CITY OF PARKER

City Hall
1001 West Park Street
Phone 850-871-4104
www.cityofparker.com

Mayor
Rich Musgrave

Council Members
Ken Jones, Mayor Pro Tem
Tonya Barrow
Stacie Galbreath
John Haney

Clerk
Nancy Rowell

Attorney
Tim Sloan

PUBLIC NOTICE

REGULAR MEETING
OF
THE CITY OF PARKER COUNCIL
June 18, 2019
5:30 PM
PARKER CITY HALL

NOTE: AT EACH OF ITS REGULAR OR SPECIAL MEETINGS, THE CITY OF PARKER COUNCIL ALSO SITS, AS EX OFFICIO, AS THE CITY OF PARKER COMMUNITY REDEVELOPMENT AGENCY (CRA) AND MAY CONSIDER ITEMS AND TAKE ACTION IN THAT CAPACITY.

AGENDA

CALL TO ORDER—Mayor Musgrave

INVOCATION—Rev. Danny Davis, Refuge Assembly of God

PLEDGE OF ALLEGIANCE

ROLL CALL—City Clerk Rowell

ITEMS FROM THE AUDIENCE (non-agenda items)

REGULAR AGENDA

1. **Application for Dock Permit—1110 Germaine St.**—Glenn Hoflund

2. **Ordinance No. 2019-383—Comprehensive Plan Amendment**—Council

   AN ORDINANCE AMENDING THE COMPREHENSIVE PLAN OF THE CITY OF PARKER, SPECIFICALLY TO UPDATE AND REVISE THE GOALS, OBJECTIVES AND POLICIES OF THE VARIOUS ELEMENTS; PROVIDING FOR SEVERABILITY; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH AND PROVIDING FOR AN EFFECTIVE DATE.

3. **Presentation of East Bay Flats Project**—McNeil Carroll Engineering and City Staff

CLERK'S REPORT

MAYOR'S REPORT

COMMENTS AND ANNOUNCEMENTS

ADJOURNMENT

Upcoming Events

- The next Regular City Council Meeting is July 2, 2019 at 5:30 p.m.
- The next Planning Commission Meeting is July 9, 2019 at 5:00 p.m., unless called sooner by the Chairman.

Nancy A. Rowell, City Clerk

If a person decides to appeal any decision made by the City Council with respect to any matter considered at the meeting, if an appeal is available, such person will need a record of the proceeding and such person may need to ensure that a verbatim record of the proceeding is made, which record includes the testimony and evidence upon which the appeal is to be made. Any person requiring a special accommodation at this meeting because of a disability or physical impairment should contact the City Clerk at 1001 West Park Street, Parker, Florida 32404; or by phone at (850) 871-4104. If you are hearing or speech impaired and you have TDD equipment, you may contact the City Clerk using the Florida Dual Party System, which can be reached at 1-800-955-8770 (Voice) or 1-800-955-8771 (TDD). ALL INTERESTED PERSONS DESIRING TO BE HEARD ON THE AFORESAID agenda are invited to be present at the meeting.

CITY OF PARKER
AGENDA ITEM SUMMARY

1. *DEPARTMENT MAKING REQUEST/NAME OF PRESENTER:*	2. *MEETING DATE:*
Planning	June 18, 2019

3. *REQUESTED MOTION/ACTION:*

Review and determine whether to grant a dock permit for 1110 Germaine St.

4. *IS THIS ITEM BUDGETED (IF APPLICABLE)*

YES ☐ **NO** ☐ **N/A** ☒

5. *BACKGROUND:* *(PROVIDE HISTORY; WHY THE ACTION IS NEEDED; WHAT GOAL WILL BE ACHIEVED FOR THE CITY)*

Property owner Glenn Hoflund has requested a dock permit. He has completed the Florida Department of Environmental Regulation application for Self-Certification and we have reviewed the request against our criteria. Recommend approval.

AGENDA ITEM # 1

3TP VENTURES
Think ➢ Plan ➢ Do

June 13, 2019

Ms. Lou Bradford
City of Parker
1001 West Park Street
Parker, FL 32404

RE: 1110 GERMAINE STREET SHORELINE CONSTRUCTION AND DREDGING PERMIT – 19-285

Dear Ms. Bradford,

3TP Ventures has reviewed the above-referenced application and supporting documents on behalf of the City of Parker for compliance with the Code of Ordinances and Land Development Regulations. Based on the submitted documentation, we recommend approval of this development order with the following conditions:

- The structure will be required to meet all applicable State and Federal requirements.

Thank you for the opportunity to comment on this submittal.

Sincerely,

Tim Whaler, AICP | Project Manager
3TP VENTURES
tim@3tpventures.com
850-792-5575
www.3tpventures.com

Attachment: Review Memo

CC: Alan Steinbeck, President, 3TP Ventures

3TP VENTURES

Think ▻ Plan ▻ Do

MEMORANDUM

To: City of Parker

From: 3TP Ventures

Subject: 1110 GERMAINE STREET SHORELINE CONSTRUCTION AND DREDGING PERMIT – 19-285

3TP Ventures has reviewed the proposal per the City of Parker Code of Ordinances Section 86-71 and provide the following comments:

1. Living quarters or dwelling: No
2. Dock Area: >1,000 square feet
3. Setbacks (Chapter 18-21.004(3)(d), F.A.C.)
   Lot width: 170 feet
   Minimum setback: 50 feet
   Infringes on riparian right lines: No
4. The dock will be required to meet all applicable State and Federal requirements.

CITY OF PARKER

1001 WEST PARK STREET • PARKER, FLORIDA 32404
TELEPHONE (850) 871-4104 • FAX (850) 871-6684

FOR CITY USE ONLY
PERMIT NO. 19-285
DATE: 6-10-19

SHORELINE CONSTRUCTION AND DREDGING PERMIT

City permits are required for construction of docks, piers, wharves, bulkheads, buildings, pilings, seawalls, reefs, breakwaters, marinas, boat slips, boathouses, concessions, loadings, and shipping facilities, pipes and fences and other structures in, upon or over the waters where the tide ebbs or flows within the City, extending into or in the navigable waters and upon sovereignty lands, whether the public waters are classified as salt or fresh water. Filling in, excavating and dredging must be done in accordance with City Ordinance No. 71-50, as may be amended from time to time. This permit shall not become effective until this application has been signed by the Permittee and approved by the City Council of the City of Parker. Circle above intended construction. Form must be typed or printed in ink.

I. TO BE COMPLETED BY PROPERTY OWNER

A. Name: GLENN W HOFLUND

B. Mailing Address: 1110 GERMAINE ST. PARKER FL 32404

C. Intended Construction and Location:
(Must have a physical address)
BOAT DOCK - 1110 GERMAINE ST.

D. Phone number: 8508194226 E-mail address: ghoflund@gmail.com

E. Proposed structure is: Commercial _____ Private ✓

NOTE: A private dock is one which will be used by the owner, his family and occasionally by family friends. A dock for any other use would fall into the commercial category.

II. TO BE COMPLETED BY CONTRACTOR

A. Name: _____

B. Address: _____

C. Phone number: _____ Email address: _____

III. A PERMIT WILL BE GRANTED UPON THE FOLLOWING CONDITIONS:

A. This permit does not authorize construction of living quarters or dwelling type structures.
B. No work undertaken will infringe on any other individual's rights, property, health, welfare, or cause a hazard to the general welfare of the public.
C. If lot is less than 65 feet, dock should be centered on the property.
D. This Permit shall in no way obstruct or impair the free movement of traffic of the general public along any beach in the area outside of and beyond high water line. All work to be done abuts or is on any upland property.
E. The construction shall be in strict accordance with the attached plan(s). In the event a dock, etc. is modified or converted to commercial use after issuance of this Permit without a new City permit or written approval by the City Council, this permit shall automatically terminate and all structures shall be subject to removal by the City of Parker, Florida at the expense of the Permittee.
F. The Permit shall not be considered as a waiver of the rights of the City of Parker or the Permittee in the submerged lands affected by this Permit.
G. This Permit does not relieve the Permittee from obtaining permits from the State of Florida, Department of Environmental Protection or from the Army Corps of Engineers, both of which need to be provided to the City prior to issuance of a City Permit, nor from the necessity of compliance with all applicable local laws, ordinances, zoning or other regulations.
H. The work covered in this Permit shall be completed within one (1) year from date of this approved Permit.
I. The undersigned Permittee agrees to save harmless the City of Parker, Florida from damages or claims arising from the issuance of this Permit or use thereof.
J. I understand I am responsible to the City for the maintenance of said structures, identified in the Permit, and will maintain it at my expense.
K. A plan of work to be accomplished or completed is indicated in detail as to specifications is attached to this Permit request.
L. Permit is valid until revoked and will be shown to City officials upon their request, when making their periodic inspections.
M. This Permit is not valid for live-aboard type construction.
N. I agree to pay to the City of Parker a $250.00, non-refundable review fee, prior to approval of the Permit by the City Council of the City of Parker, Florida.

THE FOREGOING HAS BEEN READ AND UNDERSTOOD AND IS HEREBY ACCEPTED THIS DAY 6th OF June, 20 19.

Signature of Permittee

Date approved by City Council: _____

Date disapproved by. City Council: _____

ATTEST: _____
City Clerk

_____
Signature of Mayor

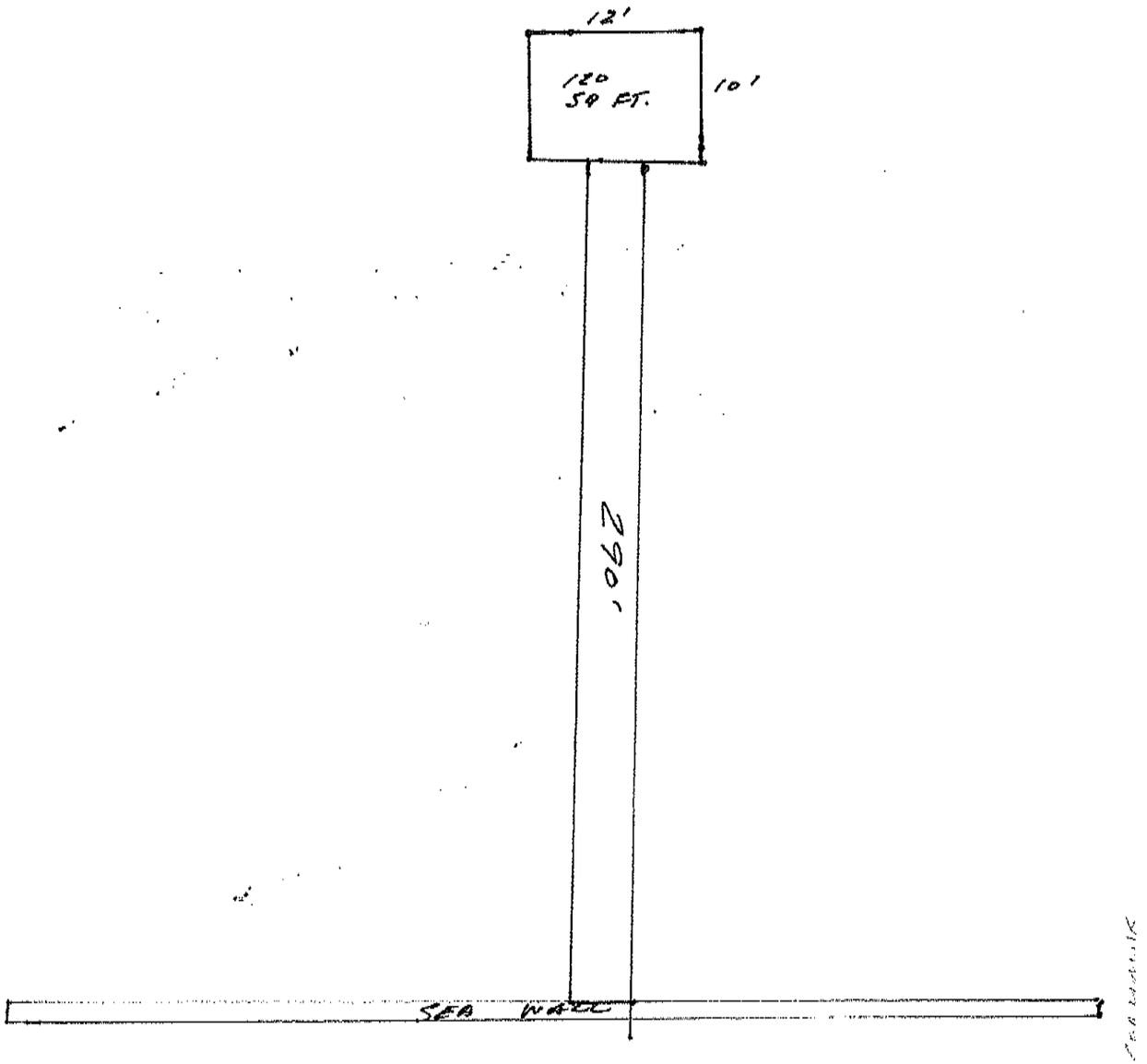
Form Revised: August 29, 2018

HOFLUND FAMILY DOCK

GLENN HOFLUND
1110 GERMAINE ST
PANAMA CITY FL 32401
850 819 4226
ghoflund@gmail.com

PERMIT: _____

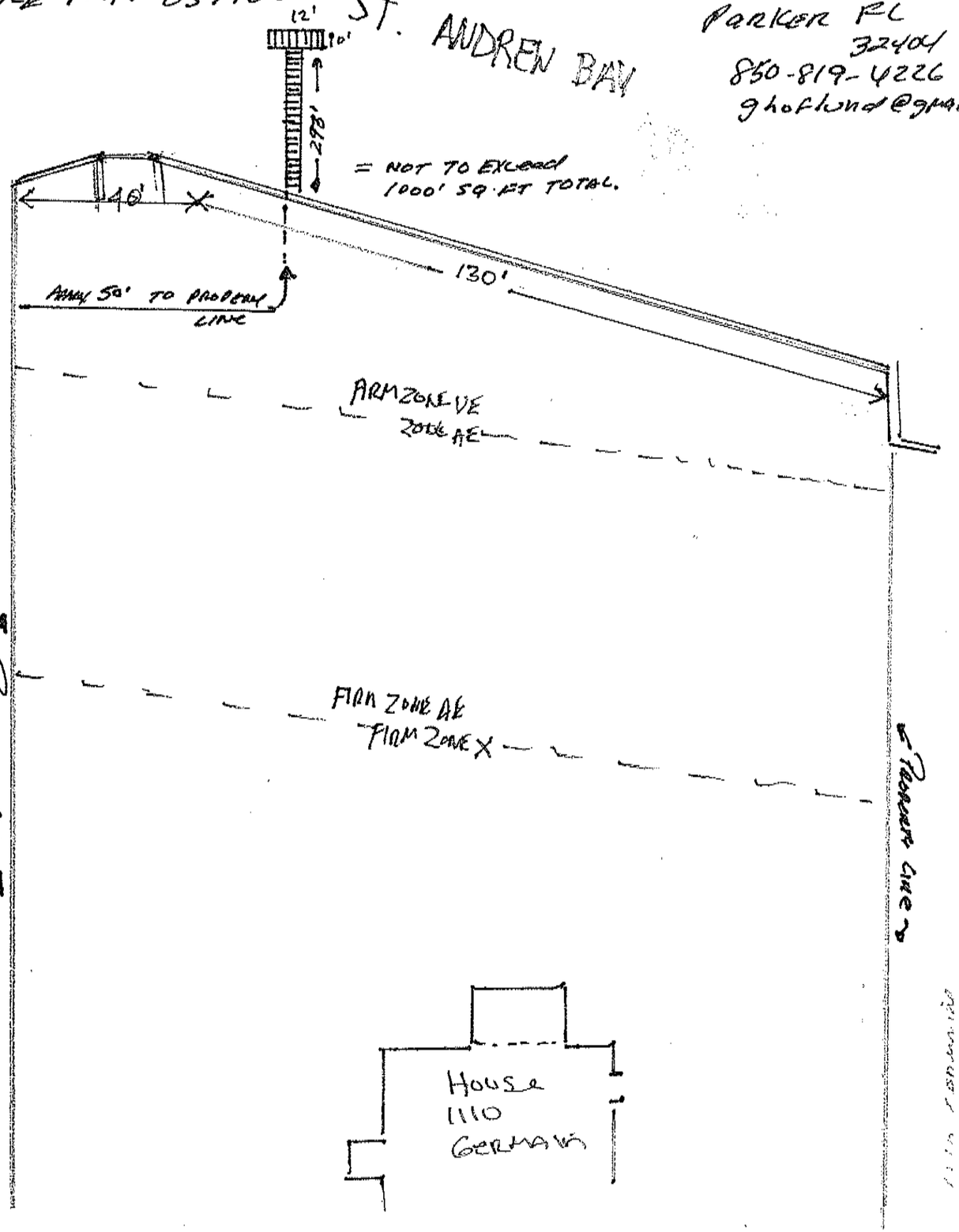
FDEP/ERP SELF-CERTIFICATION
FILE NO.: 0377060002EE



FDEP/ERP SELF-CERTIFICATION
FILE NO.: 0377706000 IEE

ST. ANDREW BAY

GLENN HOFLUND
1110 GERMAIN
Parker FL
32404
850-819-4226
ghoflund@gma.



Gmail

Glenn Hoflund <ghoflund@gmail.com>

FDEP ERP Self-Certification Receipt

1 message

no-reply@dep.state.fl.us <no-reply@dep.state.fl.us> Mon, Jun 10, 2019 at 1:48 PM
To: ghoflund@gmail.com
Cc: CORPSJAXREG-NP@usace.army.mil, SPGP@usace.army.mil, ERP.SELFCERTS@dep.state.fl.us, NMFS.SER.PROGRAMMATICREVIEW@noaa.gov, KENNETH.DICKEY@dep.state.fl.us

DEP Logo

FLORIDA DEPARTMENT OF

Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

Receipt for Submission

SELF-CERTIFICATION FOR A PROJECT AT A PRIVATE, RESIDENTIAL SINGLE-FAMILY

06/10/2019

Self-Certification File No.: **0377060001EE**

File Name: **1110 Germain St Panama City, FL 32404 - Self Cert Exempt Dock with Boat Lift(s) (General)**

Dear **Glenn Willy Hoflund**: On **06/10/2019** you used the Florida Department of Environmental Protection's electronic Self Certification Process to certify compliance with the terms and conditions of the Federal State Programmatic General Permit (SPGP) Self Certification Process for a project at private, single-family residence located at:

LAT - Degrees: **30** Minutes: **7** Seconds: **35.0021**
LONG - Degrees: **-85** Minutes: **36** Seconds: **38.45**
SITE ADDRESS: **1110 Germain St Panama City, FL 32404**
COUNTY: **Bay**

For:
Glenn Hoflund
1110 Germain St PANAMA CITY, FL 32404

You have certified that the project you propose to construct at the above location meets all the conditions of the Self-Certification Process. A project that is built in conformance to those conditions (attached for reference) will:

1. Qualify for a regulatory exemption under Section 403.813(1)(b) of the Florida Statutes (F.S.) and Chapter 62-330, Florida Administrative Code (F.A.C.). As such, it is exempt from the need to obtain a DEP Environmental Resource Permit.;

2. Qualify for Consent by Rule or Letter of Consent (as applicable) under Chapter 253, F.S. and Chapter 18-21, F.A.C. (and Chapter 258, F.S. and Chapter 18-20, F.A.C., if applicable), when the project is located on submerged lands owned by the State of Florida.

Your Self-Certification is based solely on the information you provided under this process, and applies only to the statutes and rules in effect when your certification was completed. The certification is effective only for the specific project proposed, and only if the project is constructed, operated, and maintained in conformance with all the terms, conditions, and limitations stated in the Self-Certification Process. In addition, any substantial modifications in your plans should be submitted to the Department for review, as changes may result in a permit being required.

You have acknowledged that this Self Certification will automatically expire if:

1. Construction of the project is not completed within one year from the self-certification date;
2. site conditions materially change;
3. the terms, conditions, and limitations of the Self Certification are not followed; or
4. the governing statutes or rules are amended before construction of the project.

Completion of the Self Certification constitutes your authorization for Department or Corps personnel to enter the property for purposes of inspecting for compliance.

Receipt of this Self-Certification constitutes authorization to use sovereignty/state-owned submerged lands, as required by rule 18-21.005, F.A.C.

The authorization must be visibly posted during all construction activities.

In waters that are accessible to manatees, obtain information on your mandatory Manatee Protection sign by clicking here.

FEDERAL STATE PROGRAMMATIC GENERAL PERMIT (SPGP)

You have certified that the project you propose to construct at the above location meets all the conditions of the SPGP Self-Certification Process and will be built in conformance to those conditions (attached for reference). Your proposed activity as certified is in compliance with the SPGP program. U.S. Army Corps of Engineers (Corps) Specific conditions apply to your project, attached. **No further permitting for this activity is required by the Corps. Although the construction period for works authorized by Department of the Army permits is finite, the permit itself, with its limitations, does not expire.**

Notifications to the Corps. For all authorizations under this SPGP V-R1, including Self-Certifications, the Permittee shall provide the following notifications to the Corps:

a. Commencement Notification. Within 10 days before the date of initiating the work authorized by this permit or for each phase of the authorized project, the Permittee shall provide a written notification of the date of commencement of authorized work to the Corps
b. Corps Self-Certification Statement of Compliance form. Within 60 days of completion of the work authorized by this permit, the Permittee shall complete the "Self-Certification Statement of Compliance" form (attached) and submit it to the Corps. In the event that the completed work deviates in any manner from the authorized work, the Permittee shall describe the deviations between the work authorized by this permit and the work as constructed on the "Self-Certification Statement of Compliance" form. The description of any deviations on the "Self-Certification Statement of Compliance" form does not constitute approval of any deviations by the Corps.
c. Permit Transfer. When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date the enclosed form.
d. Reporting Address. The Permittee shall submit all reports, notifications, documentation, and correspondence required by the general and special conditions of this permit to the following address.
    1. For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL, 32232-0019.
    2. For electronic mail: SAJ-RD-Enforcement@usace.army.mil (not to exceed 10 MB). The Permittee shall reference this permit number, SAJ-2015-2575 on all submittals.

This SPGP Self-Certification is based solely on the information you provided under this process, and applies only to the statutes and rules in effect when your certification was completed. You have recognized that your certification is

effective only for the specific project proposed, and provided the project is constructed, operated, and maintained in conformance with all the terms, conditions, and limitations stated in the SPGP Self-Certification Process. This Self-Certification will not apply if any substantial modifications are made to the project. You agree to contact the Department for review of any plans to construct additional structures or to modify the project, as changes may result in a permit being required.

You have acknowledged that this Self-Certification will automatically expire if:

1. construction of the project is not completed by midnight, July 25, 2021, unless construction commenced or a contract to construct was executed before July 25, 2021, in which case the time limit for completing the work authorized by the SPGP ends at midnight, July 25, 2022. However, in no case can construction continue for more than one year beyond the Self-Certification date;
2. site conditions materially change;
3. the terms, conditions, and limitations of the Self-Certification are not followed; or
4. the governing statutes or rules are amended before construction of the project.

Completion of the Self-Certification constitutes your authorization for Department or Corps personnel to enter the property for purposes of inspecting for compliance.

If you have any questions, please contact your local Department District Office. Contact information can be found at: https://floridadep.gov/sites/default/files/SLERC_contacts_web_map_01-2017_0.pdf.

For further information, contact the Corps directly at: http://www.saj.usace.army.mil/Missions/Regulatory.aspx. When referring to your project, please use the SPGP Self-Certification file number listed above.

Authority for review - an agreement with the U.S. Army Corps of Engineers entitled Coordination Agreement between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection State Programmatic General Permit, Section 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act.

ADDITIONAL INFORMATION

This Self-Certification Process does not relieve you from the responsibility of obtaining other permits or authorizations from other agencies (federal, state, Water Management District, or local) that may be required for the project. Failure to obtain all applicable authorizations prior to construction of the project may result in enforcement.

