Mercantile Group M / Class B
Type II-B (Occup. Load 137) 19'

Columbia County New Building Permit Application f=20' s=5' R=15'

For Office Use Only Application # 1906-33 Date Received 6/10 By MG Permit # 2854/38430

Zoning Official JM Date 6-18-19 Flood Zone X Land Use Comm Zoning CI

FEMA Map # _____ Elevation _____ MFE 178.00 River _____ Plans Examiner T.C. Date 6-28-1

Comments Need elevation letter at Slab

☑ NOC ☑ EH ☑ Deed or PA ☐ Site Plan ☑ State Road Info ☑ City Well letter ☑ 911 Sheet ☐ Parent Parcel # _____

☐ Dev Permit # _____ ☐ In Floodway ☑ Letter of Auth. from Contractor ☐ ~~F-W Comp. letter~~

☐ Owner Builder Disclosure Statement ☐ Land Owner Affidavit ☐ ~~Ellisville Water~~ ☑ App Fee Paid ☑ Sub VF Form

Septic Permit No. X-City OR City Water ☑ Fax (800) 218-7809 Need Plumb

Applicant (Who will sign/pickup the permit) John Moss/Chad Appell/Sean Waglow Phone (352)333-3233

Address 3324 W. University Ave., PMB#151; Gainesville, Fl 32607

Owners Name Concept Development Inc. Phone (352)333-3233

911 Address 1771 NW Lake Jeffrey Rd.; Lake City, Fl 32055

Contractors Name Brian Scott Crawford (Concept Companies) Phone (352)333-3233

Address 3324 W. University Ave., PMB#151; Gainesville, Fl 32607

Contractor Email john@leveldesign.co/chad@theoryconstruction.net ***Include to get updates on this job.

Fee Simple Owner Name & Address _____

Bonding Co. Name & Address _____

Architect/Engineer Name & Address James Blythe 3324 W. University Ave PMB#151 Gainesville, FL 326

Mortgage Lenders Name & Address _____

Circle the correct power company ☑ FL Power & Light ☐ Clay Elec. ☐ Suwannee Valley Elec. ☐ Duke Energy

Property ID Number 25-3S-16-02284-102 Estimated Construction Cost $318,276.00

Subdivision Name _____ Lot ____ Block ____ Unit ____ Phase ____

Driving Directions from a Major Road _____

On Corner of Lake Jeffery & Bascom Norris

Construction of Commercial Retail Store (Dollar General) X Commercial OR ____ Residential

Proposed Use/Occupancy Mercantile Group B Number of Existing Dwellings on Property N/A

Is the Building Fire Sprinkled? No If Yes, blueprints included ____ Or Explain _____

Circle Proposed ☐ Culvert Permit or ☑ Culvert Waiver or ☐ D.O.T. Permit or ☐ Have an Existing Drive

Actual Distance of Structure from Property Lines - Front 93' Side 56' Side 97' Rear 154'

Number of Stories 1 Heated Floor Area 9100 Total Floor Area 9100 Acreage ____

Zoning Applications applied for (Site & Development Plan, Special Exception, etc.) SDP 19-04 - Approved

V0318 - (June 24th - 30days upon Approval)

Columbia County Building Permit Application

CODE: Florida Building Code 2014 and the 2011 National Electrical Code.

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

TIME LIMITATIONS OF APPLICATION : An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless pursued in good faith or a permit has been issued.

TIME LIMITATIONS OF PERMITS: Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment: According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO CONTRACTOR AND AGENT: ***YOU ARE HEREBY NOTIFIED*** as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

OWNERS CERTIFICATION: I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

NOTICE TO OWNER: There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. You must verify if your property is encumbered by any restrictions or face possible litigation and or fines.

Brian Scott Crawford (Concept Companies
Print Owners Name

Owners Signature

****Property owners must sign here before any permit will be issued.**

****If this is an Owner Builder Permit Application then, ONLY the owner can sign the building permit when it is issued.**

CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit including all application and permit time limitations.

Contractor's Signature

Contractor's License Number CGC1515491
Columbia County Competency Card Number 1001

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 6 **day of** May **20** 19.

Personally known X **or Produced Identification** _____

Andrea Barnett

State of Florida Notary Signature (For the Contractor)

SEAL:

ANDREA BARNETT
MY COMMISSION # FF 244733
EXPIRES: October 26, 2019
Bonded Thru Notary Public Underwriters

COLUMBIA COUNTY BUILDING DEPARTMENT
135 NE Hernando Ave, Suite B-21, Lake City, FL 32055
Phone: 386-758-1008 Fax: 386-758-2160

1001

LETTER OF AUTHORIZATION TO SIGN FOR PERMITS

I, Brian Scott Crawford (license holder name), licensed qualifier

for Concept Companies (company name), do certify that

the below referenced person(s) listed on this form is/are contracted/hired by me, the license holder, or is/are employed by me directly or through an employee leasing arrangement; or, is an officer of the corporation; or, partner as defined in Florida Statutes Chapter 468, and the said person(s) is/are under my direct supervision and control and is/are authorized to purchase permits, call for inspections and sign on my behalf.

Printed Name of Person Authorized	Signature of Authorized Person
1. John Moss	1.
2. Chad Appell	2.
3. Sean Waglow	3.
4.	4.
5.	5.

I, the license holder, realize that I am responsible for all permits purchased, and all work done under my license and fully responsible for compliance with all Florida Statutes, Codes, and Local Ordinances. I understand that the State and County Licensing Boards have the power and authority to discipline a license holder for violations committed by him/her, his/her agents, officers, or employees and that I have full responsibility for compliance with all statutes, codes and ordinances inherent in the privilege granted by issuance of such permits.

If at any time the person(s) you have authorized is/are no longer agents, employee(s), or officer(s), you must notify this department in writing of the changes and submit a new letter of authorization form, which will supersede all previous lists. Failure to do so may allow unauthorized persons to use your name and/or license number to obtain permits.

License Holders Signature (Notarized) | CGC1515491 License Number | 5/6/19 Date

NOTARY INFORMATION:
STATE OF: Florida COUNTY OF: Alachua

The above license holder, whose name is Brian Crawford, personally appeared before me and is ~~known by me~~ or has produced identification (type of I.D.)_____ on this 6 day of May, 20 19.

Andrea Barnett
NOTARY'S SIGNATURE

ANDREA BARNETT
MY COMMISSION # FF 244733
EXPIRES: October 26, 2019
Bonded Thru Notary Public Underwriters
(Seal/Stamp)

Florida Department of State

Division of Corporations

Department of State / Division of Corporations / Search Records / Detail By Document Number /

Detail by Entity Name

Florida Profit Corporation
CONCEPT DEVELOPMENT, INC.

Filing Information

Document Number	P14000075273
FEI/EIN Number	80-0466760
Date Filed	09/04/2014
Effective Date	07/08/2009
State	FL
Status	ACTIVE
Last Event	CONVERSION
Event Date Filed	09/04/2014
Event Effective Date	NONE

Principal Address

3324 W. University Ave #151
Gainesville, FL 32607

Changed: 02/13/2019

Mailing Address

3324 W. University Ave #151
Gainesville, FL 32607

Changed: 02/13/2019

Registered Agent Name & Address

Cason, Matthew
3324 W. University Ave #151
Gainesville, FL 32607

Name Changed: 02/13/2019

Address Changed: 02/13/2019

Officer/Director Detail

Name & Address

Title CEO

CRAWFORD, BRIAN S

3324 W. University Ave #151
Gainesville, FL 32607

Title President

Cason, Matthew D
3324 W. University Ave #151
Gainesville, FL 32607

Title CFO/COO

Scheer, Jeremy
3324 W. University Ave #151
Gainesville, FL 32607

Annual Reports

Report Year	Filed Date
2017	04/27/2017
2018	04/26/2018
2019	02/13/2019

Document Images

02/13/2019 -- ANNUAL REPORT	View image in PDF format
04/26/2018 -- ANNUAL REPORT	View image in PDF format
04/27/2017 -- ANNUAL REPORT	View image in PDF format
04/22/2016 -- ANNUAL REPORT	View image in PDF format
02/06/2015 -- ANNUAL REPORT	View image in PDF format
09/04/2014 -- Domestic Profit	View image in PDF format

Florida Department of State, Division of Corporations

District No. 1 - Ronald Williams
District No. 2 - Rocky Ford
District No. 3 - Bucky Nash
District No. 4 - Toby Witt
District No. 5 - Tim Murphy

BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

Address Assignment and Maintenance Document

To maintain the county wide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for addressing and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Services Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County

Date/Time Issued:	**4/3/2019 10:27:47 AM**
Address:	**1771 NW LAKE JEFFERY Rd**
City:	**LAKE CITY**
State:	**FL**
Zip Code	**32055**
Parcel ID	**02284-101**

REMARKS: Address for proposed structure on parcel.

NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION AND ACCESS INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION AND/OR ACCESS INFORMATION BE FOUND TO BE IN ERROR OR CHANGED, THIS ADDRESS IS SUBJECT TO CHANGE.

Address Issued By: **Signed:/ Matt Crews**

Columbia County GIS/911 Addressing Coordinator

COLUMBIA COUNTY
911 ADDRESSING / GIS DEPARTMENT
263 NW Lake City Ave., Lake City, FL 32055 Telephone: (386) 758-1125
Email: gis@columbiacountyfla.com

Inst. Number: 201912013804 Book: 1386 Page: 2088 Page 1 of 1 Date: 6/17/2019 Time: 3:17 PM
P.DeWitt Cason Clerk of Courts, Columbia County, Florida Doc Deed: 1,400.00 Doc Mort: 0.00 Int Tax: 0.00

PREPARED BY & RETURN TO

Name: Lynn Sullivan, an employee of
Providence Title Company, LLC
Address: 3917 NW 97th Boulevard
Gainesville, FL 32606

File No 2018-691

Parcel No : 25-3S-16-02284-102

SPACE ABOVE THIS LINE FOR PROCESSING DATA | *SPACE ABOVE THIS LINE FOR RECORDING DATA*

This **WARRANTY DEED**, made the 4th day of **June, 2019**, by **LENVIL H. DICKS** and **MAVIS P. DICKS**, hereinafter called the Grantors, to **CONCEPT DEVELOPMENT, INC., a Florida corporation**, having its principal place of business at 3324 W University Ave , PMB 151 , Gainesville, FL 32607 hereinafter called the Grantee:

WITNESSETH: That the Grantors, for and in consideration of the sum of $10.00 and other valuable consideration, receipt whereof is hereby acknowledged, do hereby grant, bargain, sell, alien, remise, release, convey and confirm unto the Grantee all that certain land situate in County of Columbia, State of Florida, viz:

LOTS 1 AND 2 OF CRS BASCOM NORRIS AT LAKE JEFFERY, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 9, PAGE(S) 136, OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.

TOGETHER WITH all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

THE ABOVE-DESCRIBED PROPERTY IS NOT THE CONSTITUTIONAL HOMESTEAD OF THE GRANTORS, NOR IS IT CONTIGUOUS TO SUCH

SUBJECT TO TAXES FOR THE YEAR 2019 AND SUBSEQUENT YEARS, RESTRICTIONS, RESERVATIONS, COVENANTS AND EASEMENTS OF RECORD, IF ANY

TO HAVE AND TO HOLD the same in fee simple forever

And the Grantors hereby covenant with the Grantee that the Grantors are lawfully seized of said land in fee simple, that the Grantors have good right and lawful authority to sell and convey said land and that the Grantors hereby fully warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever. Grantors further warrant that said land is free of all encumbrances, except as noted herein and except taxes accruing subsequent to December 31, 2018

IN WITNESS WHEREOF, the said Grantors have signed and sealed these presents, the day and year first above written

Signed, sealed and delivered in the presence of:

Witness Signature: _____
Printed Name: SARA FARNELL

Witness Signature: _____
Printed Name: Suzanne Rossignol

_____ LS
Name: Lenvil H Dicks
Address:

_____ LS
Name: Mavis P Dicks
Address:

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 7 day of June, 2019, by Lenvil H Dicks and Mavis P Dicks, who are personally known to me or who have produced _____ as identification

_____
Signature of Notary
Printed Name: Suzanne Rossignol
My commission expires: 03/17/2023

Notary Public State of Florida
Suzanne Rossignol
My Commission GG 312211
Expires 03/17/2023

Inst. Number: 201912013808 Book: 1386 Page: 2104 Page 1 of 1 Date: 6/17/2019 Time: 3:17 PM
P.DeWitt Cason Clerk of Courts, Columbia County, Florida Doc Deed: 0.00 Doc Mort: 0.00 Int Tax: 0.00

PREPARED BY AND RETURN TO:
Brian A. Block, Esq.
3324 W. University Ave , PMB 151
Gainesville, FL 32607

NOTICE OF COMMENCEMENT

Tax Folio Number: 25-3S-16-02284-102

STATE OF FLORIDA
COUNTY OF ALACHUA

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

1. **Description of the Property:**
LOTS 1 AND 2, CRS BASCOM NORRIS AT LAKE JEFFERY, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 9, PAGE 136 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.

2. **General Description of improvement:** commercial retail development

3. **Owner Information:** Concept Development, Inc.; 3324 W. University Ave., PMB 151, Gainesville, FL 32607; (352) 333-3233; Attn: Brian S. Crawford
Interest in Property: Fee simple
Name and Address of Fee simple title holder (if other than owner): N/A

4. **Contractor Information:** Concept Construction of North Florida, Inc.; 3324 W. University Ave., PMB 151, Gainesville, FL 32607; (352) 333-3233

5. **Surety Information:** N/A
Amount of Bond: N/A

6. **Lender Information:** Renasant Bank, attention: Kevin Brown; 4373 W. Newberry Rd., Gainesville, Florida 32607; (352) 224-1903

7. **Person within the State of Florida designated by owner upon whom notices or other documents may be served as provided by 713.13 (1) (b) 7 Florida Statutes:** N/A

8. **In addition to himself, owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes:** N/A

9. **Expiration date of Notice of Commencement (the expiration date is one (1) year from the date of recording unless a different date is specified:** 1 year

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 813.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

CONCEPT DEVELOPMENT, INC.

By: _____
Brian S. Crawford, President

The following instrument was acknowledged before me this 14rd day of June, 2019 by Brian S. Crawford, as President of Concept Development, Inc., a Florida corporation, for and on behalf of the corporation, who is personally known to me or who produced a driver's license for identification.

BRIAN BLOCK
MY COMMISSION # FF 983096
EXPIRES: July 21, 2020
Bonded Thru Budget Notary Services

_____
Brian A. Block, Esq. Notary Public
My Commission Expires: 7/21/2020

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 1906-33 JOB NAME Dollar General ([redacted]) Bascom

THIS FORM MUST BE SUBMITTED BEFORE A PERMIT WILL BE ISSUED

Columbia County issues combination permits. One permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the general contractors permit.

NOTE: *It shall be the responsibility of the general contractor to make sure that all of the subcontractors are licensed with the Columbia County Building Department.*
Use website to confirm licenses: http://www.columbiacountyfla.com/PermitSearch/ContractorSearch.aspx

NOTE: If this should change prior to completion of the project, it is your responsibility to have a corrected form submitted to our office, before that work has begun.

Violations will result in stop work orders and/or fines.

