DATE 10/16/				uilding Permit on Premises During Cor	estruction	PERMIT 000027427
APPLICANT I	KELLY STONE			PHONE	352-463-3939	
ADDRESS	222 W W	ADE STREET		TRENTON		FL 32693
OWNER	COLUMBIA CO	UNTY FIRE ST	ATION	PHONE	758-1005	
ADDRESS	370 SE F	RACE TRACK L	N	LAKE CITY		FL 32025
CONTRACTOR	MATTHE	W GRAY		PHONE	352-463-3939	
LOCATION OF	PROPERTY	441 S, L 13	3-B (RACE TRACK I	N), APPROX5 MILES	ON RIGHT	
		ADJACEN'	T TO RACE TRACK			
TYPE DEVELO	PMENT FI	RE STATION	ES	TIMATED COST OF CO	NSTRUCTION	0.00
HEATED FLOO	OR AREA		TOTAL ARI	EA	HEIGHT 25.	00 STORIES 1
FOUNDATION	CONCRETE	WALL	s I	ROOF PITCH	FLO	OR SLAB
LAND USE & Z	CONING	AG-3		MAX	. HEIGHT 35	
Minimum Set Ba	ack Requirments:	STREET-F	RONT 30.00	REAR	25.00	SIDE
NO. EX.D.U.	<u>0</u> F	LOOD ZONE	<u>X</u>	DEVELOPMENT PERM	MIT NO.	·
PARCEL ID	21-4S-17-08638-	005	SUBDIVISIO	Ν		
LOT	BLOCK	PHASE _	UNIT _	тота	L ACRES 5.00)
			CGC062854	V. cel	Steel	•
Culvert Permit No	o. Culve	rt Waiver Co	ontractor's License Nur	nber /	Applicant/Owner/C	ontractor
EXISTING	08-06	543	cs	/ R	J	N
Driveway Connec	ction Seption	c Tank Number	LU & Zoni	ng checked by App	roved for Issuance	New Resident
COMMENTS:	EXEMPT NOC,	SPECIAL EXCE	EPTION APPROVED	#476 (12-13-07)		
					Check # or Cas	sh NO CHARGE
		FOR BUI	LDING & ZONIN	IG DEPARTMENT	ONLY	(footer/Slab)
Temporary Powe	-		Foundation		Monolithic	s care a conservativa de la conserva e e conse
	date	/app. by		date/app. by		date/app. by
Under slab rough	n-in plumbing _			Verilla ser	Sheathing/N	ailing
Framing		date/app		date/app. by	g.,,,	date/app. by
<u> </u>	date/app. by		Kough-in plumbing a	oove slab and below wood		date/app. by
Electrical rough-			Heat & Air Duct		Peri. beam (Lintel)	5.000000000000000000000000000000000000
		ipp. by	-	date/app. by	om ocum (Emoi)	date/app. by
Permanent power	date/app.	by	C.O. Final	1	Culvert	
M/H tie downs, bl	date, app.	U y				1.4./1
Reconnection	locking, electricit	ty and plumbing		date/app. by	Pool	date/app. by
-	locking, electricit	ty and plumbing	date/app	o. by		date/app. by
97000000000 Ni	locking, electricit	p. by	date/app Pump poledate		e date/app. by	date/app. by
M/H Pole date/	*	p. by	Pump pole date/app	o. by Utility Pol	date/app. by	date/app. by
date/	date/app	p. by Trave	date/app Pump pole date date date	Utility Pol	date/app. by Re-roof	date/app. by date/app. by
date/	date/app/app. by MIT FEE \$	p. by Trave	Pump poledate/app Pump poledate el Trailerd CERTIFICATION FE	Utility Polate/app. by E \$ 0.00	date/app. by Re-roof SURCHARGE F	date/app. by date/app. by EEE \$ 0.00
BUILDING PERMISC. FEES \$	date/app /app. by MIT FEE \$ 0.00	p. by Trave 0.00 ZONING C	Pump poledate/app Pump poledate el Trailerd CERTIFICATION FE	Utility Polate/app. by ate/app. by E \$0.00 FIRE FEE \$0.00	date/app. by Re-roof SURCHARGE F	date/app. by date/app. by FEE \$ 0.00
BUILDING PERMISC. FEES \$	date/app. by MIT FEE \$ 0.00 DPMENT FEE \$	p. by Trave 0.00 ZONING C	Pump pole date el Trailer CERTIFICATION FE CERT. FEE \$	Utility Polate/app. by E \$ 0.00	date/app. by Re-roof SURCHARGE F WASTE	date/app. by date/app. by FEE \$ 0.00

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

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 THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED TO BE IN ACTIVE PROGESS WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

Columbia County Building Permit Application

For Office Use Only Application # 08/0-29 Date Received 16/14/08 By 44 Permit # 27427	
Zoning Official Date 1015/06 Flood Zone X Land Use A-3 Zoning A-3	
FEMA Map # Elevation MFE River Plans Examiner_ PA Date /4/	15/08
Comments Special Except - april - # 476 12-13-07	
NOC # EH Deed or PA Site Plan State Road Info = Parent Parcel #	
□ Dev Permit # □ In Floodway □ Letter of Auth. from Contractor □ F W Comp. letter	
IMPACT FEES: EMS Fire Corr Road/Code	
School = TOTAL EXEMPT Gov.	
Septic Permit No. 08-0643 GRAY CONSTRUCTION SERVICES, INC.	
Name Authorized Person Signing Permit KELLY STONE OR GENE DENNIS Phone 352-463-3939	
Address 222 WEST WADE STREET, TRENTON, FL. 32693	
Owners Name COWMBIA COUNTY / DALE WILLIAMS Phone 386-758-1005	
911 Address 370 S.E. RACE TRACK LANE, LAKE CITY, FL. 32025	_
Contractors Name MATHEN T. GRAY Phone 352-463-3939	
Address 222 WEST WADE STREET, TRENTON, FL. 32693	
Fee Simple Owner Name & Address County	
Bonding Co. Name & Address FIDELITY AND DEPOSIT COMPANY OF MARYLAND	
1400 AMERICAN LANE, TOWER 1 - SCHAUMBURG, IL. GOIGG Architect/Engineer Name & Address CRAIG SALLEY & ASSOCIATES - 3911 NEWBERRY ROAD, SUITE D - GAINESVILLE	EI
	2607
Circle the correct power company – FL Power & Light – Clay Elec – Suwannee Valley Elec. – Progress Ene	ergy
Property ID Number 21-45-17-08638-005 03 Estimated Cost of Construction \$931,877 00	
Subdivision Name_NALotBlock Unit Phase _	
Driving Directions Go South ON 41/441 TO CR 133B (SE RACE TRACK LANE) TURN LEFT -	Go
ABOUT YZ MILE - THE NEW FIRESTATION WILL BE ON THE RIGHT SIDE OF THE HWY	
ADTACENT TO THE NORTH FLORIDA Number of Existing Dwellings on Property	
Construction of NEW FIRE STATION Total Acreage 5 Lot Size 471 x	459
Do you need a Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height 25	
Actual Distance of Structure from Property Lines - Front 125 Side $35'$ Side $264'$ Rear $256'$	<u> </u>
Number of Stories Heated Floor Area 3546 SF Total Floor Area 10825 SF Roof Pitch 12/3	3

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.

Columbia County Building Permit Application

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 such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

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 BUILDING PERMITEE:

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 COMMENCMENT 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 hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.

wners Signature

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.

Contractor's Signature (Permitee)

Contractor's License Number (CC 062854 **Columbia County Competency Card Number**

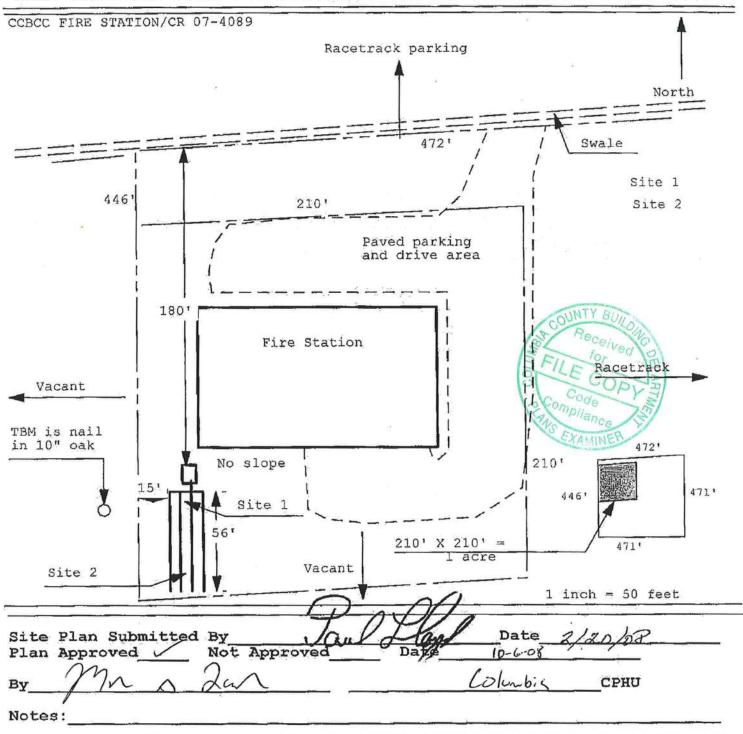
Affirmed under penalty of perjury to by the Contractor and subscribed before me this 14 day of 00+ Personally known_'\(\frac{\chi}{\sqrt{}}\) or Produced Identification____

State of Florida Notary Signature (For the Contractor)

NOTARY PUBLIC-STATE OF FLORIDA Dara E. Stemple Commission # DD00000.
Expires: APR. 27, 2012
Expires: APR. 20, INC. BONDED THRU ATLANTIC BONDING CO., INC.