If you have any problems with the attached documents, please call the ERP Coordinator at (850) 245-8495 or by e-mail at ERP_eApps@dep.state.fl.us.

Sincerely,
Florida Department of Environmental Protection.

Attachments:
FDEP Terms and Conditions
SPGP Terms and Conditions
Project Design Criteria

Dep Customer Survey

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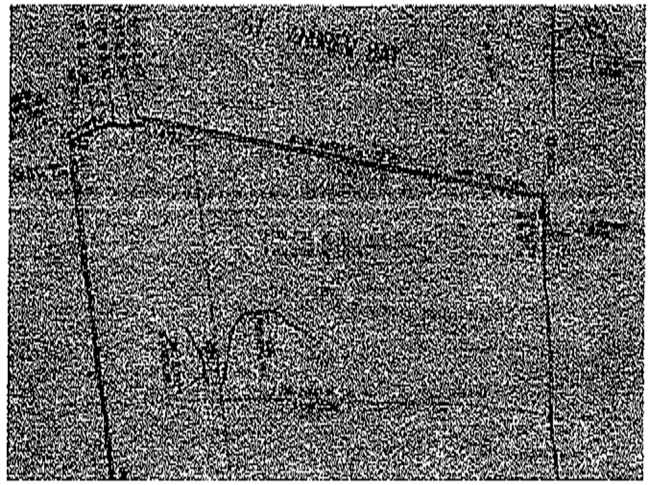
4 attachments

b0f95cd818f1c12baaabbd1616d2f3a0.pdf
50K

3a3b3f466a8a96aef545ee9db27fda64.pdf
50K

ProjectDesignCriteria_1_01.pdf
2622K

noname



Glenn Hoflund
1110 Gorman
Parley FL 32404

1110 Gorman

CITY OF PARKER
AGENDA ITEM SUMMARY

1. *DEPARTMENT MAKING REQUEST/NAME OF PRESENTER:*	2. *MEETING DATE:*
Planning Commission	June 18, 2019

3. *REQUESTED MOTION/ACTION:*

Adopt Ordinance No. 2019-383 amending the City's Comprehensive Plan

4. *IS THIS ITEM BUDGETED (IF APPLICABLE)*

YES ☐ **NO** ☐ **N/A** ☒

5. *BACKGROUND:* *(PROVIDE HISTORY; WHY THE ACTION IS NEEDED; WHAT GOAL WILL BE ACHIEVED FOR THE CITY)*

The Comprehensive Plan is the high level policy document required by State Statute, which guides decisions about future growth and development in the City of Parker. Every seven years the City is required to evaluate and appraise the effectiveness of its Comprehensive Plan. After duly noticed public hearings, workshops and first and second readings of the ordinance amending the Plan, Ordinance No. 2019-383 is ready for approval.

AGENDA ITEM # 2

ORDINANCE NO. 2019-383

AN ORDINANCE AMENDING THE COMPREHENSIVE PLAN OF THE CITY OF PARKER, SPECIFICALLY TO UPDATE AND REVISE THE GOALS, OBJECTIVES AND POLICIES OF THE VARIOUS ELEMENTS; PROVIDING FOR SEVERABILITY; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Legislature adopted Chapter 163, laws of Florida, which requires the City of Parker ("City") to prepare and adopt and enforce a comprehensive plan;

WHEREAS, the City Council held a first public hearing on August 7, 2018, to consider a proposed amendment to the Comprehensive Plan ("Amendment"), with due public notice having been provided, and having reviewed and considered all comments received during the public hearing, and provided for necessary revisions, and approved the proposed amendment for transmittal and based upon the comments in the public hearing transmitted the proposed initial draft of the Amendment to the state land planning agency;

WHEREAS, the state land planning agency has provided comments to the City and the City made certain changes to the initial draft of the Amendment;

WHEREAS, a second public hearing was held on April 11, 2019 to consider revised Amendment, with due public notice having been provided, and having reviewed and considered the comments received during the public hearing, and provided for necessary revisions, and approved the proposed Amendment for adoption; and,

WHEREAS, in exercise of its authority, the City Council of the City finds it necessary and desirable to adopt and does hereby adopt the Comprehensive Plan Amendment.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PARKER, FLORIDA AS FOLLOWS:

Section 1. Comprehensive Plan Amendment.

The City of Parker Comprehensive Plan is hereby amended as set forth in and incorporated herein by reference, and consists of City-initiated text and map amendments to the Comprehensive Plan, all as described in the 2040 Comprehensive Plan, a copy of which is attached hereto and made a part hereof as Exhibit "A".

Section 2. Severability.

If any provision or portion of this ordinance is declared by any court of competent jurisdiction to be void, unconstitutional, or unenforceable, then all remaining provisions and portions of this Ordinance and the City's Comprehensive Plan shall remain in full force and effect.

Section 3. Copy on File.

An official, true, and correct copy of all elements of the City of Parker Comprehensive Plan, as adopted and amended from time to time, shall be maintained by the City Clerk or his or her designee.

Section 4. Effective Date.

The effective date of this Comprehensive Plan Amendment shall be: the date a final order is issued by the Department of Economic Opportunity finding the amendment to be in compliance in accordance with Section 163.3184, F.S.; or the date a final order is issued by the Administration Commission finding the amendment to be in compliance in accordance with Section 163.3184, F.S. No development orders, development permits, or land uses dependent on this Amendment may be issued or commence before this amendment becomes effective.

PASSED AND ADOPTED at a meeting of the City Council of the City of Parker, Florida, on the 18th day of June, 2019.

CITY OF PARKER, FLORIDA

_____
Richard Musgrave, Mayor

ATTEST:

_____
Nancy Rowell, City Clerk

Examined and approved by me, this 23rd day of April, 2019.

_____
Richard Musgrave, Mayor

CITY OF PARKER
AGENDA ITEM SUMMARY

1. *DEPARTMENT MAKING REQUEST/NAME OF PRESENTER:*	2. *MEETING DATE:*
Planning Commission	June 18, 2019

3. ***REQUESTED MOTION/ACTION:*** Hear presentation by developer of East Bay Flats and recommendation of Planning Commission to approve order for development

4. ***IS THIS ITEM BUDGETED (IF APPLICABLE)***

YES ☐ **NO** ☐ **N/A** ☒

5. ***BACKGROUND:*** ***(PROVIDE HISTORY; WHY THE ACTION IS NEEDED; WHAT GOAL WILL BE ACHIEVED FOR THE CITY)***

The Planning Commission has heard the presentation, reviewed the application for development, directed staff to work out details regarding landscaping, sidewalks, and water lines, reviewed the revised plans, and is recommending approval of the project to the Council.

AGENDA ITEM # 3

PRI
CITY OF PARKER APPLICATION FOR DEVELOPMENT PERMIT NEW HOME AND COMMERCIAL
CONCURRENCY MANAGEMENT SYSTEM EVALUATION

DATE OF SUBMITTAL: 4-8-19
CITY PERMIT NUMBER: 19-3688-
PRI BUILDING PERMIT NUMBER: _____
NOTE: PRI BUILDING PERMIT MUST BE OBTAINED PRIOR TO STARTING CONSTRUCTION

APPLICANT INFORMATION

NAME OF APPLICANT: Green Energy Group, LLC
ADDRESS: 42 Business Centre Dr., Unit 101
TELEPHONE: 850-460-2601
NAME OF CONTRACTOR: TBD
ADDRESS: TBD
TELEPHONE: TBD

SITE INFORMATION

SITE LOCATION: 6700 Oak Shore Drive
(MUST INCLUDE ADDRESS)

CURRENT USE OF SITE: Vacant

PROPOSED USE OF SITE: Multi Family Development

SIZE (SQ. FT/ACRES): 723,476 SF, 16.61 Acres

SOILS TYPES LOCATED ON PROPERTY:

Foxworth Sand (21), Kureb Sand (45)
TOPOGRAPHY ELEVATIONS LOCATED ON PROPERTY:

Ranges from El. 12.0 to El. 2.0

IS THE PROPOSED STRUCTURE WITHIN A DESIGNATED FLOOD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAP: _____YES __X__ NO

NAME(S) OF STREET(S) ADJACENT TO PROPERTY: Hwy 98 to West, Oak Shore Drive to the East
SET BACK FROM SHORELINE (FEET): 178 Feet
SET BACK FROM ROAD RIGHT OF WAY: 15 Feet
INTENSITY OF LAND USE: 80% Allowed, 48% Proposed

(PERCENTAGE OF LAND COVERAGE)
INGRESS AND EGRESS AVAILABILITY: 2 access connections proposed

NUMBER/TYPE OF TREES TO BE CLEARED AND CUT: Site has been cleared

NOISE LEVEL OF PROPOSED DEVELOPMENT: N/A – multi family development

IMPACT ON SURROUNDING NATURAL RESOURCES: N/A

DISABLED ACCESSIBILITY: Yes

LIGHTING SCHEME IN TERMS OF PUBLIC SAFETY AND SECURITY: Building lighting and parking Lot lighting for safety and security

BUILDING/STRUCTURE INFORMATION

PRINCIPAL USE OF BUILDING: Residential
TYPE OF CONSTRUCTION (WOOD FRAME, BLOCK, METAL, ETC.): Wood Frame
SQUARE FEET UNDER ROOF: 158,507 SF
SQUARE FEET OF PAVED PARKING: 66,996 SF (total asphalt area)
NUMBER OF PARKING SPACES PROVIDED: 441 provided
NUMBER OF RESIDENTIAL UNITS TO BE BUILT: 156
NUMBER OF BEDROOMS PER UNIT: 1, 2, AND 3 bedroom units
WILL HAZARDOUS OR FLAMMABLE MATERIALS BE STORED OR USED ON SITE: ____YES __X__NO
TYPE OF FIRE SUPPRESSION SYSTEM TO BE INSTALLED: Sprinkled
TYPE OF GROUND SPRINKLER SYSTEM TO BE INSTALLED: _____
FOR COMMERCIAL DEVELOPMENT - NUMBER OF EMPLOYEES: _____
ACCESSORY STRUCTURES: _____ NUMBER _____TYPE _____

(GARAGE, SWIMMING_____ NUMBER _____ TYPE _____

POOLS, FENCES, _____ NUMBER _____ TYPE _____
STORAGE BLDG. ETC)

STRUCTURE HEIGHT: See Architectural Plans
BUILDING SET BACKS:
1. SIDE PROPERTY LINE: 15 Feet
2. REAR PROPERTY LINE: 15 Feet
3. FRONT PROPERTY LINE: 15 Feet
SIGNS TO BE INSTALLED: _____NUMBER_____TYPE

NOTE: CAUTION SHOULD BE TAKEN WHEN PLACING AND/OR MODIFYING A STRUCTURE IN THE AREA LOCATED ON THE IMMEDIATE WEST SIDE OF THE DUPONT BRIDGE, (ALSO KNOWN AS LONGPOINT) DUE TO POTENTIAL HIGH NOISE LEVELS CREATED BY AIRCRAFT FROM TYNDALL AFB.

UTILITIES INFORMATION

IS WATER AND SEWER CURRENTLY AVAILABLE: __X__YES _____NO
NUMBER OF EXISTING CONNECTIONS: WATER_____ SEWER_____
PROPOSED SEWER CONNECTIONS: 156 NUMBER 4" SIZE
PROPOSED WATER CONNECTIONS: 156 NUMBER 1" SIZE
IS ADEQUATE DRAINAGE AVAILABLE FOR THIS SITE: __X__YES _____ NO

TYPE OF DRAINAGE: (CHECK ONE)
STATE ROAD CULVERT_____
LOCAL STREET CULVERT_____
SWALE_____
RETENTION POND__X_____

PROPOSED METHOD OF PROVIDING DRAINAGE: On site treatment – retention, exempt from Attenuation due to direct discharge to estuarine water body
(DRAINAGE MUST MEET THE REQUIREMENTS OF A 25 YEAR, 24 HOUR STORM EVENT)

TYPE OF GARBAGE PICK UP: (CHECK ONE) ____RESIDENTIAL __X__COMMERCIAL
NOTE: COMMERCIAL ESTABLISHMENTS MUST PROVIDE FOR ENCLOSURES FOR ALL DUMPTERS LOCATED ON THE PROPERTY.

OTHER INFORMATION

__X__YES _____NO ARE OTHER STATE AND/OR FEDERAL PERMITS REQUIRED FOR THIS DEVELOPMENT?
(NOTE: IF YES COPIES OF APPROVED STATE AND/OR FEDERAL PERMITS MUST BE SUBMITTED WITH APPLICATION)

_____YES __X__NO WILL THE PROPOSED DEVELOPMENT REQUIRE LARGE VOLUMES OF WATER OF SEWER CAPACITY?

_____YES__X__ NO ARE WETLANDS, SALTWATER MARSHES OR FLOOD ZONES PRESENT ON THE PROPERTY? (IF YES, PLEASE ATTACH MAPS SHOWING LOCATION)

__X__YES _____NO WILL THE PROPOSED DEVELOPMENT INCLUDE PIERS, SLIPS, BULKHEADS OR SIMILAR STRUCTURES WHICH EXTEND INTO STATE WATERS?
(NOTE: IF THE DEVELOPMENT INCLUDES ANY OF THE ABOVE SEPARATE PERMITS WILL BE REQUIRED)

_____YES __X__ NO HAS A PLAN AMENDMENT BEEN GRANTED TO THE OWNER OF THIS PROPERTY FOR A CHANGE IN LAND USE FOR OTHER PROPERTY WITHIN 200 FEET DURING THE PAST 12 MONTHS?

FAILURE TO COMPLY WITH THE PROVISIONS OF THIS PERMIT MAY SUBJECT THE PERMIT TO MODIFICATION(S), WITHDRAWAL OR CANCELLATION, IN ADDITION TO ADDITIONAL PERMIT FEES BEING CHARGED, ADDITIONAL COST TO THE APPLICANT UP TO AND INCLUDING LEGAL FEES.

I HEREBY CERTIFY THAT THE INFORMATION PROVIDED HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

_____ 3/6/19
SIGNATURE OF OWNER (MANDATORY) DATE

_____ _____
SIGNATURE OF CONTRACTOR DATE

TO PRI BUILDING DEPARTMENT

PLEASE BE ADVISED THAT YOU MAY ISSUE A BUILDING PERMIT TO THE ABOVE NAMED APPLICANT/CONTRACTOR ON BEHALF OF THE CITY OF PARKER.

SIGNATURE OF APPROVAL _____ DATE _____

REQUIRED ATTACHMENTS

1. 3 COPIES OF BUILDING PLANS
2. 3 COPIES OF SITE PLANS: TO INCLUDE THE FOLLOWING

A. 3 VICINITY SKETCHES SHOWING THE RELATIONSHIP OF THE SITE IN RELATION TO SURROUNDING ROADWAYS, LAND USE DISTRICTS AND FLOOD ZONES WITH BASE FLOOD ELEVATIONS.

B. FLOOD ZONE ELEVATION CERTIFICATE

C. THE BOUNDARY LINES AND DIMENSIONS OF THE AREA OR LOTS INCLUDED IN THE SITE PLAN, INCLUDING ANGLES, DIMENSIONS AND REFERENCES; A NORTH DIRECTIONAL ARROW AND MAP SCALE; AND THE PROPOSED USE OF THE LAND BY AREAS.

D. THE EXISTING AND PROPOSED GRADES, THE DRAINAGE PLAN, EROSION CONTROL PLAN AND THE PROPOSED STRUCTURES WITH APPROPRIATE TOPOGRAPHIC CONTOUR INTERVALS OR SPOT ELEVATIONS.

E. THE SHAPE, SIZE AND-LOCATIONS OF ALL STRUCTURES, INCLUDING THE FLOOR AREA AND ELEVATIONS THEREOF; THE FLOOR AREA AND GROUND COVERAGE RATIOS AND THE RELATIVE FINISHED GROUND AND BASEMENT FLOOR GRADES.

F. NATURAL FEATURES SUCH AS WETLANDS, SHORELINE, LAKES OR PONDS AND PROTECTED TREES AND MAN-MADE FEATURES SUCH AS EXISTING ROADS, SIDEWALKS, WALLS, FENCES OR OTHER STRUCTURES INDICATING WHICH ARE TO BE RETAINED, REMOVED OR ALTERED AND THE ADJACENT PROPERTIES THEIR USES AND LAND USE DESIGNATIONS.

G. PROPOSE STREETS, DRIVEWAYS, SIDEWALKS AND PARKING FACILITIES, VEHICULAR TURNAROUNDS, CURB CUTOUTS AND LOADING AREAS; THE LOCATION OF SOLID WASTE RECEPTACLES, THE INSIDE RADII OF ALL CURVES, THE WIDTH OF THE STREETS, DRIVEWAYS AND SIDEWALKS AND TOTAL NUMBER OF AVAILABLE PARKING SPACES SPECIFYING THE TYPE OF CONSTRUCTION AND CRITICAL DIMENSIONS AND THE OWNERSHIP OF THE VARIOUS FACILITIES.

H. THE SIZE AND LOCATION OF ALL EXISTING AND PROPOSED PUBLIC AND PRIVATE UTILITIES OR EASEMENTS; WATER AND SEWER TAP LOCATIONS, SEWER CLEANOUTS AND TURNS AND WATER, METER TYPES, SIZES AND LOCATIONS.

I. ALL PROPOSED LANDSCAPING AND THE DIMENSIONS AND LOCATION OF ALL PROPOSED SIGNS.

3. CITY PERMIT SIGN APPLICATION IF APPROPRIATE.

4. ALL APPLICABLE STATE AND FEDERAL PERMITS. (DEP, DOT ETC.)

5. COPIES OF CITY WATER AND SEWER PERMITS. NOTE: THESE FEES MUST BE PAID IN TOTAL PRIOR TO A BUILDING PERMIT BEING ISSUED.

NOTE: $1,000 DEPOSIT + SEE ATTACHED FEE SCHEDULE

McNEIL—
—CARROLL
ENGINEERING, INC.

PROFESSIONAL ENGINEERING CONSULTANTS

April 7, 2019

VIA HAND DELIVERY

Mrs. Nancy Rowell
City of Parker
1001 West Park Street
Parker, Florida 32404

Re: Development Order Application
East Bay Flats
Parker, Florida
MCEI File No. 1126.03

Dear Mrs. Rowell:

On behalf of our client, HCB Financial Corp, we have enclosed an application for development order approval for a 156 unit multi family development. Enclosed are four (4) sets of plans, landscaping plans, architectural floor plans and elevations, City of Parker Development order Application, Application fee of $7,500 and drainage report for your review and approval.

Should you have any questions or require clarification, please contact us.

Respectfully,

McNeil Carroll Engineering, Inc.

Robert Carroll, P.E.
Vice President

Panama City
475 Harrison Avenue, Suite 200
Panama City, FL 32401
Phone (850) 763-5730
Fax (850) 763-5744
mcneilcarroll.com

Panama City Beach
17800 Panama City Beach Parkway
Panama City Beach, FL 32413
Phone (850) 234-1730
Fax (850) 234-1731

HCB FINANCIAL CORP.

42 Business Centre Drive, Suite 101. Miramar Beach, FL 32550
Voice: 850-460-2601 • Fax: 850-460-2605

January 18, 2019

RE: East Bay Flats townhome development noise attenuation

To whom it may concern:

The design and construction of the proposed East Bay Flats townhome development will be in compliance with the Florida Building Code, Section 3114 Airport Noise. To provide noise attenuation by using standards contained in "Guidelines for Sound Insulation of Residences Exposed to Aircraft Operations" prepared for the Department of the Navy by Wyle Research and Consulting, Arlington, VA, April 2005.

Tyndall AFB has identified and requested an outdoor-to-indoor noise level reduction of at least 25 decibels.

Sincerely,

Joe Dobson
President

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

INSTRUCTIONS: This notice shall be completed and submitted by persons proposing to construct projects permitted under the "General Permit for Construction of Water Main Extensions for Public Water Systems" in Rule 62-555.405, F.A.C. AT LEAST 30 DAYS BEFORE BEGINNING CONSTRUCTION OF A WATER MAIN EXTENSION PROJECT, complete and submit one copy of this notice to the appropriate Department of Environmental Protection (DEP) District Office or Approved County Health Department (ACHD) along with payment of the proper permit processing fee. (When completed, Part II of this notice serves as the preliminary design report for a water main extension project, and thus, it is unnecessary to submit a separate preliminary design report or drawings, specifications, and design data with this notice.) All information provided in this notice shall be typed or printed in ink. The DEP permit processing fee for projects requiring the services of a professional engineer during design is $650, and the DEP permit processing fee for projects not requiring the services of a professional engineer during design is $500.* Some ACHDs charge a county permit processing fee in addition to the DEP permit processing fee. Checks for permit processing fees shall be made payable to the Department of Environmental Protection or the appropriate ACHD. NOTE THAT A SEPARATE NOTIFICATION AND A SEPARATE PERMIT PROCESSING FEE ARE REQUIRED FOR EACH NON-CONTIGUOUS PROJECT.†

* *Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers licensed in Florida.*

† *Non-contiguous projects are projects that are neither interconnected nor located nearby one another (i.e., on the same site, on adjacent streets, or in the same neighborhood).*

I. General Project Information

A. Name of Project: East Bay Flats

B. Description of Project and Its Purpose:

Construction of 156 unit multi family development

C. Location of Project

1. County Where Project Located: Bay
2. Description of Project Location:

East Bay is located on the east side of Highway 98 adjacent to the Dupont Bridge

D. Estimate of Cost to Construct Project: $80,000

E. Estimate of Dates for Starting and Completing Construction of Project:
May 2019, complete December 2019

F. Permittee

PWS/Company Name: HCB Financial Group			PWS Identification No.:*
PWS Type:* ☐ Community	☐ Non-Transient Non-Community	☐ Transient Non-Community	☐ Consecutive
Contact Person: Brian Clapp		Contact Person's Title:	
Contact Person's Mailing Address: 42 Business Center Drive, Unit 101			
City: Miramar Beach		State: FL	Zip Code: 32550
Contact Person's Telephone Number: 850-460-2601		Contact Person's Fax Number:	
Contact Person's E-Mail Address: brian@hcbfinancialcorp.com			

* *This information is required only if the permittee is a public water system (PWS).*

G. Public Water System (PWS) Supplying Water to Project

PWS Name: City of Parker			PWS Identification No.:
PWS Type: ▪ Community	☐ Non-Transient Non-Community	☐ Transient Non-Community	☐ Consecutive
PWS Owner: City of Parker			
Contact Person:		Contact Person's Title:	
Contact Person's Mailing Address: 1001 West Park Street			
City: Parker		State: Fl	Zip Code: 32404
Contact Person's Telephone Number: 850-871-4104		Contact Person's Fax Number:	
Contact Person's E-Mail Address:			

DEP Form 62-555.900(7)Alternate
Effective August 26, 2003
(Updated September 8, 2015)

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

Project Name: East Bay	Permittee: HCB Financial Corp

H. Public Water System (PWS) that Will Own Project After It Is Placed into Permanent Operation

PWS Name: City of Parker	PWS Identification No.:*	
PWS Type:* ☐ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community ☐ Consecutive		
PWS Owner: City of Parker		
Contact Person:	Contact Person's Title:	
Contact Person's Mailing Address: 1001 West Park Street		
City: Parker	State: FL	Zip Code: 32404
Contact Person's Telephone Number: 850-871-4104	Contact Person's Fax Number:	
Contact Person's E-Mail Address:		

* *This information is required only if the owner/operator is an existing PWS.*

I. Professional Engineer(s) or Other Person(s) in Responsible Charge of Designing Project*

Company Name: McNeil Carroll Engineering, Inc.		
Designer(s): Robert Carroll, P.E.	Title(s) of Designer(s): Vice President	
Qualifications of Designer(s): ☒ Professional Engineer(s) Licensed in Florida – License Number(s): 57988 ☐ Public Officer(s) Employed by State, County, Municipal, or Other Governmental Unit of State† ☐ Plumbing Contractor(s) Licensed in Florida – License Number(s):^		
Mailing Address of Designer(s): 17800 Panama City Beach Parkway		
City: Panama City Beach	State: Fl	Zip Code: 32413
Telephone Number of Designer(s): 850-234-1730	Fax Number of Designer(s):	
E-Mail Address(es) of Designer(s): rcarroll@mcneilcarroll.com		

* *Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers licensed in Florida.*

† *Attach a detailed construction cost estimate showing that the cost to construct this project is $10,000 or less.*

^ *Attach documentation showing that this project will be installed by the plumbing contractor(s) designing this project, documentation showing that this project involves a public water system serving a single property and fewer than 250 fixture units, and a detailed construction cost estimate showing that the cost to construct this project is $50,000 or less.*

II. Preliminary Design Report for Project*

A. Service Area, Water Use, and Service Pressure Information

1. Design Type and Number of Service Connections, and Average Daily Water Demands and Maximum-Day Water Demands, in the Entire Area to Be Served by the Water Mains Being Constructed Under this Project:

A = Type of Service Connection	B = Number of Service Connections	C = Average Daily Water Demand Per Service Connection, gpd	D = Total Average Daily Water Demand[a], gpd (Columns BxC for Residential Service Connections)	E = Total Maximum-Day Water Demand[b], gpd
Single-Family Home			0	
Mobile Home			0	
Apartment	156	250	39000	97500
Commercial, Institutional, or Industrial Facility[a]				
Total	156		39000	97500

a. Description of Commercial, Institutional, or Industrial Facilities and Explanation of Method(s) Used to Estimate Average Daily Water Demand for These Facilities:

Pursuant to Parker Regulations, and average daily flow of 250 gpd per unit

b. Explanation of Peaking Factor(s) or Method(s) Used to Estimate Maximum-Day Water Demand:

use the peaking factor of 2.5 times the daily average water demand

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

Project Name: East Bay	Permittee: HCB Financial Corp

2. Explanation of Peaking Factor(s) or Method(s) Used to Estimate Design Peak-Hour Water Demand and, for Small Water Systems that Use Hydropneumatic Tanks or that Are Not Designed to Provide Fire Protection, Peak Instantaneous Water Demand:

   The peak hour water demand is determined by multiplying the total average daily water demand by a peaking factor of 4 and dividing by 24 hours.