		Need
ELECTRICAL ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
MECHANICAL/ A/C ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
PLUMBING/ GAS ☑ Verified CC# [redacted]2126	Print Name Billy Rachel Signature Company Name: Rive Star Plumbing Big Bend Inc License #: CFC-1429547 Phone #: 850-590-2957	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
ROOFING ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SHEET METAL ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
FIRE SYSTEM/ SPRINKLER ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License#:_____ Phone #:_____	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SOLAR ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
STATE SPECIALTY ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE

Ref: F.S. 440.103; ORD. 2016-30

Scanned with CamScanner

CITY OF LAKE CITY
Florida's Gateway Est. 1859

July 1, 2019

Concept Companies, Inc.
3917 NW 97th Blvd.
Gainesville, FL 32606

RE: Service Availability Letter

To Whom It May Concern,

Thank you for your inquiry regarding the availability of city utilities. The City of Lake City has potable water and sanitary sewer available to tap into at 1771 NW Lake Jeffery Rd. Parcel 25-3S-16-02284-102.

This availability response does not represent the City of Lake City's commitment for or reservation of capacity. In accordance with the City of Lake City's policies and procedures, commitment to serve is made only upon the City of Lake City's approval of your application for service and receipt of your payment for all applicable fees.

If you have any questions, please feel free to contact me at (386) 719-5786 during our normal business hours of 8:00 am to 4:30 pm, Monday through Friday. I will be happy to assist you.

Sincerely,

Shasta M. Pelham
Shasta Pelham
Utility Service Coordinator

Brian Scott
Director of Distribution and Collections

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 1906-33 JOB NAME Dollar General ([redacted]) Bascom

THIS FORM MUST BE SUBMITTED BEFORE A PERMIT WILL BE ISSUED

Columbia County issues combination permits. One permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the general contractors permit.

NOTE: *It shall be the responsibility of the general contractor to make sure that all of the subcontractors are licensed with the Columbia County Building Department.*
Use website to confirm licenses: http://www.columbiacountyfla.com/PermitSearch/ContractorSearch.aspx

NOTE: If this should change prior to completion of the project, it is your responsibility to have a corrected form submitted to our office, before that work has begun.

Violations will result in stop work orders and/or fines.

ELECTRICAL ☑ CC# 380	Print Name Donald R Davis Signature [signature] Company Name: High Springs Electric, Inc License #: EC0002306 Phone #: 386-623-0499	Need: Lic, Liab, W/C, Ex, DE
MECHANICAL/ A/C ☐ CC#	Print Name Signature Company Name: License #: Phone #:	Need: Lic, Liab, W/C, Ex, DE
PLUMBING/ GAS ☐ CC#	Print Name Signature Company Name: License #: Phone #:	Need: Lic, Liab, W/C, Ex, DE
ROOFING ☐ CC#	Print Name Signature Company Name: License #: Phone #:	Need: Lic, Liab, W/C, Ex, DE
SHEET METAL ☐ CC#	Print Name Signature Company Name: License #: Phone #:	Need: Lic, Liab, W/C, Ex, DE
FIRE SYSTEM/ SPRINKLER ☐ CC#	Print Name Signature Company Name: License#: Phone #:	Need: Lic, Liab, W/C, Ex, DE
SOLAR ☐ CC#	Print Name Signature Company Name: License #: Phone #:	Need: Lic, Liab, W/C, Ex, DE
STATE SPECIALTY ☐ CC#	Print Name Signature Company Name: License #: Phone #	Need: Lic, Liab, W/C, Ex, DE

Ref: F.S. 440.103; ORD. 2016-30

SUBCONTRACTOR VERIFICATION

APPLICATION/PERMIT # 1906-33 JOB NAME Dollar General (Bascom)

THIS FORM MUST BE SUBMITTED BEFORE A PERMIT WILL BE ISSUED

Columbia County issues combination permits. One permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the general contractors permit.

NOTE: *It shall be the responsibility of the general contractor to make sure that all of the subcontractors are licensed with the Columbia County Building Department.*

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NOTE: If this should change prior to completion of the project, it is your responsibility to have a corrected form submitted to our office, before that work has begun.

Violations will result in stop work orders and/or fines.

ELECTRICAL ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
MECHANICAL/ **A/C** A ☑ CC# 1929	Print Name Mike Myers Signature MM Company Name: Southern Air Systems License #: CAC1816083 Phone #: 352-472-2926	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
PLUMBING/ **GAS** ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
ROOFING ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SHEET METAL ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
FIRE SYSTEM/ **SPRINKLER** ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License#:_____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
SOLAR ☐ CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE
STATE ☐ **SPECIALTY** CC#_____	Print Name_____ Signature_____ Company Name:_____ License #:_____ Phone #:_____	Need ☐ Lic ☐ Liab ☐ W/C ☐ EX ☐ DE

Ref: F.S. 440.103; ORD. 2016-30

Legend

Parcels

2018Aerials

Addresses

Water Lines
- Others
- CANAL / DITCH
- CREEK
- STREAM / RIVER

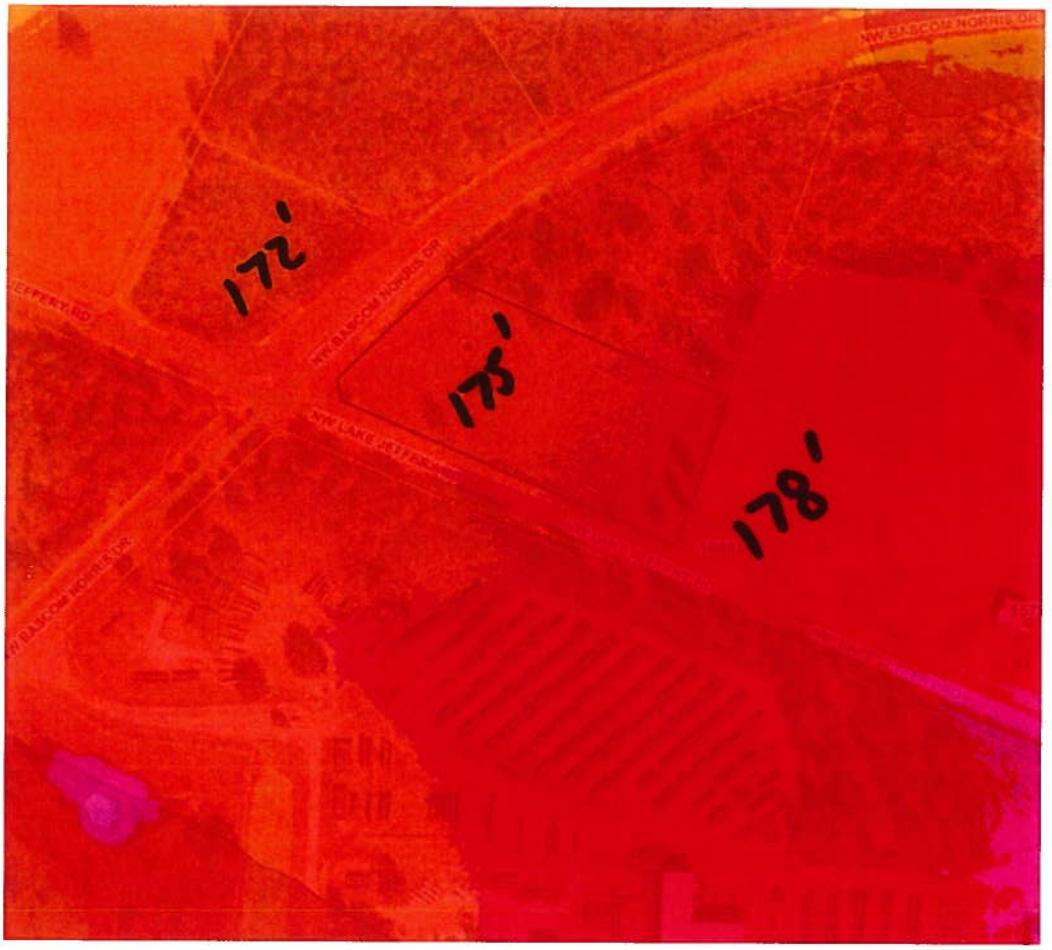
2018 Flood Zones
- 0.2 PCT ANNUAL CHANCE
- A
- AE
- AH

Roads
- Roads
- others
- Dirt
- Interstate
- Main
- Other
- Paved
- Private

LidarElevations

Columbia County, FLA - Building & Zoning Property Map

Printed: Tue Jun 18 2019 09:04:16 GMT-0400 (Eastern Daylight Time)



Parcel Information

Parcel No: 25-3S-16-02284-102

Owner: DICKS MAVIS P & LENVIL H

Subdivision:

Lot:

Acres: 5.001081

Deed Acres: 5 Ac

District: District 1 Ronald Williams

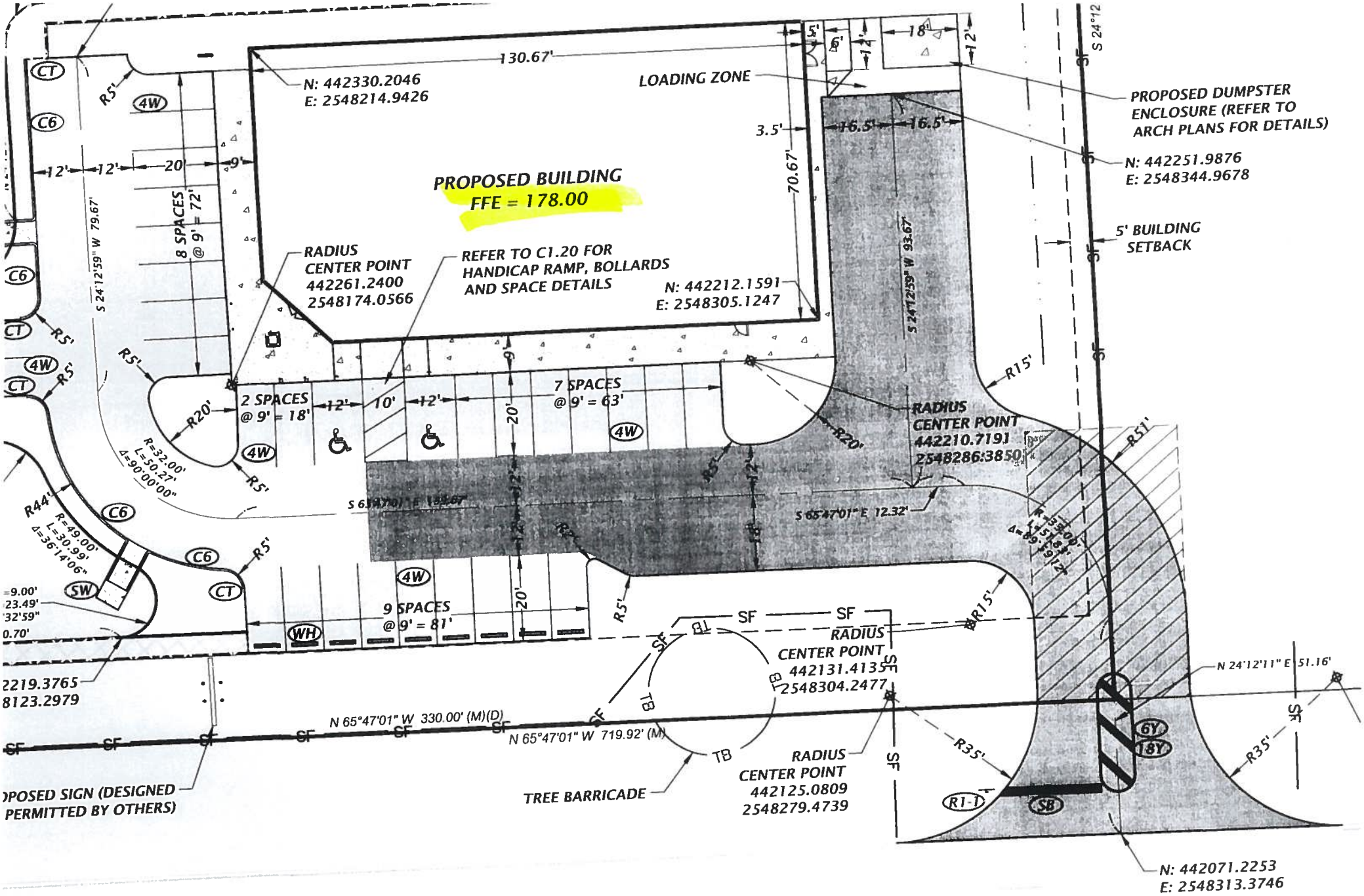
Future Land Uses: Commercial, Public

Flood Zones:

Official Zoning Atlas: CI, RSF/MH-2

Minimum Elevation of Slab is 178.00

All data, information, and maps are provided "as is" without warranty or any representation of accuracy, timeliness of completeness. Columbia County, FL makes no warranties, express or implied, as to the use of the information obtained here. There are no implies warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts all limitations, including the fact that the data, information, and maps are dynamic and in a constant state of maintenance, and update.


PROPOSED BUILDING
FFE = 178.00
130.67'
N: 442330.2046
E: 2548214.9426
LOADING ZONE
PROPOSED DUMPSTER ENCLOSURE (REFER TO ARCH PLANS FOR DETAILS)
N: 442251.9876
E: 2548344.9678
5' BUILDING SETBACK
70.67'
3.5'
16.5'
16.5'
8 SPACES @ 9' = 72'
S 24°12'59" W 79.67'
S 24°12'59" W 93.67'
RADIUS
CENTER POINT
442261.2400
2548174.0566
REFER TO C1.20 FOR HANDICAP RAMP, BOLLARDS AND SPACE DETAILS
N: 442212.1591
E: 2548305.1247
2 SPACES @ 9' = 18'
7 SPACES @ 9' = 63'
R20'
R15'
RADIUS
CENTER POINT
442210.7191
2548286.3850
S 65°47'01" E 12.32'
R=32.00'
L=50.27'
Δ=90°00'00"
R44'
R=49.00'
L=30.99'
Δ=36°14'06"
9 SPACES @ 9' = 81'
WH
SW
N 65°47'01" W 330.00' (M)(D)
N 65°47'01" W 719.92' (M)
RADIUS
CENTER POINT
442131.4135
2548304.2477
RADIUS
CENTER POINT
442125.0809
2548279.4739
TREE BARRICADE
N 24°12'11" E 51.16'
R35'
N: 442071.2253
E: 2548313.3746
2219.3765
8123.2979
OPOSED SIGN (DESIGNED PERMITTED BY OTHERS)
LAKE JEFFREY ROAD - COUNTY ROAD No. 250 (R)

Laurie Hodson

From: John Moss <john@conceptconstruction.net>
Sent: Wednesday, June 12, 2019 12:39 PM
To: Laurie Hodson
Subject: Retail Store Culvert

Good Afternoon Laurie,

This is concerning the application I brought in a couple of days ago. I did not fill out the culvert info for the store we are putting in at 1771 NW Lake Jeffrey. We will not have a cilvert at the driveway.

JOHN MOSS

CAD Designer/Permit Coordinator

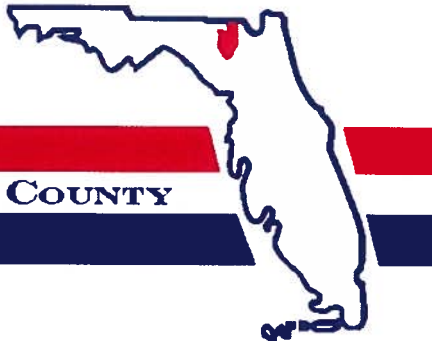
LEVEL
ARCHITECTURE INTERIORS

720 SW 2nd Ave, Suite 105
Gainesville, Fl 32601
o: (352) 333-3233 ex. 123
f: (800) 218-7809
email: john@leveldesign.co
LevelDesign.co

3324 W. University Ave
PMB #151
Gainesville, Fl. 32607
o: (352) 333-3233 ex. 123
f: (800) 218-7809
email: john@conceptcompanies.net
ConceptCompanies.net

Find Out
WHO WE ARE

District No. 1 - Ronald Williams
District No. 2 - Rocky Ford
District No. 3 - Bucky Nash
District No. 4 - Toby Witt
District No. 5 - Tim Murphy



May 28, 2019

VIA ELECTRONIC MAIL

Matt Cason, President
Concept Companies, Inc.
3917 NW 97th Blvd
Gainesville, Fl 32056

Re: Site & Development Plan (SDP 19 04) "Dollar General"
Approval Letter

Dear Mr. Cason,

The Minor Site & Development Application you submitted has been reviewed in accordance with Section 14.13.6 "Minor Site and Development Plan Approval" of the Land Development Regulations ("LDRs"). The Minor Site and Development Plan Application, SDP 19 04, has been found in compliance with the County's Comprehensive Plan and Land Development Regulations and is hereby approved. Please be aware that the effective date of SDP 19 04 shall be the effective date of V 0318.