Application for Onsite Sewage Disposal System Construction Permit. Part II Site Plan Permit Application Number: 08-04+3

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT



STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
ONSITE SEWAGE DISPOSAL SYSTEM
APPLICATION FOR CONSTRUCTION PERMIT
Authority: Chapter 381, FS & Chapter 10D-6, FAC

Page 1. of 3

APPLICATION FOR: [] New System [] Existing S [] Repair [] Abandonmen	ystem []A	olding Tank (Specify)	[] Temp	porary/Experimental System
APPLICANT: CCBCC FIRE STATION			TELEPHON	NE: <u>386-362-</u> 3678
AGENT: GTC DESIGN GROUP		9		
MAILING ADDRESS: POBOX 187		CITY: LIVE	OAK	STATE: FL ZIP: 32064
TO BE COMPLETED BY APPLICANT OR SITE PLAN SHOWING PERTINENT FEAT	APPLICANT'S AU	BY CHAPTER 10	NT. ATTACH NO. OD-6, FLORIDA	BUILDING PLAN AND TO-SCALE A ADMINISTRATIVE CODE.
PROPERTY INFORMATION [IF LOT IS	NOT IN A RECOF	ROED SUBDIVIS	ION, ATTACH	LEGAL DESCRIPTION OR DEED)
LOT: NA BLOCK: NA	_ SUBDIVISION:	MEE	TS & BOUNDS	DATESUBD: NA
PROPERTY ID #: <u>A)- 45-17-88</u>	638-005-03	Section/Towns	nip/Range/Pa	rcel] ZONING: _A_
PROPERTY SIZE: 4.9 ACRES [Se				[] PRIVATE [X] PUBLIC
PROPERTY STREET ADDRESS:	SE COUNTY F	ROAD 133-B		
DIRECTIONS TO PROPERTY: HIGHWA TRACK	Ý 41 SOUTH, TĽ C	ON COUNTY ROA	ND 133-B, ON R	IGHT JUST BEFORE RACE
BUILDING INFORMATION [X]	RESIDENTIAL	1 1	COMMERCIAL	9.
Unit Type of			# Persons Served	Business Activity For Commercial Only
No Establishment	Bedrooms			Public Institution (Non-happite
1 FIRE STATION	6	10300	6	por person 100 600
2				= 600 600
3				
4	 -			
<pre>(N] Garbage Grinders/Disposals [N] Ultra-low Volume Flush Toil</pre>		N) Spas/Hot Ti		[N] Floor/Equipment Drains
APPLICANT'S SIGNATURE:	W)			DATE: 9-23-08

HRS-H Form 4015 March 1992 (Obsoletes Previous Editions Which May Not Be Used)

Columbia County Property Appraiser DB Last Updated: 8/5/2008

2008 Proposed Values

Tax Record

Property Card

Interactive GIS Map

Print

Parcel: 21-4S-17-08638-005 03

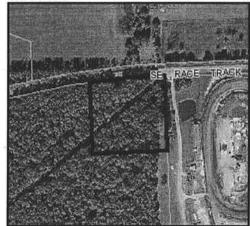
Owner & Property Info

Owner's Name	COLUMBIA CO	YTNUC			
Site Address					
Mailing Address	P O BOX 1529 LAKE CITY, FL 320561529				
Use Desc. (code)	COUNTY (008600)				
Neighborhood	21417.00	Tax District	2		
UD Codes	MKTA02	Market Area	02		
Total Land Area	5.000 ACRES		*		
Description	BEG AT NW COR OF NE1/4 OF SW 1/4, RUN S 471.59 FT, W 471.59 FT, N 446.08 FT TO S R/W				

OF C R 133-B, E ALONG R/W 472.42 FT TO POB

Search Result: 1 of 1





Property & Assessment Values

ORB 1122-1183

Total Appraised Value		\$49,988.00
XFOB Value	cnt: (0)	\$0.00
Building Value	cnt: (0)	\$0.00
Ag Land Value	cnt: (0)	\$0.00
Mkt Land Value	cnt: (1)	\$49,988.00

Just Value		\$49,988.00
Class Value		\$0.00
Assessed Value		\$49,988.00
Exempt Value	(code: 03)	\$49,988.00
Total Taxable Value		\$0.00

Sales History

Description

Sale Date	Book/Page	Inst. Type	Sale VImp	Sale Qual	Sale RCode	Sale Price
6/19/2007	1122/1182	WD	V	U		\$100,000.00

Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
			NONE			

Extra Features & Out Buildings

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
				NONE		

Land Breakdown

Lnd Code	Desc	Desc Units A		Eff Rate	Lnd Value	
008300	SCHOOL (MKT)	5.000 AC	1.00/1.00/1.00/1.00	\$9,997.64	\$49,988.00	

Columbia County Property Appraiser

DB Last Updated: 8/5/2008

DESCRIPTION:

BEGIN at the Northeast corner of the Northeast 1/4 of the Southwest 1/4 of Section 21, Township 4 South, Range 17 East, Columbia County, Florida and run South 01°56'10" East along the East line of said Northeast 1/4 of the Southwest 1/4 of Section 21 a distance of 471.59 feet; thence South 88°03'50" West a distance of 471.59 feet; thence North 01°56'10" West along a line parallel to the East line of the Northeast 1/4 of the Southwest 1/4 of Section 21 a distance of 446.08 feet to a point on a curve concave to the South having a radius of 5689.58 feet and a central angle of 04°45'27"; thence Easterly along the arc of said curve, being also the Southerly Right-of-Way line of SE Race Track Lane (County Road 133-B)(formerly State Road 133-B), a distance of 472.42 feet to the POINT OF BEGINNING. Containing 5.00 acres, more or less.





DRIVING DIRECTIONS

FROM:

COLUMBIA COUNTY BUILDING DEPARTMENT

135 NE HERNANDO AVENUE

LAKE CITY, FL. 32055

TO:

LAKE CITY FIRESTATION 370 SE RACETRACK LANE LAKE CITY, FL. 32025

GO SOUTH ON 41/441 TO CR133B (SE RACETRACK LANE) TURN LEFT GO ABOUT ½ MILE THE FIRESTATION WILL BE ON THE RIGHT ADJACENT TO THE NORTH FLORIDA SPEEDWAY ON THE WEST SIDE.

FOR ADDITIONAL INFORMATION PLEASE CONTACT KELLY STONE WITH GRAY CONSTRUCTION SERVICES AT C:352-354-5482 OF O: 352-463-3939.

GCSI ON SITE SUPERINTENDENT GENE DENNIS CAN BE REACH ON HIS CELL PHONE AT 352-354-0277



October 14, 2008

Columbia County
Building Department
Attn: Joe Haltiwanger
Lake City, Florida

Re: Authorization Letter



To whom it may concern:

I hereby authorize Kelly Stone and/or Eugene Dennis of Gray Construction Services to conduct business on my behalf with Columbia County; in regards to the permitting of construction projects. Should there be any questions, please do not hesitate to contact me at (352) 463-3939.

Thank You

Matthew "Todd" Gray

President

Florida CGC#062854

NOTARY PUBLIC STATE OF FLORIDA

Dara E. Stemple

Commission # DD805809

Expires: APR. 27, 2012

BONDEDITHRU ATLANTIC BONDING CO., INC.



COLUMBIA COUNTY, FLORIDA

artment of Building and Zoning

and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code. This Certificate of Occupancy is issued to the below named permit holder for the building

Parcel Number 21-4S-17-08638-005

Use Classification FIRE STATION

Permit Holder MATTHEW GRAY

Owner of Building COLUMBIA COUNTY FIRE STATION

Total:

0.00

Location: 370 SE RACE TRACK LN

Date: 08/07/2009

Building permit No. 000027427

Fire: Waste: 0.00 0.00



Building Inspector

POST IN A CONSPICUOUS PLACE (Business Places Only)



Cal-Tech Testing, Inc.

P.O. Box 1625 • Lake City, FL 32056-1625 • Tel(386)755-3633 • Fax(386)752-5456

4784 Rosselle St., Jacksonville, FL 32254 • Tel(904)381-8901 • Fax(904)381-8902

Laboratories

Engineering

Geotechnical

Environmental

JOB NO .:

-

08-00524

DATE TESTED:

11/4/08

DATE REPORTED:

11/5/08

REPORT OF IN-PLACE DENSITY TEST

PROJECT: Fire Station #48, Columbia County

CLIENT: Gray Construction Services, Inc., 222 West Wade ST., Trenton, FI 32693

GENERAL CONTRACTOR: Gray Construction Services, Inc.

EARTHWORK CONTRACTOR: Dale's Excavation

INSPECTOR: Wayne Hygema

ASTM METHOD SOIL USE (D-2922) Nuclear **BUILDING FILL**

> SPECIFIED REQUIREMENTS: 95%

TEST NO.	TEST LOCATION	LIFT	TEST DEPTH	WET DENSITY (Ib/ft³)	MOISTURE PERCENT	DRY DENSITY (lb/ft ³)	PROCTOR TEST NO.	PROCTOR VALUE	MAXIMUM DENSITY
19	SE Corner	4	12"	115.1	10.4	104.3	1	109.0	96%
20	NE Corner	4	12"	115.4	9.3	105.6	1	109.0	97%
21	North Side, Approx.	4	12"	115.3	9.9	104.9	1	109.0	96%
22	South Side, Approx.	4	12"	116.3	8.9	106.8	1	109.0	98%
23	SW Corner	4	12"	115.3	10.0	104.8	1	109.0	96%
24	NW Corner	4	12"	116.0	8.2	107.2	1	109.0	98%

REMARKS:

The Above Tests Meet Specified Requirements.

PROCTORS							
PROCTOR NO.	SOIL DESCRIPTION	MAXIMUM DRY UNIT WEIGHT (Ib/ft³)	OPT. MOIST.	TYPE			
1	Light Gray Fine Sand	109.0	9.0	MODIFIED (ASTM D-1557) ▼			

Respectfully Submitted, CAL-TECH TESTING, INC.

Reviewed By:

Linda M. Creamer President - CEO

Date:

Licensed, Florida No: 57842

The test results presented in this report are specific only to the samples tested at the time of testing. The tests were performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.