3. Design Fire-Flow Rate and Duration:
   500 gpm at 2 hours
4. Design Service Pressure Range:
   40-80 psi

B. Project Site Information

1. ATTACH A SITE PLAN OR SKETCH SHOWING THE SIZE AND APPROXIMATE LOCATION OF NEW OR ALTERED WATER MAINS, SHOWING THE APPROXIMATE LOCATION OF HYDRANTS, VALVES, METERS, AND BLOW-OFFS IN SAID MAINS, AND SHOWING HOW SAID MAINS CONNECT TO THE PUBLIC WATER SYSTEM SUPPLYING WATER FOR THE PROJECT.
2. Description of Any Areas Where New or Altered Water Mains Will Cross Above or Under Surface Water or Be Located in Soil that Is Known to Be Aggressive:

   N/A

C. Information About Compliance with Design and Construction Requirements

1. If this project is being designed to comply with the following requirements, initial in ink before the requirements. If any of the following requirements do not apply to this project or if this project includes exceptions to any of the following requirements as allowed by rule, mark "X" before the requirements and complete Part II.C.2 below. *RSWW = Recommended Standards for Water Works* as incorporated into Rule 62-555.330, F.A.C.

   RLL a. This project is being designed to keep existing water mains and service lines in operation during construction or to minimize interruption of water service during construction. [*RSWW* 1.3.a; exceptions allowed under FAC 62-555.330]

   RLL b. All pipe, pipe fittings, pipe joint packing and jointing materials, valves, fire hydrants, and meters installed under this project will conform to applicable American Water Works Association (AWWA) standards. [FAC 62-555.320(21)(b), *RSWW* 8.0, and AWWA standards as incorporated into FAC 62-555.330; exceptions allowed under FAC 62-555.320(21)(c)]

   RLL c. All public water system components, excluding fire hydrants, that will be installed under this project and that will come into contact with drinking water will conform to NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C., or other applicable standards, regulations, or requirements referenced in paragraph 62-555.320(3)(b), F.A.C. [FAC 62-555.320(3)(b); exceptions allowed under FAC 62-555.320(3)(d)]

   RLL d. All pipe and pipe fittings installed under this project will contain no more than 8.0% lead, and any solder or flux used in this project will contain no more than 0.2% lead. [FAC 62-555.322]

   RLL e. All pipe and pipe fittings installed under this project will be color coded or marked in accordance with subparagraph 62-555.320(21)(b)3, F.A.C., using blue as a predominant color. (Underground plastic pipe will be solid-wall blue pipe, will have a co-extruded blue external skin, or will be white or black pipe with blue stripes incorporated into, or applied to, the pipe wall; and underground metal or concrete pipe will have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe will have continuous stripes that run parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint will be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe; for pipe with an internal diameter of 24 inches or greater, tape or paint will be applied in continuous lines along each side of the pipe as well as along the top of the pipe. Aboveground pipe will be painted blue or will be color coded or marked like underground pipe.) [FAC 62-555.320(21)(b)3]

   RLL f. All new or altered water mains included in this project are sized after a hydraulic analysis based on flow demands and pressure requirements. ATTACH A HYDRAULIC ANALYSIS JUSTIFYING THE SIZE OF ANY NEW OR ALTERED WATER MAINS WITH AN INSIDE DIAMETER OF LESS THAN THREE INCHES. [FAC 62-555.320(21)(b) and *RSWW* 8.1]

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

Project Name: East Bay	Permittee: HCB Financial Corp

NA g. The inside diameter of new or altered water mains that are included in this project and that are being designed to provide fire protection and serve fire hydrants will be at least six inches. [FAC 62-555.320(21)(b) and *RSWW* 8.1.2]

NA h. New or altered water mains that are included in this project and that are not being designed to carry fire flows do not have fire hydrants connected to them. [FAC 62-555.320(21)(b) and *RSWW* 8.1.5]

NA i. This project is being designed to minimize dead-end water mains by making appropriate tie-ins where practical. [FAC 62-555.320(21)(b) and *RSWW* 8.1.6.a]

NA j. New or altered dead-end water mains included in this project will be provided with a fire or flushing hydrant or blow-off for flushing purposes. [FAC 62-555.320(21)(b) and *RSWW* 8.1.6.b]

NA k. Sufficient valves will be provided on new or altered water mains included in this project so that inconvenience and sanitary hazards will be minimized during repairs. [FAC 62-555.320(21)(b) and *RSWW* 8.2]

NA l. New or altered fire hydrant leads included in this project will have an inside diameter of at least six inches and will include an auxiliary valve. [FAC 62-555.320(21)(b) and *RSWW* 8.3.3]

NA m. All fire hydrants that will be installed under this project and that will have unplugged, underground drains will be located at least three feet from any existing or proposed storm sewer, stormwater force main, pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., or vacuum-type sanitary sewer; at least six feet from any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-10, F.A.C.; and at least ten feet from any existing or proposed "on-site sewage treatment and disposal system." [FAC 62-555.314(4)]

X n. At high points where air can accumulate in new or altered water mains included in this project, provisions will be made to remove the air by means of air relief valves, and automatic air relief valves will not be used in situations where flooding of the valve manhole or chamber may occur. [FAC 62-555.320(21)(b) and *RSWW* 8.4.1]

X o. The open end of the air relief pipe from all automatic air relief valves installed under this project will be extended to at least one foot above grade and will be provided with a screened, downward-facing elbow. [FAC 62-555.320(21)(b) and *RSWW* 8.4.2]

NA p. New or altered chambers, pits, or manholes that contain valves, blow-offs, meters, or other such water distribution system appurtenances and that are included in this project will not be connected directly to any sanitary or storm sewer, and blow-offs or air relief valves installed under this project will not be connected directly to any sanitary or storm sewer. [FAC 62-555.320(21)(b) and *RSWW* 8.4.3]

NA q. New or altered water mains included in this project will be installed in accordance with applicable AWWA standards or in accordance with manufacturers' recommended procedures. [FAC 62-555.320(21)(b), *RSWW* 8.5.1, and AWWA standards as incorporated into FAC 62-555.330]

NA r. A continuous and uniform bedding will be provided in trenches for underground pipe installed under this project; backfill material will be tamped in layers around underground pipe installed under this project and to a sufficient height above the pipe to adequately support and protect the pipe; and unsuitably sized stones (as described in applicable AWWA standards or manufacturers' recommended installation procedures) found in trenches will be removed for a depth of at least six inches below the bottom of underground pipe installed under this project. [FAC 62-555.320(21)(b), *RSWW* 8.5.2]

NA s. All water main tees, bends, plugs, and hydrants installed under this project will be provided with thrust blocks or restrained joints to prevent movement. [FAC 62-555.320(21)(b) and *RSWW* 8.5.4]

NA t. New or altered water mains that are included in this project and that will be constructed of asbestos-cement or polyvinyl chloride pipe will be pressure and leakage tested in accordance with AWWA Standard C603 or C605, respectively, as incorporated into Rule 62-555.330, F.A.C., and all other new or altered water mains included in this project will be pressure and leakage tested in accordance with AWWA Standard C600 as incorporated into Rule 62-555.330. [FAC 62-555.320(21)(b)1 and AWWA standards as incorporated into FAC 62-555.330]

NA u. New or altered water mains, including fire hydrant leads and including service lines that will be under the control of a public water system and that have an inside diameter of three inches or greater, will be disinfected and bacteriologically evaluated in accordance with Rule 62-555.340, F.A.C. [FAC 62-555.320(21)(b)2 and FAC 62-555.340]

X v. New or altered water mains that are included in this project and that will be installed in areas where there are known aggressive soil conditions will be protected through use of corrosion-resistant water main materials, through encasement of the water mains in polyethylene, or through provision of cathodic protection. [FAC 62-555.320(21)(b) and *RSWW* 8.5.7.d]

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

Project Name: East Bay	Permittee: HCB Financial Corp

RLL w. New or relocated, underground water mains included in this project will be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed vacuum-type sanitary sewer, storm sewer, stormwater force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.; a horizontal distance of at least six feet between the outside of the water main and the outside of any existing or proposed gravity-type sanitary sewer (or a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed gravity-type sanitary sewer if the bottom of the water main will be laid at least six inches above the top of the sewer); a horizontal distance of at least six feet between the outside of the water main and the outside of any existing or proposed pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.; and a horizontal distance of at least ten feet between the outside of the water main and all parts of any existing or proposed "on-site sewage treatment and disposal system." [FAC 62-555.314(1); exceptions allowed under FAC 62-555.314(5)]

RLL x. New or relocated, underground water mains that are included in this project and that will cross any existing or proposed gravity- or vacuum-type sanitary sewer or storm sewer will be laid so the outside of the water main is at least six inches above the other pipeline or at least 12 inches below the other pipeline; and new or relocated, underground water mains that are included in this project and that will cross any existing or proposed pressure-type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water will be laid so the outside of the water main is at least 12 inches above or below the other pipeline. [FAC 62-555.314(2); exceptions allowed under FAC 62-555.314(5)]

RLL y. At the utility crossings described in Part II.C.1.w above, one full length of water main pipe will be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline or the pipes will be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, storm sewers, stormwater force mains, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. [FAC 62-555.314(2); exceptions allowed under FAC 62-555.314(5)]

X z. New or altered water mains that are included in this project and that will cross above surface water will be adequately supported and anchored, protected from damage and freezing, and accessible for repair or replacement. [FAC 62-555.320(21)(b) and *RSWW* 8.7.1]

X aa. New or altered water mains that are included in this project and that will cross under surface water will have a minimum cover of two feet. [FAC 62-555.320(21)(b) and *RSWW* 8.7.2]

X bb. New or altered water mains that are included in this project and that will cross under surface water courses greater than 15 feet in width will have flexible or restrained, watertight pipe joints and will include valves at both ends of the water crossing so the underwater main can be isolated for testing and repair; the aforementioned isolation valves will be easily accessible and will not be subject to flooding; the isolation valve closest to the water supply source will be in a manhole; and permanent taps will be provided on each side of the isolation valve within the manhole to allow for insertion of a small meter to determine leakage from the underwater main and to allow for sampling of water from the underwater main. [FAC 62-555.320(21)(b) and *RSWW* 8.7.2]

RLL cc. This project is being designed to include proper backflow protection at those new or altered service connections where backflow protection is required or recommended under Rule 62-555.360, F.A.C., or in *Recommended Practice for Backflow Prevention and Cross-Connection Control*, AWWA Manual M14, as incorporated into Rule 62-555.330, F.A.C.; or the public water system that will own this project after it is placed into operation has a cross-connection control program requiring water customers to install proper backflow protection at those service connections where backflow protection is required or recommended under Rule 62-555.360, F.A.C., or in AWWA Manual M14. [FAC 62-555.360 and AWWA Manual M14 as incorporated into FAC 62-555.330]

X dd. Neither steam condensate, cooling water from engine jackets, nor water used in conjunction with heat exchangers will be returned to the new or altered water mains included in this project. [FAC 62-555.320(21)(b) and *RSWW* 8.8.2]

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

Project Name: East Bay	Permittee: HCB Financial Corp

2. Explanation for Requirements Marked "X" in Part II.C.1 Above, Including Justification, Documentation, Assurances, and/or Alternatives as Required by Rule for Exceptions to Requirements in Part II.C.1:

n, o - no proposed air relief valves; v - no know aggressive soils; z, aa, bb - proposed water mains will not cross above or under surface waters;dd - no heat exchange

I completed Part II of this notice, and the information provided in Part II and on the attachment(s) to Part II is true and accurate to the best of my knowledge and belief.

Signature, Seal, and Date of Professional Engineer (PE) or Signature and Date of Other Person in Responsible Charge of Designing Project:*	Signature, Seal, and Date of Professional Engineer (PE) or Signature and Date of Other Person in Responsible Charge of Designing Project:*
4/7/19	
Printed/Typed Name: Robert Carroll	Printed/Typed Name:
License Number of PE or License Number or Title of Other Person in Responsible Charge of Designing Project:* 57988	License Number of PE or License Number or Title of Other Person in Responsible Charge of Designing Project:*
Portion of Preliminary Design Report for Which Responsible: 100%	Portion of Preliminary Design Report for Which Responsible:

* *Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more PEs licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, Part II of this notice shall be completed, signed, sealed, and dated by the PE(s) in responsible charge. If this project is not being designed under the responsible charge of one or more PEs licensed in Florida, Part II shall be completed, signed, and dated by the person(s) in responsible charge of designing this project.*

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

Project Name:	Permittee:

III. Certifications

A. Certification by Permittee

I am duly authorized to sign this notice on behalf of the permittee identified in Part I.F of this notice. I certify that, to the best of my knowledge and belief, this project complies with Chapter 62-555, F.A.C. I also certify that construction of this project has not begun yet and that, to the best of my knowledge and belief, this project does not include any of the following construction work:

- construction of water mains conveying raw or partially treated drinking water;
- construction of drinking water treatment, pumping, or storage facilities or conflict manholes;
- construction of water mains in areas contaminated by low-molecular-weight petroleum products or organic solvents;
- construction of an interconnection between previously separate public water systems or construction of water mains that create a "new system" as described under subsection 62-555.525(1), F.A.C.; or
- construction of water mains that will remain dry following completion of construction.

(A specific construction permit is required for each project involving any of the above listed construction work.)

I understand that, if this project is designed under the responsible charge of one or more professional engineers (PEs) licensed in Florida, the permittee must retain a Florida-licensed PE to take responsible charge of inspecting construction of this project for the purpose of determining in general if the construction proceeds in compliance with the Department of Environmental Protection construction permit, including the approved preliminary design report, for this project. I understand that the permittee must have complete record drawings prepared for this project. I also understand that the permittee must submit a certification of construction completion to the Department and obtain written approval, or clearance, from the Department before the permittee places this project into operation for any purpose other than disinfection or testing for leaks.

Signature and Date	Printed or Typed Name	Title
12-14-15	Brian Clapp	Manager

B. Certification by PWS Supplying Water to Project

I am duly authorized to sign this notice on behalf of the PWS identified in Part I.G of this notice. I certify that said PWS will supply the water necessary to meet the design water demands for this project. As indicated below, the water treatment plant(s) to which this project will be connected has(have) the capacity necessary to meet the design water demands for this project, and I certify that all other PWS components affected by this project also have the capacity necessary to meet the design water demands for this project. I certify that said PWS is in compliance with applicable planning requirements in Rule 62-555.348, F.A.C.; applicable cross-connection control requirements in Rule 62-555.360, F.A.C.; and to the best of my knowledge and belief, all other applicable rules in Chapters 62-550, 62-555, and 62-699, F.A.C.; furthermore, I certify that, to the best of my knowledge and belief, said PWS's connection to this project will not cause said PWS to be in noncompliance with Chapter 62-550 or 62-555, F.A.C. I also certify that said PWS has reviewed the preliminary design report for this project and that said PWS considers the connection(s) between this project and said PWS acceptable as designed.

- Name(s) of Water Treatment Plant(s) to Which this Project Will Be Connected:

- Total Permitted Maximum Day Operating Capacity of Plant(s), gpd: _____
- Total Maximum Day Flow at Plant(s) as Recorded on Monthly Operating Reports During Past 12 Months, gpd: _____

Signature and Date	Printed or Typed Name	Title

C. Certification by PWS that Will Own Project After It Is Placed into Permanent Operation

I am duly authorized to sign this notice on behalf of the PWS identified in Part I.H of this notice. I certify that said PWS will own this project after it is placed into permanent operation. I also certify that said PWS has reviewed the preliminary design report for this project and that said PWS considers this project acceptable as designed.

Signature and Date	Printed or Typed Name	Title

NOTICE OF INTENT TO USE THE GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PWSs

Project Name: East Bay	Permittee: HCB Financial Corp

D. Certification by Professional Engineer(s) in Responsible Charge of Designing Project*

I, the undersigned professional engineer licensed in Florida, am in responsible charge of designing this project. I certify that, to the best of my knowledge and belief, the design of this project complies with Chapter 62-555, F.A.C. I also certify that, to the best of my knowledge and belief, this project is not being designed to include any of the following construction work:

- construction of water mains conveying raw or partially treated drinking water;
- construction of drinking water treatment, pumping, or storage facilities or conflict manholes;
- construction of water mains in areas contaminated by low-molecular-weight petroleum products or organic solvents;
- construction of an interconnection between previously separate public water systems or construction of water mains that create a "new system" as described under subsection 62-555.525(1), F.A.C.; or
- construction of water mains that will remain dry following completion of construction.

(A specific construction permit is required for each project involving any of the above listed construction work.)

Signature, Seal, and Date:	Signature, Seal, and Date:
4/7/19	
Printed/Typed Name: Robert Carroll	Printed/Typed Name:
License Number: 57665	License Number:
Portion of Preliminary Design Report for Which Responsible: 100%	Portion of Preliminary Design Report for Which Responsible:

* *Except as noted in paragraphs 62-555.520(3)(a) and (b), F.A.C., projects shall be designed under the responsible charge of one or more professional engineers (PEs) licensed in Florida. If this project is being designed under the responsible charge of one or more PEs licensed in Florida, Part III.D of this notice shall be completed by the PE(s) in responsible charge. If this project is not being designed under the responsible charge of one or more PEs licensed in Florida, Part III.D does not have to be completed.*

Concurrency Analysis

Per City of Parker's LDR Section 9-3.2 proof of capacity stating that the level of service for transportation, solid waste, parks and recreation and school facilities will not be adversely impacted by the proposed development.

TRANSPORTATION

The traffic demand from this project was derived from the ITE Trip Generation Manual, 10th Edition. Data in this report is presented in terms of PM Peak-Hour as well as Daily Volumes.

Description: Apartment
ITE Code: 220 (Page: 279)
Unit Designation: UNITS
Expected Units: 156
Daily Trips: 1,139
PM Peak Trips: 104
59% Enter PM Peak Hour = 61 vph entering project
35% Exit PM Peak Hour = 43 vph exiting project

Total Enter PM Peak Hour = 61 vph entering project
Total Exit PM Peak Hour = 43 vph exiting project

Based on the latest data published FDOT Florida Traffic Online website, the following table is an analysis of the Exiting Conditions of the Impacted Roadway Segments

Trip Distribution & Assignment

Trip Distribution was allocated per the ITE Trip Generation Manual 9th Edition. Project Trip Assignments were based on percentages of existing distribution patterns and knowledge of the local conditions. Figure 2 is a graphic representation of the AADT Trip Distribution.

Analyzing the current AADT and trip distribution the following is observed:

Traffic counter 461624 (US 98 – 425' North of East Bay (Tyndall Bridge)
AADT – 20,500
D Factor – 53.8

EXISTING CONDITIONS

ROAD	SEGMENT	AADT w/ App. Trips	L O S	AVAILABLE CAPACITY (LOS D)	PEAK VOLUME	PEAK LOS	AVAILABLE PEAK CAPACITY
SR 30A US 98	Boat Race Road Dupont Bridge	20,500	B	16,200	2,089	B	1,471

Trip Distribution & Assignment

Trip Distribution was allocated per the ITE Trip Generation Manual 9th Edition. Project Trip Assignments were based on percentages of existing distribution patterns and knowledge of the local conditions. Figures 2 and 3 are graphic representations of the Daily and PM Peak Trip Distribution and Assignments.

PROJECTED CONDITIONS
PM PEAK HOUR

ROAD	SEGMENT	PEAK LOS	AVAILABLE CAPACITY (LOS C)	PROJECT TRIPS	REMAINING CAPACITY (LOS B)	PROJECTED LOS
SR 30A US 98	Boat Race Road Dupont Bridge	B	1,471	104	1,367	B

Conclusion

The transportation system surrounding the East Bay Flats project has adequate capacity to support the development and satisfies the City of Parker's Transportation Concurrency requirements and therefore Proportionate Fair Share will not be required for this development.

SOLID WASTE

The current level of service for solid waste is 4.5 pounds per day per capita for residential development. Based on the proposed development, the solid waste generated by development of 156 dwelling units is as follows:

6.5 lbs/day x 156 units x 1.5 residents per dwelling unit = 1,521 pounds per day.

Currently solid waste generated by City of Parker is sent to the New Incinerator Operations Center owned by Bay County.

There is available solid waste capacity at the Bay County New Incinerator Operations Center to accommodate the required LOS demand generated by the development of 156 units.

PARKS AND RECREATION

The level of service standards for public parks and playgrounds in City of Parker is 8.75 acres for 1,000 population.

- 4,467 current population = 39.1 acres of parks
- 156 units x 2 per unit = 312 people = 2.73 acres of parks

Total park area in Parker exceeds 57 acres. Therefore there are available parks and recreation space to accommodate the required LOS demand generated by the development of 156.

SCHOOLS

Enclosed is a letter from Bay District Schools regarding capacity.

Florida Department of Environmental Protection

NOTIFICATION/APPLICATION FOR CONSTRUCTING A DOMESTIC WASTEWATER COLLECTION/TRANSMISSION SYSTEM

PART I - GENERAL

Subpart A: Permit Application Type

Permit Application Type (mark one only)	EDUs Served	Application Fee*	"X"
Are you applying for an individual permit for a domestic wastewater collection/transmission system? Note: an EDU is equal to 3.5 persons. Criteria for an individual permit are contained in Rule 62-604.600(7), F.A.C.	≥ 10	$500	
	< 10	$300	
Is this a Notice of Intent to use the general permit for wastewater collection/transmission systems? Criteria for qualifying for a general permit are contained in Rule 62-604.600(6), F.A.C. Projects not meeting the criteria in Rule 62-604.600(6), F.A.C., must apply for an individual permit.	N/A	$250	X

*Note: Each non-contiguous project (i.e., projects that are not interconnected or are not located on adjacent streets or in the same neighborhood) requires a separate application and fee.