If you have any questions, please do not hesitate to contact me at bstubbs@columbiacountyfla.com or (386) 754-7119.

Sincerely,

Brandon M. Stubbs
County Planner/LDR Admin.

Only One Set in Packett

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for
FILE COPY
Code Compliance
PLANS EXAMINER

District No. 1 - Ronald Williams
District No. 2 - Rocky Ford
District No. 3 - Bucky Nash
District No. 4 - Toby Witt
District No. 5 - Tim Murphy

May 28, 2019

VIA ELECTRONIC MAIL

Travis Hastay, P.E.
CHW, Inc.
11801 Research Drive
Alachua, Fl 32615

Re: V 0318 – Dollar General Variance Application
Board of Adjustment Determination Letter

Dear Mr. Hastay,

At the May 23, 2019 Board of Adjustment ("Board") hearing, the Board approved your application for a Variance be granted from the "Minimum Off-Street Parking Requirements" of Section 4.12.11 of the Land Development Regulations ("LDRs") to allow for a deviation from the required one (1) parking space per 150 square feet of non-storage floor area to allow for one (1) parking space per 245 square feet of non-storage floor area in accordance with Section 12.3 of the County's LDRs. Per Section 12.1.1 of the County's LDRs, there is a thirty (30) day appeal period. If no appeal is filed within thirty (30) days, the decision of the Board shall become final. No permits shall be issued until the thirty (30) day appeal period has expired.

Attached for your records is a copy of Resolution BA V 0318.

If you have any questions, please do not hesitate to contact me at bstubbs@columbiacountyfla.com or (386) 754-7119.

Sincerely,

Brandon M. Stubbs
County Planner/LDR Admin.

Columbia County
BUILDING DEPARTMENT

Revised 7/1/15

COMMERCIAL MINIMUM PLAN CHECKLIST

MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR THE 2014 FLORIDA BUILDING CODE ,FLORIDA PLUMBING CODE,FLORIDA MECHINICAL CODE,FLORIDA FUEL AND GAS CODE 2014 EFFECTIVE 1 JULY 2015 AND 2011 NATIONAL ELECTRICAL

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

ALL BUILDING PLANS MUST INDICATE COMPLIANCE WITH THE CURRENT FLORIDA BUILDING CODES. ALL PLANS OR DRAWING SHALL PROVIDED CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION.

FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEEDS ARE PER FLORIDA BUILDING CODE FIGURE 1609-A THROUGH 1609-C ULTIMATE DESIGN WIND SPEEDS FOR RISK CATEGORY AND BUILDINGS AND OTHER STRUCTURES

	GENERAL REQUIREMENTS:	Items to Include-Each Box shall be Circled as Applicable			
1	All drawings must be clear, concise and drawn to scale, details that are not used shall be marked void.	YES	NO	N/A	Yes
2	If the design professional is an architect or engineer legally registered under the laws of this state regulating the practice of architecture as provided for in Chapter 481, Florida Statutes, Part I, or engineering as provided for in Chapter 471, Florida Statutes, then he or she shall affix his or her official seal to said drawings, specifications and accompanying data, as required by Florida Statute.	YES	NO	N/A	Yes
3	The design professional signature shall be affixed to the plans	YES	NO	N/A	
4	Two (2) complete sets of plans with the architecture or engineer signature and the date the affix embossed official seal was placed on the plans	YES	NO	N/A	Yes

Two (2) complete sets of plans containing the following information:

	Building Site Plan Requirements	Items to Include-Each Box shall be Circled as Applicable			
4	Parking, including provision Florida Building Code Accessibility Code	Yes	No	N/A	Yes
5	Fire access, showing all drive way which will be accessible for emergency vehicles	Yes	No	N/A	Yes
6	Driving/turning radius of parking lots	Yes	No	N/A	Yes
7	Vehicle loading include truck dock loading or rail site loading	Yes	No	N/A	Yes
8	Nearest or number of onsite Fire hydrant/water supply/post indicator valve (PIV)	Yes	No	N/A	Yes
9	Set back of all existing or proposed structures from each structure and property boundaries, Show all	Yes	No	N/A	Yes

	separation including assumed property lines			
10	Location of specific tanks(above or under grown ,water lines and sewer lines and septic tank and drain fields	Yes	No	N/A N/A
11	All structures exterior views include finished floor elevation	Yes	No	N/A Yes
12	Total height of structure(s) form established grade	Yes	No	N/A Yes
	Review required by the Columbia County Fire Department Items 13Th 43			

Occupancy group use circle all uses:	Group A	Group B	Group E	Group F	Group H	Group I	Group M	Group R	Group S	Group U D

13	Special occupancy requirements.	Yes	No	N/A N/A
14	Incidental use areas (total square footage for each room of use area)	Yes	No	N/A N/A
15	Mixed occupancies	Yes	No	N/A N/A
16	REQUIRED SEPARATION OF OCCUPANCIES IN HOURS FBC TABLE 707.3.10	Yes	No	N/A N/A

Minimum type of permitted construction by code for occupancy use circle the construction type FBC 602						
17	Type I (FBC:602.2)	Type II (FBC:602.2)	Type III (FBC:602.3)	Type IV (FBC:602.4)	Type V (FBC:602.5)	Type I

	Fire-resistant construction requirements shall be shown, include the following components				
18	Fire-resistant separations	Yes	No	N/A	N/A
19	Fire-resistant protection for type of construction	Yes	No	N/A	N/A
20	Protection of openings and penetrations of rated walls	Yes	No	N/A	N/A
21	Protection of corridors and penetrations of rated walls	Yes	No	N/A	N/A
22	Fire blocking and draftstopping and calculated fire resistance	Yes	No	N/A	N/A
	Fire suppression systems shall be shown include:				
23	Early warning smoke evacuation systems Schematic fire sprinklers Standpipes	Yes	No	N/A	N/A
24	Standpipes	Yes	No	N/A	N/A
25	Pre-engineered systems	Yes	No	N/A	N/A
26	Riser diagram	Yes	No	N/A	N/A
	Life safety systems shall be shown include the following requirements:				
27	Occupant load and egress capacities	Yes	No	N/A	Yes
28	Early warning	Yes	No	N/A	N/A
29	Smoke control	Yes	No	N/A	N/A
30	Stair pressurization	Yes	No	N/A	N/A
31	Systems schematic	Yes	No	N/A	N/A
	Occupancy load/egress requirements shall be shown include:				
32	Occupancy load	Yes	No	N/A	Yes
33	Gross occupancy load	Yes	No	N/A	Yes
34	Net occupancy load	Yes	No	N/A	Yes
35	Means of egress	Yes	No	N/A	Yes
36	Exit access	Yes	No	N/A	Yes
37	Exit discharge	Yes	No	N/A	Yes
38	Stairs construction/geometry and protection	Yes	No	N/A	N/A
39	Doors	Yes	No	N/A	N/A
40	Emergency lighting and exit signs	Yes	No	N/A	Yes
41	Specific occupancy requirements	Yes	No	N/A	N/A
42	Construction requirements	Yes	No	N/A	Yes
43	Horizontal exits/exit passageways	Yes	No	N/A	Yes

					Items to Include- Each Box shall be Circled as Applicable
	Structural requirements shall be shown include:				
44	Soil conditions/analysis	Yes	No	N/A	Yes
45	Termite protection	Yes	No	N/A	Yes
46	Design loads	Yes	No	N/A	Yes
47	Wind requirements	Yes	No	N/A	Yes
48	Building envelope	Yes	No	N/A	N/A

49	Structural calculations (if required)	Yes	No	N/A N/A
50	Foundation **For** structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an grounding electrode system. Per the National Electrical Code article 250.52.3	Yes	No	N/A N/A
51	Wall systems	Yes	No	N/A N/A
52	Floor systems	Yes	No	N/A N/A
53	Roof systems	Yes	No	N/A N/A
54	Threshold inspection plan	Yes	No	N/A N/A
55	Stair systems	Yes	No	N/A N/A
	Materials shall be shown include the following			
56	Wood	Yes	No	N/A N/A
57	Steel	Yes	No	N/A Yes
58	Aluminum	Yes	No	N/A N/A
59	Concrete	Yes	No	N/A Yes
60	Plastic	Yes	No	N/A N/A
61	Glass	Yes	No	N/A Yes
62	Masonry	Yes	No	N/A Yes
63	Gypsum board and plaster	Yes	No	N/A N/A
64	Insulating (mechanical)	Yes	No	N/A N/A
65	Roofing	Yes	No	N/A N/A
66	Insulation	Yes	No	N/A Yes
	Accessibility requirements shall be shown include the following			
67	Site requirements	Yes	No	N/A N/A
68	Accessible route	Yes	No	N/A N/A
69	Vertical accessibility	Yes	No	N/A N/A
70	Toilet and bathing facilities	Yes	No	N/A N/A
71	Drinking fountains	Yes	No	N/A N/A
72	Equipment	Yes	No	N/A N/A
73	Special occupancy requirements	Yes	No	N/A N/A
74	Fair housing requirements	Yes	No	N/A N/A
	Interior requirements shall include the following			
75	**Review required by the Columbia County Fire Department Items 75Th 80** Interior finishes (flame spread/smoke development)	Yes	No	N/A Yes
76	Light and ventilation	Yes	No	N/A N/A
77	Sanitation	Yes	No	N/A N/A
	Special systems			
78	Elevators	Yes	No	N/A N/A
79	Escalators	Yes	No	N/A N/A
80	Lifts	Yes	No	N/A N/A
	Swimming pools			
81	Barrier requirements	Yes	No	N/A N/A
82	Spas and Wading pools	Yes	No	N/A N/A
83	Access required per Florida Building Code 454.1.2.5	Yes	No	N/A N/A

Items to Include-Each Box shall be Circled as Applicable				
	Electrical			
84	Wiring	Yes	No	N/A N/A
85	Services **For** structures with foundation which establish new electrical utility companies service connection a Concrete Encased Electrode will be required within the foundation to serve as an grounding electrode system. Per the National Electrical Code article 250.52.3	Yes	No	N/A N/A
86	Feeders and branch circuits	Yes	No	N/A N/A
87	Overcurrent protection	Yes	No	N/A N/A
88	Grounding	Yes	No	N/A Yes
89	Wiring methods and materials	Yes	No	N/A Yes

90	GFCIs	Yes	No	N/A	Yes
91	Equipment	Yes	No	N/A	N/A
92	Special occupancies	Yes	No	N/A	N/A
93	Emergency systems	Yes	No	N/A	N/A
94	Communication systems	Yes	No	N/A	N/A
95	Low voltage	Yes	No	N/A	Yes
96	Load calculations	Yes	No	N/A	Yes
	Plumbing				
97	Minimum plumbing facilities	Yes	No	N/A	Yes
98	Fixture requirements	Yes	No	N/A	Yes
99	Water supply piping	Yes	No	N/A	Yes
100	Sanitary drainage	Yes	No	N/A	Yes
101	Water heaters	Yes	No	N/A	Yes
102	Vents	Yes	No	N/A	Yes
103	Roof drainage	Yes	No	N/A	N/A
104	Back flow prevention	Yes	No	N/A	N/A
105	Irrigation	Yes	No	N/A	Yes
106	Location of water supply line	Yes	No	N/A	N/A
107	Grease traps	Yes	No	N/A	N/A
108	Environmental requirements	Yes	No	N/A	N/A
109	Plumbing riser	Yes	No	N/A	Yes
	Mechanical				
110	Energy calculations	Yes	No	N/A	Yes
111	**Review required by the Columbia County Fire Department Items 111Th 114** Exhaust systems	Yes	No	N/A	N/A
112	Clothes dryer exhaust	Yes	No	N/A	N/A
113	Kitchen equipment exhaust	Yes	No	N/A	N/A
114	Specialty exhaust systems	Yes	No	N/A	N/A
	Equipment location				
115	Make-up air	Yes	No	N/A	N/A
116	Roof-mounted equipment	Yes	No	N/A	N/A
117	Duct systems	Yes	No	N/A	N/A
118	Ventilation	Yes	No	N/A	N/A
119	Laboratory	Yes	No	N/A	N/A
120	Combustion air	Yes	No	N/A	N/A
121	Chimneys, fireplaces and vents	Yes	No	N/A	N/A
122	Appliances	Yes	No	N/A	N/A
123	Boilers	Yes	No	N/A	N/A
124	Refrigeration	Yes	No	N/A	N/A
125	Bathroom ventilation	Yes	No	N/A	N/A

		Items to Include- Each Box shall be Circled as Applicable			
	Gas				
126	**Review required by the Columbia County Fire Department Items 126Th 134** Gas piping	Yes	No	N/A	N/A
127	Venting	Yes	No	N/A	N/A
128	Combustion air	Yes	No	N/A	N/A
129	Chimneys and vents	Yes	No	N/A	N/A
130	Appliances	Yes	No	N/A	N/A
131	Type of gas	Yes	No	N/A	N/A
132	Fireplaces	Yes	No	N/A	N/A
133	LP tank location	Yes	No	N/A	N/A
134	Riser diagram/shutoffs	Yes	No	N/A	N/A
	Notice of Commencement				
135	A recorded (in the Columbia County Clerk Office) notice of commencement is required to be on file with the building department . ***Before Any Inspections Will Be Done***	Yes	No	N/A	N/A
	Disclosure Statement for Owner Builders	Yes	No	N/A	N/A

PRODUCT APPROVAL SPECIFICATION SHEET

Location: Lake City Bascom Project Name: Dollar General

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit on or after April 1, 2004. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at www.floridabuilding.org.