COLUMBIA COUNTY BITTO FIRE RESCUE

COLUMBIA COUNTY FIRE / RESCUE

P.O. BOX 1529 Lake City, Florida 32056 Office (386) 754-7071 Fax (386) 754-7064

David L. Boozer Division Chief

05 August 2009

TO:

Columbia County Building and Zoning

FROM:

David L. Boozer

Division Chief / Fire Marshal

RE:

Columbia County Fire Rescue Station 48

370 SE Race Track Lane, Lake City, Florida 32025

This letter is to certify that the above listed building meets the requirements of Chapter 38 of the Florida Fire Prevention Code, 2007 edition. I recommend approval.

Sincerely,

David L. Boozer

LIFETIME STEEL BLDGS 1949 JERSEY STREET JACKSONVILLE, FL 32210

DATE: 9/29/08

LIFETIME STEEL BLDGS Re: JOB NO. 19066-2

BUILDING SIZE:

WIDTH : 70 ft. LENGTH : 50.67 ft. EAVE HT : 16 ft.

JOBSITE: LAKE CITY, FL 32024

To Whom It May Concern:

This is to certify that the above referenced building is designed in accordance with the order documentation, the Thirteenth Edition of the American Institute of Steel Construction (AISC) "Manual of Steel Construction" and the 2001 Edition of American Iron and Steel Institute (AISI) "Cold Formed Steel Design Manual. "The basic loads of the subject building meet or exceed the minimum county climatic data as published in the 2002 edition of the MBMA "Low Rise Building Systems Manual".

The criteria for application of design loads are follows Governing Code : FBC 06

Occupancy Category : IV - ESENTIAL FACILITIES
Roof Dead Load : 2.000 psf plus wt. of metal bldg structure
Live Load based on the tributary area :

0 - 200 sq. ft......20 psf 201 - 600 sq. ft.....See Sec 4.9.1 of ASCE 7-02 over 600 sq. ft......12 psf

Collateral Load : 1 psf Snow Exp. Fac : NR
Wind Load (3 sec gust) : 140 mph Snow Imp. Fac. : NR
Enclosure Type : Closed Seismic Imp. Fact. : 1.50
Wind Exp. Cat : B Designed Spec. Acc. Parame

Wind Exp. Cat : B Designed Spec. Acc. Parameter "Sds": 0.1333
Wind Imp. Factor : 1.15 Designed Spec. Acc. Parameter "Sd1": 0.1008
Ground Snow Load : 0.0000 psf Mapped Spec. Response Acc. "Ss":0.1250

Roof Snow Load : NR Mapped Spec. Response Acc. "S1":0.0630

Response Modification Factor: 3.5

This Letter of Certification applies solely to the building and its component parts as furnished by the Metal Building Manufacturer. Doors, windows and louvers are not structural components of the building. It is the responsibility of the owner to determine if wind lock accessories are supplied if required. Certification specifically excludes any foundation, masonry, or general contract work.

Sincerely,

MIKE MURPHY, P.E.

OCT 0 9 2008

27427

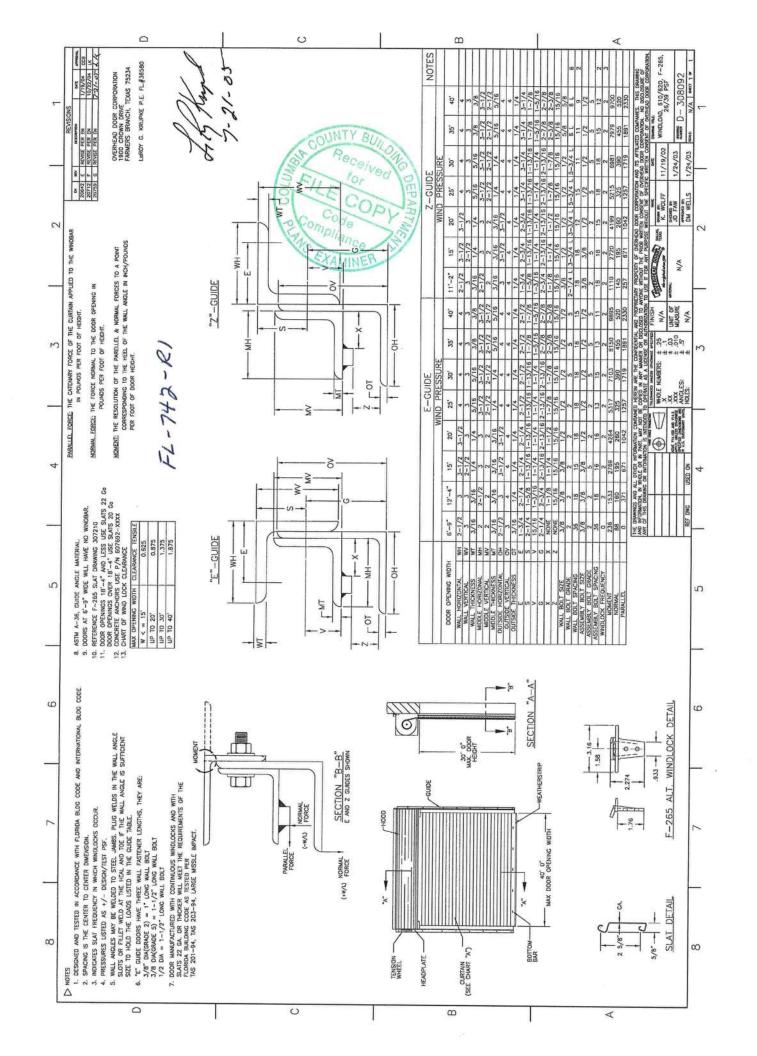
NOTICE OF COMMENCEMENT

Inst:200812019188 Date:10/20/2008 Time:3:25 PM A P.DeWitt Cason,Columbia County Page 1 of 1 8:1150 P:2038

70-1-1		PDC,P,DeWitt Cason,Columbia Ci	Juniy Page 1 of 1 B. 1100 1 1200
This instrument Prepared By:	# 15	E	*
Name: GAAY CONSTINCTION SERVICES, Address: 222 WEST WAS STREET TO	TAC.		
Address: 222 WEST WASE STREET, TO	RENTON,	FL 32693	
Tax Follo No: 21-45-17-08638-005-03			
STATE OF: FLORIDA	1004		¥
COUNTY OF: COLUMN & A			4 4
THE UNDERSIGNED HEREBY gives notice that improvement(s) w Statutes, the following information is provided in this Notice of Com	vill be made to cer	tah real property, and in accor	dance with Chapter 713, Florida
1. DESCRIPTION OF PROPERTY: Street Address: 270 Se			- al
Legal Description: Section 21 Township 4 South			
2. GENERAL DESCRIPTION OF IMPROVEMENT(S): CONST	BEARING	ed APRIEAD FOOT	1865
3, OWNER INFORMATION: a.) Name: <u>Caromoia C</u> b.) Interest in Property: 1007o	PTUVO	Address: <u>372 ω</u>	DUVAL ST. LAKE CITY, F
c.) Fee Simple Titleholder (if other than owner) Name: N/A		Address:	
4. CONTRACTOR: a \ Name: CLAN CONSTR. SERVICES	Address: 222	W.WADE STREET	_b.) Phone: 463-3939
5. SURETY: a.) Name: FIDELITY & DEPOSIT CO. OF	MD. A	dress: 1400 AMERIC	N LANE , TOWER 1,
b.) Amount of bond \$: 431,877.00	, C,) Phone: <u>800-382-215</u> 0	SCHAUMBURY, IL. 60191
6. LENDER: B.) Name: NA	ddress:	1	b.) Phone:
7. Persons within the State of Florida designated by Owner up 713.13(1)(a) 7., Florida Statutes:	oon whom notice	s or other documents may be	served as provided by Section
	: P.D. BOX 157	9 LAKE CITY FL 32056	b.) Phone: 386-758-1005
8. In addition to himself, Owner designates the following pers Florida Statutes.	on(s) to receive	copy of Lienor's Notice as p	provided in Section 713.13(1)(b),
a.) Name: N/A Address:	·		b.) Phone:
9. Expiration date of notice of commencement (the expiration		ar from the date of recording	
specified.)	nara sa nua (1) As	at noth the date of secondary	, muess a amorem date is
			· · · · · · · · · · · · · · · · · · ·
WARNING TO OWNER: ANY PAYMENTS MADE BY THE OY CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713 PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY THE JOB SITE BEFORE THE FIRST INSPECTION, IF YOU ATTORNEY BEFORE COMMENCING WORK OR RECORDING	I, PART I, SECTION I. A NOTICE OF I INTEND TO OF	ON 713.13, FLORIDA STATUT COMMENCEMENT MUST B STAIN FINANCING, CONSUL	TES, AND CAN RESULT IN YOUR IE RECORDED AND POSTED ON
		1011	
	· ·	MaliNell	
	Signature of Partner/Man	Owner or Owner's Authorized	Officer/Director
	Signalory's T	me/ Office.	
	4N	ت من	
The foregoing instrument was acknowledged before me this 20		aber 2008 (year)	
by(name of pe	rson) as	A	(type of authority, e.g. officer,
trustee, attorney in fact) for		(hame of party on behalf of wh	om instrument was executed).
	N.	0 0	A
	- Do) () Attain	7
PENNY D. STANLEY	Skinsture b	Notary Public - State of Florid	1
MY COMMISSION # DD 769398	Print, Type,	or Stamp Commissioned Nami Number: 769398	a of Notary Public
EXPIRES: July 15, 2012 Beided Thru Notary Public Underwriters	Commission	Number: 769398 Known For Produced Identifi	(callon
			vauvii,
<u>Verification Pursu</u>	rant to Section 92	2.525, Florida Statutes	*

Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

Signature of Natural Person Signing Above





BUILDING CODE COMPLIANCE OFFICE (BCCO) PRODUCT CONTROL DIVISION MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

www.buldingcodeonline.com

NOTICE OF ACCEPTANCE (NOA)

Coral Industries, Inc. 1010 19th Avenue (PO Box 40228) Tuscaloosa, AL 35404

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series FL500 Aluminum Window Wall System - L.M.I.