Subpart B: Instructions

(1) This form shall be completed for all domestic wastewater collection/transmission system construction projects as follows:
- If this is a Notice of Intent to use the general permit, this notification shall be submitted to the Department **at least 30 days prior to initiating construction.**
- If this is an application for an individual permit, the permit must be obtained prior to initiating construction.

(2) One copy of the completed form shall be submitted to the appropriate DEP district office or delegated local program along with the appropriate fee, and one copy of the following supporting documents. Checks should be made payable to the Florida Department of Environmental Protection, or the name of the appropriate delegated local program.

- If this is a Notice of Intent to use the general permit, attach a site plan or sketch showing the size and approximate location of new or altered gravity sewers, pump stations and force mains; showing the approximate location of manholes and isolation valves; and showing how the proposed project ties into the existing or proposed wastewater facilities. The site plan or sketch shall be signed and sealed by a professional engineer registered in Florida.
- If this is an application for an individual permit, one set of plans and specifications shall be submitted with this application, or alternatively, an engineering report shall be submitted. Plans and specifications and engineering reports shall be prepared in accordance with the applicable provisions of Chapters 10 and 20 of *Recommended Standards for Wastewater Facilities*. The plans and specifications or engineering report shall be signed and sealed by a Professional Engineer registered in Florida.

(3) All information shall be typed or printed in ink. Where attached sheets (or other technical documentation) are utilized in lieu of the blank spaces provided, indicate appropriate cross-references on the form. For Items (1) through (4) of Part II of this application form, if an item is not applicable to your project, indicate "NA" in the appropriate space provided.

PART II – PROJECT DOCUMENTATION

(1) Collection/Transmission System Permittee

Name Brian Clapp Title

Company Name HCB Financial Cor

Address 42 Business Center Drive, Unit 101

City Miramar Beach State FL Zip 32550

Telephone 850-460-2601 Fax Email brian@hcbfinancialcorp.com

(2) General Project Information

Project Name East Bay

Location: County Bay City Parker Section 25 Township 4S Range 14W

Project Description and Purpose (including pipe length, range of pipe diameter, total number of manholes, and total number of pump stations):

156 unit townhome development with 2,832 LF 8" gravity main, 11 manholes, 194 LF 2" force main and one grinder station.

Estimated date for: Start of construction May 2019 Completion of construction December 2019

Connections to existing system or treatment plant Military Point

(3) Project Capacity

A = Type of Unit	B = Number of Units	C = Population Per Unit	D = Total Population (Columns B x C)	E = Per Capita Flow	F = Total Average Daily Flow (Columns D x E)	G = Peak hour flow
Single-Family Home						
Mobile Home						
Apartment	156	2	312	100	31,200	5,200
Commercial, Institutional, or Industrial Facility*						
Total			312		31,200	5,200

* Description of commercial, institutional, and industrial facilities and explanation of method used to estimate per capita flow for these facilities:

Average daily flow of 31,200 gpd using peaking factor of 4 and divided by 24 hours

(4) Pump Station Data (attached additional sheets as necessary)

Location	Type	Estimated Flow to the Station (GPD) Maximum	Average	Minimum	Operating Conditions [GPM @ FT (TDH)]
see plans	Grinder	31,200	7,800	1,950	25 @ 111

(5) Collection/Transmission System Design Information

A. This information must be completed for all projects by the applicant's professional engineer, and if applicable, those professional engineers in other disciplines who assisted with the design of the project.

If this project has been designed to comply with the standards and criteria listed below, the engineer shall initial in ink before the standards or criteria. If any of the standards or criteria do not apply to this project or if this project has not been designed to comply with the standards or criteria, mark "X" before the appropriate standard or criteria and provide an explanation, including any applicable rule references, in (5)B. below.

Note, if the project has not been designed in accordance with the standards and criteria set forth in Rules 62-604.400(1) and (2), F.A.C., an application for an individual permit shall be submitted. However, if Rules 62-604.400(1) and (2), F.A.C., specifically allow for another alternative that will result in an equivalent level of reliability and public health protection, the project can be constructed using the general permit.

General Requirements

JW 1. The project is designed based on an average daily flow of 100 gallons per capita plus wastewater flow from industrial plants and major institutional and commercial facilities unless water use data or other justification is used to better estimate the flow. The design includes an appropriate peaking factor, which covers I/I contributions and non-wastewater connections to those service lines. [RSWF 11.243]

JW 2. Procedures are specified for operation of the collection/transmission system during construction. [RSWF 20.15]

JW 3. The project is designed to be located on public right-of-ways, land owned by the permittee, or easements and to be located no closer than 100 feet from a public drinking water supply well and no closer than 75 feet from a private drinking water supply well; or documentation is provided in Part II.(5)B., showing that another alternative will result in an equivalent level of reliability and public health protection. [62-604.400(1)(b) and (c), F.A.C.]

JW 4. The project is designed with no physical connections between a public or private potable water supply system and a sewer or force main and with no water pipes passing through or coming into contact with any part of a sewer manhole. [RSFW 38.1 and 48.5]

JW 5. The project is designed to preclude the deliberate introduction of storm water, surface water, groundwater, roof runoff, subsurface drainage, swimming pool drainage, air conditioning system condensate water, non-contact cooling water except as provided by Rule 62-610.668(1), F.A.C., and sources of uncontaminated wastewater, except to augment the supply of reclaimed water in accordance with Rule 62-610.472(3)(c), F.A.C. [62-604.400(1)(d), F.A.C.]

JW 6. The project is designed so that all new or relocated, buried sewers and force mains, are located in accordance with the separation requirements from water mains and reclaimed water lines of Rules 62-604.400(2)(g)(h) and (i) and (3), F.A.C. Note, if the criteria of Rules 62-604.400(2)(g) 4. or (2)(i) 3., F.A.C., are used, describe in Part II.(5)B©. alternative construction features that will be provided to afford a similar level of reliability and public health protection. [62-604.400(2)(g), (h), and (i) and (3), F.A.C.]

Gravity Sewers

JW 7. The project is designed with no public gravity sewer conveying raw wastewater less than 8 inches in diameter. [RSWF 33.1]

JW 8. The design considers buoyancy of sewers, and appropriate construction techniques are specified to prevent flotation of the pipe where high groundwater conditions are anticipated. [RSWF 33.3}

JW 9. All sewers are designed with slopes to give mean velocities, when flowing full, of not less than 2.0 feet per second, based on Manning's formula using an "n" value of 0.013; or if it is not practicable to maintain these minimum slopes and the depth of flow will be 0.3 of the diameter or greater for design average flow, the owner of the system has been notified that additional sewer maintenance will be required. The pipe diameter and slope are selected to obtain the greatest practical velocities to minimize solids deposition problems. Oversized sewers are not specified to justify flatter slopes. [RSWF 33.41, 33.42, and 33.43]

JW 10. Sewers are designed with uniform slope between manholes. [RWSF 33.44]

X 11. Where velocities greater than 15 fps are designed, provisions to protect against displacement by erosion and impact are specified. [RSWF 33.45]

X 12. Sewers on 20% slopes or greater are designed to be anchored securely with concrete, or equal, anchors spaced as follows: not over 36 feet center to center on grades 20% and up to 35%; not over 24 feet center to center on grades 35% and up to 50%; and not over 16 feet center to center on grades 50% and over. [RSWF 33.46]

RLL 13. Sewers 24 inches or less are designed with straight alignment between manholes. Where curvilinear sewers are proposed for sewers greater than 24 inches, the design specifies compression joints; ASTM or specific pipe manufacturer's maximum allowable pipe joint deflection limits are not exceeded; and curvilinear sewers are limited to simple curves which start and end at manholes. [RSWF 33.5]

RLL 14. Suitable couplings complying with ASTM specifications are required for joining dissimilar materials. [RSWF 33.7]

RLL 15. Sewers are designed to prevent damage from superimposed loads. [RSWF 33.7]

RLL 16. Appropriate specifications for the pipe and methods of bedding and backfilling are provided so as not to damage the pipe or its joints, impede cleaning operations and future tapping, nor create excessive side fill pressures and ovalation of the pipe, nor seriously impair flow capacity. [RSWF 33.81]

RLL 17. Appropriate deflection tests are specified for all flexible pipe. Testing is required after the final backfill has been in place at least 30 days to permit stabilization of the soil-pipe system. Testing requirements specify: 1) no pipe shall exceed a deflection of 5%; 2) using a rigid ball or mandrel for the deflection test with a diameter not less than 95% of the base inside diameter or average inside diameter of the pipe, depending on which is specified in the ASTM specification, including the appendix, to which the pipe is manufactured; and 3) performing the test without mechanical pulling devices. [RSWF 33.85]

RLL 18. Leakage tests are specified requiring that: 1) the leakage exfiltration or infiltration does not exceed 200 gallons per inch of pipe diameter per mile per day for any section of the system; 2) exfiltration or infiltration tests be performed with a minimum positive head of 2 feet; and 3) air tests, as a minimum, conform to the test procedure described in ASTM C-828 for clay pipe, ASTM C 924 for concrete pipe, ASTM F-1417 for plastic pipe, and for other materials appropriate test procedures. [RSWF 33.93, 33.94, and 33.95]

X 19. If an inverted siphon is proposed, documentation of its need is provided in Part II.(5)BC. Inverted siphons are designed with: 1) at least two barrels; 2) a minimum pipe size of 6 inches; 3) necessary appurtenances for maintenance, convenient flushing, and cleaning equipment; and 4) inlet and discharge structures having adequate clearances for cleaning equipment, inspection, and flushing. Design provides sufficient head and appropriate pipe sizes to secure velocities of at least 3.0 fps for design average flows. The inlet and outlet are designed so that the design average flow may be diverted to one barrel, and that either barrel may be cut out of service for cleaning. [RSWF 35]

Manholes

RLL 20. The project is designed with manholes at the end of each line; at all changes in grade, size, or alignment; at all intersections; and at distances not greater than 400 feet for sewers 15 inches or less and 500 feet for sewers 18 inches to 30 inches, except in the case where adequate modern cleaning equipment is available at distances not greater than 600 feet. [RSWF 34.1]

RLL 21. Design requires drop pipes to be provided for sewers entering manholes at elevations of 24 inches or more above the manhole invert. Where the difference in elevation between the incoming sewer and the manhole invert is less than 24 inches, the invert is designed with a fillet to prevent solids deposition. Inside drop connections (when necessary) are designed to be secured to the interior wall of the manhole and provide access for cleaning. Design requires the entire outside drop connection be encased in concrete. [RSWF 34.2]

RLL 22. Manholes are designed with a minimum diameter of 48 inches and a minimum access diameter of 22 inches. [RSWF 34.3]

RLL 23. Design requires that a bench be provided on each side of any manhole channel when the pipe diameter(s) are less than the manhole diameter and that no lateral sewer, service connection, or drop manhole pipe discharges onto the surface of the bench. [RSWF 34.5]

RLL 24. Design requires: 1) manhole lift holes and grade adjustment rings be sealed with non-shrinking mortar or other appropriate material; 2) inlet and outlet pipes be joined to the manhole with a gasketed flexible watertight connection or another watertight connection arrangement that allows differential settlement of the pipe and manhole wall; and 3) watertight manhole covers be used wherever the manhole tops may be flooded by street runoff or high water. [RSWF 34.6]

RLL 25. Manhole inspection and testing for watertightness or damage prior to placing into service are specified. Air testing, if specified for concrete sewer manholes, conforms to the test procedures described in ASTM C-1244. [RSWF 34.7]

RLL 26. Electrical equipment specified for use in manholes is consistent with Item 46 of this checklist. [RSWF 34.9]

Stream Crossings

X 27. Sewers and force mains entering or crossing streams are designed to be constructed of ductile iron pipe with mechanical joints or so they will remain watertight and free from changes in alignment or grade. Appropriate materials which will not readily erode, cause siltation, damage pipe during placement, or corrode the pipe are specified to backfill the trench. [RSWF 36.21 and 48.5]

X 28. Stream crossings are designed to incorporate valves or other flow regulating devices (which may include pump stations) on the shoreline or at such distances from ~~form~~ the shoreline to prevent discharge in the event the line is damaged. [62-604.400(2)(k)5., F.A.C.]

X 29. Sewers and force mains entering or crossing streams are designed at a sufficient depth below the natural bottom of the stream bed to protect the line. At a minimum, the project is designed with subaqueous lines to be buried at least three feet below the design or actual bottom, whichever is deeper, of a canal and other dredged waterway or the natural bottom of streams, rivers, estuaries, bays, and other natural water bodies; or if it is not practicable to design the project with less than three-foot minimum cover, alternative construction features (e.g. a concrete cap, sleeve, or some other properly engineered device to insure adequate protection of the line) are described in Part II.C. [62-604.400(2)(k)1., F.A.C., and RSWF 36.11]

X 30. Specifications require permanent warning signs be placed on the banks of canals, streams, and rivers clearly identifying the nature and location (including depths below design or natural bottom) of subaqueous crossings and suitably fixed signs be placed at the shore, for subaqueous crossings of lakes, bays, and other large bodies of water, and in any area where anchoring is normally expected. [62-604.400(2)(k)2., F.A.C.]

X 31. Provisions for testing the integrity of subaqueous lines are specified. [62-604.400(2)(k)4., F.A.C.]

X 32. Supports are designed for all joints in pipes utilized for aerial crossings and to prevent overturning and settlement. Expansion jointing is specified between above ground and below ground sewers and force mains. The design considers the impact of floodwaters and debris. [RSWF 37 and 48.5]

X 33. Aerial crossings are designed to maintain existing or required navigational capabilities within the waterway and to reserve riparian rights of adjacent property owners. [62-604.400(2)(k)3., F.A.C.]

Pump Stations

X 34. In areas with high water tables, pump stations are designed to withstand flotation forces when empty. When siting the pump station, the design considers the potential for damage or interruption of operation because of flooding. Pump station structures and electrical and mechanical equipment are designed to be protected from physical damage by the 100-year flood. Pump stations are designed to remain fully operational and accessible during the 25-year flood unless lesser flood levels are appropriate based on local considerations, but not less than the 10-year flood. [62-604.400(2)(e), F.A.C.]

X 35. Pump stations are designed to be readily accessible by maintenance vehicles during all weather conditions. [RSWF 41.2]

X 36. Wet well and pump station piping is designed to avoid operational problems from the accumulation of grit. [RSWF 41.3]

X 37. Dry wells, including their superstructure, are designed to be completely separated from the wet well. Common walls are designed to be gas tight. [RSWF 42.21]

X 38. The design includes provisions to facilitate removing pumps, motors, and other mechanical and electrical equipment. [RSWF 42.22]

X 39. The design includes provisions for: 1) suitable and safe means of access for persons wearing self-contained breathing apparatus are provided to dry wells, and to wet wells; 2) stairway access to wet wells more than 4 feet deep containing either bar screens or mechanical equipment requiring inspection or maintenance; 3) for built-in-place pump stations, a stairway to the dry well with rest landings at vertical intervals not to exceed 12 feet; 4) for factory-built pump stations over 15 feet deep, a rigidly fixed landing at vertical intervals not to exceed 10 feet unless a manlift or elevator is provided; and 5) where a landing is used, a suitable and rigidly fixed barrier to prevent an individual from falling past the intermediate landing to a lower level. If a manlift or elevator is provided, emergency access is included in the design. [RSWF 42.23]

X 40. Specified construction materials are appropriate under conditions of exposure to hydrogen sulfide and other corrosive gases, greases, oils, and other constituents frequently present in wastewater. [RSWF 42.25]

X 41. Except for low-pressure grinder or STEP systems, multiple pumps are specified, and each pump has an individual intake. Where only two units are specified, they are of the same size. Specified units have capacity such that, with any unit out of service, the remaining units will have capacity to handle the design peak hourly flow. [RSWF 42.31 and 42.36]

X 42. Bar racks are specified for pumps handling wastewater from 30 inch or larger diameter sewers. Where a bar rack is specified, a mechanical hoist is also provided. The design includes provisions for appropriate protection from clogging for small pump stations. [RSWF 42.322]

X 43. Pumps handling raw wastewater are designed to pass spheres of at least 3 inches in diameter. Pump suction and discharge openings are designed to be at least 4 inches in diameter. [RSWF 42.33] (Note, this provision is not applicable to grinder pumps.)

X 44. The design requires pumps be placed such that under normal operating conditions they will operate under a positive suction head, unless pumps are suction-lift pumps. [RSWF 42.34]

X 45. The design requires: 1) pump stations be protected from lightning and transient voltage surges; and 2) pump stations be equipped with lighting arrestors, surge capacitors, or other similar protection devices and phase protection. Note, pump stations serving a single building are not required to provide surge protection devices if not necessary to protect the pump station. [62-604.400(2)(b), F.A.C.]

X 46. The design requires 1) electrical systems and components (e.g., motors, lights, cables, conduits, switch boxes, control circuits, etc.) in raw wastewater wet wells, or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors may be present, comply with the National Electrical Code requirements for Class I Group D, Division 1 locations; 2) electrical equipment located in wet wells be suitable for use under corrosive conditions; 3) each flexible cable be provided with a watertight seal and separate strain relief; 4) a fused disconnect switch located above ground be provided for the main power feed for all pump stations; 5) electrical equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 3R or 4; 6) a 110 volt power receptacle to facilitate maintenance be provided inside the control panel for pump stations that have control panels outdoors; and 7) ground fault interruption protection be provided for all outdoor outlets. [RSWF 42.35]

X 47. The design requires a sump pump equipped with dual check valves be provided in dry wells to remove leakage or drainage with discharge above the maximum high water level of the wet well. [RSWF 42.37]

X 48. Pump station design capacities are based on the peak hourly flow and are adequate to maintain a minimum velocity of 2 feet per second in the force main. [RSWF 42.38]

X 49. The design includes provisions to automatically alternate the pumps in use. [RSWF 42.4]

X 50. The design requires: 1) suitable shutoff valves be placed on the suction line of dry pit pumps; 2) suitable shutoff and check valves be placed on the discharge line of each pump (except on screw pumps); 3) a check valve be located between the shutoff valve and the pump; 4) check valves be suitable for the material being handled; 5) check valves be placed on the horizontal portion of discharge piping (except for ball checks, which may be placed in the vertical run); 6) all valves be capable of withstanding normal pressure and water hammer; and 7) all shutoff and check valves be operable from the floor level and accessible for maintenance. [RSWF 42.5]

X 51. The effective volume of wet wells is based on design average flows and a filling time not to exceed 30 minutes unless the facility is designed to provide flow equalization. The pump manufacturer's duty cycle recommendations were utilized in selecting the minimum cycle time. [RSWF 42.62]

X 52. The design requires wet well floors have a minimum slope of 1 to 1 to the hopper bottom and the horizontal area of hopper bottoms be no greater than necessary for proper installation and function of the inlet. [RSWF 42.63]

X 53. For covered wet wells, the design provides for air displacement to the atmosphere, such as an inverted "j" tube or other means. [RSWF 42.64]

X 54. The design provides for adequate ventilation all pump stations; mechanical ventilation where the dry well is below the ground surface; permanently installed ventilation if screens or mechanical equipment requiring maintenance or inspection are located in the wet well. Pump stations are designed with no interconnection between the wet well and dry well ventilation systems. [RSWF 42.71]

X 55. The design requires all intermittently operated ventilation equipment to be interconnected with the respective pit lighting system and the manual lighting/ventilation switch to override the automatic controls. [RSWF 42.73]

X 56. The design requires the fan wheels of ventilation systems be fabricated from non-sparking material and automatic heating and dehumidification equipment be provided in all dry wells. [RSWF 42.74]

X 57. If wet well ventilation is continuous, design provides for at least 12 complete 100% fresh air changes per hour; if wet well ventilation is intermittent, design provides for at least 30 complete 100% fresh air changes per hour; and design requires air to be forced into wet wells by mechanical means rather than solely exhausted from the wet well. [RSWF 42.75]

X 58. If dry well ventilation is continuous, design provides at least 6 complete 100% fresh air changes per hour; and dry well ventilation is intermittent, design provides for at least 30 complete 100% fresh air changes per hour, unless a system of two speed ventilation with an initial ventilation rate of 30 changes per hour for 10 minutes and automatic switch over to 6 changes per hour is used to conserve heat. [RSWF 42.76]

X 59. Pump stations are designed and located on the site to minimize adverse effects from odors, noise, and lighting. [62-604.400(2)(c), F.A.C.]

X 60. The design requires pump stations be enclosed with a fence or otherwise designed with appropriate features to discourage the entry of animals and unauthorized persons. Posting of an unobstructed sign made of durable weather resistant material at a location visible to the public with a telephone number for a point of contact in case of emergency is specified. [62-604.400(2)(d), F.A.C.]

X 61. The design requires suitable devices for measuring wastewater flow at all pump stations. Indicating, totalizing, and recording flow measurement are specified for pump stations with a 1200 gpm or greater design peak flow. [RSWF 42.8]

X 62. The project is designed with no physical connections between any potable water supplies and pump stations. If a potable water supply is brought to a station, reduced-pressure principle backflow-prevention assemblies are specified. [RSWF 42.9 and 62-555.30(4), F.A.C.]