Category/Subcategory	Manufacturer	Product Descrpiton	Approval Number(s)
A. EXTERIOR DOORS			
1. Swinging	Schlage/Steelcraft	H-Series	FL1591-R7/15-0930.03
2. Sliding	Assa-Ambloy	Besam	FL16128-R2/14-0529.17
3. Sectional			
4. Roll Up			
5. Automatic			
6. Other			
B. WINDOWS			
1. Single Hung			
2. Horizontal Slider			
3. Casement			
4. Double Hung			
5. Fixed	Assa-Ambloy	Besam	FL16128-R2/14-0529.17
6. Awning			
7. Pass-through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11. Dual Action			
12. Other			
C. PANEL WALL			
1. Siding	Schulte Building Systems	ARCH. III	FL8702.2 R4
2. Soffits			
3. EIFS			
4. Storefronts			
5. Curtain Walls			
6. Wall Louver			
7. Glass Block			
8. Membrane			
9. Greenhouse			
10. Other			
D. ROOFING PRODUCTS			
1. Asphalt Shingles			
2. Underlayments			
3. Roofing Fasteners			
4. Non-structural Metal Roof			
5. Built-up Roofing			
6. Modified Bitumen			
7. Single Ply Roofing System			
8. Roofing Tiles			
9. Roofing Insulation			
10. Waterproofing			
11. Wood Shingles/Shakes			
12. Roofing Slate			
13. Liquid Applied Roof System			
15. Roof Tile Adhesive			
16. Spray Applied Polyurethane Roof			
17. Other	Schulte Building Systems	Structural Roof Panel	FL9093.4 R4

COLUMBIA COUNTY FIRE RESCUE
Life Safety Services

P.O. BOX 1529 Lake City, Florida 32056
Office (386) 758-2120 Fax (386) 754-7064

Fire Inspector
Chief Jeffery Crawford

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for
FILE COPY
Code Compliance
PLANS EXAMINER

20 June 2019

TO: Troy Crews
Columbia County Building and Zoning

FROM: Chief Jeffery Crawford
Fire Inspector #136416

RE: New construction for Dollar General

A plan review was performed on the proposed new construction of building for Dollar General, located at 1771 NW Lake Jeffery Rd, Lake City FL 32055. This building was classified under Chapter 38 New Business, of the Florida Fire Prevention Code, 2012 Fifth Edition.
I recommend Approval of the building with the following conditions:
Pending:

- Light Weight Truss Marking
    - Florida Statue, Section 633.027, (2008) requires the owner of any commercial, industrial, or multi-unit residential structure of three units or more constructed of light-frame trusses, to install a symbol adopted by the rule of the State Fire Marshal's Office. This rule establishes the dimensions, color, and location of the symbol to be applied to every commercial, industrial, and multi-unit residential structure of three units or more constructed of light-frame trusses.

- Emergency Lighting/Exit signs
    - NFPA 101 Life Safety Code, Chapter 42.2.9 emergency lighting shall be provided in normally occupied storage occupancies in accordance with section 7.9, except for

spaces occupied only during daylight hours with natural illumination in accordance with 42.2.8.2.

- Fire Extinguishers – 1 ABC Fire extinguisher per exit door

- Access Box(es)
  - NFPA 1:18.2.2.1 states, The AHJ shall have the authority to require an access box(es) to be installed in an accessible location where access to or within a structure or area is difficult because of security. The access box(es) shall be of an approved type listed in accordance with UL1037.

  Knox Boxes are now a requirement for all new construction

- Electrical Disconnect
  - NFPA 1:11.1.7 states, "means shall be provided for the fire department to disconnect the electrical service to a building, structure or facility when the electrical is covered under the scope of NFPA70."
  - NFPA 101:7.2.1.5.1 states, "Doors shall be arranged to be opened readily from egress side whenever building is occupied."

Sincerely,

Jeffrey Crawford

Florida Building Code, Sixth Edition (2017) - Energy Conservation

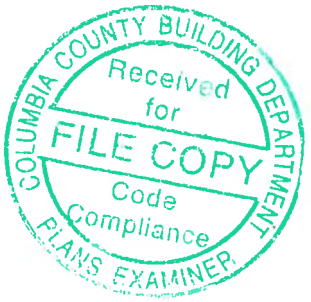
EnergyGauge Summit® Fla/Com-2017, Effective Date: Dec 31, 2017
IECC 2015 - Total Building Performance Compliance Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- ☐ This Checklist
- ☐ The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports.
- ☐ The compliance report must include the full input report generated by the software as contigous part of the compliance report.
- ☐ Boxes appropriately checked in the Mandatory Section of the complaince report.

WARNING: INPUT REPORT NOT GENERATED.
To include input report in final submission, go to the Project Form, Settings Tab and check the box - "Append Input Report to Compliance Output Report"
Then rerun your calculation



PROJECT SUMMARY

Short Desc:	DOLLAR GENERAL	**Description:**	DG Lake City Birley
Owner:	DOLLAR GENERAL		
Address1:	2144 SW BIRLEY AVE	**City:**	Lake City
Address2:		**State:**	FLORIDA
		Zip:	32024
Type:	Retail	**Class:**	New Finished building
Jurisdiction:	LAKE CITY, COLUMBIA COUNTY, FL (221200)		
Conditioned Area:	8690 SF	**Conditioned & UnConditioned Area:**	8690 SF
No of Stories:	1	**Area entered from Plans**	9100 SF
Permit No:	0	**Max Tonnage**	12.5
		If different, write in:	

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in $)	9,246.0	9,609.0	**PASSED**
LIGHTING CONTROLS			**PASSES**
EXTERNAL LIGHTING			**PASSES**
HVAC SYSTEM			**PASSES**
PLANT			**No Entry**
WATER HEATING SYSTEMS			**PASSES**
PIPING SYSTEMS			**PASSES**
Met all required compliance from Check List?			**Yes/No/NA**

IMPORTANT MESSAGE
Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: NAWWAF AHMAD Building Official: _____

Date: _____ Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____ Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____ Reg No: _____

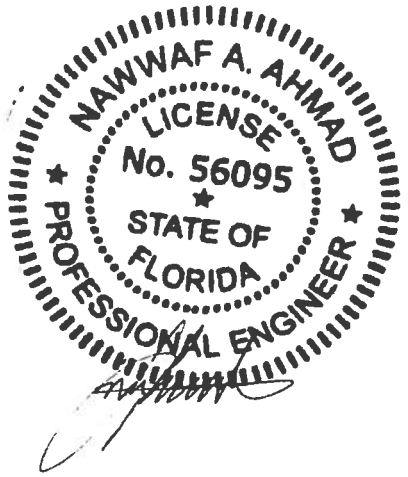
Electrical Designer: NAWWAF AHMAD Reg No: FL - PE 56095

Lighting Designer: NAWWAF AHMAD Reg No: FL - PE 56095

Mechanical Designer: NAWWAF AHMAD Reg No: FL - PE 56095

Plumbing Designer: NAWWAF AHMAD Reg No: FL - PE 56095

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.



Project: DOLLAR GENERAL
Title: DG Lake City Birley
Type: Retail
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	*603.30*	*736.40*
	$9,246	*$11,304*
ELECTRICITY(MBtu/kWh/$)	603.30	736.40
	176792	215731
	$9,246	*$11,304*
AREA LIGHTS	195.60	234.30
	57303	68650
	$2,997	*$3,597*
MISC EQUIPMT	115.90	115.90
	33960	33960
	$1,776	*$1,780*
PUMPS & MISC	0.00	0.10
	4	16
	$0	*$1*
SPACE COOL	202.50	199.40
	59344	58418
	$3,104	*$3,061*
SPACE HEAT	0.70	11.40
	207	3331
	$11	*$175*
VENT FANS	88.60	175.30
	25974	51356
	$1,358	*$2,691*

Credits Applied: None
Passing Criteria = 9609
Design (including any credits) = 9246
Passing requires Proposed Building cost to be at most 85% of Baseline cost. This Proposed Building is at 81.8%

PASSES

Project: DOLLAR GENERAL
Title: DG Lake City Birley
Type: Retail
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 1	Building facades (by linear foot)	No	3.75	400.0	1.500	1,400

Tradable Surfaces: 0 (W) Allowance for Tradable: 750 (W) **PASSES**
All External Lighting: 1400 (W)
Complicance check includes a excess/Base allowance of 750.00(W)

Project: DOLLAR GENERAL
Title: DG Lake City Birley
Type: Retail
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli-ance
SALES	25.001	Sales Area	7,424	4	3	PASSES
BATHROOM	6	Toilet and Washroom	176	1	1	PASSES
STOCKROOM	3	Storage & Warehouse - Bulky Active Storage	905	1	1	PASSES
OFFICE	17	Office - Enclosed	85	1	1	PASSES
BREAKROOM	17	Office - Enclosed	100	1	1	PASSES

PASSES

Project: DOLLAR GENERAL
Title: DG Lake City Birley
Type: Retail
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

System Report Compliance

RTU 12.5T **Lennox RTU** **Constant Volume Packaged System** **No. of Units 2**

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp-liance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	150000	12.00	11.00	12.40	12.40	PASSES
Heating System	Electric Furnace	47100	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5000	0.60	0.82			PASSES

PASSES

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance

None

Project: DOLLAR GENERAL
Title: DG Lake City Birley
Type: Retail
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Comp liance
Water Heater 1	Electric water heater	<= 12 [kW]	1.00	0.94			PASSES

PASSES

Project: DOLLAR GENERAL
Title: DG Lake City Birley
Type: Retail
(WEA File: FL_JACKSONVILLE_INTL_ARPT.tm3)

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
Heating System (Steam, Steam Condensate, & Hot Water)	0.25	False	105.00	0.28	0.51	0.50	**PASSES**

PASSES

Mandatory Requirements (as applicable)

Mandatory requirements compiled by US Department of Energy and Pacific Northwest National Laboratory. Adopted with permission

Topic	Section	Component	Description	Yes	N/A	Exempt
1. To be checked by Designer or Engineer						
Insulation	C303.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.	☐	☐	☐
Insulation	C303.2	Envelope	Slab edge insulation installed per manufacturer's instructions.	☐	☐	☐
Insulation	C303.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.	☐	☐	☐
Insulation	C402.3	Envelope	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance >= 0.55 and thermal emittance >= 0.75 or 3-year-aged solar reflectance index >= 64.0.	☐	☐	☐
Fenestration	C402.4.4	Envelope	U-factor of opaque doors associated with the building thermal envelope meets requirements.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.1	Mechanical	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.2	Mechanical	HVAC fan motors not oversized beyond allowable limits.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.3(8) Table	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement meet those listed in Table C403.2.3(8)	☐	☐	☐
HVAC	C403.2.7	Mechanical	Exhaust air energy recovery on systems meeting Table C403.2.7(1) and C403.2.7(2).	☐	☐	☐
SYSTEM_SPECIFIC	C403.3	Mechanical	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	☐	☐	☐
SYSTEM_SPECIFIC	C403.3.2	Mechanical	Economizer operation will not increase heating energy use during normal operation.	☐	☐	☐
SYSTEM_SPECIFIC	C403.3.4, C403.3.4.1, C403.3.4.2, C403.3.1	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.3.1	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat addition requirements.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.3.4	Mechanical	Open-circuit cooling towers having water cooled chiller systems and multiple or vairable speed condenser pumps, are designed so that tower cells can run in parallel with larger of flow crtieria.	☐	☐	☐
SYSTEM_SPECIFIC	C404.2	Mechanical	Service water heating equipment meets efficiency requirements.	☐	☐	☐
Wattage	C405.3	Interior Lighting	Exit signs do not exceed 5 watts per face.	☐	☐	☐
2. To be checked by Plan Reviewer						
Plan Review	C103.2	Envelope	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐	☐	☐

Plan Review	C103.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering st	☐	☐	☐
Plan Review	C103.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufact	☐	☐	☐
Plan Review	C103.2	Interior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided shoul	☐	☐	☐
Plan Review	C103.2	Exterior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided shoul	☐	☐	☐
Insulation	C402.2.5	Envelope	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or >= 10 inches of soil.	☐	☐	☐
Insulation	C402.2.6	Project	Radiant heating systems panels insulated to >=R-3.5 on face opposite space being heated.	☐	☐	☐
HVAC	C402.2.6	Mechanical	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐	☐	☐
Insulation	C402.2.6	Envelope	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐	☐	☐
Air Leakage	C402.5.7	Envelope	Vestibules are installed on all building entrances. Doors have self-closing devices.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.12.3	Mechanical	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐	☐	☐
HVAC	C403.2.13	Mechanical	Unenclosed spaces that are heated use only radiant heat.	☐	☐	☐
HVAC	C403.2.4.2	Mechanical	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.4	Mechanical	Zone isolation devices and controls installed where applicable.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.7	Mechanical	Fault detection and diagnostics installed with air-cooled unitary DX units having economizers.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.5	Mechanical	Hot water boilers supplying heat via one- or two-pipe systems include outdoor setback control.	☐	☐	☐
HVAC	C403.2.6.1	Mechanical	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.1.1	Mechanical	Hydronic and multizone HVAC system controls areVAV fans driven by mechanical or electrical variable speed drive per Table C403.4.1.1.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.1.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2	Mechanical	Temperature reset by representative building loads in pumping systems for chiller and boiler systems >500,000 Btu/h.	☐	☐	☐

SYSTEM_SPECIFIC	C403.4.2.3.2.1	Mechanical	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or cl	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.4	Mechanical	Hydronic systems greater than 500,000 Btu/h designed for variable fluid flow.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.5	Mechanical	System turndown requirement met through multiple single-input boilers, one or more modulating boilers, or a combination of single-input and modulating boilers. Boiler input between 1.0 MBtu/h and 5 MBtu/h has 3:1 turndown ratio, boiler input between 5.0	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.6	Mechanical	Chilled water plants with multiple chillers have capability to reduce flow automatically through the chiller plant when a chiller is shut down. Boiler plants with multiple boilers have the capability to reduce flow automatically through the boiler plant	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.3, C403.4.3.2	Mechanical	Fan systems with motors >=7.5 hp associated with heat rejection equipment to have capability to operate at 2/3 of full-speed and auto speed controls to control the leaving fluid temperature or condensing temp/pressure of heat rejection device.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.5	Mechanical	Multiple zone HVAC systems have supply air temperature reset controls.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.6	Mechanical	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐	☐	☐
SYSTEM_SPECIFIC	C404.2.1	Mechanical	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment >= 1,000 kBtu/h serves the entire building, thermal efficiency >= 90 Et. Where multiple pieces of water-heating equipment serve the building wi	☐	☐	☐
SYSTEM_SPECIFIC	C404.4	Mechanical	All piping insulated in accordance with section details and Table C403.2.10.	☐	☐	☐
SYSTEM_SPECIFIC	C404.5, C404.5.1, C404.5.2	Mechanical	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐	☐	☐
SYSTEM_SPECIFIC	C404.6.3	Mechanical	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐	☐	☐
SYSTEM_SPECIFIC	C404.7	Mechanical	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving	☐	☐	☐
Wattage	C405.5.1	Exterior Lighting	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐	☐	☐
Plan Review	C405.6	Project	Group R-2 dwelling units have separate electrical meters.	☐	☐	☐
Plan Review	C406	Project	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐	☐	☐
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	☐	☐	☐
SYSTEM_SPECIFIC	C408.2.2.2	Mechanical	HVAC hydronic heating and cooling coils have means to balance and have pressure test connections.	☐	☐	☐

3. To be checked by Inspector

Insulation	C303.1	Envelope	Roof insulation installed per manufacturerâ€™s instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	☐	☐	☐
Insulation	C303.1	Envelope	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☐	☐	☐
Fenestration	C303.1.3	Envelope	Fenestration products rated in accordance with NFRC.	☐	☐	☐
Fenestration	C303.1.3	Envelope	Fenestration products are certified as to performance labels or certificates provided.	☐	☐	☐
Insulation	C303.2, C402.2.4	Envelope	Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs.	☐	☐	☐
Insulation	C303.2.1	Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐	☐	☐
Insulation	C303.2.1	Envelope	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	☐	☐	☐
Insulation	C402.1.3	Envelope	Non-swinging opaque doors have R-4.75 insulation.	☐	☐	☐
Insulation	C402.2.2	Envelope	Skylight curbs are insulated to the level of roofs with insulation above deck or R-5.	☐	☐	☐
Insulation	C402.2.2	Envelope	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	☐	☐	☐
Air Leakage	C402.5	Envelope	Building envelope contains a continuous air barrier that has been tested and deemed to limit air leakage <= 0.40 cfm/ft2.	☐	☐	☐
Air Leakage	C402.5.1	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	☐	☐	☐
Air Leakage	C402.5.1.1	Envelope	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐	☐	☐
Air Leakage	C402.5.1.2 1	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and material permeability <= 0.004 cfm/ft2. Air barrier penetrations are sealed in an approved manner.	☐	☐	☐
Air Leakage	C402.5.1.2.2	Envelope	The building envelope contains a continuous air barrier that is sealed in an approved manner and average assembly air leakage <= 0.04 cfm/ft2. Air barrier penetrations are sealed in an approved manner.	☐	☐	☐
Air Leakage	C402.5.2, C402.5.4	Envelope	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☐	☐	☐
Air Leakage	C402.5.3	Envelope	Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening are located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope	☐	☐	☐
Air Leakage	C402.5.5, C403.2.4.3	Envelope	Stair and elevator shaft vents have motorized dampers that automatically close.	☐	☐	☐
Air Leakage	C402.5.5, C403.2.4.3	Envelope	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.	☐	☐	☐
Air Leakage	C402.5.6	Envelope	Weatherseals installed on all loading dock cargo doors.	☐	☐	☐