APPROVAL DOCUMENT: Drawing No. FL500_03, titled "Product Approval Drawings - FL500 Window Wall System - Protocols PA201, 202, 203", sheets 1 through 11 of 11, dated 8/15/07, prepared by manufacturer, signed and sealed by Lewis A. Waldrop, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.

NOA No. 07-0529.01

Expiration Date: October 04, 2012 Approval Date: October 04, 2007

Page 1

Florida Energy Efficiency Code For Building Construction Florida Department of Community Affairs

FLA/COM 2004 v2.5, Effective Dec 8, 2006 -- Form 400A-2004R

Method A: Whole Building Performance Method for Commercial Buildings

PROJECT SUMMARY

Short Desc: 039-07

Owner: Columbia County

Address1: Race Track Lane

Address2: Enter Address here

City: Lake City

State: Enter state here

Description: Lake City Fire Station

Zip: 0

Type: Police/Fire Station

Class: New Finished building

Jurisdiction: COLUMBIA COUNTY, COLUMBIA COUNTY, FL (221000)

Conditioned Area: 10229 SF

Conditioned & UnConditioned Area: 10229 SF

No of Stories: 1

Area entered from Plans 10448 SF

Permit No: 0

Max Tonnage 5.9

If different, write in:



Component	Design	Criteria	Result
Gross Energy Cost	4,989.4	5,491.4	PASSES
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			PASSES
PLANT			None Entered
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			PASSES
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT NOTE: An input report of this design building must be submitted along with this Compliance Report.

CERTIFICATIONS

I hereby certify that the plans Florida Energy Code	and specifications cover	ed by this calculation are in co	ompliance with the
Prepared By:	Richard E. Coburn PE	Building Official:	
Date:	10/1/08	Date:	
I certify that this building is in	compliance with the FLo	rida Energy Efficiency Code	
Owner Agent:		Date:	
If Required by Florida law, I he Energy Efficiency Code	ereby certify (*) that the s	system design is in complianc	e with the FLorida
Architect:	Craig Salley Architect	Reg No:	4475
Electrical Designer:	Richard E. Coburn PE	Reg No:	E32820
Lighting Designer:	Richard E. Coburn PE	Reg No:	E32820
Mechanical Designer:	Richard E. Coburn PE	Reg No:	E32820
Plumbing Designer:	Richard E. Coburn PE	Reg No:	E32820
(*) Signature is required who professionals. Typed names a contained on signed/sealed pl	and registration numbers	design to be performed by re may be used where all releva	

Title: Lake City Fire Station Type: Police/Fire Station

(WEA File: JACKSONVILLE.TMY)

Building End Uses

## S4,989		Design	Reference
ELECTRICITY(MBtu/kWh/\$) 83.23 92.17 95245 105501 \$4,810 \$5,338 AREA LIGHTS 17.28 23.09 19791 26420 \$9999 \$1,337 MISC EQUIPMT 33.59 38443 \$1,941 \$1,945 PUMPS & MISC 0.05 59 59 59 \$3 \$3 \$3 SPACE COOL 11.44 12.01 13084 13756 \$661 \$6661 \$696 VENT FANS 20.87 23.43 23868 26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) 9.19 7.83 359 306 \$180 \$153 SPACE HEAT 9.19 7.83 359 306	I .	92.42	100.00
AREA LIGHTS AREA LIGHTS 17.28 19791 26420 \$999 \$1,337 MISC EQUIPMT 33.59 38443 \$1,941 \$1,945 PUMPS & MISC 0.05 59 59 59 \$3 \$3 \$3 SPACE COOL 11.44 12.01 13084 13756 \$661 \$696 VENT FANS 20.87 23.43 23868 26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) 9.19 7.83 359 306 \$180 \$153 SPACE HEAT 9.19 7.83 359 306		\$4,989	\$5,491
AREA LIGHTS AREA LIGHTS 17.28 19791 26420 \$999 \$1,337 MISC EQUIPMT 33.59 38443 38443 \$1,941 \$1,945 PUMPS & MISC 0.05 59 59 \$3 \$3 \$3 SPACE COOL 11.44 12.01 13084 13756 \$661 \$696 VENT FANS 20.87 23.43 23868 26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) 9.19 7.83 359 306 SPACE HEAT 9.19 7.83 359 306	ELECTRICITY(MBtu/kWh/\$)	83.23	92.17
AREA LIGHTS 17.28 19791 26420 \$999 \$1,337 MISC EQUIPMT 33.59 38443 38443 38443 \$1,941 \$1,945 PUMPS & MISC 0.05 59 59 59 \$3 SPACE COOL 11.44 12.01 13084 13756 \$661 \$6661 \$696 VENT FANS 20.87 23.43 23868 26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) 9.19 7.83 359 306 \$180 \$153 SPACE HEAT 9.19 7.83 359 306		95245	105501
19791 26420 \$999 \$1,337		\$4,810	\$5,338
MISC EQUIPMT 33.59 38443 38443 \$1,941 \$1,945 PUMPS & MISC 0.05 59 59 \$3 \$3 \$3 SPACE COOL 11.44 12.01 13084 13756 \$661 \$696 VENT FANS 20.87 23.43 23868 26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) 9.19 7.83 359 306 \$180 \$153 SPACE HEAT 9.19 7.83 359 306	AREA LIGHTS	17.28	23.09
MISC EQUIPMT 33.59 38443 38443 \$1,941 33.59 38443 \$1,945 PUMPS & MISC 0.05 59 59 59 \$3 0.05 59 59 59 59 SPACE COOL 11.44 12.01 13084 13756 \$661 12.01 13084 13756 \$661 VENT FANS 20.87 23868 26823 \$1,205 23.43 23868 26823 \$1,205 NATURAL-GAS(MBtu/therm/\$) 9.19 359 306 \$180 7.83 359 306 SPACE HEAT 9.19 359 306 7.83 359 306		19791	26420
SPACE HEAT SPACE HEAT SPACE SP		\$999	\$1,337
PUMPS & MISC \$1,941 \$1,945 PUMPS & MISC 0.05 0.05 59 59 59 \$3 \$3 SPACE COOL 11.44 12.01 13084 13756 \$661 \$696 VENT FANS 20.87 23.43 23868 26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) 9.19 7.83 359 306 \$180 \$153 SPACE HEAT 9.19 7.83 359 306 \$180 \$153	MISC EQUIPMT		
PUMPS & MISC 59 59 59 \$3 \$3 SPACE COOL 11.44 12.01 13084 13756 \$661 \$696 VENT FANS 20.87 23868 23868 26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) 9.19 7.83 359 306 \$180 \$153 SPACE HEAT 9.19 7.83 359 306			
SPACE COOL		\$1,941	\$1,945
SPACE COOL \$3 \$3 \$11.44 \$12.01 \$13084 \$13756 \$661 \$696 VENT FANS \$20.87 \$23.43 \$23868 \$26823 \$1,205 \$1,357 NATURAL-GAS(MBtu/therm/\$) \$9.19 7.83 \$359 \$306 \$180 \$153 SPACE HEAT \$9.19 7.83 \$359 \$306 \$359 \$306	PUMPS & MISC		0.05
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13084 13756 \$661 \$696		\$3	\$3
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SPACE HEAT 9.19 7.83 359 306			
359 306		\$180	\$153
	SPACE HEAT		
\$180 \$153			
*****		\$180	\$153

Title: Lake City Fire Station
Type: Police/Fire Station

(WEA File: JACKSONVILLE.TMY)

Externa	Lighting (Compliance	
,	Tradable?	Allowance Area or Length ELPA	
		CENTRE IN DE ATT IN COUNTY	

Description Category Tradable? Allowance Area or Length ELPA (W/Unit) or No. of Units (W) (W)

Ext Light 3 Other (doors) than main entries Yes 20.00 12.0 240 52

Tradable Surfaces: 52 (W) Allowance for Tradable: 240 (W)

All External Lighting: 52 (W)

PASSES

Project: 039-07

Title: Lake City Fire Station
Type: Police/Fire Station

(WEA File: JACKSONVILLE.TMY)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
LIVING AREA 10	9	Food Service - Bar/Lounge	702	1	1	PASSES
KITCHEN 102 ·	7	Food Service - Kitchen	202	1	1	PASSES
DORM 109	,003	Fire station Sleeping Quarters	152	1	1	PASSES
DORM 110	,003	Fire station Sleeping Quarters	162	1	1	PASSES
DORM 111	,003	Fire station Sleeping Quarters	155	1	1	PASSES
HALL 100	9	Food Service - Bar/Lounge	100	1	1	PASSES
SLEEPING 112	,003	Fire station Sleeping Quarters	81	1	1	PASSES
OFFICE 103	17	Office - Enclosed	132	1	1	PASSES
OFFICE 104	17	Office - Enclosed	80	1	1	PASSES
MECHANICAL	1	Electrical Mechanical Equipment Room - General	71	1	1	PASSES
OFFICE 105	17	Office - Enclosed	65	1	1	PASSES
SHOWER/RR 10'	,002	Dressing/Locker/Fitting Room (General)	84	1	1	PASSES
SHOWER/RR 100	,002	Dressing/Locker/Fitting Room (General)	84	1	1	PASSES
OFFICE 108	17	Office - Enclosed	120	1	1	PASSES
APP BAY	,002	Fire Station Engine Room	8,039	4	4	PASSES

PASSES

Title: Lake City Fire Station Type: Police/Fire Station

(WEA File: JACKSONVILLE.TMY)

System Report Compliance

ah-1

System 1

Constant Volume Packaged

No. of Units

System--902

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity		11.10	10.30	11.50		PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume		0.80	0.90			PASSES

indirect

System 4

Unit Heater or Warm Air

No. of Units

Duct Furnaces

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Heating System	Unit Heaters Gas		80.00	80.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume		0.80	0.90			PASSES