Additional Items to be Completed for Suction-Lift Pump Stations

X 63. The design requires all suction-lift pumps to be either self-priming or vacuum-priming and the combined total of dynamic suction-lift at the "pump off" elevation and required net positive suction head at design operating conditions not to exceed 22 feet. For self-priming pumps, the design requires: 1) pumps be capable of rapid priming and repriming at the "lead pump on" elevation with self-priming and repriming accomplished automatically under design operating conditions; 2) suction piping not to exceed the size of the pump suction or 25 feet in total length; and 3) priming lift at the "lead pump on" elevation to include a safety factor of at least 4 feet from the maximum allowable priming lift for the specific equipment at design operating conditions. For vacuum-priming pump stations, the design requires dual vacuum pumps capable of automatically and completely removing air from the suction-lift pumps and the vacuum pumps be adequately protected from damage due to wastewater. [RSWF 43.1]

X 64. The design requires: 1) suction-lift pump equipment compartments to be above grade or offset and to be effectively isolated from the wet well to prevent a hazardous and corrosive sewer atmosphere from entering the equipment compartment; 2) wet well access not to be through the equipment compartment and to be at least 24 inches in diameter; 3) gasketed replacement plates be provided to cover the opening to the wet well for pump units to be remove for service; and 4) no valving be located in the wet well. [RSWF 43.2]

Additional Items to be Completed for Submersible Pump Stations

X 65. Submersible pumps and motors are designed specifically for raw wastewater use, including totally submerged operation during a portion of each pump cycle and to meet the requirements of the National Electrical Code for such units. Provisions for detecting shaft seal failure or potential seal failure are included in the design. [RSWF 44.1]

X 66. The design requires submersible pumps be readily removable and replaceable without dewatering the wet well or disconnecting any piping in the wet well. [RSWF 44.2]

X 67. In submersible pump stations, electrical supply, control, and alarm circuits are designed to provide strain relief; to allow disconnection from outside the wet well; and to protect terminals and connectors from corrosion by location outside the wet well or through use of watertight seals. [RSWF 44.31]

X 68. In submersible pump stations, the design requires the motor control center to be located outside the wet well, readily accessible, and protected by a conduit seal or other appropriate measures meeting the requirements of the National Electrical Code, to prevent the atmosphere of the wet well from gaining access to the control center. If a seal is specified, the motor can be removed and electrically disconnected without disturbing the seal. The design requires control equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 3R or 4. [RSWF 44.32]

X 69. In submersible pump stations, the design requires: 1) pump motor power cords be flexible and serviceable under conditions of extra hard usage and to meet the requirements of the National Electrical Code standards for flexible cords in wastewater pump stations; 2) ground fault interruption protection be used to de-energize the circuit in the event of any failure in the electrical integrity of the cable; and 3) power cord terminal fittings be corrosion-resistant and constructed in a manner to prevent the entry of moisture into the cable, provided with strain relief appurtenances, and designed to facilitate field connecting. [RSWF 44.33]

X 70. In submersible pump stations, the design requires all shut-off and check valves be located in a separate valve pit. Provisions to remove or drain accumulated water from the valve pit are included in the design. [RSWF 44.4]

Emergency Operations for Pump Stations

X 71. Pump stations are designed with an alarm system which activates in cases of power failure, sump pump failure, pump failure, unauthorized entry, or any cause of pump station malfunction. Pump station alarms are designed to be telemetered to a facility that is manned 24 hours a day. If such a facility is not available and a 24-hour holding capacity is not provided, the alarm is designed to be telemetered to utility offices during normal working hours and to the home of the responsible person(s) in charge of the lift station during off-duty hours. Note, if an audio-visual alarm system with a self-contained power supply is provided in lieu of a telemetered system, documentation is provided in Part II.(5)B~~C~~. showing an equivalent level of reliability and public health protection. [RSWF 45]

X 72. The design requires emergency pumping capability be provided for all pump stations. For pump stations that receive flow from one or more pump stations through a force main or pump stations discharging through pipes 12 inches or larger, the design requires uninterrupted pumping capability be provided, including an in-place emergency generator. Where portable pumping and/or generating equipment or manual transfer is used, the design includes sufficient storage capacity with an alarm system to allow time for detection of pump station failure and transportation and connection of emergency equipment. [62-604.400(2)(a)1. and 2., F.A.C., and RSWF 46.423 and 46.433]

X 73. The design requires: 1) emergency standby systems to have sufficient capacity to start up and maintain the total rated running capacity of the station, including lighting, ventilation, and other auxiliary equipment necessary for safety and proper operation; 2) special sequencing controls be provided to start pump motors unless the generating equipment has capacity to start all pumps simultaneously with auxiliary equipment operating; 3) a riser from the force main with rapid connection capabilities and appropriate valving be provided for all pump stations to hook up portable pumps; and 4) all pump station reliability design features be compatible with the available temporary service power generating and pumping equipment of the authority responsible for operation and maintenance of the collection/transmission system. [62-604.400(2)(a)3., F.A.C., and RSWF 46.431]

X 74. The design provides for emergency equipment to be protected from operation conditions that would result in damage to the equipment and from damage at the restoration of regular electrical power. [RSWF 46.411, 46.417, and 46.432]

X 75. For permanently-installed internal combustion engines, underground fuel storage and piping facilities are designed in accordance with applicable state and federal regulations; and the design requires engines to be located above grade with adequate ventilation of fuel vapors and exhaust gases. [RSWF 46.414 and 46.415]

X 76. For permanently-installed or portable engine-driven pumps are used, the design includes provisions for manual start-up. [RSWF 46.422]

X 77. Where independent substations are used for emergency power, each separate substation and its associated transmission lines is designed to be capable of starting and operating the pump station at its rated capacity. [RSWF 46.44]

Force Mains

X 78. Force mains are designed to maintain, at design pumping rates, a cleansing velocity of at least 2 feet per second. The minimum force main diameter specified for raw wastewater is not less than 4 inches. [RSWF 48.1]

X 79. The design requires: 1) branches of intersecting force mains be provided with appropriate valves such that one branch may be shut down for maintenance and repair without interrupting the flow of other branches; and 2) stubouts on force mains, placed in anticipation of future connections, be equipped with a valve to allow such connection without interruption of service. [62-604.400(2)(f), F.A.C.]

X 80. The design requires air relief valves be placed at high points in the force main to prevent air locking. [RSWF 48.2]

X 81. Specified force main pipe and joints are equal to water main strength materials suitable for design conditions. The force main, reaction blocking, and station piping are designed to withstand water hammer pressures and stresses associated with the cycling of wastewater pump stations. [RSWF 48.4]

X 82. When the Hazen and Williams formula is used to calculate friction losses through force mains, the value for "C" is 100 for unlined iron or steel pipe for design. For other smooth pipe materials, such as PVC, polyethylene, lined ductile iron, the value for C does not exceed 120 for design. [RSWF 48.61]

X 83. Where force mains are constructed of material, which might cause the force main to be confused with potable water mains, specifications require the force main to be clearly identified. [RSWF 48.7]

X 84. Leakage tests for force mains are specified including testing methods and leakage limits. [RSWF 48.8]

*RSWF = *Recommended Standards for Wastewater Facilities* (1997) as adopted by rule 62-604.300(5)(g), F.A.C.

B. Explanation for Requirements or Standards Marked "X" in II(5)A. Above (Attach additional sheets if necessary):

11) VELOCITIES LESS THAN 15FPS 12) SLOPES LESS THAN 20% 19) NO INVERTED SIPHON 27-33) NO STREAM CROSSING 35-64) NO LIFT STATION, FORCE MAIN OR SUCTION LIFT PUMP

PART III - CERTIFICATIONS

(1) Collection/Transmission System Permittee

I, the undersigned owner or authorized representative* of HCB Financial Corp am fully aware that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. I agree to retain the design engineer or another professional engineer registered in Florida, to conduct on-site observation of construction, to prepare a certification of completion of construction, and to review record drawings for adequacy. Further, I agree to provide an appropriate operation and maintenance manual for the facilities pursuant to Rule 62-604.500(4), F.A.C., and to retain a professional engineer registered in Florida to examine (or to prepare if desired) the manual. I am fully aware that Department approval must be obtained before this project is placed into service for any purpose other than testing for leaks and testing equipment operation.

Signed _____ Date 12-15-15

Name Brian Clapp Title manager

**Attach a letter of authorization.*

(2) Owner of Collection/Transmission System

I, the undersigned owner or authorized representative* of HCB Financial Corp certify that we will be the Owner of this project after it is placed into service. I agree that we will operate and maintain this project in a manner that will comply with applicable Department rules. Also I agree that we will promptly notify the Department if we sell or legally transfer ownership of this project.

Signed _____ Date 12-19-05
Name Brian Clapp Title manager
Company Name HCB Financial Corp
Address 42 Business Center Dr., Unit 101
City Miramar Beach State FL Zip 32550
Telephone _____ Fax _____ Email _____
* *Attach a letter of authorization.*

(3) Wastewater Facility Serving Collection/Transmission System**

If this is a Notice of Intent to use a general permit, check here:

☐ The undersigned owner or authorized representative* of the _____ wastewater facility hereby certifies that the above referenced facility has the capacity to receive the wastewater generated by the proposed collection system; is in compliance with the capacity analysis report requirements of Rule 62-600.405, F.A.C.; is not under a Department order associated with effluent violations or the ability to treat wastewater adequately; and will provide the necessary treatment and disposal as required by Chapter 403, F.S., and applicable Department rules.

If this is an application for an individual permit, check one:

☐ The undersigned owner or authorized representative* of the _____ wastewater facility hereby certifies that the above referenced facility has and will have adequate reserve capacity to accept the flow from this project and will provide the necessary treatment and disposal as required by Chapter 403, F.S., and applicable Department rules.

☐ The undersigned owner or authorized representative* of the _____ wastewater facility hereby certifies that the above referenced facility currently does not have, but will have prior to placing the proposed project into operation, adequate reserve capacity to accept the flow from this project and will provide the necessary treatment and disposal as required by Chapter 403, F.S., and applicable Department rules.

Name of Treatment Plant Serving Project _____
County Bay City _____
DEP permit number FL _____ Expiration Date _____
Maximum monthly average daily flow over the last 12 month period _____ MGD Month(s) used _____
Maximum three-month average daily flow over the last 12 month period _____ MGD Month(s) used _____
Current permitted capacity _____ MGD ☐ AADF ☐ MADF ☐ TMADF

Signed _____ Date _____
Name Ben Blitch, P.E. Title Director of Utilities
Address _____
City _____ State _____ Zip _____
Telephone _____ Fax _____ Email _____
* *Attach a letter of authorization.*
** *If there is an intermediate collection system, a letter shall be attached certifying that the intermediate downstream collection system has adequate reserve capacity to accept the flow from this project.*

(4) Professional Engineer Registered in Florida

I, the undersigned professional engineer registered in Florida, certify that I am in responsible charge of the preparation and production of engineering documents for this project; that plans and specifications for this project have been completed; that I have expertise in the design of wastewater collection/transmission systems; and that, to the best of my knowledge and belief, the engineering design for this project complies with the requirements of Chapter 62-604, F.A.C.

(Affix Seal)

Signed
Date 3/7/14

Name Robert Carroll Florida Registration No. 57988
Company Name McNeil Carroll Engineering, Inc.
Address 17800 Panama City Beach Parkway
City Panama city Beach State FL Zip 32413
Telephone 850-234-17: Fax - Email rcarroll@mcneilcarroll.com
Portion of Project for Which Responsible 100%

(Affix Seal)

Signed
Date

Name Florida Registration No.
Company Name
Address
City State Zip
Telephone Fax Email
Portion of Project for Which Responsible

(Affix Seal)

Signed
Date

Name Florida Registration No.
Company Name
Address
City State Zip
Telephone Fax Email
Portion of Project for Which Responsible

LONG POINT TOWNHOMES

SEWERAGE FLOW & LIFT STATION CALCULATION

McNEIL CARROLL ENGINEERING, INC.

PROJECT #112601

SOURCE	NO. OF UNITS	FLOW (GPD)	TOTAL FLOW (ADF)	EQUIV. POPUL. (#OF PEOPLE)
RESIDENTIAL				
RESIDENCES				
A) SINGLE FAMILY				
1 BEDROOM WITH 750 SQ. FT. OR LESS		100	0	0
2 BEDROOM WITH 751-1200 SQ. FT.		200	0	0
3 BEDROOM WITH 1201-2250 SQ. FT.	26	300	7800	78
4 BEDROOM WITH 2251-3300 SQ. FT.	0	400	0	0
FOR EACH ADDITIONAL BEDROOM OR EACH ADDITIONAL 750 SQ. FT., ADD 100 GALLONS PER DWELLING UNIT				
B)OTHER PER OCCUPANT	0	50	0	0
OTHER:	0	?????????		
TOTAL.....	.....	.....	7800	78

TRIAL ELEVATIONS AND CYCLE DEPTHS

PEAK FACTOR	4
PEAK FLOW RATE (GPM)	23
REQ'D CYCLE VOL FOR 10 MIN CYCLE TIME, GALLONS (DUPLEX PUMPS)	58
REQ'D CYCLE VOLUME FOR 10 MIN CYCLE TIME, C.F.	8
INVERT IN ELEVATION	3.84
HIGH LEVEL ALARM ELEVATION	2.84
SECOND PUMP ON ELEVATION	2.34
FIRST PUMP ON ELEVATION	1.84

WET WELL DIAMETER (FT)	BOTH PUMPS OFF (ELEV.)	INV. ELEV AT WELL INV.	CROSS SECT AREA (FT.SQ.)
4	1.22	-0.78	12.56
5	1.45	-0.55	19.625
6	1.57	-0.43	28.26

DISCHARGE ELEVATION (FT) (STATIC HEAD)	8
TERMINAL PRESSURE (PSIG)	0
FORCE MAIN DISCHARGE ELEV.(INC DOWNSTREAM PRESS)	8
LENGTH OF FORCE MAIN	194
EQUIVALENT LENGTH OF FITTINGS	20
EQUIVALENT LENGTH OF FORCE MAIN	214
FORCE MAIN DIAMETER (INCHES)	2
MINIMUM FLOW FOR SCOUR (GPM)	21.5424
MAX FLOW TO PREVENT PIPE DAMAGE (GPM)	78.32
FORCE MAIN CROSS SECT. AREA (SQ FT)	0.022
ELEV. OF BOTH PUMPS OFF FOR WET WELL SELECTED	1.17

HAZEN WILLIAMS COEFFECIENT(PVC 150;CAST IRON 120)	120	57.57
HYDRAULIC RADIUS (FT)	0.04166667	
HYDR. RAD RAISED TO .63 POWER	0.1350414	
IGNORE THIS LINE	21.36	

	FLOW (GPM)	VELOCITY (FPS)	STATIC HEAD(FT)	DYNAMIC HEAD(FT)	TDH (FT)
	25	2.53	6.83	4.12	10.95
	35	3.54	6.83	7.68	14.51
	50	5.06	6.83	14.88	21.71
ENTER DESIGN POINT:	25	2.53	6.83	4.12	10.95

FINAL CYCLE TIME,LIQUID LEVELS, ELECT. COSTS, ETC.

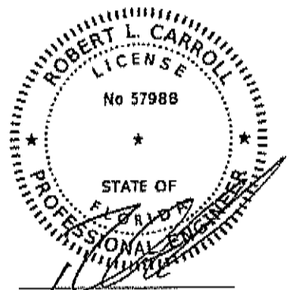
CROSS SECT AREA OF WET WELL SELECTED	12.56	
PEAK FLOW RATE SELECTED (GPM)	25	
REQ'D CYCLE VOL FOR 10 MIN CYCLE TIME, GALLONS (DUPLEX PUMPS)	62.5	
REQ'D CYCLE VOLUME FOR 10 MIN CYCLE TIME,(CU.FT.)	8.36	
INVERT "IN" ELEVATION	3.84	H
HIGH LEVEL ALARM ELEVATION	2.84	B
2ND PUMP ON ELEVATION	2.34	C
PUMP ON ELEVATION	1.84	D
CYCLE DEPTH	0.67	
PUMP OFF ELEVATION	1.17	E
INVERT ELEVATION OF WET WELL	0.09	F
NUMBER OF CYCLES PER DAY	124.80	
TOP ELEVATION	7.95	A
DEPTH OF WETWELL	7.86	I
CHECK UPLIFT BY BOUYANCY		
INSIDE DIAMETER SELECTED (IN FEET)	4	J
INSIDE CROSS SECTIONAL AREA (IN SQ. FT.)	12.56	
WALL THICKNESS (IN INCHES)	1	
OUTSIDE DIAMETER (IN FT)	4.17	
OUTSIDE CROSS SECTIONAL AREA (IN SQ. FT.)	13.63	
WATER TABLE ELEVATION	2	
INVERT ELEVATION	0.09	
BOTTOM OF COLLAR ELEVATION	-0.41	
BOUYANT FORCE (POUNDS)	2048.3	
TOP ELEVATION	7.95	
COLLAR EXTENSION BEYOND WETWELL (IN FT.)	1	
THICKNESS OF CONCRETE COLLAR (IN FT.)	0.5	
RESISTING FORCES		
a) ANTI FLOTATION COLLAR	550	
B) SOIL BEARING LOAD ON COLLAR	5758	
e) THE TOTAL RESISTING FORCE	6307	
REQUIRED RESISTING FORCE (1.5 SAFETY FACTOR)	3072	
REQUIRED RESISTING FORCE (2 SAFETY FACTOR)	4097	

DRAINAGE REPORT

EAST BAY FLATS
Parker, Florida
MCEI FILE NO. 112601

PREPARED BY:

McNEIL—CARROLL
ENGINEERING, INC.



Robert Carroll, P.E.
FL LC # 57988

2 April 2019
Date

17800 PANAMA CITY BEACH PARKWAY
PANAMA CITY BEACH, FLORIDA 32413
(850) 234-1730

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APPENDICES

1.1 INTRODUCTION

This drainage report was prepared for a proposed multi family development located on the east side of Tyndall Parkway in Parker, Florida known as East Bay Flats. The site consists of five (5) parcels with a total area of 14.36± acres with wetlands on site and is identified by the Bay County Property Appraiser's office as Parcel ID's 26214-020-000, 26214-010-000, 26217-000-000, 26216-000-000 and 26216-010-000 A vicinity map is included within this permit application for your reference.

1.2 STORMWATER MODELING TECHNIQUES

Advanced Interconnected Channel & Pond Routing (ICPR version 3.02) was used as the stormwater management facility modeling software. This program has been accepted by numerous regulatory agencies across Florida and is accepted by FEMA for Flood Insurance projects. ICPR uses a link-node concept to idealize real-world systems. A node is a discrete location in the drainage system where conservation of mass or continuity is maintained. Links are the connections between nodes and are used to transfer or convey water through the drainage system. A Node-Link Diagram, Node Maximum Conditions (Maximum Stage Elevation) and Link Maximum Conditions (Post Development Flow Rate) has been included.

2.0 DESIGN CRITERIA

The development has been designed to meet the treatment and attenuation requirements of City of Parker and Northwest Florida Water Management.

2.1 Water Quality

To comply with the City of Parker requirements, the stormwater management facility (SWMF) for the proposed drainage area must provide treatment for the first 1/2" of runoff from the drainage area. The total volume must be recovered within 72 hours.

To comply with the NWFWMD requirements, the SWMF for the proposed drainage area must provide treatment for the first 1/2" of runoff from the drainage area or 1" of rainfall, whichever is greater. The total volume must be recovered within 72 hours.

2.2 Water Quantity Criteria per ERP Applicant's Handbook Volume II, Part 3.0

Systems that meet any of the following thresholds must be designed, constructed, operated, and maintained in accordance with this Part: (a) Systems that serve projects of 40 or more acres of total land area; (b) Systems that provide for the placement of 12 or more acres of impervious surface, which also constitutes more than 40 percent of the total land area; or (c) Systems that are at any time capable of impounding a volume of water exceeding 40 acre-feet. The total site area is less than 40 acres, contains less than 12 acres of impervious area and is not capable of impounding a volume of water in excess of 40 acre-feet, and therefore **is exempt** from water quantity and flood control requirements.

2.3 Peak Discharge Attenuation Criteria to Protect Streambanks, per ERP Applicant's Handbook Volume II, Part 4.5.1

For systems serving new construction that is greater than 50 percent impervious (excluding water bodies) of the project area, the post development peak discharge rate must not exceed the pre-development peak discharge rate for the 2-year, 24-hour design storm event, utilizing a Natural Resource Conservation Service (NRCS) type III rainfall distribution with an antecedent moisture condition II. The site area contains **less than** 50% impervious area, and therefore is exempt from peak discharge attenuation criteria to protect streambanks.

2.4 Flood Attenuation (City of Parker)

Since the development has a direct stormwater discharge to an estuarine water body, attenuation is not required. Therefore this project is exempt from flood attenuation criteria.

3.0 PRE-DEVELOPMENT

3.1 Background.

The project is bound by Tyndall Parkway to the west, East Bay to the south and Oakshore Drive to the east. The parcels are currently vacant with vegetation and no building structures. The existing site has positive fall from approximate EL. 12.5 along the northern boundary of the parcel to EL. 0.50 along the southern boundaries (see provided survey and contour map).

3.2 Time of Concentration (TOC_{pre})

The pre-development time of concentration was calculated using the TR-55 Manual for Small Urban Watersheds methodology which uses sheet flow, shallow concentrated flow and channel flow to determine time of concentrations. The TOC_{pre} result is summarized in Appendix B.

3.2 Geotechnical Information.

Geotechnical exploration was performed by Magnum Engineering for seasonal high water table determination and permeability rates. The soils within this area encountered during the borings consisted of clean fine sands and slightly silty fine sands from the ground surface to approximately 5 feet to 10 feet below existing grade. Groundwater was encountered approximately 1.3 feet to greater than 10 feet below existing grade. Seasonal high water table was estimated to occur approximately 9' below existing ground surface at locations HA-1 and HA-2 and 1' below existing ground surface at locations HA-3 and HA-4 during wet season. The Bay County Soil Survey indicates Type A soils on the property which was consistent with the geotechnical report.

4.0 POST DEVELOPMENT

The stormwater management system has been designed for the proposed development and consists of four (4) drainage areas utilizing dry retention basins to provide treatment.

4.1 Receiving Waters

The receiving waters for discharges from the site will be to East Bay to the south along with the groundwater table. Groundwater was encountered approximately 1.3 feet to greater than 10 feet below existing grade. Seasonal high water table was estimated to occur approximately 9' below existing ground surface at locations HA-1 and HA-2 and 1' below existing ground surface at locations HA-3 and HA-4 during wet season.

4.2 Drainage Areas 1, 2 and 3 (DA 1 ,DA 2, DA 3).

Drainage Areas 1, 2 and 3 contain three (3) interconnected dry retention stormwater management facilities (SB-1, SB-2 and SB-3) that provides treatment for ± 5.00 acres. The treatment volume required for this drainage basin was for the first 1" of rainfall. This drainage area has been designed for the proposed development containing 3.05 acres of on-site impervious area with a top bank basin area of ± 0.82 acres. The top bank is set at EL 12.0 and the bottom at El. 10.00. Seasonal high groundwater was estimated during the geotechnical exploration at EL 3.0.

Drainage Area 4 (DA 4).

Drainage Area 4 contains a dry retention stormwater management facility (SB-4) that provides treatment for ± 8.68 acres. The treatment volume required for this drainage basin was for the first 1" of rainfall. This drainage area has been designed for the proposed development containing 4.97 acres of on-site impervious area with a top bank basin area of ± 0.68 acres. The top bank is set at EL 7.0 and the bottom at El. 5.0. Seasonal high groundwater was estimated during the geotechnical exploration at EL 2.0.

4.3 CN Summary

The post development site is considered to be developed with SCS Type "A" soil classification. The resulting SCS curve number calculated for the drainage area is summarized in Appendix B. The CN value in the post for the undisturbed/grassed areas are lower due to clean fill being utilized on the lot and the existing soils are very low and subject to seasonal high water table effects. The post condition will be compacted but not subject to the water table, allowing higher permeability

4.4 Time of Concentration Summary

The post development time of concentration was calculated using the TR-55 Manual for Small Urban Watersheds methodology which uses sheet flow, shallow

concentrated flow and channel flow to determine time of concentrations. The TOC_{post} result is summarized in Appendix B.

4.5 100-Year Floodplain Evaluation.

The subject developed portion of the parcel is not located within the 100-year floodplain according to provided survey as well as the Bay County GIS Flood Map.

5.0 CONCLUSION

The design of the stormwater management system for this project comply with the requirements of the following:

DRAINAGE AREA 1, 2 and 3 SUMMARY

Drainage Area	5.00 acres
Impervious Area	3.05 acres
1/2" of Runoff Treatment Required	9,074 cf
1" of Rainfall Treatment Required	16,589 cf
Treatment Volume Provided	21,375 ac-ft
Flood Control Overflow Type	Top Bank
Overflow Elevation	Varies

DRAINAGE AREA 4 SUMMARY

Drainage Area	8.68 acres
Impervious Area	4.97 acres
1/2" of Runoff Treatment Required	15,752 cf
1" of Rainfall Treatment Required	23,353 cf
Treatment Volume Provided	53,971 ac-ft
Flood Control Overflow Type	Top Bank
Overflow Elevation	7.00

5.1 NWFWMD

The development meets/exceeds the requirements for first 1" of rainfall.

The project is exempt from water quantity and flood control requirements per part 3.0.

5.2 FDEP

Erosion control measures will be utilized throughout the construction phase of this project to restrict any turbid runoff from leaving the construction site. Installation

details for silt fences and inlet sediment barriers, where applicable, are included within this permit application.

5.3 City of Parker

The design of the stormwater management system for this project complies with City of Parker's stormwater regulations. Attenuation is not required since the project has a direct discharge to an estuarine water body.

APPENDIX A

STORAGE RETENTION CALCULATIONS

EAST BAY FLATS - FILE NO 112603

McNeil Carroll Engineering, Inc.