Air Leakage	C402.5.8	Envelope	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☐	☐	☐
HVAC	C403.2.1	Mechanical	HVAC systems and equipment design loads calculated in accordance with ANSI/ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.10	Mechanical	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	☐	☐	☐
HVAC	C403.2.3	Mechanical	HVAC equipment efficiency verified.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.3	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only as per Footnote b to Table C403.2.3(3).	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.1	Mechanical	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.1.1	Mechanical	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐	☐	☐
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 Â°F deadband.	☐	☐	☐
HVAC	C403.2.4.1.2	Mechanical	Thermostatic controls have a 5 Â°F deadband.	☐	☐	☐
HVAC	C403.2.4.1.3	Mechanical	Temperature controls have setpoint overlap restrictions.	☐	☐	☐
HVAC	C403.2.4.2.1, C403.2.4.2.2	Mechanical	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.4.2.3	Mechanical	Systems include optimum start controls.	☐	☐	☐
HVAC	C403.2.4.5, C403.2.4.6	Mechanical	Snow/ice melting system sensors for future connection to controls. Freeze protection systems have automatic controls installed.	☐	☐	☐
HVAC	C403.2.6.2	Mechanical	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐	☐	☐
HVAC	C403.2.9	Mechanical	HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	☐	☐	☐
SYSTEM_SPECIFIC	C403.2.9.1.3	Mechanical	Ductwork operating >3 in. water column requires air leakage testing.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.1.2	Mechanical	VAV fans have static pressure sensors located so controller setpoint <=1.2 w.c..	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.2	Mechanical	Two-pipe hydronic systems using a common distribution system have controls to allow a deadband >=15ºF, allow operation in one mode for at least 4 hrs before changeover, and have rest controls to limit heating and cooling supply temperature to <=30 ºF.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.2.3.3	Mechanical	Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with pumping system >10 hp is off.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.4.5, C403.4.4.5.1-4	Mechanical	Zone controls can limit simultaneous heating and cooling and sequence heating and cooling to each zone.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.5	Mechanical	Condenser heat recovery system that can heat water to 85ºF or provide 60% of peak heat rejection is installed for preheating of service hot water.	☐	☐	☐
SYSTEM_SPECIFIC	C403.4.6	Mechanical	Hot gas bypass limited to: <=240 kBtu/h - 50% capacity, >240 kBtu/h - 25% capacity	☐	☐	☐
SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on non-circulating storage water tanks.	☐	☐	☐

SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems.	☐	☐	☐
SYSTEM_SPECIFIC	C404.3	Mechanical	Heat traps installed on supply and discharge piping of non-circulating systems.	☐	☐	☐
SYSTEM_SPECIFIC	C404.6.1	Mechanical	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water supply pipe.	☐	☐	☐
SYSTEM_SPECIFIC	C404.6.1, C404.6.2	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐	☐	☐
SYSTEM_SPECIFIC	C404.9.1	Mechanical	Pool heaters are equipped with on/off switch and no continuously burning pilot light.	☐	☐	☐
SYSTEM_SPECIFIC	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps.	☐	☐	☐
SYSTEM_SPECIFIC	C404.9.2	Mechanical	Time switches are installed on all pool heaters and pumps.	☐	☐	☐
SYSTEM_SPECIFIC	C404.9.3	Mechanical	Vapor retardant pool covers are provided for heated pools and permanently installed spas.	☐	☐	☐
Controls	C405.2.1	Interior Lighting	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐	☐	☐
Controls	C405.2.1	Interior Lighting	Occupancy sensors installed in required spaces.	☐	☐	☐
Controls	C405.2.1, C405.2.2.3	Interior Lighting	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐	☐	☐
Controls	C405.2.2.1	Interior Lighting	Automatic controls to shut off all building lighting installed in all buildings.	☐	☐	☐
Controls	C405.2.3	Interior Lighting	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐	☐	☐
Controls	C405.2.3, C405.2.3.1, C405.2.3.2	Interior Lighting	Primary sidelighted areas are equipped with required lighting controls.	☐	☐	☐
Controls	C405.2.3, C405.2.3.1, C405.2.3.3	Interior Lighting	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐	☐	☐
Controls	C405.2.4	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.	☐	☐	☐
Wattage	C405.2.4	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐	☐	☐
Controls	C405.2.5	Exterior Lighting	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐	☐	☐
Wattage	C405.4.1	Interior Lighting	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐	☐	☐
Mandatory Additional	C406.4	Project	Enhanced digital lighting controls efficiency package: Interior lighting has following enhanced lighting controls in accordance with Section C405.2.2: Luminaires capable of continuous dimming and being addressed individually, <= 8 luminaires controlled in	☐	☐	☐
Mandatory Additional	C406.6	Project	Dedicate outdoor air system efficiency package: Buildings with hydronic and/or multiple-zone HVAC systems are equipped with an independent ventilation system designed to provide >= 100-percent outdoor air to each individual occupied space, as specified by	☐	☐	☐

Mandatory Additional	C406.7, C406.7.1	Project	Enhanced Service Water Heat System efficiency package. One of the following SWH system enhancements must satisfy 60 percent of hot water requirements, or 100 percent if the building otherwise complies with heat recovery per Section C403.4.5: Waste heat re	☐	☐	☐
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	☐	☐	☐
HVAC	C408.2.2.1	Mechanical	Air outlets and zone terminal devices have means for air balancing.	☐	☐	☐
Testing	C408.2.3.2	Mechanical	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐	☐	☐

4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy

Post Construction	C303.3, C408.2.5.2	Interior Lighting	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐	☐	☐
Post Construction	C303.3, C408.2.5.3	Mechanical	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐	☐	☐
Fenestration	C402.4.2.2	Envelope	Skylights in office, storage, automotive service, manufacturing, non-refrigerated warehouse, retail store, and distribution/sorting area have a measured haze value > 90 percent unless designed to exclude direct sunlight.	☐	☐	☐
Post Construction	C408.2.1	Mechanical	Commissioning plan developed by registered design professional or approved agency.	☐	☐	☐
Post Construction	C408.2.3.1	Mechanical	HVAC equipment has been tested to ensure proper operation.	☐	☐	☐
Post Construction	C408.2.3.3	Mechanical	Economizers have been tested to ensure proper operation.	☐	☐	☐
Post Construction	C408.2.4	Mechanical	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐	☐	☐
Post Construction	C408.2.5.1	Mechanical	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐	☐	☐
Post Construction	C408.2.5.1	Interior Lighting	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐	☐	☐
Post Construction	C408.2.5.3	Mechanical	An air and/or hydronic system balancing report is provided for HVAC systems.	☐	☐	☐
Post Construction	C408.2.5.4	Mechanical	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐	☐	☐
Post Construction	C408.3	Interior Lighting	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐	☐	☐

EnergyGauge Summit® v6.00

INPUT DATA REPORT

Project Information

Project Name: DOLLAR GENERAL

Project Title: DG Lake City Birley

Address: 2144 SW BIRLEY AVE

State: FLORIDA

Zip: 32024

Owner: DOLLAR GENERAL

Orientation: 0 Deg Clockwise. Walls & Windows will be rotated accordingly

Building Type: Retail

Building Classification: New Finished building

No.of Stories: 1

GrossArea: 8690 SF

Zones

No	Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]	
1	RETAIL	Zone 1	CONDITIONED	8690.4	1	8690.4	☐

Spaces

No	Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multiplier	Total Area [sf]	Total Volume [cf]

In Zone:	**RETAIL**									
1	SALES	Zo0Sp1	Sales Area	107.60	69.00	12.00	1	7424.4	89092.8	☐
2	BATHROOM	Zo0Sp2	Toilet and Washroom	17.60	10.00	8.00	1	176.0	1408.0	☐
3	STOCKROOM	Zo0Sp3	Storage & Warehouse - Bulky Active Storage	10.00	90.50	12.00	1	905.0	10860.0	☐
4	OFFICE	Zo0Sp3	Office - Enclosed	10.00	8.50	8.00	1	85.0	680.0	☐
5	BREAKROOM	Zo0Sp3	Office - Enclosed	10.00	10.00	10.00	1	100.0	1000.0	☐

Lighting

	No	Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No.of Ctrl pts	
In Zone:	**RETAIL**								
In Space:	**SALES**								
	1	Recessed Fluorescent - No vent	General Lighting	96	100	9600	Manual On/Off	4	☐
In Space:	**BATHROOM**								
	1	Recessed Fluorescent - No vent	General Lighting	4	32	128	Manual On/Off	1	☐
In Space:	**STOCKROOM**								
	1	Recessed Fluorescent - No vent	General Lighting	6	115	690	Manual On/Off	1	☐
In Space:	**OFFICE**								
	1	Recessed Fluorescent - No vent	General Lighting	2	35	70	Manual On/Off	1	☐
In Space:	**BREAKROOM**								
	1	Recessed Fluorescent - No vent	General Lighting	2	60	120	Manual On/Off	1	☐

Walls (Walls will be rotated clockwise by building rotation value)

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Orientation	Conductance [Btu/hr. sf. F]	Heat Capacity [Btu/sf.F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]
In Zone:	**RETAIL**										

1	STUCCO+STYRO+CMU	0.75 in. stucco, 2"styro,8"CMU,1x2 x24"oc,airspace,0.5" gyp	70.00	12.00	1	840.0	North	0.0838	11.224	50.24	11.9	☐
2	STUCCO+STYRO+CMU	0.75 in. stucco, 2"styro,8"CMU,1x2 x24"oc,airspace,0.5" gyp	70.00	12.00	1	840.0	South	0.0838	11.224	50.24	11.9	☐
3	Pr0Zo1Wa3	Metal siding/2x4@24"+R11Batt/5/8"Gyp	130.00	12.00	1	1560.0	East	0.0920	1.072	19.38	10.9	☐
4	STUCCO+STYRO+CMU	Metal siding/2x4@24"+R11Batt/5/8"Gyp	130.00	12.00	1	1560.0	West	0.0920	1.072	19.38	10.9	☐

Windows (Windows will be rotated clockwise by building rotation value)

No	Description	Orientation	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]	
In Zone: RETAIL											
In Wall: SOUTH											
1	Pr0Zo1Wa1Wi1	South	No	0.4500	0.34	0.21	21.00	8.00	3	504.0	☐

Doors

No	Description	Type	Shaded?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Dens. [lb/cf]	Heat Cap. [Btu/sf. F]	R-Value [h.sf.F/Btu]	
In Zone: RETAIL												
In Wall: EAST												
1	Pr0Zo1Wa3Dr1	Aluminum door, 1.25 in. polystyrene	No	3.00	7.00	2	21.0	0.1919	43.67	0.53	5.21	☐
In Wall: WEST												
1	Pr0Zo1Wa3Dr1	Aluminum door, 1.25 in. polystyrene	No	3.00	7.00	2	21.0	0.1919	43.67	0.53	5.21	☐

Roofs

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Tilt [deg]	Cond. [Btu/hr. Sf. F]	Heat Cap [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: RETAIL												
1	Pr0Zo1Rf1	Mtl Bldg Roof/R-19 Batt	70.75	127.57	1	9025.6	0.00	0.0492	1.34	9.49	20.3	☐

Skylights

No	Description	Type	U [Btu/hr sf F]	SHGC	Vis.Trans	W [ft]	H (Effec) [ft]	Multiplier	Area [Sf]	Total Area [Sf]	
In Zone:											
In Roof:											☐

Floors

No	Description	Type	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/hr. sf. F]	Heat Cap. [Btu/sf. F]	Dens. [lb/cf]	R-Value [h.sf.F/Btu]	
In Zone: RETAIL											
1	Pr0Zo1Fl1	1 ft. soil, concrete floor, carpet and rubber pad	70.75	127.57	1	9025.6	0.2681	34.00	113.33	3.73	☐

Systems

RTU 12.5T **Lennox RTU** **Constant Volume Packaged System** **No. Of Units 2**

Component	Category	Capacity	Efficiency	IPLV	
1	Cooling System	150000.00	12.00	12.40	☐

2	Heating System	47100.00	1.00	☐
3	Air Handling System -Supply	5000.00	0.60	☐

Plant

Equipment	Category	Size	Inst.No	Eff.	IPLV	
						☐

Water Heaters

	W-Heater Description	Capacity	Cap.Unit	I/P Rt.	Efficiency	Loss	
1	Electric water heater	20	[Gal]	3 [kW]	1.0000 [Ef]	[Btu/h]	☐

Ext-Lighting

	Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units [sf/ft/No]	Control Type	Wattage [W]	
1	Ext Light 1	Building facades (by linear foot)	7	200	400.00	Photo Sensor control	1400.00	☐

Piping

No	Type	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe Diameter [in]	Insulation Thickness [in]	Is Runout?	
1	Heating System (Steam, Steam Condensate, & Hot Water)	105.00	0.28	0.25	0.51	No	☐

Fenestration Used

Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT	
ASHULTplTntWd-Vy-Fg frm	User Defined	3	0.4500	0.3400	0.2100	☐

Materials Used

Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thickness [ft]	Conductivity [Btu/h.ft.F]	Density [lb/cf]	SpecificHeat [Btu/lb.F]	
264	Matl264	ALUMINUM, 1/16 IN	No	0.0002	0.0050	26.0000	480.00	0.1000	☐
214	Matl214	POLYSTYRENE, EXP., 1-1/4IN,	No	5.2100	0.1042	0.0200	1.80	0.2900	☐
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000	☐
178	Matl178	CARPET W/RUBBER PAD	Yes	1.2300					☐
265	Matl265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000	☐
48	Matl48	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000	☐
267	Matl267	0.75" stucco	No	0.1563	0.0625	0.4000	16.00	0.2000	☐
215	Matl215	POLYSTYRENE, EXP., 2IN,	No	8.3350	0.1667	0.0200	1.80	0.2900	☐
105	Matl105	CONC BLK HW, 8IN, HOLLOW	No	1.1002	0.6667	0.6060	69.00	0.2000	☐
256	Matl256	WOOD, SOFT, 1-1/2IN	No	1.8939	0.1250	0.0660	32.00	0.3300	☐
23	Matl23	6 in. Insulation	No	20.0000	0.5000	0.0250	5.70	0.2000	☐
4	Matl4	Steel siding	No	0.0002	0.0050	26.0000	480.00	0.1000	☐
271	Matl271	2x4@24" oc + R11 Batt	No	10.4179	0.2917	0.0280	7.11	0.2000	☐
94	Matl94	BUILT-UP ROOFING, 3/8IN	No	0.3366	0.0313	0.0930	70.00	0.3500	☐