PASSES

			Plant	Comp	oliance			F	
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category		Comp liance
-	0							None	

Title: Lake City Fire Station Type: Police/Fire Station

(WEA File: JACKSONVILLE.TMY)

W	ater	Heater	Compliance	
				ı

Description Water Heater 1	Туре	Category	Design Eff	Min Eff	Design Loss	Comp liance	
Water Heater 1	Electric water heater	<= 12 [kW]	0.92	0.86		PASSES	

PASSES

Project: 039-07

Title: Lake City Fire Station Type: Police/Fire Station

(WEA File: JACKSONVILLE.TMY)

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]		Ins Thick [in]		Compliance
Domestic and Service Hot Water Systems	0.25	False	105.00	0.28	1.00	0.50	PASSES
Cooling Systems (Chilled Water, Brine and Refrigerant)	0.75	False	45.00	0.28	1.00	0.50	PASSES

PASSES

Title: Lake City Fire Station
Type: Police/Fire Station
(WEA File: JACKSONVILLE.TMY)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Chec
Infiltration	406.1	Infiltration Criteria have been met	
System	407.1	HVAC Load sizing has been performed	
Ventilation	409.1	Ventilation criteria have been met	
ADS	410.1	Duct sizing and Design have been performed	
T & B	410.1	Testing and Balancing will be performed	- 1
Motors	414.1	Motor efficiency criteria have been met	
Lighting	415.1	Lighting criteria have been met	. 🗔
O & M	102.1	Operation/maintenance manual will be provided to owner	
Roof/Ceil	404.1	R-19 for Roof Deck with supply plenums beneath it	
Report	101	Input Report Print-Out from EnergyGauge FlaCom attached?	

EnergyGauge Summit® v3.14

INPUT DATA REPORT

Project Information

Project Name: 039-07

Project Title: Lake City Fire Station Address: Race Track Lane

Enter Address here

State: Enter state here Zip: Owner: Columbia County

GrossArea: 10229

No.of Stories:

Building Classification: New Finished building

Building Type: Police/Fire Station

Orientation: North

SF

			Zones	18			
No	No Acronym	Description	Type	Area [sf]	Multiplier	Total Area [sf]	
-	AHI	Zone 1	CONDITIONED	2190.0	1	2190.0	
7	UNIT	APPARATUS BAYS	CONDITIONED	8039.0	-	8039.0	
	HEATERS						

		Sp	Spaces			1			
No Acronym	Description	Type	Depth [ft]	Width [ft]	Height [ft]	Multi plier	Total Area [sf]	Total Volume [cf]	
In Zone: AHI I LIVING AI	ne: AH1 I LIVING AREALIVING AREA	Food Service - Bar/Lounge	1.00	702.00	10.00	-	702.0	7020.0	
2 KITCHEN	KITCHEN 102KITCHEN	Food Service - Kitchen	1.00	202.00	10.00	-	202.0	2020.0	
3 DORM 109	Zo0Sp3	Fire station Sleeping	1.00	152.00	00.6	-	152.0	1368.0	
4 DORM 110	DORM 110 Zo0Sp3	Cuarters Fire station Sleeping	1.00	162.00	00.6	_	162.0	1458.0	
5 DORM 111	Zo0Sp3	Quarters Fire station Sleeping	1.00	155.00	00.6	_	155.0	1395.0	
6 HALL 100	HALL	Yuanters Food Service - Bar/Lounge	10.00	10.00	, 00.01	-	100.0	1000.0	
7 SLEEPING	SLEEPING 11Zo0Sp7	Fire station Sleeping	1.00	81.00	00.6	-	81.0	729.0	
8 OFFICE 103 Zo0Sp8	3 Zo0Sp8	Quarters Office - Enclosed	1.00	132.00	00.6	-	132.0	1188.0	
9 OFFICE 10	OFFICE 104 Zo0Sp9	Office - Enclosed	1.00	80.00	00.6	-	80.0	720.0	
10 MECHANI	MECHANICAZo0Sp10	Electrical Mechanical	1.00	71.00	00.6	-	71.0	639.0	
11 OFFICE 10	OFFICE 105 Zo0Sp11	Office - Enclosed	1.00	65.00	00.6	_	65.0	585.0	
12 SHOWER/	SHOWER/RR Zo0Sp12	Dressing/Locker/Fitting	1.00	84.00	00.6	-	84.0	756.0	
13 SHOWER/	SHOWER/RR Zo0Sp12	Dressing/Locker/Fitting	1.00	84.00	9.00	-	84.0	756.0	
14 OFFICE 108 Zo0Sp9	98 Zo0Sp9	Office - Enclosed	1.00	120.00	9.00	-	120.0	1080.0	
In Zone: UNIT HEATERS 1 APP BAY Zo0Sp1:	HEATERS Zo0Sp15	Fire Station Engine Room	100.00	80.39	14.00	-	8039.0	112546.0	

			Lighting	90				
	No Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No.of Ctrl pts	
In Zone: AH In Space:	AH1 ce: LIVING AREA 101 1 Compact Fluorescent	General Lighting	10	. 51	510	Manual On/Off	-	
In Space:		General Lighting	7	32	224	Manual On/Off	T.	
In Space:		General Lighting	-	32	32	Manual On/Off	-	
In Space:		General Lighting	-	32	32	Manual On/Off	-	
In Space:		General Lighting	-	32	32	Manual On/Off	-	
In Space:	HALL 100 Compact Fluorescent	General Lighting	10	12	120	Manual On/Off	-	
In Space:	SLEEPING 112 1 Recessed Fluorescent - No vent	General Lighting	-	24	24	Manual On/Off	-	
In Space:		General Lighting	-	128	128	Manual On/Off	-	
In Space:		General Lighting	-	64	64	Manual On/Off	-	
In Space:		General Lighting	ı	64	64	Manual On/Off	- 1	
In Space: In Space:	OFFICE 105 1 Recessed Fluorescent - No vent SHOWER/RR 107	General Lighting	-	64	64	Manual On/Off	-	

EnergyGauge Summit® v3.14

nergyGauge Summit® v3.14	
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					ue Stu]		<u></u>	_		,	Ц		ш
_	_	_	4		R-Value [h.sf.F/Btu]	21.7	20.3	21.7	20.3	21.7	20.3	21.7	20.3
					Dens. [lb/cf]	44.96	9.49	44.96	9.49	44.96	9.49	44.96	9.49
JJO/u(JJO/u(m/Off	m/Off		Heat Capacity [Btu/sf.F]	3.893	1.337	3.893	1.337	3.893	1.337	3.893	1.337
Manual On/Off	Manual On/Off	Manual On/Off	Manual On/Off	-	Conductance [Btu/hr. sf. F]	0.0460	0.0492	0.0460	0.0492	0.0460	0.0492	0.0460	0.0492
64	64	128	4800		DirectionConductance [Btu/hr. sf. F]	North	North	South	South	West	West	North	North
64	64	128	240			320.0	340.0	320.0	340.0	320.0	720.0	9.0	1037.0
				ွှ	Area [sf]	320	34(32(34(32(72(976.0	103
1	-	-	20	Walls	Multi plier	-	-	-	-	-	-	-	<u> </u>
-	£8	-			Width H (Effec) Multi [ft] [ft] plier	8.00	8.50	8.00	8.50	8.00	20.00	8.00	8.50
General Lighting	General Lighting	General Lighting	General Lighting		Width F	40.00	40.00	40.00	40.00	40.00	36.00	122.00	122.00
Recessed Fluorescent - General No vent	orescent -	E 108 Recessed Fluorescent - Genera No vent	TERS AY Recessed Fluorescent - Genera No vent		Type	8" Filled cell concrete block w/	gyp Mtl Bldg Roof/R-19	Batt 8" Filled cell concrete block w/	gyp Mtl Bldg Roof/R-19	8" Filled cell concrete block w/	gyp Mtl Bldg Roof/R-19 Batt	RS 8" Filled cell concrete block w/	gyp Mtl Bldg Roof/R-19 Batt
1 Recessed F No vent	SHOW 1	In Space: OFFICE 108 1 Recessed F No vent	APP B	9		one: AH1 Filled cell concrete block		Filled cell concrete block		Filled cell concrete block		Filled cell concrete block 8" co	
	In Space:	Spa	Spa		Description	In Zone: 1 Filled ce	Pr0Zo1Wa2	Filled ca	Pr0Zo1Wa2	Filled ca	Pr0Zo1Wa2	In Zone: 1 Filled ce	Pr0Zo1Wa2
			In Zone: In S		No.	In Z	2	3	4	5	9	In 2	2

10/6/2008

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3 Fill	led cell o	Filled cell concrete block	8" Filled cell	122.00	8.00	1 9	0.926	South	0.0460	3.893	44.96	21.7	
. 4	Pr0Zo1W/s2		gyp M41 Bldg Boof/B 10	122 00	0 5 0	1	1037.0	Month	0.0402	1 337	0.40	20.2	
	7501 Wa	4	Batt	122.00	00	1	0.160	IIIONI	0.0492	1.557	7.43	50.7]
5 Pr0	Pr0Zo1Wa8	8	8" Filled cell concrete block w/	72.00	8.00	1 5	576.0	North	0.0460	3.893	44.96	21.7	
			gyp				4						
					Wing	Windows		*			ē		
	z	No Description	Type	Shaded	I U Btu/hr sf F	SHGC	Vis.Tra	w [ft]	H (Effec) [ft]	Multi	Total Area [sf]	rea	
In Zone: In W	AH1	one: AH1 In Wall: N Ins block 1 Pr0Zo1Wa1Wi1	Wil User Defined	No	1.2500	0.82	0.76	3.50	3.50	-	12.3		
¥ E	Vall: W	In Wall: W Ins block 1 Pr0Zo1Wa5Wil	Wil User Defined	No	1.2500	0.82	0.76	3.50	3.50	3	36.8	8	
					δ	Doors				= ;			
-	N _o	No Description	Туре	Shaded?	? Width [ft]	H (Effec) Multi [ft] plier) 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: In	AH1 In Wall:	N Ins block Pr0Zo1Wa1Dr1	Solid core flush	No	3.00	7.00	-	21.0	0.3504	0.00	0.00	2.85	
In Zone: In	UNIT I In Wall:	UNIT HEATERS Wall: N Ins block 1 Pr0Zo1Wa1Dr1		N _o	14.00	7.00	5	0.86	0.3504	0.00	0.00	2.85	
<u>.</u>	In Wall:	N 6" Stud Pr0Zo1Wa1Dr1	(2.25) 1 Solid core flush	Š	14.00	7.00	S	0.86	0.3504	0.00	0.00	2.85	
<u>.</u>	In Wall:	s Ins block Pr0Zo1Wa1Dr1		No	14.00	7.00	S	0.86	0.3504	0.00	0.00	2.85	
In	In Wall:	s 6" Stud	(57.7)										