DRAINAGE AREA 1

REQ'D: Volume of storage (retention) for 1/2" rule or runoff from one inch of rainfall

Drainage Area =	0.71 acre	or	30,714 sq. ft		
Impervious Area =	0.26 acre	or	11,509 sq. ft		
Pervious Area =	0.44 acre				
Offsite Site =	0.00 acre		sq. ft		
Offsite Impervious Area =	0.00 acre		sq. ft	Runoff Coefficient =	1.14
Offsite Pervious Area =	0.00 acre				
Impervious Surface Area =	76.01 %		Water Quantity Criteria Required per 3.1 = NO		
Top Bank Basin Area =	0.27 acre		Discharge Attenuation Required per 4.5.1= TRUE, 2-YR, 24-HR		
Soils Group =	A/D	(A,B,C,D,B/D)			
Fillable porosity = f =	0.25				
K_w=	55.40 ft/day	use	10.00 ft/day	5.0 in/hr	
K_H=	55.40 ft/day	use	10.00 ft/day		
FS=	5.54		Length of Bottom of Basin =	153 ft	
Basin Bottom Elevation=	10.00		Width of Bottom of Basin =	63 ft	
SHWT=	3.00 ft				
Impervious Layer Elevation=	0.00				
h_b=	7.00				

Retention Required

1/2" of runoff = $\frac{\text{(site area)(0.5 in)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1/2" of runoff= 1280 cf

1" of rainfall = $\frac{\text{(site area)(runoff coefficient)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1" of rainfall = 2927 cf

STAGE/STORAGE

Elevation	Area (sq. ft.)	Area (acres)	Volume (cu. FL)	Perc (cfs)
10.00	9,674	0.22	0	1.12
10.50	10,365	0.24	5,010	1.20
11.00	11,109	0.26	10,392	1.29
11.50	11,836	0.27	16,133	1.37
12.00	12,618	0.29	22,292	1.46

Treatment Volume occurs below EL. 11.00

SOLUTION:

Storage required =	2,927 cf	or	0.067 ac-ft		
Minimum depth =	0.35 ft				
Req'd overflow set @	10.35 ft	Overflow set @	10.50 ft	Vol set/Vol req'd =	1.429 = Safety Factor

Part II - Unsaturated Vertical Flow Analysis

Treatment Volume Depth (h_v)=	0.50 ft	
Height of water to saturate (h_u)=f(h_b)=	1.75 ft	saturated lateral flow will not occur
Volume infiltrated during Stage One (V_u)=	16929.5 cf	(Eq. 13-3; A_b h_b f)
Unsaturated vertical hydraulic conductivity (K_{wu})=	27.70 ft/day	
Design Infiltration Rate (I_d)=	10.00 ft/day	(Eq. 13-1; K_w/FS)
Time to saturate soil beneath the basin (t_{sat})=	0.18 days or	4.20 hours (Eq. 13-2; f h_b / I_d)

Part III - Saturated Lateral Flow Analysis

Remaining volume to be infiltrated under saturated lateral flow=	0 cf (storage required - volume infiltrated during Stage One)
Elevation of treatment volume at start of saturated lateral flow=	10.09 ft
height of water in the basin at start of saturated lateral flow (h_2)=	0.09 ft
height of water in the basin above initial GWT at start of sat lat flow (H_T)=	7.09 ft (Eq. 13-8; H_T=h_b+h_2)
F_y=	0.99 (Eq. 13-6; F_y=h_2/H_T)
Basin length to width ratio (L/W)=	2.42
F_x=	9.00 (from Figure 13-7)
Time to recover remaining treatment volume under saturated lateral flow	
H=	3.00 ft
Average saturated thickness (D) =	6.50 ft (Eq. 13-7; D=H + h_2/2)
time (t)=	0.19 days (Eq. 13-9; t=W^2/(4 K_H D F^2_x)

Part IV - Total Recovery Time

Total recovery time (t_{Total})= 0.36 days or 9 hours

McNEIL—CARROLL ENGINEERING, INC.

STORAGE RETENTION CALCULATIONS

EAST BAY FLATS - FILE NO 112603

McNeil Carroll Engineering, Inc.

DRAINAGE AREA 2

REQ'D: Volume of storage (retention) for 1/2" rule or runoff from one inch of rainfall

Drainage Area =	1.15 acre	or	50,154 sq. ft		
Impervious Area =	0.74 acre	or	32,401 sq. ft		
Pervious Area =	0.41 acre				
Offsite Site =	0.00 acre		sq. ft		
Offsite Impervious Area =	0.00 acre		sq. ft	Runoff Coefficient =	0.96
Offsite Pervious Area =	0.00 acre				
Impervious Surface Area =	81.08 %		Water Quantity Criteria Required per 3.1 = NO		
Top Bank Basin Area =	0.19 acre		Discharge Attenuation Required per 4.5.1= TRUE, 2-YR, 24-HR		
Soils Group =	A/D (A,B,C,D,B/D)				
Fillable porosity = f =	0.25				
K_v=	55.40 ft/day	use	10.00 ft/day	5.0 in/hr	
K_H=	55.40 ft/day	use	10.00 ft/day		
FS=	5.54		Length of Bottom of Basin =	164 ft	
Basin Bottom Elevation=	10.00		Width of Bottom of Basin =	38 ft	
SHWT=	3.00 ft				
Impervious Layer Elevation=	0.00				
h_b=	7.00				

STAGE/STORAGE

Elevation	Area (sq. ft.)	Area (acres)	Volume (cu. FL)	Perc (cfs)
10.00	6,170	0.14	0	0.71
10.50	6,828	0.16	3,250	0.79
11.00	7,538	0.17	6,854	0.87
11.50	8,265	0.19	10,826	0.96
12.00	9,008	0.21	15,178	1.04

Treatment Volume occurs below El.. 11.00

Retention Required

1/2" of runoff = $\frac{\text{(site area)(0.5 in)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1/2" of runoff= 2090 cf

1" of rainfall = $\frac{\text{(site area)(runoff coefficient)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1" of rainfall = 4027 cf

SOLUTION:

Storage required =	4,027 cf	or	0.092 ac-ft		
Minimum depth =	0.64 ft				
Req'd overflow set @	10.64 ft	Overflow set @	10.75 ft	Vol set/Vol req'd =	1.164 = Safety Factor

Part II - Unsaturated Vertical Flow Analysis

Treatment Volume Depth (h_w)=	0.75 ft	
Height of water to saturate (h_u)=f(h_b)=	1.75 ft	saturated lateral flow will not occur
Volume infiltrated during Stage One (V_u)=	10797.5 cf	(Eq. 13-3; A_b h_b f)
Unsaturated vertical hydraulic conductivity (K_{vu})=	27.70 ft/day	
Design Infiltration Rate (I_d)=	10.00 ft/day	(Eq. 13-1; K_{vu}/FS)
Time to saturate soil beneath the basin (t_{sat})=	0.18 days or	4.20 hours (Eq. 13-2; f h_b / I_d)

Part III - Saturated Lateral Flow Analysis

Remaining volume to be infiltrated under saturated lateral flow=	0 cf	(storage required - volume infiltrated during Stage One)
Elevation of treatment volume at start of saturated lateral flow=	10.14 ft	
height of water in the basin at start of saturated lateral flow (h_2)=	0.14 ft	
height of water in the basin above initial GWT at start of sat lat flow (H_T)=	7.14 ft	(Eq. 13-8; H_T=h_b+h_2)
F_y=	0.98	(Eq. 13-6; F_y=h_o/H_T)
Basin length to width ratio (L/W)=	4.36	
F_x=	9.00	(from Figure 13-7)
Time to recover remaining treatment volume under saturated lateral flow		
H=	3.00 ft	
Average saturated thickness (D) =	6.50 ft	(Eq. 13-7; D=H + h_o/2)
time (t)=	0.07 days	(Eq. 13-9; t=W^2/(4 K_H D F^2_x)

Part IV - Total Recovery Time

Total recovery time (t_{Total})= 0.24 days or 6 hours

STORAGE RETENTION CALCULATIONS

EAST BAY FLATS - FILE NO 112603

McNeil Carroll Engineering, Inc.

DRAINAGE AREA 3

REQ'D: Volume of storage (retention) for 1/2" rule or runoff from one inch of rainfall

Drainage Area =	3.14	acre	or	136,897	sq. ft
Impervious Area =	2.05	acre	or	89,387	sq. ft
Pervious Area =	1.09	acre			
Offsite Site =	0.00	acre			sq. ft
Offsite Impervious Area =	0.00	acre			sq. ft
Offsite Pervious Area =	0.00	acre			
Impervious Surface Area =	74.86	%			
Top Bank Basin Area =	0.30	acre			
Soils Group =	A/D	(A,B,C,D,B/D)			
Fillable porosity = f =	0.25				
K_{vs}=	55.40	ft/day	use	10.00 ft/day	5.0 in/hr
K_H=	55.40	ft/day	use	10.00 ft/day	
FS=	5.54				
Basin Bottom Elevation=	10.00				
SHWT=	3.00	ft			
Impervious Layer Elevation=	0.00				
h_b=	7.00				

Runoff Coefficient = 0.84

Water Quantity Criteria Required per 3.1 = NO

Discharge Attenuation Required per 4.5.1= TRUE, 2-YR, 24-HR

Length of Bottom of Basin = 186 ft

Width of Bottom of Basin = 57 ft

Retention Required

1/2" of runoff = $\frac{\text{(site area)(0.5 in)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1/2" of runoff= 5704 cf

1" of rainfall = $\frac{\text{(site area)(runoff coefficient)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1" of rainfall = 9635 cf

STAGE/STORAGE

Elevation	Area (sq. ft.)	Area (acres)	Volume (cu. Ft.)	Perc (cfs)
10.00	10,509	0.24	0	1.22
10.50	11,338	0.26	5,462	1.31
11.00	12,205	0.28	11,357	1.41
11.50	13,097	0.30	17,705	1.52
12.00	14,029	0.32	24,536	1.62

Treatment Volume occurs below EL. 11.00

SOLUTION:

Storage required =	9,635	cf	or	0.221	ac-ft
Minimum depth =	0.86	ft			
Req'd overflow set @	10.86	ft	Overflow set @	11.00 ft	Vol set/Vol req'd = 1.157 = Safety Factor

Part II - Unsaturated Vertical Flow Analysis

Treatment Volume Depth (h_v)=	1.00 ft	
Height of water to saturate (h_u)=f(h_b)=	1.75 ft	saturated lateral flow will not occur
Volume infiltrated during Stage One (V_u)=	18390.75 cf	(Eq. 13-3; A_b h_b f)
Unsaturated vertical hydraulic conductivity (K_{wu})=	27.70 ft/day	
Design Infiltration Rate (I_d)=	10.00 ft/day	(Eq. 13-1; K_w/FS)
Time to saturate soil beneath the basin (t_{sat})=	0.18 days or	4.20 hours (Eq. 13-2; f h_b / I_d)

Part III - Saturated Lateral Flow Analysis

Remaining volume to be infiltrated under saturated lateral flow=	0 cf	(storage required - volume infiltrated during Stage One)
Elevation of treatment volume at start of saturated lateral flow=	10.11 ft	
height of water in the basin at start of saturated lateral flow (h_2)=	0.11 ft	
height of water in the basin above initial GWT at start of sat lat flow (H_T)=	7.11 ft	(Eq. 13-8; H_T=h_b+h_2)
F_y=	0.99	(Eq. 13-6; F_y=h_v/H_T)
Basin length to width ratio (L/W)=	3.29	
F_x=	9.00	(from Figure 13-7)
Time to recover remaining treatment volume under saturated lateral flow H=	3.00 ft	
Average saturated thickness (D) =	6.50 ft	(Eq. 13-7; D=H + h_v/2)
time (t)=	0.15 days	(Eq. 13-9; t=W^2/(4 K_H D F^2_x)

Part IV - Total Recovery Time

Total recovery time (t_{Total})= 0.33 days or 8 hours

STORAGE RETENTION CALCULATIONS

EAST BAY FLATS - FILE NO. 112601

McNeil Carroll Engineering, Inc.

DRAINAGE AREA 4

REQ'D: Volume of storage (retention) for 1/2" rule or runoff from one inch of rainfall

Drainage Area =	8.68	acre	or	378,054	sq. ft
Impervious Area =	4.97	acre	or	216,444	sq. ft
Pervious Area =	3.71	acre			
Offsite Site =	0.00	acre			sq. ft
Offsite Impervious Area =	0.00	acre			sq. ft
Offsite Pervious Area =	0.00	acre			
Impervious Surface Area =	64.65	%			
Top Bank Basin Area =	0.64	acre			
Soils Group =	A/D	(A,B,C,D,B/D)			
Fillable porosity = f =	0.25				
K_v=	5.40	ft/day	use	2.70 ft/day	1.4 in/hr
K_H=	5.40	ft/day	use	2.70 ft/day	
FS=	2.00				
Basin Bottom Elevation=	5.00				
SHWT=	2.00	ft			
Impervious Layer Elevation=	0.00				
h_b=	3.00				

Runoff Coefficient = 0.74

Water Quantity Criteria Required per 3.1 = NO

Discharge Attenuation Required per 4.5.1= TRUE, 2-YR, 24-HR

Length of Bottom of Basin = 660 ft

Width of Bottom of Basin = 37 ft

Retention Required

1/2" of runoff = $\frac{\text{(site area)(0.5 in)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1/2" of runoff= 15752 cf

1" of rainfall = $\frac{\text{(site area)(runoff coefficient)(43560 ft}^2\text{/ac)}}{\text{12 in/ft}}$

1" of rainfall = 23353 cf

STAGE/STORAGE

Elevation	Area (sq. ft.)	Area (acres)	Volume (cu. Ft.)	Perc (cfs)
5.00	24,153	0.55	0	0.75
5.50	25,424	0.58	12,394	0.79
6.00	27,152	0.62	25,653	0.85
6.50	27,982	0.64	39,101	0.87
7.00	29,818	0.68	53,971	0.93

Treatment Volume occurs below EL. 6.00

SOLUTION:

Storage required = 23,353 cf or 0.536 ac-ft

Minimum depth = 0.91 ft

Req'd overflow set @ 5.91 ft Overflow set @ 7.00 ft Vol set/Vol req'd = 2.187 = Safety Factor

Part II - Unsaturated Vertical Flow Analysis

Treatment Volume Depth (h_v)=	2.00 ft	
Height of water to saturate (h_u)=f(h_b)=	0.75 ft	saturated lateral flow will occur
Volume infiltrated during Stage One (V_u)=	18114.75 cf	(Eq. 13-3; A_b h_b f)
Unsaturated vertical hydraulic conductivity (K_{wu})=	2.70 ft/day	
Design Infiltration Rate (I_d)=	2.70 ft/day	(Eq. 13-1; K_v/FS)
Time to saturate soil beneath the basin (t_{out})=	0.28 days or	6.67 hours (Eq. 13-2; f h_b / I_d)

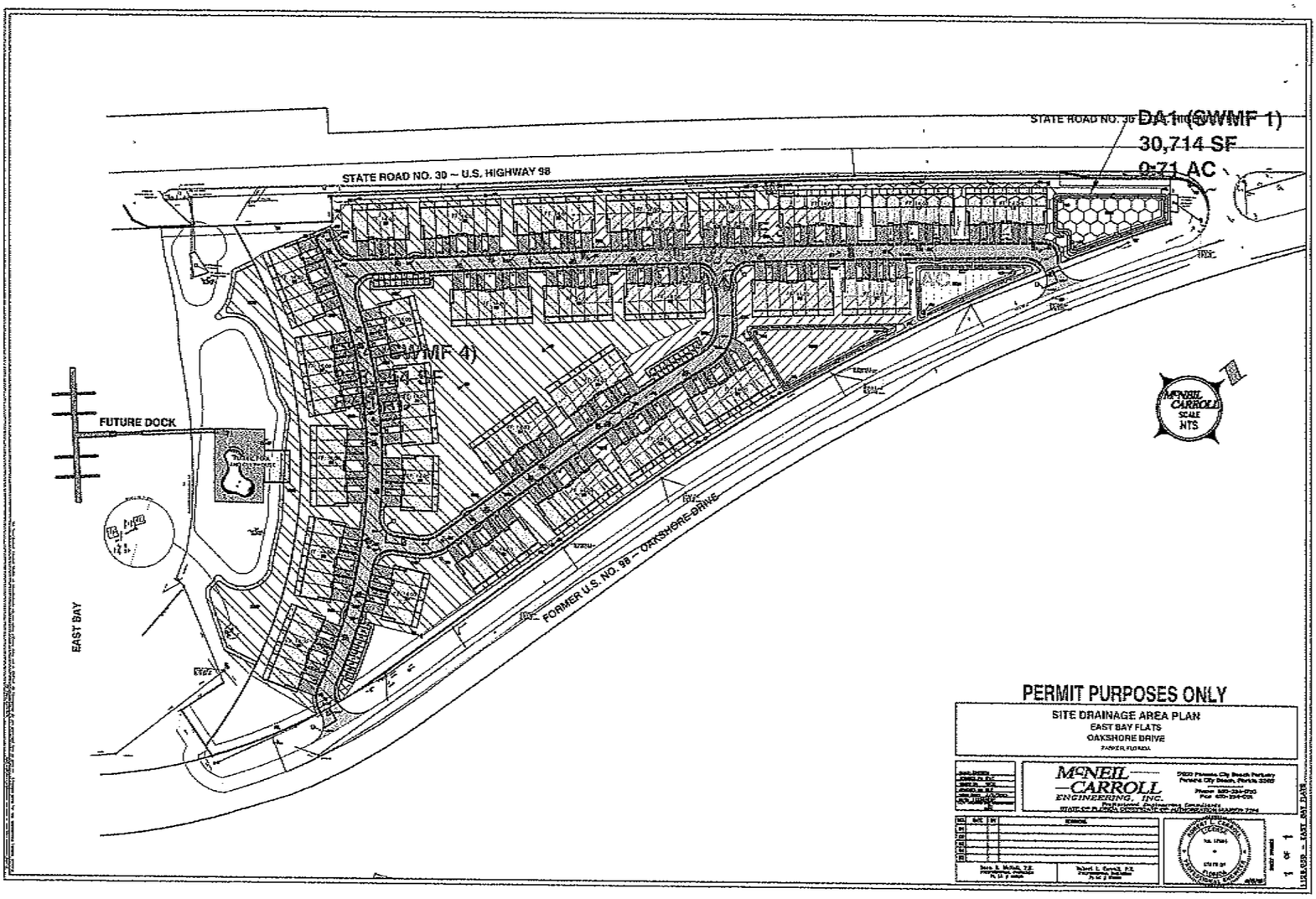
Part III - Saturated Lateral Flow Analysis

Remaining volume to be infiltrated under saturated lateral flow=	5237.63 cf	(storage required - volume infiltrated during Stage One)
Elevation of treatment volume at start of saturated lateral flow=	5.24 ft	
height of water in the basin at start of saturated lateral flow (h_2)=	0.24 ft	
height of water in the basin above initial GWT at start of sat lat flow (H_T)=	3.24 ft	(Eq. 13-8; H_T=h_b+h_2)
F_y=	0.93	(Eq. 13-6; F_y=h_c/H_T)
Basin length to width ratio (L/W)=	18.04	
F_x=	4.80	(from Figure 13-7)
Time to recover remaining treatment volume under saturated lateral flow		
H=	2.00 ft	
Average saturated thickness (D) =	3.50 ft	(Eq. 13-7; D=H + h_c/2)
time (t)=	1.54 days	(Eq. 13-9; t=W^2/(4 K_H D F^2_x)

Part IV - Total Recovery Time

Total recovery time (t_{Total})= 1.82 days or 44 hours

APPENDIX B

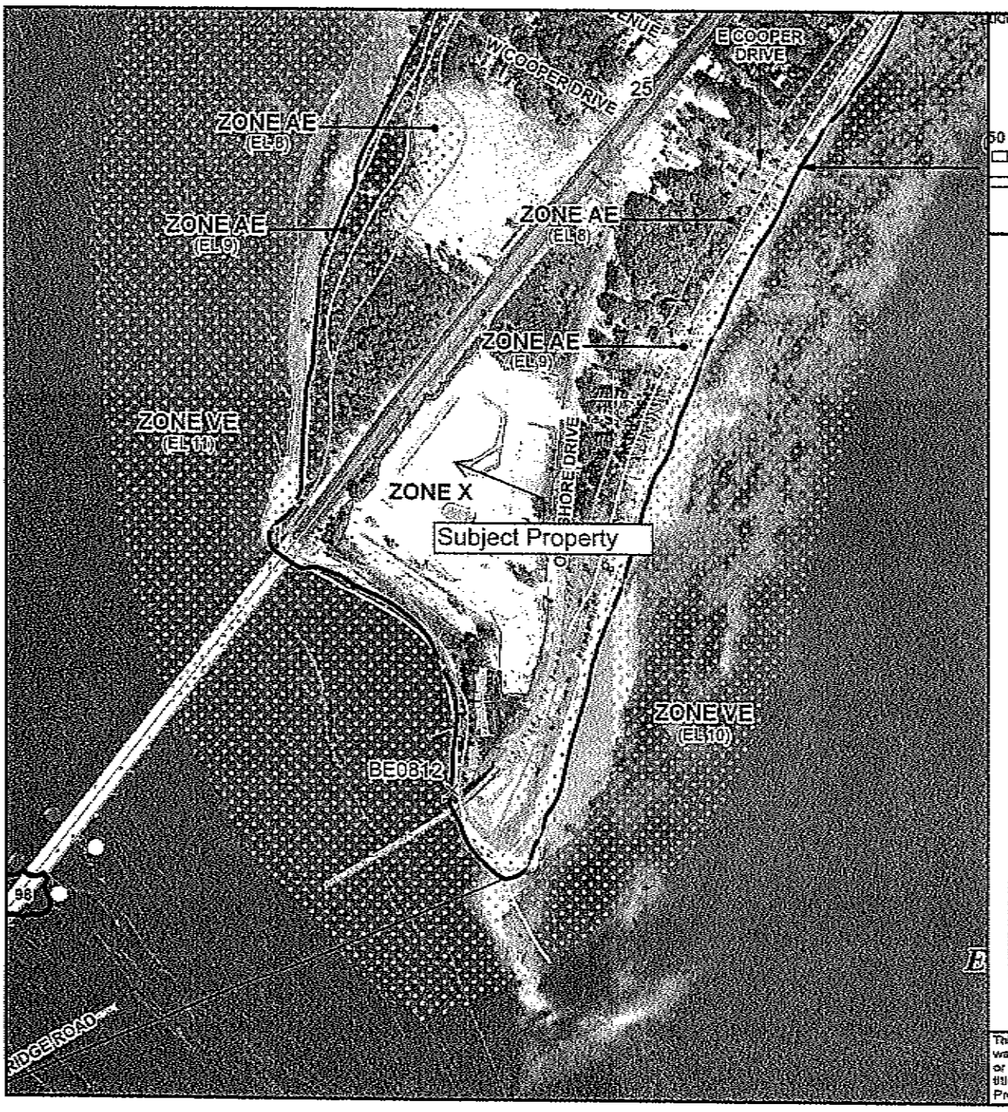


PERMIT PURPOSES ONLY

SITE DRAINAGE AREA PLAN
EAST BAY FLATS
OAKSHORE DRIVE
PANAMA CITY, FLORIDA

McNEIL CARROLL ENGINEERING, INC.

1 OF 1



Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

50 0 500 1000

FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0426H

FIRM

FLOOD INSURANCE RATE MAP

BAY COUNTY, FLORIDA AND INCORPORATED AREAS

PANEL 426 OF 517

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BAY COUNTY	120004	0426	H
PARKER, CITY OF	120011	0426	H

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
12005C0426H

MAP REVISED
JUNE 2, 2009

Federal Emergency Management Agency

Hydrologic Soil Group—Bay County, Florida

Map Scale: 1:3,300 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bay County, Florida
Survey Area Data: Version 13, Sep 26, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 5, 2010—Mar 7, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Bay County, Florida (FL005)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
21	Foxworth sand, 5 to 8 percent slopes	A	6.7	35.0%
40	Arents, 0 to 5 percent slopes	A	0.6	2.9%
45	Kureb sand, 0 to 5 percent slopes	A	11.8	61.9%
99	Water		0.0	0.2%
Totals for Area of Interest			19.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*

Tie-break Rule: Higher

APPENDIX C

MAGNUM ENGINEERING INC

GEOTECHNICAL ENGINEERING CONSULTANTS

GEOTECHNICAL ENGINEERING REPORT

EAST BAY FLATS - STORMWATER
PARKER, FLORIDA

PREPARED FOR:

MCNEIL CARROLL ENGINEERING, INC.
17800 PANAMA CITY BEACH PARKWAY
PANAMA CITYBEACH, FLORIDA 32413

1026 PIERSON DRIVE
LYNN HAVEN, FLORIDA 32444
TELEPHONE (850) 258.0994 FAX (850) 248.0994

MAGNUM ENGINEERING INC
GEOTECHNICAL ENGINEERING CONSULTANTS

June 26, 2015

Mr. Robert Carroll, P.E.
McNeil Carroll Engineering, Inc.
17800 Panama City Beach Parkway
Panama City Beach, Florida 32413

SUBJECT: East Bay Flats – Geotechnical Services for Stormwater
Parker, Florida
MEI Project No. M115-102-063

Dear Mr. Carroll

This letter forwards the results of our Geotechnical services for the proposed East Bay Flats development in Parker, Florida. The purpose of this exploration was to evaluate the subsurface conditions present in the proposed stormwater treatment area and to provide soil related data for the ERP requirements.