Constructs Used

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1002	Aluminum door, 1.25 in. polystyrene	No	No	0.19	0.53	43.67	5.2	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	264	ALUMINUM, 1/16 IN	0.0050	0.000	☐
2	214	POLYSTYRENE, EXP., 1-1/4IN,	0.1042	0.000	☐
3	264	ALUMINUM, 1/16 IN	0.0050	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1010	0.75 in. stucco, 2"styro,8"CMU,1x2x24"oc,airspace,0.5"gyp	No	No	0.08	11.22	50.24	11.9	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	267	0.75" stucco	0.0625	0.000	☐
2	187	GYP OR PLAS BOARD,1/2IN	0.0417	0.000	☐
3	215	POLYSTYRENE, EXP., 2IN,	0.1667	0.000	☐
4	105	CONC BLK HW, 8IN, HOLLOW	0.6667	0.000	☐
5	256	WOOD, SOFT, 1-1/2IN	0.1250	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1055	Metal siding/2x4@24"+R11Batt/5/8"Gyp	No	No	0.09	1.07	19.38	10.9	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	4	Steel siding	0.0050	0.000	☐
2	271	2x4@24" oc + R11 Batt	0.2917	0.000	☐
3	187	GYP OR PLAS BOARD,1/2IN	0.0417	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1056	Mtl Bldg Roof/R-19 Batt	No	No	0.05	1.34	9.49	20.3	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	94	BUILT-UP ROOFING, 3/8IN	0.0313	0.000	☐
2	23	6 in. Insulation	0.5000	0.000	☐

No	Name	Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
1057	1 ft. soil, concrete floor, carpet and rubber pad	No	No	0.27	34.00	113.33	3.7	☐

Layer	Material No.	Material	Thickness [ft]	Framing Factor	
1	265	Soil, 1 ft	1.0000	0.000	☐
2	48	6 in. Heavyweight concrete	0.5000	0.000	☐
3	178	CARPET W/RUBBER PAD		0.000	☐

HEAT & COOL LOAD CALCULATIONS SUMMARY

Project Name: DOLLAR GEN - Lake City, FL
Prepared by: rmv

05/6/2019
06:11AM

Air System Information

Air System Name	**RTU**	Number of zones	**1**
Equipment Class	**PKG ROOF**	Floor Area	**8900.0** ft²
Air System Type	**SZCAV**	Location	**Jacksonville IAP, Florida**

Sizing Calculation Information

Zone and Space Sizing Method:

Zone CFM	**Sum of space airflow rates**	Calculation Months	**Jan to Dec**
Space CFM	**Individual peak space loads**	Sizing Data	**Calculated**

Central Cooling Coil Sizing Data

Total coil load	**20.4**	Tons	Load occurs at	**Aug 1600**	
Total coil load	**245.0**	MBH	OA DB / WB	**93.5 / 76.9**	°F
Sensible coil load	**175.2**	MBH	Entering DB / WB	**80.8 / 68.6**	°F
Coil CFM at Aug 1600	**7668**	CFM	Leaving DB / WB	**59.7 / 58.6**	°F
Max block CFM	**7668**	CFM	Coil ADP	**57.3**	°F
Sum of peak zone CFM	**7668**	CFM	Bypass Factor	**0.100**	
Sensible heat ratio	**0.715**		Resulting RH	**56**	%
ft²/Ton	**435.9**		Design supply temp.	**58.0**	°F
BTU/(hr-ft²)	**27.5**		Zone T-stat Check	**1 of 1**	OK
Water flow @ 10.0 °F rise	**N/A**		Max zone temperature deviation	**0.0**	°F

Central Heating Coil Sizing Data

Max coil load	**167.8**	MBH	Load occurs at	**Des Htg**	
Coil CFM at Des Htg	**7668**	CFM	BTU/(hr-ft²)	**18.9**	
Max coil CFM	**7668**	CFM	Ent. DB / Lvg DB	**58.5 / 78.8**	°F
Water flow @ 20.0 °F drop	**N/A**				

Supply Fan Sizing Data

Actual max CFM	**7668**	CFM	Fan motor BHP	**0.00**	BHP
Standard CFM	**7660**	CFM	Fan motor kW	**0.00**	kW
Actual max CFM/ft²	**0.86**	CFM/ft²	Fan static	**0.00**	in wg

Outdoor Ventilation Air Data

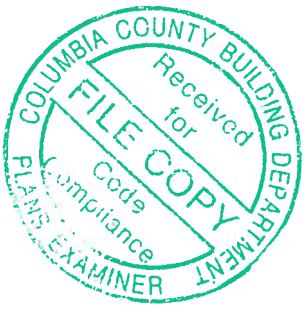
Design airflow CFM	**2085**	CFM	CFM/person	**26.06**	CFM/person
CFM/ft²	**0.23**	CFM/ft²			

GSE Engineering & Consulting, Inc.

SUMMARY REPORT OF A GEOTECHNICAL SITE EXPLORATION

COMMERCIAL RETAIL – LAKE CITY
LAKE CITY, COLUMBIA COUNTY, FLORIDA

GSE PROJECT No. 13843



Prepared For:

CONCEPT DEVELOPMENT

JANUARY 2019

Certificate of Authorization No. 27430

GSE *Engineering & Consulting, Inc.*

January 8, 2019

Mr. Stephen Crawford
Concept Development, Inc.
3917 NW 97th Boulevard
Gainesville, Florida 32606

Subject: Summary Report of a Geotechnical Site Exploration
Commercial Retail – Lake City
Lake City, Columbia County, Florida
GSE Project No. 13843

Dear Mr. Crawford:

GSE Engineering & Consulting, Inc. (GSE) is pleased to submit this geotechnical site exploration report for the above referenced project.

Presented herein are the findings and conclusions of our exploration, including the geotechnical parameters and recommendations to assist with building foundation, pavement, and stormwater management designs.

GSE appreciates this opportunity to have assisted you on this project. If you have any questions or comments concerning this report, please contact us.

Sincerely,

GSE Engineering & Consulting, Inc.

COREY ALAN DUNLAP LICENSE No.77678 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Corey A Dunlap
Digitally signed by Corey A Dunlap
Date: 2019.01.08 16:30:31 -05'00'
on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

John T. Potvin III
Staff Scientist

Corey A. Dunlap, P.E.
Senior Geotechnical Engineer
Florida Registration No. 77678

JTP/CAD/ldj
Z:\Projects\13843 Commercial Retail – Lake City\13843 Geo Report.doc

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Certificate of Authorization No. 27430

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LIST OF FIGURES

Figure

1.0 INTRODUCTION

1.1 General

GSE Engineering & Consulting, Inc. (GSE) has completed this geotechnical exploration for the proposed commercial retail development to be located in Lake City, Columbia County, Florida. This exploration was performed in accordance with GSE Proposal No. 2018-588 dated November 27, 2018. Mr. Stephen Crawford with Concept Development, Inc. provided authorization for our services on November 28, 2018.

1.2 Project Description

This project will consist of a commercial retail store located in Lake City, Columbia County, Florida (Figure 1). The site is located at the east corner of the NW Bascom Norris Drive and Lake Jeffrey Road intersection. According to the Columbia County Property Appraiser (CCPA), the approximately 2.26 acre subject site is listed as Tax Parcel No. 25-3S-16-02284-102. Mr. Stephen Crawford with Concept Development, Inc. provided information about the project including a plan illustrating the proposed site layout.

The project will consist of an approximate 9,100 square foot building, a parking lot, and a stormwater management facility. The structure is expected to be single-story, high wall concrete masonry unit (CMU) and steel frame construction. Structural loads have not been provided, but are expected to be on the order of 1 to 2 kips per foot for non-load bearing CMU walls, and less than 50 kips for columns. The finished floor of the structure is anticipated to be constructed within 1 to 2 feet of the existing site grades.

The building will be located near the central portion of the site. The parking lot will be located south and west of the structure, and an access driveway will be located at the southeast corner of the site. The stormwater management facility will be located at the north side of the site behind the building.

Mr. John T. Potvin III with GSE conducted a site visit on December 7, 2018. Boring locations were staked on December 7, 2018. In addition to the Conceptual Plan, a recent aerial photograph was also obtained and reviewed. The Conceptual Plan and aerial photograph were used in the preparation of this exploration and report.

1.3 Purpose

The purpose of this geotechnical exploration was to determine the general subsurface conditions, evaluate these conditions with respect to the proposed construction, and prepare geotechnical parameters and recommendations to assist with building foundation, stormwater management, and pavement designs.

2.0 FIELD AND LABORATORY TESTS

2.1 General Description

The procedures used for field sampling and testing are in general accordance with industry standards of care and established geotechnical engineering practices for this geographic region. This exploration consisted of performing four (4) Standard Penetration Test (SPT) borings to depths of 20 feet below land surface (bls) in the area of the proposed building, three (3) auger borings to depths of 5 feet bls in the area of the parking lots, and four (4) auger borings to depths of 15 feet bls in the area of the proposed stormwater management facilities.

The soil borings were performed at the approximate locations as shown on Figure 2. The borings were located at the site using the provided site plan, Global Positioning System (GPS) coordinates, and obvious site features as reference. The boring locations should be considered approximate. The soil borings were performed on December 15, 2018.

2.2 Auger Borings

The auger borings were performed in accordance with ASTM D1452. The borings were performed with flight auger equipment that was rotated into the ground in a manner that reduces soil disturbance. After penetrating to the required depth, the auger was retracted and the soils collected on the auger flights were field classified and placed in sealed containers. Representative samples of each stratum were retained from the auger boring. Results from the auger borings are provided in Section 5.1.

2.3 Standard Penetration Test Borings

The soil borings were performed with a drill rig employing mud rotary drilling techniques and Standard Penetration Testing (SPT) in accordance with ASTM D1586. The SPTs were performed continuously to 10 feet and at 5-foot intervals thereafter. Soil samples were obtained at the depths where the SPTs were performed. The soil samples were classified in the field, placed in sealed containers, and returned to our laboratory for further evaluation.

After drilling to the sampling depth and flushing the borehole, the standard two-inch O.D. split-barrel sampler was seated by driving it 6 inches into the undisturbed soil. Then the sampler was driven an additional 12 inches by blows of a 140-pound hammer falling 30 inches. The number of blows required to produce the next 12 inches of penetration were recorded as the penetration resistance (N-value). These values and the complete SPT boring logs are provided in Section 5.2.

Upon completion of the sampling, the boreholes were abandoned in accordance with Water Management District guidelines.

2.4 Soil Laboratory Tests

The soil samples recovered from the soil borings were returned to our laboratory, and examined to confirm the field descriptions. Representative samples were then selected for laboratory testing. The laboratory tests consisted of six (6) percent soil fines passing the No. 200 sieve determinations, six (6) natural moisture content determinations, and two (2) constant head hydraulic conductivity tests. These tests were performed in order to aid in classifying the soils and to further evaluate their engineering properties. The laboratory tests are provided in Section 5.3.

3.0 FINDINGS

3.1 Surface Conditions

Mr. John Potvin with GSE visited the site on December 7, 2018 to observe the site conditions and mark the boring locations. The property boundaries were estimated in the field based on the provided site plan and physical features in the field, including dirt pathways and other readily apparent features.

The approximately 2.26 acre site is currently vacant. The property is mostly overgrown grass with shrubs and weeds and wooded area to the north. The site is located on the east side of NW Bascom Norris Drive and north of Lake Jeffery Road (CR 250).

The topography at the site is gently to moderately sloping down toward the southeast from the northwest. Regional topography is gently sloping towards the southeast from the east. The Lake City, Florida (2015) West Quadrangle USGS Topographic Map indicates the ground surface elevations at the site are near elevations 90 to 100 feet[1] NAVD88.

3.2 Subsurface Conditions

The locations of the auger and SPT borings are provided on Figure 2. Complete logs for the borings are provided in Sections 5.1 and 5.2. Descriptions for the soils encountered are accompanied by the Unified Soil Classification System symbol (SM, SP-SM, etc.) and are based on visual examination of the recovered soil samples and the laboratory tests performed. Stratification boundaries between the soil types should be considered approximate, as the actual transition between soil types may be gradual.

The auger borings located in the proposed stormwater management facilities indicate the soils across these areas are relatively consistent. The auger borings penetrated approximately 15 feet of sand with silt (SP-SM). Strata of sand with clay (SP-SC) was interbedded from depths of 2 to 7 feet bls.

The auger borings located in the proposed roadways generally encountered a near-surface sandy stratum consisting of poorly graded sand, sand with silt, and silty sand (SP, SP-SM, SM) to the explored depth of up to 5 feet bls.

The SPT borings located in the proposed building area indicate the soils across these locations are relatively consistent. The borings penetrated approximately 20 feet of sand with silt (SP-SM). Strata of sand with clay (SP-SC) was interbedded from depths of 2.5 to 13.5 feet bls.

The near-surface soil layers (within 10 feet of grade) are generally in very loose to loose conditions with N-values ranging from 3 to 9 blows per foot. The deeper soils (10+ feet beneath grade) are generally in loose to medium dense conditions with N-values ranging from 7 to 24 blows per foot.

The groundwater table was recorded at depths ranging between 1.5 to 3.5 feet in the soil borings at the time of drilling.

---

[1] United States Geological Survey, Lake City West, 2015.

3.3 Review of Published Data

The majority of the site is mapped as one soil series by the Soil Conservation Service (SCS) Soil Survey for Alachua County[2]. The following soil description is from the Soil Survey.

Chipley fine sand, 0 to 5 percent slopes – The Chipley series is a number of the thermic, coated family of Aquic Quartzi Psamments. It consists of moderately well drained, rapidly permeable soils that formed in thick, sandy marine sediments. This is a moderately well drained, nearly level to gently sloping soil in somewhat depressed areas and on flats in the uplands. The areas range from 3 to 800 acres and are circular to irregularly elongated.

Typically, the surface layer is gray fine sand about 7 inches thick. Fine sand extends to a depth of 80 inches. In sequence downward, 23 inches is very pale brown and has yellow mottles; the next 10 inches is light gray and has very pale brown mottles; the next 20 inches is very pale brown and has brownish yellow, white, and yellowish red mottles; and the lowermost 20 inches is white with brownish yellow and yellow mottles.

Included with this soil in mapping are small areas of Blanton, Alpin, Lakeland, Albany, and Hurricane soils. These soils make up less than 15 percent of the map unit.

This Chipley soil has a water table at a depth of 20 or 40 inches for 2 to 4 months in most years. The water table is usually at a depth of 40 to 60 inches during the rest of the year. It recedes; however, to a depth of more than 60 inches during very dry periods. The available water capacity is very low, and permeability is rapid throughout the soil. Natural fertility and the organic matter content are low.

3.4 Laboratory Soil Analysis

Selected soil samples recovered from the soil borings were analyzed for the percent soil fines passing the No. 200 sieve, natural moisture content, and hydraulic conductivity. Samples selected for laboratory testing were collected at depths ranging from near ground surface to 15 feet bls. These tests were performed to confirm visual soil classification and evaluate their engineering properties. The complete laboratory report is provided in Section 5.3.

The laboratory tests indicate the tested soils consist of poorly graded sand, sand with silt, and sand with clay. The tested poorly graded sand (SP) contains approximately 4.3 percent soil fines passing the No. 200 sieve with a natural moisture content of about 22 percent. The tested sand with silt (SP-SM) contains approximately 6.8 to 8.4 percent soil fines passing the No. 200 sieve with natural moisture contents of about 19 to 23 percent. The tested sand with clay (SP-SC) contains approximately 6.3 to 7.2 percent soil fines passing the No. 200 sieve with natural moisture contents of about 19 to 20 percent.

The constant head hydraulic conductivity test results indicate the near-surface sand with silt (SP-SM) has a hydraulic conductivity value of 2.9 feet per day. The tested sand with clay (SP-SC) has a hydraulic conductivity value of 11 feet per day.