	1 Pr0Zo1Wa1Dr1	Solid core flush (2.25)	No	14.00	7.00	5	0.86	0.3504	0.00	0.00	2.85	
-				Roofs	Į.							
2	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. [Ib/cf]	R-Value [h.sf.F/Btu]	
In Zone:	AH1 Pr0Zo1Rf1	Mtl Bldg Roof/R-19	1263.00	1.00	-	1263.0	45.00	0.0492	1.34	9.49	20.3	
7		Batt Batt	1263.00	1.00	-	1263.0	45.00	0.0492	1.34	9.49	20.3	
In Zone:	UNIT HEATERS Pr0Zo1Rf1	Mtl Bldg Roof/R-19	414.40	10.00	-	4144.0	45.00	0.0492	1.34	9.49	20.3	
7	Pr0Zo1Rf1	Mtl Bldg Roof/R-19 Batt	414.40	10.00	-	4144.0	45.00	0.0492	1.34	9.49	20.3	
				Skylights	ıts		7.2				2	
	No Description	iption Type	l Btu/h	U SH Btu/hr sf F	SHGC Vis	Vis.Trans	w [ft]	H (Effec) Multiplier [ft]	Multiplier	Area [Sf]	Total Area [Sf]	-
In Zone: In R	one: In Roof:											
				Floors	IS							
	No Description	Type	Width [ft]	H (Effec) [ft]	ec) Multi plier	Area [sf]	Cond. Btu/hr. sf.	I. Heat Cap. sf. F Btu/sf. F	ap. Dens. Fj [1b/cf]	R-1 [h.sf.	R-Value [h.sf.F/Btu]	,
In Zone:	AHI Pr0Zo1FII	1 ft. soil, concrete floor, carpet and	1204.00	0 2.00	0 1	2408.0	.0 0.1745	45 54.00	108.00		5.73	
In Zone:	UNIT HEATERS	rubber pad				**						

			6
5.73			
108.00			
54.00			
8039.0 0.1745			
8039.0			
-			
100.00			
80.39			
1 ft. soil, concrete	floor, carpet and	rubber pad	
1 Pr0Zo2FI1			

r,	ä		Systems				
ah-1	System 1	*	Constant V -902	Constant Volume Packaged System- -902	tem-	No. Of Units 1	
Component	t Category		Capacity	Efficiency	IPLV		
	Cooling System		70700.00	11.10	11.50	-	
2	Air Handling System -Supply	ý	2700.00	0.80			
indirect	System 4		Unit Heater Furnaces	Unit Heater or Warm Air Duct Furnaces		No. Of Units 4	4
Component	t Category		Capacity	Efficiency	IPLV		
-	Heating System		10000.00	80.00			
2	Air Handling System -Supply	ý		0.80			
			Plant				
Equip	Equipment	Category	Size	Inst.No	Eff.	IPLV	
		M	Water Heaters	1			

1

[Btu/h]

0.9200 [Ef]

6 [kW]

50 [Gal]

Loss

Efficiency

I/P Rt.

CapacityCap.Unit

W-Heater Description

1 Electric water heater

			Ext-Lighting	ıting					
ı	Description	Category	No. of Luminaires	Watts per Luminaire	Area/Len/No. of units Control Type [sf/ft/No]	iits Control	Type	Wattage [W]	
1 E	Ext Light 3	Other (doors) than main entries	2	26	12.00	Photo Sensor control	control	52.00	
			Piping						
No	Type	O Te	Operating Temperature [F]	Insulation Conductivity [Btu-in/h.sf.F]	Nomonal pipe y Diameter f] [in]	pipe Insulation er Thickness [in]		Is Runout?	
1 2	Domestic and Service Hot Water Systems Cooling Systems (Chilled Water, Brine and Refrigerant)	rt Water Systems I Water, Brine and	105.00 45.00	0.28	0.25		1.00	oN oN	

		·	Fenestra	Fenestration Used	
Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT
ASHULSglClrAll User Defined Frm	User Defined	1	1.2500	0.8200	0.7600

		æ2	Mat	Materials Used	pa				
Mat No	Mat No Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thickness [ft]	Conductivity [Btu/h.ft.F]	Density [1b/cf]	SpecificHeat Btu/lb.F	
178	18 Matl18 178 Matl178	2 in. Wood CARPET W/RUBBER PAD	No Yes	2.3857	0.1670	0.0700	37.00	0.3900	

0.000

0.000

6 in. Heavyweight concrete CARPET W/RUBBER PAD

48

Framing Factor

Thickness [ft]

Material Material No.

Layer

Soil, 1 ft

265

2.0000

265	Matl265	Soil, 1 ft		No	2.0000	1.0000	0.5000	100.00	0.2000	
48	Matl48	6 in. Heavyweight concrete	concrete	No	0.5000	0.5000	1.0000	140.00	0.2000	
57	Matl57	3/4 in. Plaster or gypsum	ypsum	No	0.1488	0.0625	0.4200	100.00	0.2000	
23	Matl23	6 in. Insulation		No	20.0000	0.5000	0.0250	5.70	0.2000	
94	Matl94	BUILT-UP ROOFING,	ING,	No	0.3366	0.0313	0.0930	70.00	0.3500	
420	Mat/420	3/8IN 0.875 in Stricco		Z	0.1822	0.0779	0.4000	16.00	00000	
1001	ApLbMat1001	8" CONCRETE BLOCK	LOCK	Yes	19.0000					
		W/FILLED CELL		•						
		×				ı				
				Cons	Constructs Used	sed				
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	R-19 Batt		No	No	0.05	1.34	9.49	20.3	
			5 5							
	Layer	Material Material No.	rial		idT —	Thickness Fi	Framing Factor			
	-	94 BUILT	BUILT-UP ROOFING, 3/8IN	NG, 3/8IN	0.0	0.0313	0.000			
	2	23 6 in. In	6 in. Insulation		0.5	0.5000	0.000		2	
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	ubber pad	No	No	0.17	54.00	108.00	5.7	

-	t
-	7
1.211	,
(0)	
C	
Comme	
-	•
France	2
2	
	9

Name				Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Massless Conductance Heat Capacity Der Construct [Btu/h.sf.F] [Btu/sf.F] [lb	Density [1b/cf]	RValue [h.sf.F/Btu]	
Solid core flush (2.25)	(2.25)	- 1		No	Yes	0.35			2.9	
Layer Material Material No.	Material No.		Material		Thic 	Thickness F	Framing Factor			
1 279	279		Solid core flush (2.25")	.25")		2	0.000			
Name				Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Capacity [Btu/sf.F]	Density [lb/cf]	RValue [h.sf.F/Btu]	
8" Filled cell concrete block w/ gyp	ncrete block	950	w/ gyp	No	No	0.05	3.89	44.96	21.7	
Layer Material No.	Material No.	1	Material		Thic	Thickness F	Framing Factor			
1 420	420		0.875 in. Stucco		0.0	0.0729	0.000			
2 1001	1001		8" CONCRETE BLOCK W/FILLED CELL	LOCK W/FILL	ED		0.000			
3 57	57		3/4 in. Plaster or gypsum	ypsum	0.0	0.0625	0.000			
4 18	18		2 in. Wood		0.1	0.1670	0.000			