Project Description and Scope of Services

The subject site is located east of U.S. Highway 98 (Tyndall Parkway), west of Oakshore Drive, and north of East Bay in Parker, Florida. At the time of our exploration, the site was clear with the exception of jeep trails and light undergrowth. Underground utilities and infrastructure from an abandoned development were still present on site.

Our exploration consisted of Three (3) Double Ring Infiltrometer (DRI) tests and Four (4) 5 foot to 10 foot deep hand auger borings. Upon completion of our field testing, the samples were brought back to the office for visual inspection, classification and analysis by our engineering staff.

If any of the above information is incorrect, please inform Magnum Engineering, Inc. so that we can review and update our recommendations, as needed.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands or hazardous materials in the air, surface water(s), soil, or groundwater on or in the vicinity of the subject site.

Subsurface Conditions

Figure #1 shows the Boring Location Plan and Figure #2 shows the Logs of Borings for HA-1 through HA-4. The test locations were located in the field using the site plan provided, a 100 foot tape, and estimating right angles with reference to existing structures. Therefore, the test location should be considered approximate.

The soils generally encountered in the hand auger borings were clean fine sands and slightly silty fine sands from the ground surface to our boring termination depths of 5 feet to 10 feet below existing grade.

The above subsurface descriptions are of a generalized nature, provided to highlight the major soil strata encountered. The Logs of Boring should be reviewed for specific subsurface conditions at each boring location. The stratifications shown on the Logs of Boring represent the subsurface conditions at the actual boring locations only, and variations in the subsurface conditions can and may occur between boring locations and should therefore be expected. The stratifications represent the approximate boundary between subsurface materials, and the transitions between strata may be gradual.

Please refer to the attached logs of borings (Figure #2) for a more detailed description of the soils encountered.

Groundwater Conditions

Groundwater was encountered at depths ranging from 1.3 feet to greater than 10 feet below existing grade on the date of our exploration (June 24, 2015), which was during a period of normal seasonal rainfall. By definition, the normal seasonal high groundwater table elevation is the highest level of the saturated zone in the soil during a year with normal rainfall. The procedure used in estimating the seasonal high groundwater table is based on adjusting the existing groundwater table encountered upward or downward, taking into consideration factors such as antecedent rainfall, redoximorphic features (identifying soil mottling) and vegetative indicators. **Based on the resources and methodology provided, we estimate a seasonal high groundwater table to be roughly 9 feet below existing grade at locations HA-1 and HA-2, and 1 foot below existing grade at HA-3 and HA-4.** Large fluctuations are possible under severe weather conditions and tidal influences. We recommend that the Contractor verify the actual groundwater levels at the time of construction to determine potential impacts groundwater will have on construction procedures. Please refer to the table provided below for groundwater data at each boring location.

GROUNDWATER DATA

TEST LOCATION	DEPTH TO EXISTING GROUNDWATER TABLE (ft)	DEPTH TO ESTIMATED SEASONAL HIGH GROUNDWATER TABLE (ft)
HA-1	>10.0	9.0
HA-2/DRI-1	10.0	9.0
HA-3/DRI-2	1.3	1.0
HA-4/DRI-3	2.0	1.0

Double Ring Infiltrometer Test

Three (3) Double Ring Infiltrometer tests were performed in the field in general accordance with the procedures outlined in ASTM D-3385, ``Infiltration Rate of Soils in Field using Double Ring Infiltrometers". Testing consisted of initially clearing all surface vegetation and topsoil from within the test area. The Infiltration test was performed approximately 2 feet below existing grade at test location DRI-1, and at the existing ground surface at DRI-2 an DRI-3. The outer ring, which is approximately 24 inches in diameter, was then driven to a depth of 6 inches below the exposed ground surface. The inner ring, approximately 12 inches in diameter, was then centrally located within the outer ring and driven to a depth of 2 inches. The two rings were then simultaneously filled with water to a height of 4 inches above the exposed ground surface test soils. The water level was maintained at this height throughout the test period, with the required amount of water added to maintain this level in both rings recorded at time intervals of 5 minutes.

The infiltration rate for the inner ring and the annular space between the rings is determined by dividing (a) the water volume used (within each specific area) during the stabilized flow period of the test, by (b) the specific area and (c) the time interval. Infiltration rates are generally converted to units of inches per hour. The infiltration rate for the inner ring, if different than the infiltration rate of the annular area between the rings, according to ASTM, should be used as the infiltration rate for the soils.

INFILTRATION DATA

LOCATION	ORIENTATION	TEST DEPTH (feet)	SUSTAINED INFILTRATION RATE (in/hr)
DRI-1	$K_{V\ (unsaturated)}$	2	27.7*
DRI-2	$K_{V\ (unsaturated)}$	Surface	2.7*
DRI-3	$K_{V\ (unsaturated)}$	Surface	3.0*

*** Note: The above infiltration rates have not been factored and is up to the designer to apply an appropriate factor of safety.**

We recommend using a transformation ratio of 1 horizontal to 1 vertical (i.e. the estimated ratio of horizontal to vertical permeability).

ENVIRONMENTAL RESOURCE PERMITTING (ERP) DESIGN PARAMETERS

DRI-1

DESCRIPTION	LOCATION	DESIGN PARAMTER
SUSTAINED INFILTRATION RATE (K_{VU})	DRI-1	27.7* in/hr
TEST DEPTH	DRI-1	2 ft
FILLABLE POROSITY	DRI-1	30%
DEPTH TO EXISTING GROUNDWATER TABLE	DRI-1	10.0 ft / 9 feet
DEPTH TO ESTIMATED SEASONAL HIGH GROUNDWATER TABLE	DRI-1	2 ½ ft / 3 ½ ft

DRI-2 and DRI-3

DESCRIPTION	LOCATION	DESIGN PARAMTER
SUSTAINED INFILTRATION RATE (K_{VU})	DRI-2/DRI-3	2.7* in/hr / 3.0* in/hr
TEST DEPTH	DRI-2/DRI-3	Surface/Surface
FILLABLE POROSITY	DRI-2/DRI-3	25%/25%
DEPTH TO EXISTING GROUNDWATER TABLE	DRI-2/DRI-3	1.3 ft /2.0 ft
DEPTH TO ESTIMATED SEASONAL HIGH GROUNDWATER TABLE	DRI-2/DRI-3	1.0 ft / 1.0 ft

Warranty and Limitations of Study

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied. Magnum Engineering, Inc. is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

We wish to point out that a geotechnical study is inherently limited in that the engineering recommendations are developed from information obtained from test borings that only depict subsurface conditions at the specific locations, times and depth shown on the logs. Soil conditions at other locations may differ from those encountered in the test borings, and the passage of time may cause the soils conditions to change from those described in this report.

This report is intended for use by the designers of this project. While we have no objections to it being provided for review by parties to this project, it is not a specification document and is not to be used as a part of the specifications. If desired, we can assist in the development of specifications for this project based upon our exploration.

The nature and extent of variation and change in the subsurface conditions at the site may not become evident until the course of construction. Construction monitoring by the geotechnical engineer or his representative is therefore considered necessary to verify the subsurface conditions. If significant variations or changes are in evidence, it may be necessary to reevaluate the recommendations in this report.

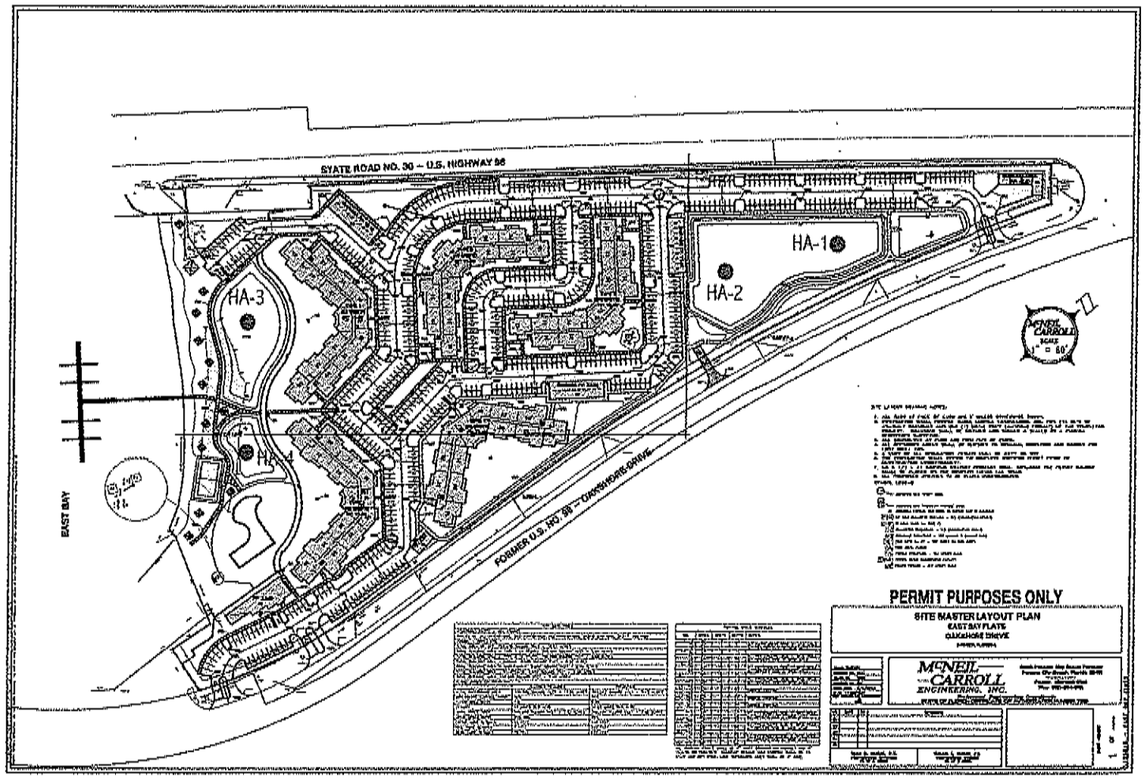
Furthermore, if the project characteristics are altered significantly from those discussed in this report, if the project information contained in this report is incorrect or if additional information becomes available, a review must be made by this office to determine if any modifications in the recommendations will be necessary.

We hope this letter provides sufficient information for the present. If you have any questions or comments, please feel free to call.

Sincerely,
MAGNUM ENGINEERING, INC.

JAMES T. VICKERS, P.E.
Sr. Geotechnical Engineer
Florida Registration # 56813

Attachments: Figure #1 – Boring Location Plan
Figure #2 – Logs of Borings
Appendix (A) – Double Ring Infiltrometer Field Data


STATE ROAD NO. 30 – U.S. HIGHWAY 98
HA-1
HA-2
HA-3
HA-4
EAST BAY
FORMER U.S. HWY. 98 – OAKSHORE DRIVE
PERMIT PURPOSES ONLY
SITE MASTER LAYOUT PLAN
EAST BAY PLAZA
OAKSHORE DRIVE
McNEIL CARROLL ENGINEERING, INC.

MAGNUM ENGINEERING INC

GEOTECHNICAL ENGINEERING CONSULTANTS

LOGS OF BORING

FIGURE # 2

Magnum Engineering, Inc.
1026 Pierson Drive
Lynn Haven, FL 32444

BORING NUMBER HA-1

CLIENT McNeil Carroll Engineering, Inc.
PROJECT NAME East Bay Flats
PROJECT NUMBER M115-102-063
PROJECT LOCATION Parker, Florida
DATE STARTED 6/24/15 COMPLETED 6/24/15
GROUND ELEVATION ___ HOLE SIZE ___
DRILLING CONTRACTOR ___
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger Boring
DEPTH TO GROUNDWATER AT TIME OF DRILLING ---
LOGGED BY J. Vickers CHECKED BY J. Vickers
ESTIMATED SEASONAL HIGH GWT ---
NOTES ___
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Gray/Tan Slightly Silty Fine SAND (SP-SM)										
		Light Gray Fine SAND (SP)										
2.5		Tan Fine SAND (SP)	AU									
5.0		Light Tan Fine SAND (SP)										
7.5												
10.0		Boring Termination Depth at 10.0 feet.										

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Magnum Engineering, Inc.
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Lynn Haven, FL 32444

BORING NUMBER HA-2

CLIENT McNeil Carroll Engineering, Inc.
PROJECT NAME East Bay Flats
PROJECT NUMBER M115-102-063
PROJECT LOCATION Parker, Florida
DATE STARTED 6/24/15 COMPLETED 6/24/15
GROUND ELEVATION ____ HOLE SIZE ____
DRILLING CONTRACTOR ____
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger Boring
▽ DEPTH TO GROUNDWATER AT TIME OF DRILLING 10.0 ft
LOGGED BY J. Vickers CHECKED BY J. Vickers
ESTIMATED SEASONAL HIGH GWT —
NOTES ____
AFTER DRILLING —

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Gray Slightly Silty Fine SAND (SP-SM)										
		Light Gray Fine SAND (SP)										
		Tan Fine SAND (SP)										
2.5												
			AU									
5.0												
7.5		Brown Fine SAND (SP)										
10.0		▽ Boring Termination Depth at 10.0 feet.										

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Magnum Engineering, Inc.
1026 Pierson Drive
Lynn Haven, FL 32444

BORING NUMBER HA-3

CLIENT McNeil Carroll Engineering, Inc. | PROJECT NAME East Bay Flats
PROJECT NUMBER M115-102-063 | PROJECT LOCATION Parker, Florida
DATE STARTED 6/24/15 | COMPLETED 6/24/15 | GROUND ELEVATION ___ | HOLE SIZE ___
DRILLING CONTRACTOR ___ | GROUND WATER LEVELS:
DRILLING METHOD Hand Auger Boring | ▽ DEPTH TO GROUNDWATER AT TIME OF DRILLING 1.3 ft
LOGGED BY J. Vickers | CHECKED BY J. Vickers | ESTIMATED SEASONAL HIGH GWT ___
NOTES ___ | AFTER DRILLING ___

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Gray Slightly Silty Fine SAND (SP-SM)										
		Gray Fine SAND (SP)										
		▽										
2.5		Gray/Brown Fine SAND (SP)	AU									
		Gray Fine SAND (SP)										
5.0		Boring Termination Depth at 5.0 feet.										

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Magnum Engineering, Inc.
1026 Pierson Drive
Lynn Haven, FL 32444

BORING NUMBER HA-4

CLIENT McNeil Carroll Engineering, Inc.
PROJECT NAME East Bay Flats
PROJECT NUMBER M115-102-063
PROJECT LOCATION Parker, Florida
DATE STARTED 6/24/15 COMPLETED 6/24/15
GROUND ELEVATION ___ HOLE SIZE ___
DRILLING CONTRACTOR ___
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger Boring
▽ DEPTH TO GROUNDWATER AT TIME OF DRILLING 2.0 ft
LOGGED BY J. Vickers CHECKED BY J. Vickers
ESTIMATED SEASONAL HIGH GWT ___
NOTES ___
AFTER DRILLING ___

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0.0		Gray/Brown Slightly Silty Fine SAND (SP-SM)										
		▽										
2.5		Light Gray Fine SAND (SP)	AU									
		Gray/Brown Fine SAND (SP)										
		Gray Fine SAND (SP)										
5.0		Boring Termination Depth at 5.0 feet.										

GEOTECH BH COLUMNS EAST BAY FLATS.GPJ GINT US.GDT 6/24/15

MAGNUM ENGINEERING INC

GEOTECHNICAL ENGINEERING CONSULTANTS

Double Ring Infiltrometer Field Data

Appendix (A)

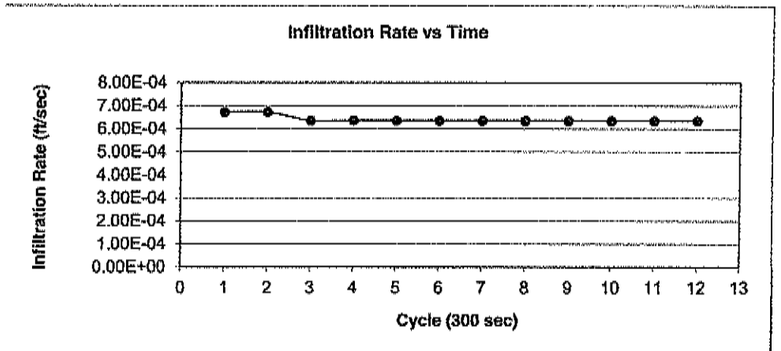
MAGNUM ENGINEERING INC

GEOTECHNICAL ENGINEERING CONSULTANTS

Double-Ring Field Infiltration Test

Test Location:	DRI-1			
Project Name:	East Bay Flats			
Project Location:	Parker, Florida			
Test Depth:	2	ft		
Depth to GWT:	>10	ft		
Inner Ring Diameter:	12	in	0.3048	m
Outer Ring Diameter:	24	in	0.6096	m
Pre-Saturation	30	min		
Area Outer Ring:	3.1416	ft^2	0.00202683	m^2
Area Inner Ring:	0.7854	ft^2	0.00050671	m^2
Net Outer Ring Area:	2.3562	ft^2	0.00152013	m^2

	Inner Ring		
Cycle	ElapTime (sec)	Vol Used (in^3)	Infiltration Rate (ft/sec)
1	300	274	6.73E-04
2	300	274	6.73E-04
3	300	259	6.36E-04
4	300	259	6.36E-04
5	300	259	6.36E-04
6	300	259	6.36E-04
7	300	259	6.36E-04
8	300	259	6.36E-04
9	300	259	6.36E-04
10	300	259	6.36E-04
11	300	259	6.36E-04
12	300	259	6.36E-04
Results	Sustained Rate	262	6.42E-04



Infiltration Rate:	**1.96E-02**	**cm/sec**
	27.7	**in/hr**

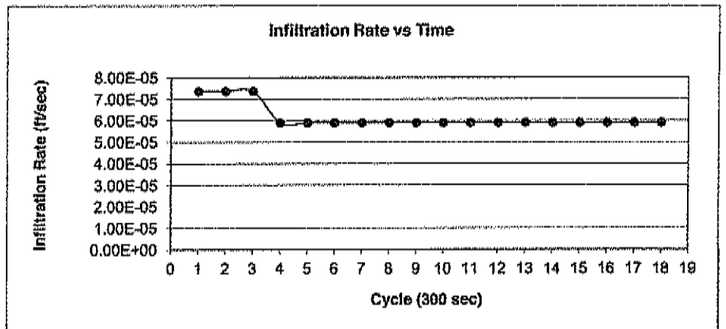
MAGNUM ENGINEERING INC

GEOTECHNICAL ENGINEERING CONSULTANTS

Double-Ring Field Infiltration Test

Test Location:	DRI-2			
Project Name:	East Bay Flats			
Project Location:	Parker, Florida			
Test Depth:	Surface	ft		
Depth to GWT:	1.3	ft		
Inner Ring Diameter:	12	in	0.3048	m
Outer Ring Diameter:	24	in	0.6096	m
Pre-Saturation	30	min		
Area Outer Ring:	3.1416	ft^2	0.00202683	m^2
Area Inner Ring:	0.7854	ft^2	0.00050671	m^2
Net Outer Ring Area:	2.3562	ft^2	0.00152013	m^2

	Inner Ring		
Cycle	ElapTime (sec)	Vol Used (in^3)	Infiltration Rate (ft/sec)
1	300	30	7.37E-05
2	300	30	7.37E-05
3	300	30	7.37E-05
4	300	24	5.89E-05
5	300	24	5.89E-05
6	300	24	5.89E-05
7	300	24	5.89E-05
8	300	24	5.89E-05
9	300	24	5.89E-05
10	300	24	5.89E-05
11	300	24	5.89E-05
12	300	24	5.89E-05
13	300	24	5.89E-05
14	300	24	5.89E-05
15	300	24	5.89E-05
16	300	24	5.89E-05
17	300	24	5.89E-05
18	300	24	5.89E-05
Results	Sustained Rate	25	5.14E-05



Infiltration Rate: **1.87E-03 cm/sec** **2.7 in/hr**

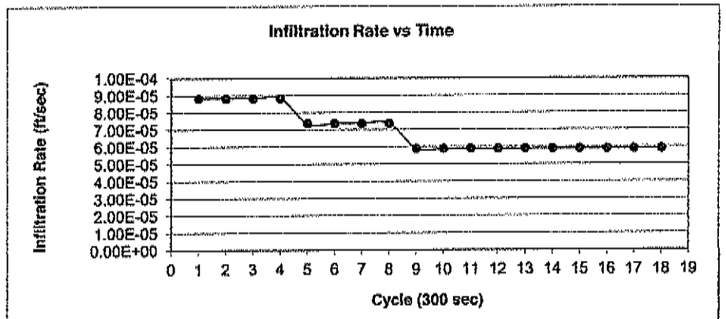
MAGNUM ENGINEERING INC

GEOTECHNICAL ENGINEERING CONSULTANTS

Double-Ring Field Infiltration Test

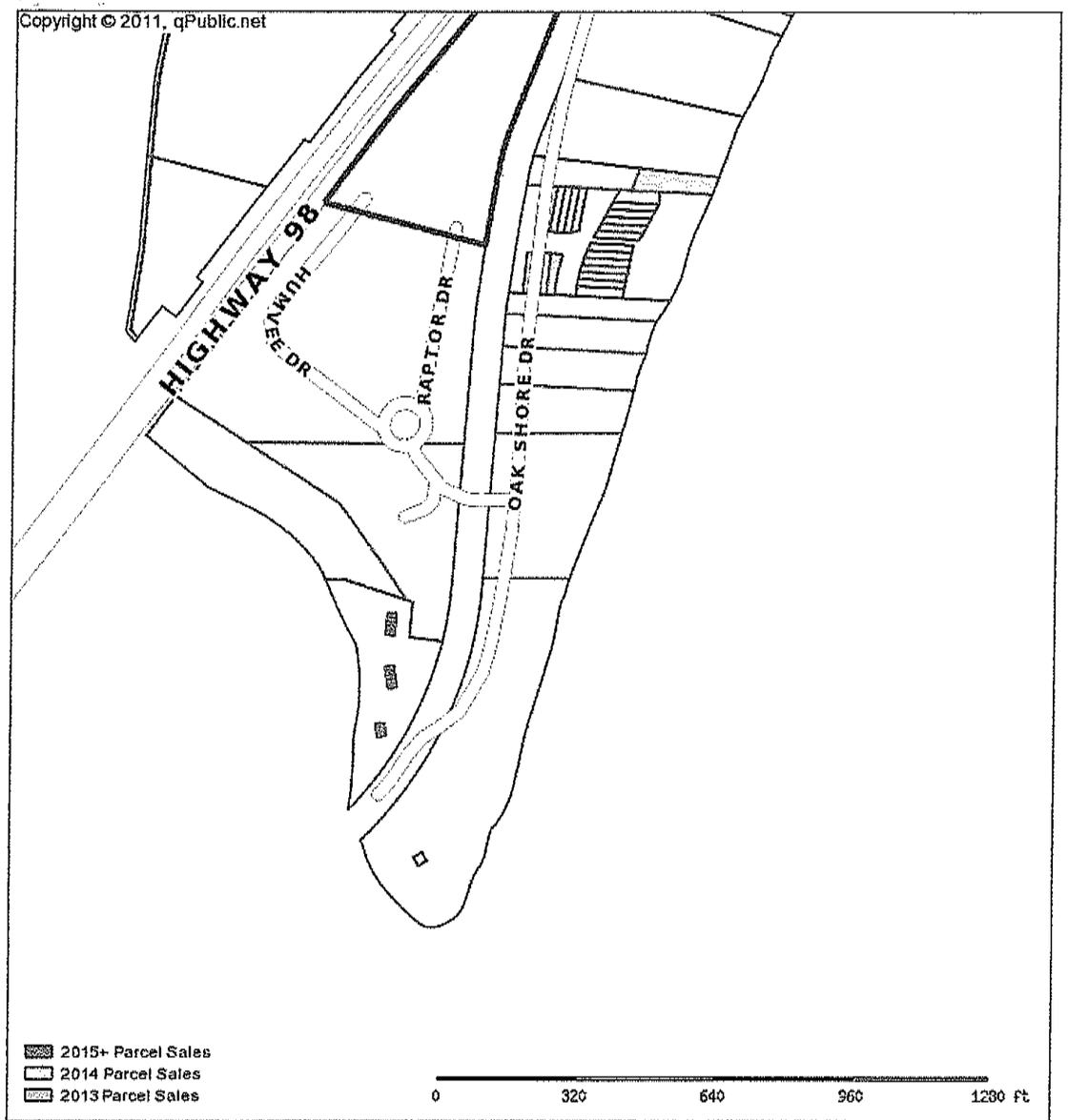
Test Location:	DRI-3			
Project Name:	East Bay Flats			
Project Location:	Parker, Florida			
Test Depth:	Surface	ft		
Depth to GWT:	2	ft		
Inner Ring Diameter:	12	in	0.3048	m
Outer Ring Diameter:	24	in	0.6096	m
Pre-Saturation	30	min		
Area Outer Ring:	3.1416	ft^2	0.00202683	m^2
Area Inner Ring:	0.7854	ft^2	0.00050671	m^2
Net Outer Ring Area:	2.3562	ft^2	0.00152013	m^2