---

[2] Soil Survey of Columbia County, Florida. Soil Conservation Service, U.S. Department of Agriculture.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General

The following recommendations are made based upon our understanding of the proposed construction, a review of the attached soil borings and laboratory test data, and experience with similar projects and subsurface conditions. If plans or the location of proposed construction changes from those discussed previously, GSE requests the opportunity to review and possibly amend our recommendations with respect to those changes.

The final design of a foundation system is dependent upon adequate integration of geotechnical and structural engineering considerations. Consequently, GSE must review the final foundation design in order to evaluate the effectiveness and applicability of our initial analyses, and to determine if additional recommendations may be warranted. Without such a review, the recommendations presented herein could be misinterpreted or misapplied resulting in potentially unacceptable performance of the foundation system.

The performance of site improvements may be sensitive to their post-construction relationship to site groundwater levels, seepage zones, or soil/rock characteristics exposed at final site grades. GSE recommends that use of boring information for final design of all site improvements be predicated on proper horizontal and vertical control of borings.

In this section of the report, we present our geotechnical parameters and recommendations to assist with building foundation, stormwater management, and pavement designs as well as our general site preparation guidelines.

4.2 Groundwater

The groundwater table was recorded at depths ranging between 2 to 2.3 feet in each of the four SPT borings. The groundwater table was also recorded in each of the remaining auger borings ranging between 1.5 to 3.5 feet. The County Soil Survey indicates seasonal high groundwater levels are between 20 to 40 inches for 2 to 4 months during most years.

Based upon the soil borings performed, review of the provided topographic survey, and the County Soil Survey information, we estimate the seasonal high groundwater table will be approximately 1.5 feet beneath grade.

4.3 Building Foundations

The soil borings near the proposed building footprint indicate the soils at the site are relatively consistent. The borings penetrated approximately 20 feet of sand with silt (SP-SM). Strata of sand with clay (SP-SC) was interbedded from depths ranging between 2.5 to 13.5 feet bls.

Based upon the soil conditions encountered and our limited understanding of the structural loads and site grading, we recommend the building be supported by conventional, shallow strip and/or spread foundations. We recommend the shallow foundations be designed for a maximum allowable gross bearing pressure of 2,000 psf. The gross bearing pressure is defined as the soil contact pressure that can be imposed from the maximum structural loads, weight of the concrete foundations, and weight of the soil above the foundations. The foundations should be designed based upon the maximum load that could be imposed by all loading conditions.

The foundations should be embedded a minimum of 18 inches below the lowest adjacent grade. Interior foundations or thickened sections should be embedded a minimum of 12 inches. The foundations should have minimum widths of 18 inches for strip footings, and 24 inches for columns, even though the maximum soil bearing pressure may not be fully developed.

Due to the mostly sandy nature of the majority of the near-surface soils, we expect settlement to be mostly elastic in nature. The majority of the settlement will occur on application of the loads, during and immediately following construction. Using the recommended maximum bearing pressure, the assumed maximum structural loads, and the field and laboratory test data which we have correlated into the strength and compressibility characteristics of the subsurface soils, we estimate the total settlements of the structure to be 1 inch or less, with approximately half of it occurring upon load application (during construction).

Differential settlement results from differences in applied bearing pressures and the variations in the compressibility characteristics of the subsurface soils. For the building pad prepared as recommended, we anticipate differential settlement of less than 1/2 inch.

Post-construction settlement of the structures will be influenced by several interrelated factors, such as (1) subsurface stratification and strength/compressibility characteristics of the bearing soils; (2) footing size, bearing level, applied loads, and resulting bearing pressures beneath the foundation; (3) site preparation and earthwork construction techniques used by the contractor, and (4) external factors, including but not limited to vibration from off-site sources and groundwater fluctuations beyond those normally anticipated for the naturally-occurring site and soil conditions which are present.

Our settlement estimates for the structure are based upon our limited understanding of the structural loads and site grading and the use of successful adherence to the site preparation recommendations presented later in this report. Any deviation from our project understanding and/or our site preparation recommendations could result in an increase in the estimated post-construction settlement of the structure.

4.4 Flexible Pavement

Overall soil conditions encountered by our borings at this site are suitable for supporting conventional limerock base and asphalt wearing surface pavements. We have not been provided the anticipated traffic loading conditions; therefore, the following pavement component recommendations should be used only as guidelines.

The seasonal high groundwater table is estimated to be approximately 1.5 feet beneath existing grade at the site. We recommend a minimum of either 12 to 24 inches of separation (depending upon the pavement section design) be present between the bottom of the base course and the estimated seasonal high groundwater table. If this separation cannot be achieved by site grading, GSE recommends underdrains be used beneath the base course.

In areas where the minimum 12 to 24 inch separation is not able to be achieved through grading design, we recommend you consider underdrains.

4.4.1 Stabilized Subgrade

If a crushed limerock or recycled concrete base is used, we recommend a stabilized subgrade be located beneath the base. The stabilized subgrade should have a minimum Limerock Bearing Ratio (LBR) of 40, with minimum thicknesses of 6 inches for automobile parking areas and 12 inches for driveways.

The stabilized subgrade can be imported material or a mixture of imported and on-site material. If a mix is proposed, a mix design should be performed to determine the optimum mix proportions. The stabilized subgrade should be compacted to a minimum of 98 percent of the Modified Proctor maximum dry density (ASTM D1557) for soils with less than 15 percent fines content. Soils with 15 percent or greater fines content should be compacted to 100 percent of the Standard Proctor maximum dry density (ASTM D698).

4.4.2 Base Course

The base course can consist of either crushed limerock, soil cement, or recycled concrete. If you should use a soil cement base course, a stabilized subgrade is not required.

Limerock should have a LBR of at least 100, be obtained from a FDOT approved source and meet FDOT gradation requirements. The base course thickness should be a minimum of 6 inches in automobile parking areas, and 8 inches in driveway areas. The base course should be compacted to at least 98 percent of the Modified Proctor maximum dry density (ASTM D1557). We recommend a minimum 24 inches separation between the bottom of the limerock base course and the estimated seasonal high water table. If site grading does not allow for this separation we recommend underdrains or undercutting be considered.

Soil cement can consist of an imported material or a blend of the on-site soils and cement. A mix design should be performed to determine the optimum cement content. We recommend the soil cement have a minimum 28-day compressive strength of 500 psi. Soil cement can be blended off-site (in a pug mill) or on site. Soil cement pills should be cast from each day's production to verify the recommended compressive strength has been achieved at 28 days. We recommend the soil cement base course be a minimum of 8 inches thick throughout the project. We recommend a minimum 18 inches separation between the bottom of the soil cement base course and the estimated seasonal high water table. If site grading does not allow for this separation we recommend underdrains or undercutting be considered.

Recycled concrete should have a LBR of at least 150, be obtained from a FDOT approved source and meet FDOT gradation requirements. The base course thickness should be a minimum of 8 inches. The base course should be compacted to at least 98 percent of the Modified Proctor maximum dry density (ASTM D1557). We recommend a minimum 12 inches separation between the bottom of the recycled concrete base course and the estimated seasonal high water table. If site grading does not allow for this separation we recommend underdrains or undercutting be considered.

4.4.3 Wearing Surface

The asphalt-wearing surface should consist of an FDOT Type SP Hot Mix Asphalt mixture. For automobile parking areas, the thickness should be a minimum of 1.5 inches. For driveway areas, the thickness should be a minimum of 2 inches. The asphalt-wearing surface should consist of an SP-12.5 mix. The asphalt should be compacted to at least 95 percent of the mix design density.

The constructability of differing asphalt thicknesses may be difficult, and having a uniform 2-inch thick asphalt wearing surface may be more practical.

4.5 Site Preparation

The soils at this site should be suitable for supporting the proposed construction using normal, good practice site preparation procedures. The following recommendations are our general guidelines for site preparation.

4.5.1 Stripping

Strip the construction limits and 10 feet beyond the perimeter of all grass, roots, topsoil, pavement, and other deleterious materials. You should expect to strip to depths of 12 or more inches. Deeper stripping may be necessary if major root systems are present at the site.

4.5.2 Dewatering

Temporary dewatering might be necessary for this project. If needed, we anticipate dewatering can be accomplished with sumps placed near the construction area, or with underdrains connected to a vacuum pump.

In any case, the site should always be graded to promote runoff and limit the amount of ponding. Localized ponding of stormwater is expected without proper grading during construction, and could render previously acceptable surfaces unacceptable.

4.5.3 Proof-Rolling

Proof-roll the subgrade with heavy rubber-tired equipment, such as a loaded front-end loader or dump truck, to identify any loose or soft zones not found by the soil borings. The proof-rolling should be monitored by a geotechnical engineer or qualified technician. Undercut or otherwise treat these zones as recommended by the geotechnical engineer in this report.

4.5.4 Proof Compaction

Compact the subgrade to a density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). The specified compaction should be obtained to a depth of 1 foot below the foundation bottoms and the existing grade prior to placing fill. Vibratory roller equipment should not be used within approximately 100 feet of existing structures. Lighter "walk-behind" compaction equipment may be used to achieve the degree of compaction.

4.5.5 Fill Placement

Imported fill placed to raise the site grades should consist of clean sand having less than 10 percent passing the No. 200 sieve. On-site soils meeting the requirements of Section 4.8 may also be used as structural fill. The fill should be placed in maximum 12-inch loose lifts that are compacted to at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). If lighter "walk-behind" compaction equipment is used, this may require lifts of 4 inches or less to achieve the required degree of compaction.

4.6 Quality Control and Construction Materials Testing

It should be noted that the geotechnical engineering design does not end with the advertisement of the construction documents. As the geotechnical engineer of record, GSE is the most qualified to perform the construction materials testing that will be required for this project. The benefits of having the geotechnical engineer of record also perform the construction materials testing are numerous. If GSE continues to be involved with the project through construction, we will be able to constantly re-evaluate and possibly alter our geotechnical recommendations in a timely and cost effective manner once final design and construction techniques are developed. This often results in cost savings for the project.

We recommend performing compaction testing beneath the concrete floor slab and the building foundations. We recommend one test be performed every 50 linear feet of continuous footing and every other column footing, per foot depth of fill or native material. We recommend a compaction test be performed for each 2,500 square feet of floor area or 10,000 square feet of pavement area per foot of fill or native material, or a minimum of three tests each, whichever is greater. Test all footing excavations to a depth of 12 inches at the frequencies stated above.

4.7 Stormwater Management

The soil conditions at the stormwater management facility are relatively consistent; penetrating approximately 15 feet of sand with silt (SP-SM). Strata of sand with clay (SP-SC) was interbedded from depths of 2 to 7 feet bls.

The groundwater table was recorded at depths ranging between 2 to 2.3 feet in each of the four SPT borings. The groundwater table was also recorded in each of the remaining auger borings ranging between 1.5 to 3.5 feet. We estimate the seasonal high groundwater table will be approximately 1.5 feet beneath grade.

The laboratory permeability tests indicate the surficial layer of sand with silt (SP-SM) has a hydraulic conductivity value of 2.9 feet per day. The tested sand with clay (SP-SC) has a hydraulic conductivity value of 11 feet per day.

Based upon our findings and test results, our recommended soil parameters for the stormwater management design in the explored areas are presented below. The recommended parameters consider the results of the permeability tests, wash 200 determinations, and our experience with these types of soils. The parameters below do not consider a factor of safety.

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to 15 feet bls.
2. Unsaturated vertical infiltration rate of 5 feet per day.
3. Horizontal hydraulic conductivity equal to 7 feet per day.
4. Specific yield (fillable porosity) of 25 percent.
5. Average seasonal high groundwater table depth equal to 1.5 feet bls.
6. Average seasonal low groundwater table depth equal to 6 feet bls.

4.8 Fill Suitability

The soils encountered at this site within the explored depths range from sands (SP) to silty sands (SM). A discussion of the suitability for reuse as structural fill for each soil classification according to the Unified Soil Classification System (USCS) designation is provided below.

SP, SP/SM – Sands (SP) and sand with silt (SP/SM) have less than 5 percent and 12 percent soil fines passing the No. 200 sieve, respectively, and are typically well draining soils that are suitable for reuse as structural fill. The sands with silt may require moisture conditioning (drying) to make the material more workable. These soils will require stockpiling and drying before they are reused if they are excavated from below the water table.

SM – Silty sands (SM) can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Silty sands are typically non-plastic or have low plasticity, and can be reused as structural fill with precautions. Silty sands can be moisture sensitive and difficult to work and compact and can rut if the moisture content is near or above the optimum moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable silty sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Silty sands with more than 30 percent soil fines are especially moisture sensitive, and are not recommended for reuse as structural fill. These soils will behave more as sandy silt, and for this reason, very silty sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SM/ML. Silty sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

SC – Clayey sand (SC) soils can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Clayey sands can have a high range of plasticity, varying from a PI of 7 or greater and plotting above the A-line to highly plastic. Friable clayey sands are typically suitable for use as structural fill with precautions. Clayey sands will be moisture sensitive and difficult to work and compact and can rut during placement if the moisture content is near or above the natural moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable clayey sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Clayey sands with more than 30 percent soil fines passing the No. 200 sieve are especially moisture sensitive and are typically highly plastic, and are not recommended for reuse as structural fill. These soils will behave more as sandy clay, and for this reason, very clayey sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SC/CH or SC/CL. Clayey sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

ML, MH, CL, CH – Silts and clays are not suitable materials for reuse as structural fill.

When using on-site soils as fill materials, we recommend the silty and clayey sand soils (SM, SC) be used in the lower depths of the fill. Sand and sand with silt (SP, SP-SM) should be used in the upper portions of the fill. We recommend a minimum of 2 feet of sand (SP, SP-SM) cover the silty and clayey sand fill materials to reduce the potential for soggy surface conditions due to the low permeability characteristics of the silty and clayey sand materials.

4.9 Surface Water Control and Landscaping

Roof gutters should be considered to divert runoff away from the building. The gutter downspouts should discharge a minimum of 10 feet from the structure to reduce the amount of water collecting around the foundations. Where possible, the gutter downspouts should discharge directly into the storm sewer system or onto the asphalt paved areas in order to reduce the amount of water collecting around the foundations. Grading of the site should be such that water is diverted away from the building on all sides to reduce the potential for erosion and water infiltration along the foundation.

With respect to landscaping, it is recommended that existing and planted trees and large "tree-like" shrubbery with potential for developing large root systems be planted a minimum distance of half their mature height, and preferably their expected final height, away from the structure. The purpose of this is to reduce the potential for foundation or slab movements from the growth of root systems as the landscaping matures. Consideration should also be given to using landscaping that has a low water demand, so that excessive irrigation is not conducted around the structures.

5.0 FIELD DATA

5.1 Auger Boring Logs

GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

CLIENT Concept Development, Inc.
PROJECT NAME Commercial Retail - Lake City
PROJECT NUMBER 13843
PROJECT LOCATION Lake City, Columbia County, Florida

BORING NUMBER A-1

DATE PERFORMED 12/15/2018
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING 2.7 FT
ESTIMATED SEASONAL HIGH 1.5 FT
LOGGED BY WDI
CHECKED BY JTP
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1	(SM) Dark brown silty SAND
2.5		AU 2	(SP) Brown and tan SAND
5.0			Bottom of borehole at 5.0 feet.

BORING NUMBER A-2

DATE PERFORMED 12/15/2018
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING 2.5 FT
ESTIMATED SEASONAL HIGH 1.5 FT
LOGGED BY WDI
CHECKED BY JTP
NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0		AU 1	(SP-SM) Dark brown and gray SAND with silt
2.0			(SP) Brown and tan SAND
		AU 2	*%PASS - 200 = 4.3* *MC = 22*
5.0			Bottom of borehole at 5.0 feet.