Air System Sizing Summary for AHU-1

Project Name: 039-07 Prepared by: AKEA Inc 10/07/2008 08:54AM

Air System Name	Air System Information		*		
Equipment Class			Number of zones	1	
Air System Type	Equipment Class SPLT AHU		Floor Area	2560.0	ft²
Zone and Space Sizing Method: Zone CFM			Location	Gainesville, Florida	120
Zone and Space Sizing Method: Zone CFM	Sizing Calculation Information				
Zone CFM					
Central Cooling Coil Sizing Data			Calculation Months	Jan to Dec	
Total coil load					
Total coil load	Central Cooling Coil Sizing Data				
Total coil load 70.6 MBH CA DB / WB 78.7 / 72.9 °F Sensible coil load 59.0 MBH Entering DB / WB 80.3 / 66.0 °F Coil CFM at Jul 0000 2433 CFM Leaving DB / WB 57.7 / 56.4 °F Max block CFM 2433 CFM Coil ADP 55.2 °F Sum of peak zone CFM 2433 CFM Bypass Factor 0.100 Sensible heat ratio 0.835 Resulting RH 44 % ft²/Ton 435.2 Design supply temp. 58.0 °F BTU/(hr-ft²) 27.6 Zone T-stat Check 0 of 1 OK Water flow @ 10.0 °F rise N/A MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil load 20.4 MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 20.0 °F drop N/A Supply Fan Sizing Data Actual max CFM 2430 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.000 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers	Total coil load 5.9	Tons	Load occurs at	.lul 0000	
Sensible coil load					°F
Coil CFM at Jul 0000 2433 CFM Leaving DB / WB 57.7 / 56.4 °F Max block CFM 2433 CFM Coil ADP 55.2 °F Sum of peak zone CFM 2433 CFM Bypass Factor 0.100 Sensible heat ratio 0.835 Resulting RH 44 % ft²/Ton 435.2 Design supply temp. 58.0 °F BTU/(hr-ft²) 27.6 Zone T-stat Check 0 of 1 OK Water flow @ 10.0 °F rise N/A Max zone temperature deviation 2.9 °F Central Heating Coil Sizing Data Max coil load 20.4 MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 2433 CFM BTU/(hr-ft²) 8.0 Water flow @ 20.0 °F drop N/A Supply Fan Sizing Data Actual max CFM 2430 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers			Entering DB / WB	80.3 / 66.0	°F
Max block CFM 2433 CFM Coil ADP 55.2 °F Sum of peak zone CFM 2433 CFM Bypass Factor 0.100 Sensible heat ratio 0.835 Resulting RH 44 % ft²/Ton 435.2 Design supply temp. 58.0 °F BTU/(hr-ft²) 27.6 Zone T-stat Check 0 of 1 OK Water flow @ 10.0 °F rise N/A Max zone temperature deviation 2.9 °F Central Heating Coil Sizing Data Max coil load 20.4 MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 2433 CFM Ent. DB / Lvg DB 66.7 / 74.5 °F Water flow @ 20.0 °F drop N/A Ent. DB / Lvg DB 66.7 / 74.5 °F Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design surply temp. 25.2 °F			Leaving DB / WB	57.7 / 56.4	°F
Sum of peak zone CFM			Coil ADP	55.2	°F
Sensible heat ratio			Bypass Factor	0.100	
ft²/Ton 435.2 Design supply temp. 58.0 °F BTU/(hr-ft²) 27.6 Zone T-stat Check 0 of 1 OK Water flow @ 10.0 °F rise N/A Max zone temperature deviation 2.9 °F Central Heating Coil Sizing Data Amax coil load 20.4 MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 2433 CFM Ent. DB / Lvg DB 66.7 / 74.5 °F Water flow @ 20.0 °F drop N/A Ent. DB / Lvg DB 66.7 / 74.5 °F Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 11.78 CFM/pers			Resulting RH	44	%
BTU/(hr-ft²)	ft²/Ton 435.2		Design supply temp.	58.0	°F
Water flow @ 10.0 °F rise N/A Max zone temperature deviation 2.9 °F Central Heating Coil Sizing Data Max coil load 20.4 MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 2433 CFM Ent. DB / Lvg DB 66.7 / 74.5 °F Water flow @ 20.0 °F drop N/A Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers	BTU/(hr-ft²) 27.6		Zone T-stat Check	0 of 1	OK
Max coil load 20.4 MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 2433 CFM Ent. DB / Lvg DB 66.7 / 74.5 °F Water flow @ 20.0 °F drop N/A Ent. DB / Lvg DB 66.7 / 74.5 °F Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers					
Max coil load 20.4 MBH Load occurs at Des Htg Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 2433 CFM Ent. DB / Lvg DB 66.7 / 74.5 °F Water flow @ 20.0 °F drop N/A Ent. DB / Lvg DB 66.7 / 74.5 °F Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers	Central Heating Coil Sizing Data				
Coil CFM at Des Htg 2433 CFM BTU/(hr-ft²) 8.0 Max coil CFM 2433 CFM Ent. DB / Lvg DB 66.7 / 74.5 °F Water flow @ 20.0 °F drop N/A Ent. DB / Lvg DB 66.7 / 74.5 °F Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers		MBH	Load occurs at	Des Htg	
Max coil CFM 2433 CFM Ent. DB / Lvg DB 66.7 / 74.5 °F Water flow @ 20.0 °F drop N/A Ent. DB / Lvg DB 66.7 / 74.5 °F Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers					
Water flow @ 20.0 °F drop N/A Supply Fan Sizing Data Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers			Ent DB/Lya DB	66.7 / 74.5	°F
Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/person					*
Actual max CFM 2433 CFM Fan motor BHP 0.00 BHP Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/person	Supply Fan Sizing Data				
Standard CFM 2420 CFM Fan motor kW 0.00 kW Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/person	Actual max CFM 2433	CFM	Fan motor BHP	0.00	BHP
Actual max CFM/ft² 0.95 CFM/ft² Fan static 0.00 in wg Outdoor Ventilation Air Data Design airflow CFM 189 CFM CFM/person 11.78 CFM/person					
Outdoor Ventilation Air Data Design airflow CFM					
Design airflow CFM 189 CFM CFM/person 11.78 CFM/pers	Outdoor Ventilation Air Data				*
		CFM	CFM/person	11.78	CFM/perso
			F =		





Zone Sizing Summary for AHU-1

Project Name: 039-07 Prepared by: AKEA Inc 10/07/2008 08:54AM

Air System Information

Air System Name AHU-1
Equipment Class SPLT AHU
Air System Type SZCAV

Number of zones 1
Floor Area 2560.0 ft²
Location Gainesville, Florida

Sizing Calculation Information

Zone and Space Sizing Method:

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

Zone Sizing Data

	Maximum	Design	Minimum	Time	Maximum	Zone	
	Cooling	Air	Air	of	Heating	Floor	
	Sensible	Flow	Flow	Peak	Load	Area	Zone
Zone Name	(MBH)	(CFM)	(CFM)	Load	(MBH)	(ft²)	CFM/ft²
Zone 1	42.9	2384	2384	Jul 1500	12.3	2560.0	0.93

Zone Terminal Sizing Data

No Zone Terminal Sizing Data required for this system.

Space Loads and Airflows

Zone Name /		Cooling Sensible	Time	Air	Heating Load	Floor	Space
Space Name	Mult.	(MBH)	Load	(CFM)	(MBH)	(ft²)	CFM/ft²
Zone 1							
100 Hall	2	1.3	Jul 1300	70	0.3	180.0	0.39
101 Living Area	1	12.5	Jun 1600	683	4.9	702.0	0.97
102 Kitchen	1	7.6	Jul 1300	417	0.8	206.0	2.02
103 Office	1	1.7	Jun 1400	94	0.9	135.0	0.70
104 Server/Office	1	5.0	Jul 1300	275	0.2	95.0	2.90
105 Restroom/Shower	1	0.6	Jul 1300	35	0.2	90.0	0.39
107 Restroom/Shower	1	0.6	Jul 1300	30	0.1	78.0	0.39
108 Office	1	2.1	Jul 1300	115	0.2	116.0	0.99
109 Dorm	1	2.2	Jul 1300	119	0.7	157.0	0.76
110 Dorm	1	2.4	Aug 1300	132	1.2	165.0	0.80
111 Dorm	1	2.1	Aug 1400	118	0.8	155.0	0.76
112 Sleeping	1	1.0	Aug 1400	53	0.5	85.0	0.62
100-A Hall	1	2.3	Jul 1700	124	0.8	91.0	1.36
100 Hall-B	1	0.4	Jul 1300	21	0.1	55.0	0.39
117 Mechanical	1	0.5	Jul 1300	27	0.1	70.0	0.39

SOIL BORING

P

CHSCH

REPORT OF GEOTECHNICAL EXPLORATION

New Fire Station Building
SE Racetrack Way & U.S. Highway No. 441
Lake City, Columbia County, Florida
CTI Project No. 07-00524-01



- Prepared for -

Columbia County Board of County Commissioners P.O. Drawer 1529 Lake City, Florida 32055

- Prepared by -

Cal-Tech Testing, Inc. P.O. Box 1625 Lake City, Florida 32056-1625

November 1, 2007

RECEIVED

NOV 0 2 2007

CRAIG SALLEY & ASSOCIATES



Cal-Tech Testing, Inc.

Engineering Geotechnical

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Tel. (850) 442-3495 • Fax (850) 442-4008

LABORATORIES

November 1, 2007

Columbia County Board of County Commissioners

P.O. Drawer 1529

Lake City, Florida 32055

Attention:

Mr. John Colson

Subject:

Report of Geotechnical Exploration

New Fire Station Building

SE Racetrack Way & U.S. Highway No. 441

Lake City, Columbia County, Florida

CTI Project No. 07-00524-01

Dear Mr. Colson:

Cal-Tech Testing, Inc. (CTI) has completed the subsurface exploration for the proposed new Fire Station building in Lake City, Florida.

The following report presents the results of our field exploration and testing, an evaluation of the subsurface conditions with respect to available project characteristics, and recommendations to aid in the design and construction of the proposed fire station building.

We have enjoyed assisting you on this project and look forward to serving as your geotechnical and construction materials testing consultant for the remainder of this and future projects. Should you have any questions concerning this report, please contact our office at 386-755-3633.

Sincerely,

Cal-Tech Testing, Inc.

David B. Brown

Executive Vice President

D. Hmeidi, P.E.

Senior Geotechnical Engineer Licensed, Florida No. 57842

Distribution:

File (1 copy)

Addressee (2 copies)

Mr. Chad Pickle - Craig Salley & Associates, Architects (1 copy)

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APPENDIX

Figure No. 1 Site Exploration Plan (1 page)
Figure No. 2 Generalized Subsurface Profile (1 page)

New Fire Station Building Lake City, Columbia County, Florida

1.0 PROJECT INFORMATION

The purpose of this exploration was to develop information concerning the site and subsurface conditions in order to evaluate site preparation requirements and foundation support recommendations for the proposed new Fire Station building. The subject site is located on the south side of SE Racetrack Way approximately ¼ mile east of U.S. Highway No. 441 in Lake City, Columbia County, Florida. This report briefly describes our field activities and presents our findings.

We have been furnished with an electronic copy of an undated Soil Boring Plan prepared by Craig Salley & Associates, Architects (CSA). We understand the proposed fire station building will have plan dimensions of approximately 165 feet by 57 feet. We anticipate the proposed construction will include a one-story, pre-engineered metal building with a 15- to 20-foot eave height. Detailed structural information has not been provided; however, we anticipate individual column loads will not exceed 40 kips. We have assumed that soil-supported ground floor loads (dead load plus live load) in the fire station will not exceed 150 psf. We assume that less than two feet of earthwork fill will be required to achieve desired finished grade elevations.

