percent of the trees shall be shade trees.
 - (4) The remainder of landscape area shall be landscaped with trees, shrubs, groundcovers, grass, or mulch, except that mulch shall not exceed 25 percent of the total landscape area.
- (b) Perimeter landscaping adjacent to abutting properties: All vehicular areas which are not entirely screened by an intervening building from an abutting property, to the extent such areas are not screened, shall contain the following:

- (1) A continuous landscape area at least five feet wide between the VUA's and the abutting property, landscaped with shrubs, groundcovers, preserved existing vegetation, mulch and grass.
- (2) No less than one tree, located within 25 feet of the outside edge of the VUA, for every 50 linear feet, or fraction thereof, of the distance the VUA abuts the adjacent property. Trees may be clustered but shall be no more than 75 feet apart. At least one-half of the required number of trees shall be shade trees.
- (d) Driveways to streets: The maximum width of any driveway not containing a landscape island though the perimeter landscape area shall be 36 feet.
- (e) Driveways to adjoining lots: Driveways may be permitted by the Chief to adjoining lots of compatible use. The maximum width of any driveway to an adjacent lot shall be 24 feet.

Cecil Field Commence Center (CCC) Design Guidelines-

4.0 Landscaping Plant Material: The following is a list of recommended plant materials for various types of applications within the Commerce Center.

4.1 Palm Trees

- Sabal Palm
- Washington Palm
- 4.2 Large Trees
 - American Holly
 - Laurel Oak
 - Live Oak

4.3 Small Trees

- Crape Myrtle
- Wax Myrtle, Southern Wax Myrtle
- Ligustrum

4.4 Shrubs

- India Hawthorne
- Pittosporum
- Sandankwa Viburnum
- Japanese Privet

4.5 Groundcover

- English Ivy
- Shore Juniper
- Lily-Turf

4.6 Turfgrass

- Argentine Bahia
- Augustine Floratan

2.14 Sustainable Design This study is focused on a proposed parking lot adjacent to the Building 1822-Readiness Center. No vertical construction or habitable structure is involved. Sustainable design as defined by the US Green Building Council (USGBC) does not apply to this effort. In a more general sense sustainable design for this project is focused on the incorporation of the best quality and low maintenance materials that will help assure a long lasting, efficient, and effective solution.

2.15 Utilization of Existing On-Site Resources

The proposed site is unimproved land and offers very little in the way of recycling of existing on-site resources. The following items could be considered for reuse:

- Reuse of the existing vehicular entrance off Crossover Avenue.
- Retaining the one large canopy pine tree located on the south side and near the existing sidewalk.
- Utilize the two existing pedestrian gates for access into the Readiness Center property.
- Utilize the existing natural slope of the site (from north to south) to provide positive drainage of storm water to the new retention pond on the south west end.
- Access to underground utilities located on the south side within the right-of-way or near the existing sidewalk (see item 2.10).
- 2.16 Anti-Terrorism Force Protection (AT/FP)

The proposed new parking lot is intended for personnel vehicles (POV) owned by members of the Florida National Guard who report to the Readiness Center over the weekend on a monthly basis. No military vehicles will be stored on the new parking lot. Building 1822 is surrounded by an AT/FP security fence, which requires those that park in the new parking lot to pass through the AT/FP pedestrian gate to access the property. AT/FP security protection is not provided for the new parking lot.

Photos of Proposed Site:







Swale and culvert under new entrance and under Crossover Ave.