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CLIENT Concept Development, Inc. **PROJECT NAME** Commercial Retail - Lake City

PROJECT NUMBER 13843 **PROJECT LOCATION** Lake City, Columbia County, Florida

DATE PERFORMED 12/15/2018 **BORING NUMBER A-3**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 2.5 FT CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.5 FT

NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0			(SP-SM) Dark brown and gray SAND with silt
1		AU 1	
2			▽
3			▼
			3.0
		AU 2	(SP) Brown and tan SAND
4			
5			
			5.0
			Bottom of borehole at 5.0 feet.

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CLIENT Concept Development, Inc. **PROJECT NAME** Commercial Retail - Lake City

PROJECT NUMBER 13843 **PROJECT LOCATION** Lake City, Columbia County, Florida

DATE PERFORMED 12/15/2018 **BORING NUMBER P-1**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING 3.5 FT CHECKED BY JTP
▽ ESTIMATED SEASONAL HIGH 1.5 FT
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0	AU 1	(SP-SM) Brown and gray SAND with silt
2.0		
2.5	AU 2	(SP-SC) Brown and tan SAND with clay
5.0		
7.0		
7.5	AU 3	(SP-SM) Dark brown SAND with silt
10.0		
12.5	AU 4	
15.0		
15.0		Bottom of borehole at 15.0 feet.

DATE PERFORMED 12/15/2018 **BORING NUMBER P-2**
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS: LOGGED BY WDI
▼ AT TIME OF DRILLING 3.2 FT CHECKED BY JTP
▽ ESTIMATED SEASONAL HIGH 1.5 FT
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0	AU 1	(SP-SM) Dark brown and gray SAND with silt
2.5		
2.5	AU 2	(SP-SC) Brown and tan SAND with clay
	PS	▼ *%PASS - 200 = 6.3*
		MC = 20
5.0		$k_h = 11.0\ ^{ft}/_{day}$
7.0		
7.5	AU 3	(SP-SM) Dark brown SAND with silt
10.0		
12.5	AU 4	
15.0		
15.0		Bottom of borehole at 15.0 feet.

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CLIENT Concept Development, Inc.
PROJECT NAME Commercial Retail - Lake City
PROJECT NUMBER 13843
PROJECT LOCATION Lake City, Columbia County, Florida

BORING NUMBER P-3

DATE PERFORMED 12/15/2018
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING 1.5 FT
ESTIMATED SEASONAL HIGH 1.5 FT
LOGGED BY WDI
CHECKED BY JTP
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0		(SP-SM) Dark brown and gray SAND with silt *%PASS - 200 = 7.4* *MC = 19* *k_h = 2.9 ft/day*
	AU 1	
	PS	
2.5		
	AU 2	(SP-SC) Brown and tan SAND with clay
5.0		
7.5	AU 3	(SP-SM) Dark brown SAND with silt
10.0		
	AU 4	
12.5		
15.0		Bottom of borehole at 15.0 feet.

BORING NUMBER P-4

DATE PERFORMED 12/15/2018
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
AT TIME OF DRILLING 2.7 FT
ESTIMATED SEASONAL HIGH 1.5 FT
LOGGED BY WDI
CHECKED BY JTP
NOTES

DEPTH (ft)	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0	AU 1	(SP-SM) Dark brown and gray SAND with silt
2.5	AU 2	(SP-SC) Brown and tan SAND with clay
5.0	AU 3	(SP-SM) Dark brown SAND with silt
7.5		
10.0	AU 4	
12.5		
15.0		Bottom of borehole at 15.0 feet.

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5.2 Standard Penetration Test Soil Boring Logs

GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-1

CLIENT Concept Development, Inc. **PROJECT NAME** Commercial Retail - Lake City

PROJECT NUMBER 13843 **PROJECT LOCATION** Lake City, Columbia County, Florida

DATE STARTED 12/15/18 **COMPLETED** 12/15/18 **GROUND ELEVATION** _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc. **GROUND WATER LEVELS:**

DRILLING METHOD Mud Rotary ▼ **AT TIME OF DRILLING** 2.0 FT

LOGGED BY WDI **CHECKED BY** JTP ▽ **ESTIMATED SEASONAL HIGH** 1.5 FT

NOTES _____

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲ (20 40 60 80)
0		(SP-SM) Very loose to loose dark brown and gray SAND with silt		SPT 1	1-2-1 (3)						
				SPT 2	2-2-3 (5)						
			4								
5		(SP-SC) Loose brown and tan SAND with clay		SPT 3	3-3-4 (7)						
				SPT 4	2-3-3 (6)						
				SPT 5	2-3-4 (7)						
			8.5								
10		(SP-SM) Loose to medium dense dark brown SAND with silt		SPT 6	4-3-4 (7)						
15				SPT 7	4-3-4 (7)						
20			20	SPT 8	6-8-12 (20)						
		Bottom of borehole at 20.0 feet.									

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GSE Engineering & Consulting, Inc.
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Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-2

CLIENT Concept Development, Inc. **PROJECT NAME** Commercial Retail - Lake City

PROJECT NUMBER 13843 **PROJECT LOCATION** Lake City, Columbia County, Florida

DATE STARTED 12/15/18 **COMPLETED** 12/15/18 **GROUND ELEVATION** _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc. **GROUND WATER LEVELS:**

DRILLING METHOD Mud Rotary ▼ **AT TIME OF DRILLING** 2.0 FT

LOGGED BY WDI **CHECKED BY** JTP ▽ **ESTIMATED SEASONAL HIGH** 1.5 FT

NOTES _____

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP) Very loose to loose brown and tan SAND		SPT 1	2-2-2 (4)						20 40 60 80
		▽ ▼		SPT 2	2-3-5 (8)						
5				SPT 3	4-3-4 (7)						
		(SP-SM) Very loose brown SAND with silt	5.5	SPT 4	2-2-1 (3)						
		(SP-SM) Very loose to medium dense dark brown SAND with silt	7	SPT 5	2-1-2 (3)						
10				SPT 6	2-3-4 (7)						
				SPT 7	3-3-4 (7)				8.4	23	
15											
				SPT 8	8-11-12 (23)						
20			20								
		Bottom of borehole at 20.0 feet.									

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BORING NUMBER B-3

CLIENT Concept Development, Inc. **PROJECT NAME** Commercial Retail - Lake City

PROJECT NUMBER 13843 **PROJECT LOCATION** Lake City, Columbia County, Florida

DATE STARTED 12/15/18 **COMPLETED** 12/15/18 **GROUND ELEVATION** _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc. **GROUND WATER LEVELS:**

DRILLING METHOD Mud Rotary ▼ **AT TIME OF DRILLING** 2.3 FT

LOGGED BY WDI **CHECKED BY** JTP ▽ **ESTIMATED SEASONAL HIGH** 1.5 FT

NOTES _____

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SM) Very loose dark brown and gray SAND with silt									20 40 60 80
			2.5	SPT 1	2-2-2 (4)						
		(SP-SC) Very loose to loose brown and tan SAND with clay		SPT 2	2-3-2 (5)						
5				SPT 3	3-2-3 (5)						
			7	SPT 4	2-2-2 (4)						
		(SP-SM) Loose brown SAND with silt		SPT 5	1-3-4 (7)				6.8	21	
			8.5	SPT 6	3-3-4 (7)						
10		(SP-SM) Loose to medium dense dark brown SAND with silt									
				SPT 7	3-4-6 (10)						
15											
				SPT 8	7-11-13 (24)						
20			20								
		Bottom of borehole at 20.0 feet.									

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Gainesville, Florida 32608
Telephone: (352) 377-3233
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BORING NUMBER B-4

CLIENT Concept Development, Inc.
PROJECT NAME Commercial Retail - Lake City
PROJECT NUMBER 13843
PROJECT LOCATION Lake City, Columbia County, Florida
DATE STARTED 12/15/18 **COMPLETED** 12/15/18
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR Whitaker Drilling, Inc.
GROUND WATER LEVELS:
DRILLING METHOD Mud Rotary
▼ **AT TIME OF DRILLING** 2.3 FT
LOGGED BY WDI **CHECKED BY** JTP
▽ **ESTIMATED SEASONAL HIGH** 1.5 FT
NOTES _____

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SM) Loose light brown SAND with silt		SPT 1	2-2-3 (5)						20 40 60 80
		(SP-SC) Very loose to loose light brown SAND with clay	2.5	SPT 2	3-3-3 (6)				7.2	19	
5				SPT 3	4-5-4 (9)						
				SPT 4	3-2-2 (4)						
				SPT 5	1-2-2 (4)						
10				SPT 6	2-4-4 (8)						
			13.5								
		(SP-SM) Loose to medium dense dark brown SAND with silt		SPT 7	4-5-5 (10)						
15											
				SPT 8	7-9-8 (17)						
20			20								
		Bottom of borehole at 20.0 feet.									

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5.3 Laboratory Results

GSE Engineering & Consulting, Inc.

SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 13843

Project Name: Commercial Retail - Lake City

Boring Number	Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
P-2	3-5	Tan and brown SAND with clay	20				6.3		11	SP-SC
P-3	0-2.5	Dark brown and gray SAND with silt	19				7.4		2.9	SP-SM
A-2	2	Tan and brown SAND	22				4.3			SP
B-2	13.5	Dark brown SAND with silt	23				8.4			SP-SM
B-3	7	Brown SAND with silt	21				6.8			SP-SM
B-4	2.5	Light brown SAND with clay	19				7.2			SP-SC

5.4 Key to Soil Classification

KEY TO SOIL CLASSIFICATION CHART

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests					SYMBOLS		GROUP NAME
					GRAPHIC	LETTER	
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines	$Cu \geq 4$ and $1 \leq Cc \leq 3$			GW	Well graded GRAVEL
			$Cu < 4$ and/or $1 > Cc > 3$			GP	Poorly graded GRAVEL
		Gravels with fines More than 12% fines	Fines classify as ML or MH			GM	Silty GRAVEL
			Fines classify as CL or CH			GC	Clayey GRAVEL
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines	$Cu \geq 6$ and $1 \leq Cc \leq 3$			SW	Well graded SAND
			$Cu < 6$ and/or $1 > Cc > 3$			SP	Poorly graded SAND
		Sand with fines 5% ≤ fines < 12%	Fines classify as ML or MH			SP-SM	SAND with silt
			Fines classify as CL or CH			SP-SC	SAND with clay
		Sand with fines 12% ≤ fines < 30%	Fines classify as ML or MH			SM	Silty SAND
			Fines classify as CL or CH			SC	Clayey SAND
		Sand with fines 30% fines or more	Fines classify as ML or MH			SM	Very silty SAND
			Fines classify as CL or CH			SC	Very clayey SAND
FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	Clays	inorganic	50% ≤ fines < 70%			CL/CH	Sandy CLAY
			70% ≤ fines < 85%			CL/CH	CLAY with sand
			fines ≥ 85%			CL/CH	CLAY
	Silts and Clays Liquid Limit less than 50	inorganic	PI > 7 and plots on/above "A" line			CL	Lean CLAY
			PI < 4 or plots below "A" line			ML	SILT
		organic	Liquid Limit - oven dried / Liquid Limit - not dried	< 0.75		OL	Organic clay / Organic silt
	Silts and Clays Liquid Limit 50 or more	inorganic	PI plots on or above "A" line			CH	Fat CLAY
			PI plots below "A" line			MH	Elastic SILT
		organic	Liquid Limit - oven dried / Liquid Limit - not dried	< 0.75		OH	Organic clay / Organic silt
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor					PT	PEAT

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

	No. OF BLOWS, N	RELATIVE DENSITY
	0 - 4	Very Loose
	5 - 10	Loose
SANDS:	11 - 30	Medium dense
	31 - 50	Dense
	OVER 50	Very Dense

	No. OF BLOWS, N	CONSISTENCY
	0 - 2	Very Soft
SILTS	3 - 4	Soft
&	5 - 8	Firm
CLAYS:	9 - 15	Stiff
	16 - 30	Very Stiff
	31 - 50	Hard
	OVER 50	Very Hard

	No. OF BLOWS, N	RELATIVE DENSITY
	0 - 8	Very Soft
	9 - 18	Soft
LIMESTONE:	19 - 32	Moderately Hard
	33 - 50	Hard
	OVER 50	Very Hard

SAMPLE GRAPHIC TYPE LEGEND

Location of SPT Sample

Location of Auger Sample

PARTICLE SIZE IDENTIFICATION

BOULDERS:		Greater than 300 mm
COBBLES:		75 mm to 300 mm
GRAVEL:	Coarse -	19.0 mm to 75 mm
	Fine -	4.75 mm to 19.0 mm
SANDS:	Coarse -	2.00 mm to 4.75 mm
	Medium -	0.425 mm to 2.00 mm
	Fine -	0.075 mm to 0.425 mm
SILTS & CLAYS:		Less than 0.075 mm

LABORATORY TEST LEGEND

LL	=	Liquid Limit, %
PL	=	Plastic Limit, %
PI	=	Plasticity Index, %
% PASS - 200	=	Percent Passing the No. 200 Sieve
MC	=	Moisture Content, %
ORG	=	Organic Content, %
k_h	=	Horizontal Hydraulic Conductivity, ft/day

6.0 LIMITATIONS

6.1 Warranty

This report has been prepared for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

6.2 Auger and SPT Borings

The determination of soil type and conditions was performed from the ground surface to the maximum depth of the borings, only. Any changes in subsurface conditions that occur between or below the borings would not have been detected or reflected in this report.

Soil classifications that were made in the field are based upon identifiable textural changes, color changes, changes in composition or changes in resistance to penetration in the intervals from which the samples were collected. Abrupt changes in soil type, as reflected in boring logs and/or cross sections may not actually occur, but instead, be transitional.

Depth to the water table is based upon observations made during the performance of the auger and SPT borings. This depth is an estimate and does not reflect the annual variations that would be expected in this area due to fluctuations in rainfall and rates of evapotranspiration.

6.3 Site Figures

The measurements used for the preparation of the figures in this report were made using the provided site plan and by estimating distances from existing structures and site features. Figures in this report were not prepared by a licensed land surveyor and should not be interpreted as such.

6.4 Unanticipated Soil Conditions

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on Figure 2. This report does not reflect any variations that may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

6.5 Misinterpretation of Soil Engineering Report

GSE Engineering & Consulting, Inc. is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If others make the conclusions or recommendations based upon the data presented, those conclusions or recommendations are not the responsibility of GSE.

FIGURES

COMMERCIAL RETAIL - LAKE CITY LAKE CITY, COLUMBIA COUNTY, FLORIDA GSE PROJECT NO. 13843	PROJECT SITE LOCATION MAP		
	DESIGNED BY : JTP CHECKED BY : CAD DRAWN BY : EEW	GSE Engineering & Consulting, Inc.	FIGURE 1

REFERENCE: AERIAL PHOTOGRAPH (2018) GOOGLE EARTH

LEGEND:

- SUBJECT PROPERTY
- SPT BORING
- AUGER BORING

NORTH

0 75'

SCALE: 1" = 75' APPROX.

COMMERCIAL RETAIL - LAKE CITY
LAKE CITY, COLUMBIA COUNTY, FLORIDA
GSE PROJECT NO. 13843

SITE PLAN SHOWING APPROXIMATE LOCATIONS OF FIELD TESTS

DESIGNED BY : JTP
CHECKED BY : CAD
DRAWN BY : EEW

GSE Engineering & Consulting, Inc.

FIGURE 2