	Inner Ring		
Cycle	ElapTime (sec)	Vol Used (in^3)	Infiltration Rate (ft/sec)
1	300	36	8.84E-05
2	300	36	8.84E-05
3	300	36	8.84E-05
4	300	36	8.84E-05
5	300	30	7.37E-05
6	300	30	7.37E-05
7	300	30	7.37E-05
8	300	30	7.37E-05
9	300	24	5.89E-05
10	300	24	5.89E-05
11	300	24	5.89E-05
12	300	24	5.89E-05
13	300	24	5.89E-05
14	300	24	5.89E-05
15	300	24	5.89E-05
16	300	24	5.89E-05
17	300	24	5.89E-05
18	300	24	5.89E-05
Results	Sustained Rate	28	6.88E-05

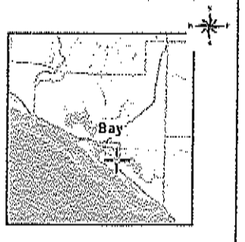


Infiltration Rate:	**2.10E-03**	**cm/sec**
	3.0	**in/hr**

APPENDIX D



East Bay Flats			
Parcel: 26216-000-000 Acres: 3.5			
Name	HCB FINANCIAL CORP.	Land Value	426,888
Site	TYNDALL PKWY	Building Value	0
Sale	$1,200,100 on 01-2013 Reason=Y Qual=U	Misc Value	0
Mail	C/O ADAMS & REESE LLP 11 NORTH WATER ST. SUITE 23200 MOBILE, AL 36602	Just Value	426,888
		Assessed Value	426,888
		Exempt Value	0
		Taxable Value	426,888



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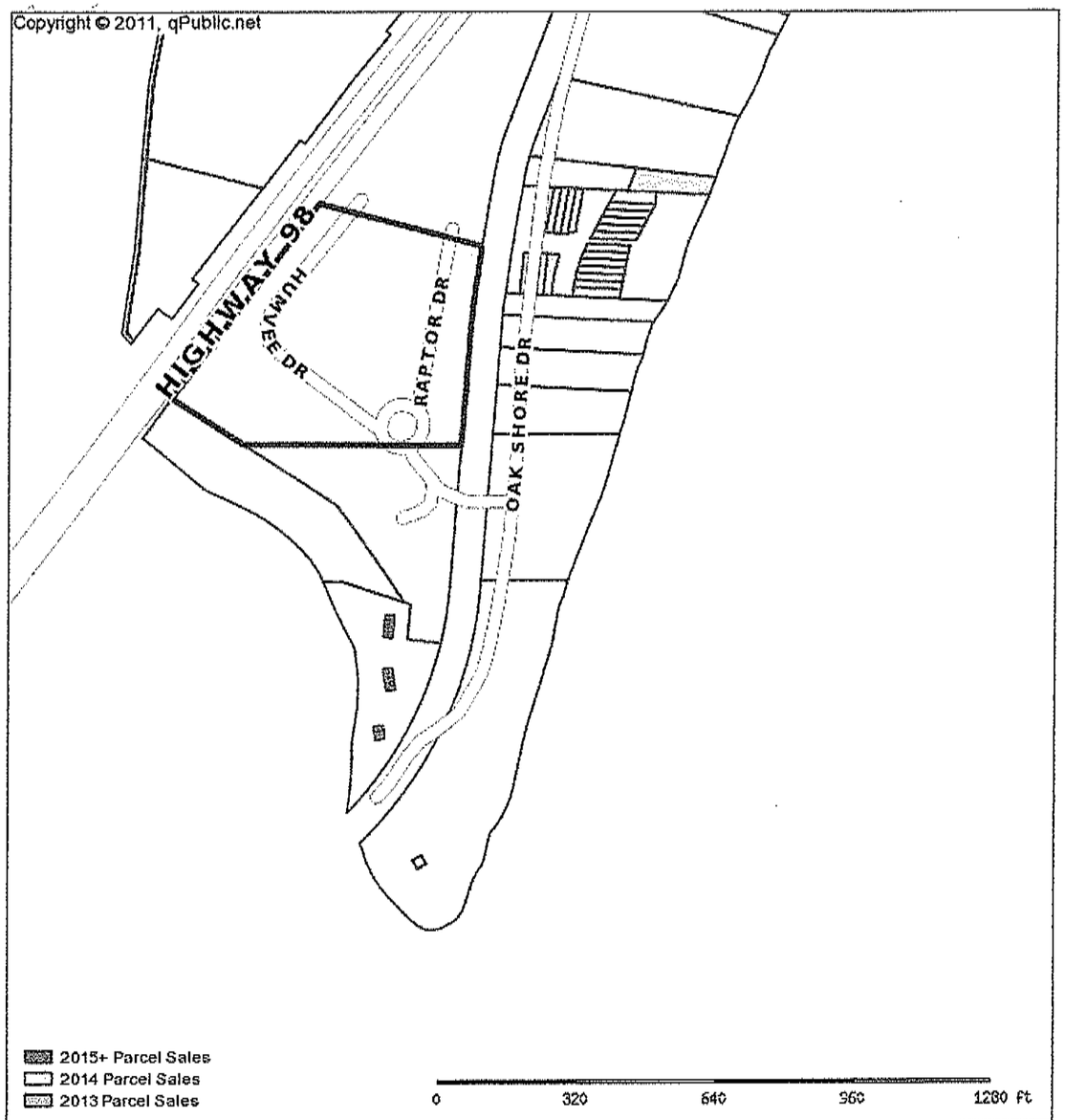
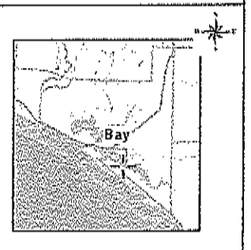


East Bay Flats			
Parcel: 26217-000-000 Acres: 6.381			
Name	HCB FINANCIAL CORP.	Land Value	778,277
Site	HUMVEE DR	Building Value	0
Sale	$1,200,100 on 01-2013 Reason=Y Qual=U	Misc Value	0
Mail	C/O ADAMS & REESE LLP	Just Value	778,277
	11 NORTH WATER ST.	Assessed Value	778,277
	SUITE 23200	Exempt Value	0
	MOBILE, AL 36602	Taxable Value	778,277



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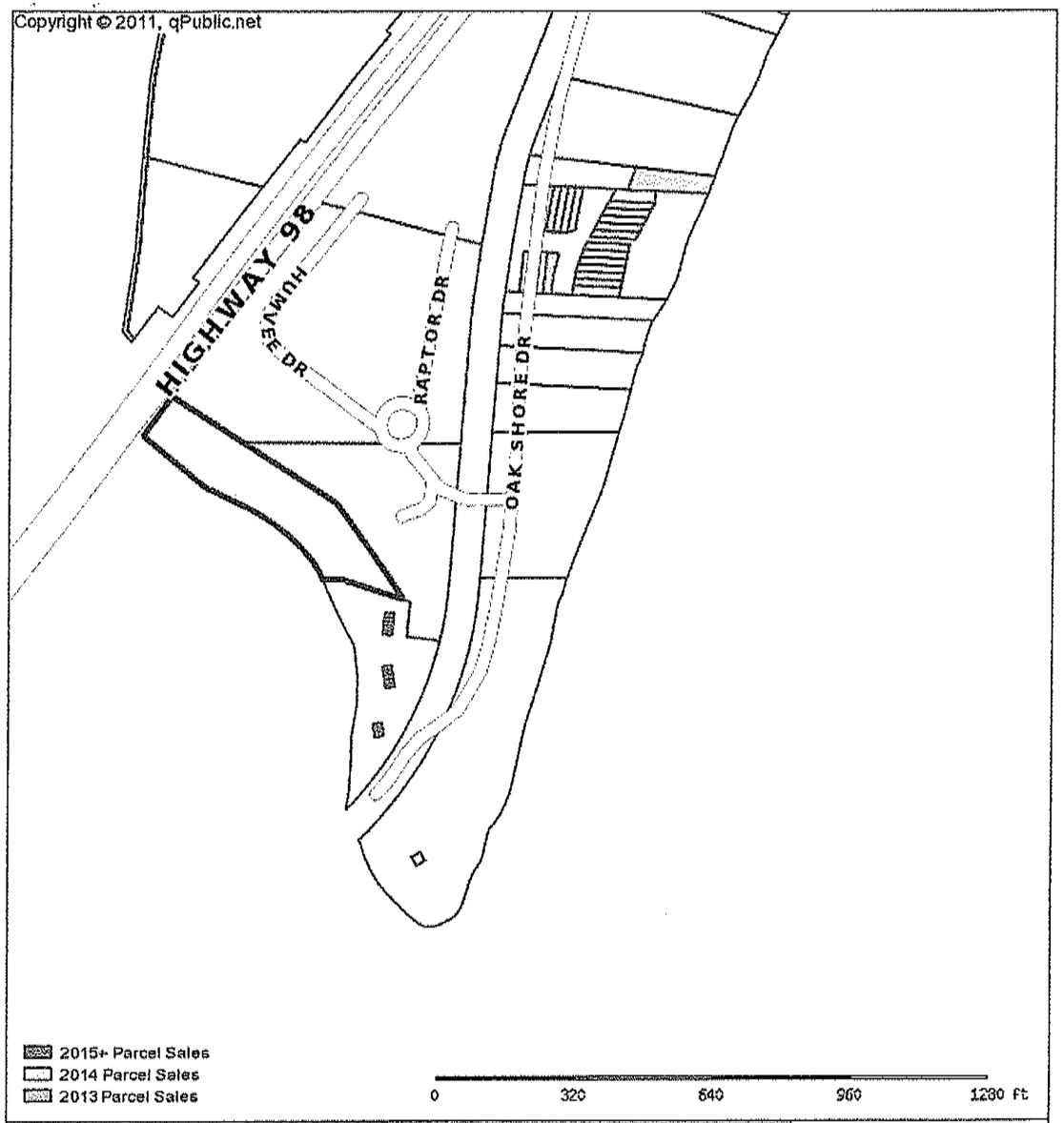

East Bay Flats

Parcel: 26214-020-000 Acres: 1.87

Name	HCB FINANCIAL CORP.	Land Value	347,027
Site	2402 BLACK HAWK DR 1/2	Building Value	0
Sale	$0 on 01-2013 Reason=Y Qual=U	Misc Value	0
Mail	42 BUSINESS C ENTRE DR #101 MIRAMAR BEACH, FL 325506983	Just Value	347,027
		Assessed Value	347,027
		Exempt Value	0
		Taxable Value	347,027

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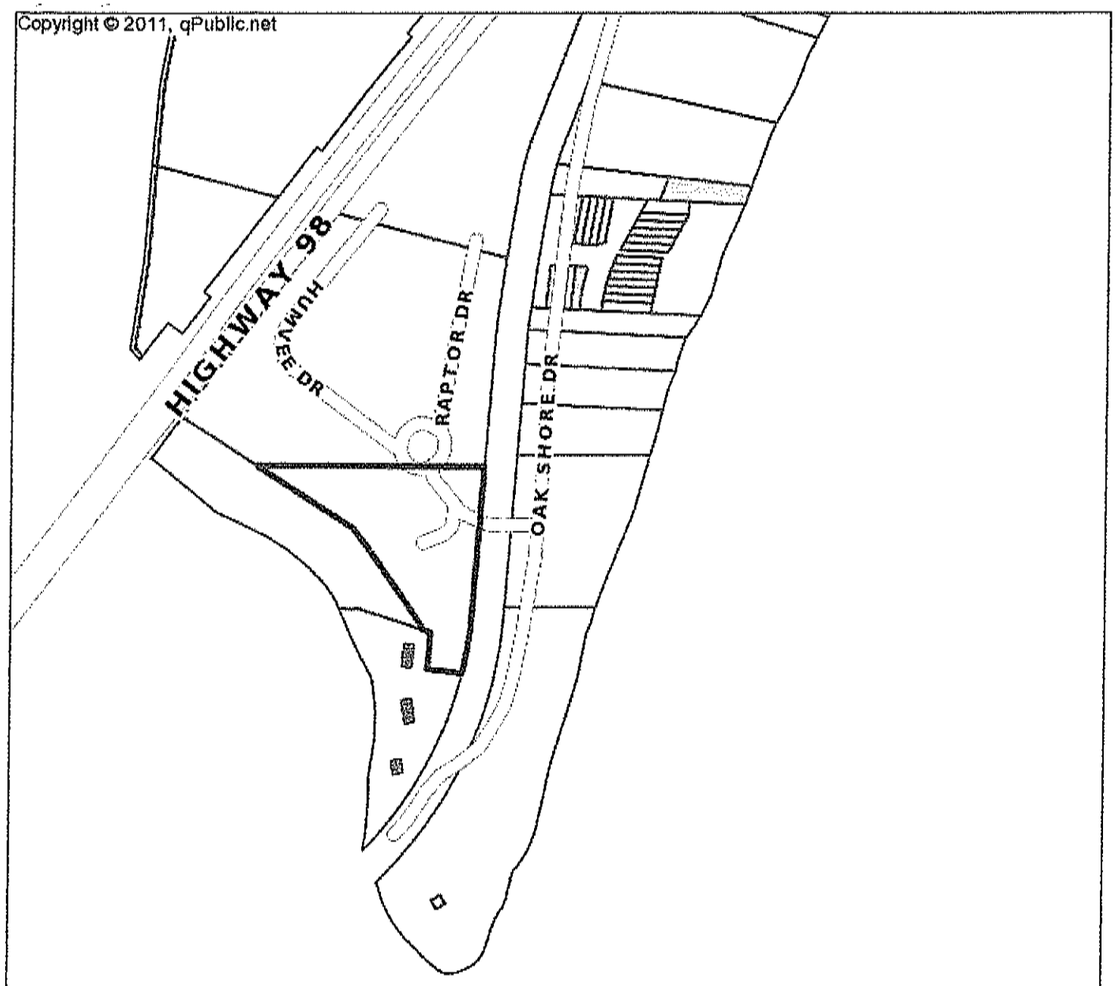
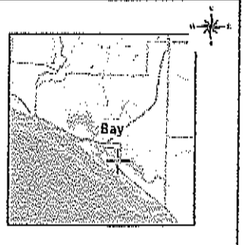


East Bay Flats			
Parcel: 26214-010-000 Acres: 2.39			
Name	HCB FINANCIAL CORP.	Land Value	204,052
Site	6700 OAK SHORE DR 1/2	Building Value	0
Sale	$1,200,100 on 01-2013 Reason=Y Qual=U	Misc Value	0
Mail	C/O ADAMS & REESE LLP	Just Value	204,052
	11 NORTH WATER ST.	Assessed Value	204,052
	SUITE 23200	Exempt Value	0
	MOBILE, AL 36602	Taxable Value	204,052



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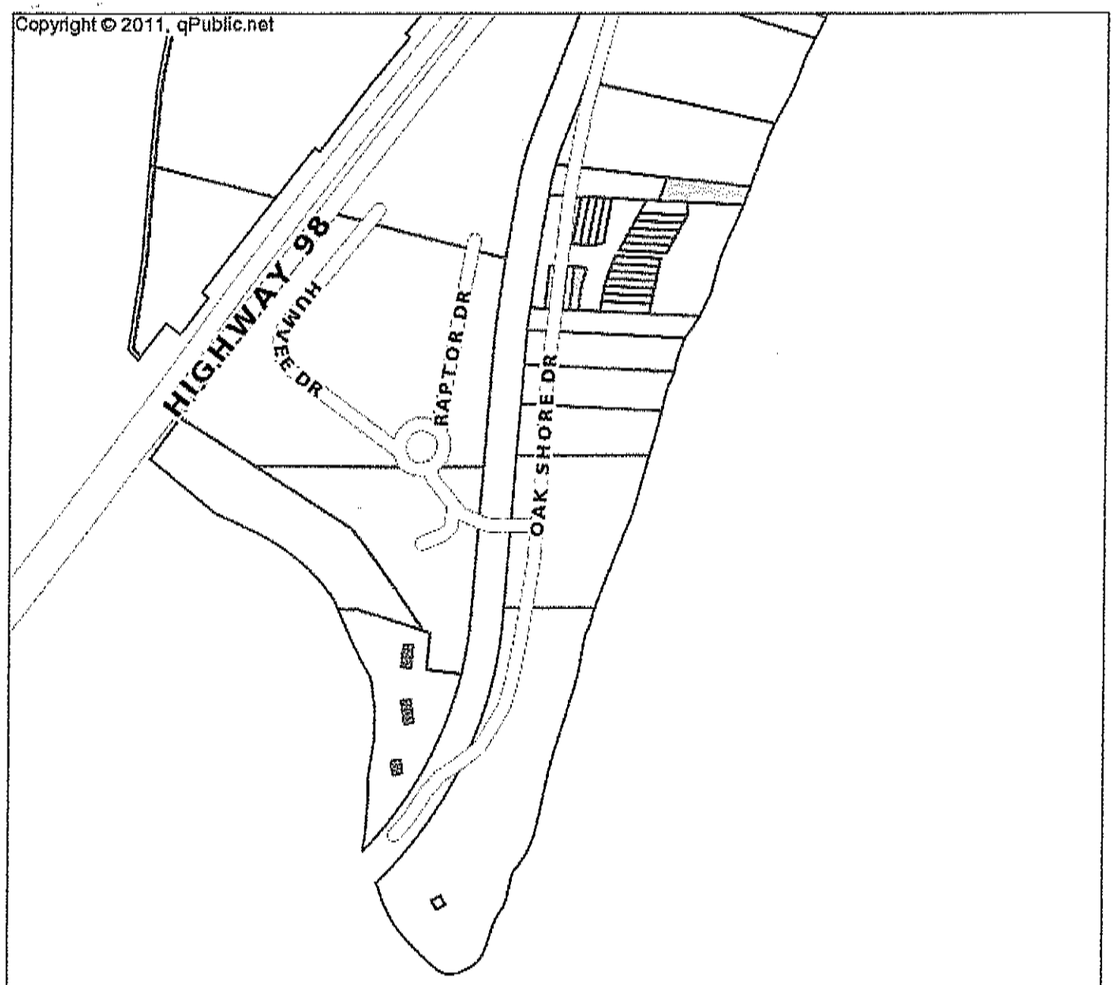

2015+ Parcel Sales
2014 Parcel Sales
2013 Parcel Sales

0 320 640 960 1280 Ft

East Bay Flats

Parcel: 26216-010-000 Acres: 0.408

Name	OLIN HOLDINGS, LLC.	Land Value	49,789
Site	6345 HWY 98 BUS E	Building Value	0
Sale	$53,800 on 05-2014 Reason=N Qual=Q	Misc Value	4,000
Mail	315 BAYOU CIRCLE FREEPORT, FL 32439	Just Value	53,789
		Assessed Value	53,789
		Exempt Value	0
		Taxable Value	53,789

Date printed: 08/20/15 : 09:59:52

EAST BAY FLATS
MAJOR DEVELOPMENT ORDER

Applicant:	HCB Financial Corp
Agent:	Robert Carroll, P.E. – McNeil Carroll Engineering
Location:	6700 Oak Shore Drive
Request:	156 townhouse units**Parcel Size:** 16.61 acres
Future Land Use:	Mixed Use 1
Zoning District:	Mixed Use 1
Density:	9.39 DU/AC Provided (15 DU/AC Allowed)
Intensity:	Not applicable

DISCUSSION/FINDINGS

McNeil Carroll Engineering is requesting Major Development approval of 156 townhome units with the associated infrastructure. The subject site contains 16.61 acres and is located at 6700 Oak Shore Drive. A development order for 248 multifamily units was approved on February 23, 2016 but has since expired.

COMPREHENSIVE PLAN/LAND DEVELOPMENT REGULATIONS

The Future Land Use and Zoning are Mixed Use 1 (MU-1). The proposed project is consistent with the Comprehensive Plan and Land Development Regulations (LDR).

LAND USE

Medium-density attached residential dwellings, including townhouses are an allowable use in the MU-1 future land use designation and zoning district.

DENSITY

Maximum allowed: 15 dwelling units per acre
Provided: 9.39 dwelling units per acre

INTENSITY

Not applicable

BUILDING HEIGHT

Maximum allowed: 120 feet/ 12 Stories
Provided: 2 Stories

SETBACKS

Front minimum allowed: 15 feet
Front provided: >15 feet

Side minimum allowed: 7 feet
Side provided: >7 feet

Rear minimum allowed: 15 feet
Rear provided: >15 feet

Adjacent buildings allowed: 10 feet
Adjacent buildings provided: >10 feet

LOT COVERAGE
Maximum allowed: 80%
Provided: 48%

COMMUNITY REDEVELOPMENT DESIGN OVERLAY DISTRICT
The Subarea 2 – Mixed Use Parkway
Building Architectural Style – The facades have a common set of building materials that have consistent and traditional architectural identity.
Building Use Mix – The proposal contains only residential uses.
Pedestrian Mobility – The project provides internal sidewalks that provide linkages to building entrances. Sidewalks along US Highway and Oak Shores Drive linking to the existing sidewalks are not being proposed.
Parking – The parking standards Section 5-9 are being met.
Stormwater – All stormwater management basins meet the City and Water Management District design requirements.

AIRPORT AICUZ OVERLAY REGULATIONS
The developer provided a letter verifying that the proposed buildings are designed to achieve an outdoor to indoor noise level reduction ("NLR") of at least 25 decibels.

PERFORMANCE STANDARDS
Visual Buffers – A solid face fence that complies with LDR 5-5.5 is being provided along all property lines fronting US Highway 98, Oak Shore Drive, and the property to the south.

ENVIRONMENTAL PROTECTION STANDARDS
It appears that silt fencing and site grading is proposed within the buffer area.

OFF-STREET PARKING AND LOADING
Parking required: 312 (2 per unit x 156 units)
Parking provided: 441

TREE PROTECTION
Documentation relating to tree protection was not provided.