2.0 FIELD EXPLORATION

The subsurface conditions were explored by performing four (4) Standard Penetration Test (SPT) borings extended to a depth of 20 feet below the existing ground surface. The SPT borings were performed at the approximate locations shown on the attached Field Exploration Plan. The locations of the SPT borings were provided to us on an undated drawing prepared by CSA of Gainesville, Florida. These locations were determined in the field by our personnel and referenced from existing site features.

The sampling and penetration procedures of the SPT borings were accomplished in accordance with ASTM D-1586, using a power rotary drill rig. The standard penetration tests were performed by driving a standard 1-3/8" I.D. and 2" O.D. split spoon sampler with a 140 pound hammer falling 30 inches. The number of hammer blows required to drive the sampler a total of 18 inches, in 6 inch increments, were recorded. The penetration resistance or "N" value is the summation of the last two 6 inch increments and is illustrated on the attached boring logs adjacent to their corresponding sample depths. The penetration resistance is used as an index to derive soil parameters from various empirical correlations.

The attached Generalized Subsurface Profile(s) graphically illustrates penetration resistances, groundwater levels (if any encountered), and soil descriptions. It should be noted the stratification lines and depth designations indicated on the boring records represent approximate boundaries between soil types. In some instances, the transition between these soil types may be gradual.

New Fire Station Building Lake City, Columbia County, Florida

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Site Conditions

The existing site conditions were observed by our personnel during our field program. At the time of our visit, the ground surface was densely wooded and covered with underbrush. The site topography was relatively level with clevation difference of approximately two feet across the proposed building area.

3.2 General Area Geology

A review of the site geology indicates the subject project is underlain by Undifferentiated Quaternary Sediments (Qu) of the Pleistocene and Holocene epochs. These sediments consist of siliciclastics, organics and freshwater carbonates. The silicicalstics are light gray, tan, brown to dark, unconsolidated to poorly consolidated, clean to clayey, silty, fossiliferous, variably organic-bearing sands to blue green to olive green, poorly to moderately consolidated, sandy, silty, clays. Freshwater carbonates "marls" are buff colored to tan, unconsolidated to poorly consolidated, fossiliferous (mollusks) carbonate muds containing organics.

3.3 USDA/NRCS Soil Survey

Cursory review of the Columbia County, Florida USDA Soil Survey indicates the subject site is underlain by one or more of the following soil map units:

- Blanton fine sand (Soil Map Unit No. 8), 0% to 5% slopes: This soil map unit consists of about 7 inches of gray sand, underlain by about 45 inches of very pale brown to light gray sand. The substratum soils are underlain by light yellowish brown to light brownish gray sandy loam to a depth of 80 inches or more below the natural ground surface. The soil survey indicates a perched high water table at about 5 to 6 feet below the ground surface during the period of December to March.
- Albany fine sand (Soil Map Unit No. 1), 0% to 5% slopes: This soil unit consists of about 9 inches of dark grayish brown fine sand underlain by about 48 inches of light yellowish brown fine sand, mottled with brown and white; and pale yellow fine sand, mottled with red and white. These soils are underlain by light yellowish brown fine sandy loam, mottled with brown and light gray; and gray sandy clay loam that has strong brown mottles to a depth of about 80 inches below natural ground surface. The soil survey indicates the apparent² high water table at about 1 to 2.5 feet below the ground surface during the period of December to March.

Water standing above an unsaturated zone. In places, a perched (or upper) water table is separated from the lower one by a dry zone.

² Thick zone of free water in the soil indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soils.

New Fire Station Building Lake City, Columbia County, Florida

3.4 Subsurface Conditions

A representation of the subsurface conditions encountered in the explored area is shown on the attached Generalized Subsurface Profile. The profile and soil conditions outlined below indicate major subsurface stratification. It should be understood that soil conditions may vary between and away from the boring locations.

Initially, the soil profile as disclosed by SPT borings B-1 through B-4 consisted of about 12 inches of grayish brown, silty fine sand (SP-SM) with trace of organic (topsoil). This surficial cover was underlain by about 3 to 8½ feet of light tan, silty fine sand (SM-SP). This stratum was underlain by about 1½ to 7 feet of gray and reddish brown, clayey fine sand (SC). Beneath this layer, the soil profile consisted of about 5 to 8 feet of light gray and reddish tan, mottled sandy clay (CL). This layer, at the location of SPT borings B-2 and B-3, was underlain by about 6½ to 8 feet of gray and reddish brown, clayey fine sand (SC). At the location of SPT boring B-4, about 3 feet of light gray and reddish tan, mottled, clay (CH) was encountered at a depth of 17 feet below the existing ground surface. All SPT borings were terminated at a depth of 20 feet below the existing ground surface.

3.5 Groundwater

At the time of completion of drilling, no groundwater was encountered in the SPT and auger borings. We note that due to the relatively short time frame of the field exploration, the groundwater may not have had sufficient time to stabilize. For a true groundwater level reading, piezometers may be required. In any event, fluctuation in groundwater levels should be expected due to seasonal climatic changes, construction activity, rainfall variations, surface water runoff, and other site-specific factors. Since groundwater level variations are anticipated, design drawings and specifications should accommodate such possibilities and construction planning should be based on the assumption that variations will occur.

4.0 RECOMMENDATIONS FOR FOUNDATION DESIGN & SITE PREPARATION

The recommendations presented in this report are based upon available project information, anticipated loading conditions, and data obtained during our field program. If the structural information is incorrect or the location of the structure changes, please contact this office so our recommendations may be reviewed and/or revised. Discovery of any site or subsurface condition during construction, which deviates from the data collected during this exploration, should be reported to us for evaluation. Assessment of site environmental conditions or presence of pollutants was beyond the scope of this exploration.

New Fire Station Building Lake City, Columbia County, Florida

4.1 General

Based on our evaluation of the encountered subsoils, anticipated loading conditions and our past experience with similar projects, it is our professional opinion the subject site is considered suitable for the support of the proposed Fire Station building. The development should include the usual clearing, stripping and removal of surface vegetation, topsoil and any other deleterious materials that fall within the building area. This operation should be followed by proofrolling/compaction of the near surface in-situ soils and any additional fill soils required to achieve final grades.

4.2 Foundation Support

The test borings indicated the presence of very loose sandy soils within the upper 4 feet of the existing ground surface. The majority of these soils are considered suitable for reuse as structural fill, however, they are not considered acceptable for the support of the proposed building in their current conditions. To improve the density of the supporting soils, the upper 4 feet of the site soils should be overexcavated, and recompacted as indicated herein.

Provided the foundation and site soils are prepared in accordance with the guidelines presented in this report, it is our opinion the proposed structure may be supported on a conventional shallow foundation system. The shallow foundation may be designed for an allowable bearing pressure of 2,500 pounds per square foot (psf) or less supported on in-situ recompacted soils or newly placed structural fill.

In using net pressures, the weight of the footing and backfill over the footing need not be considered. Hence, only loads applied at or above final grade need to be used for dimensioning footings. However, wall bearing footings should be designed with a minimum width of 18 inches, while the individual column footings should have minimum dimensions of 2 feet by 2 feet.

4.3 Settlement Analyses

Actual magnitude of settlement that will occur beneath foundations will depend upon variations within the subsurface soil profile, actual structural loading conditions, embedment depth of the footings, actual thickness of compacted fill or cut, and the quality of the earthwork operations. Assuming that the foundation related site work and foundation design is completed in accordance with the enclosed recommendations, we estimate the total settlement of the structure will be on the order of 1 inch or less. Differential settlements (between adjacent columns or along the length of a continuous wall footing) should be approximately one-half of the total settlement. This settlement is primarily the result of elastic compression of the upper loose sands, and should occur almost immediately following the application of the structural dead load during construction.

New Fire Station Building Lake City, Columbia County, Florida

4.4 Floor Slab

Provided all unsuitable material (such as topsoil, organics, etc.) located within the proposed building area (including 5 feet outside the perimeter of the building) is undercut and replaced with well-compacted structural fill, floor slabs can be adequately supported on recompacted soils or newly placed structural fill. All exposed subgrade should be proofrolled with a fully-loaded, tandem-axle dump-truck or similar pneumatic-tired equipment. Provided the proofrolling operations do not indicate significant deflecting or pumping of the existing subgrade, the floor slab in these areas may also be designed as a slab-on-grade. Any soft or loose soils found during the proofrolling procedure should be undercut and replaced with suitable, well-compacted, engineered fill.

All floor slabs should be supported on at least 4 inches of relatively clean granular material, such as sand, sand and gravel, or crushed stone. This is to help distribute concentrated loads and equalize moisture beneath the slab. This granular material should have 100 percent passing the 11/2 -inch sieve and a maximum of 10 percent passing the No. 200 sieve.

Based upon the soil conditions encountered at the subject site, the anticipated fill placement, and the recommended site preparation operations presented in this report, a modulus of vertical subgrade reaction (k) for the slab bearing soils of 225 pounds per square inch per inch of vertical deflection (pci) for the recommended structural fill compaction criteria.

4.5 Exposed Subgrade

Following excavation and backfilling, exposed soils in the building area (including 5 feet outside the perimeter of the building) should be compacted with overlapping passes of a relatively heavy weight vibratory drum roller having a total operating static weight (weight of fuel, and water included) of at least 10 tons and a drum diameter of 5 feet. All exposed surfaces should be compacted to a minimum of 95 percent of the modified Proctor maximum dry density (ASTM D-1557) to a depth of at least 12 inches below the compacted surface.

4.6 Structural Fill/Backfill

Structural fill should be placed in thin loose lifts not exceeding 12 inches in thickness and compacted with a heavy roller as described above. For walk-behind equipment, a maximum loose lift thickness of 6 inches is recommended. Each lift should be thoroughly compacted with the vibratory roller to provide densities equivalent to at least 95 percent of the modified Proctor maximum dry density (ASTM D-1557). Structural fill should consist of an inorganic, nonplastic, granular soil containing less than 10 percent material passing the No. 200 mesh sieve (relatively clean sand with a Unified Soil Classification of SP or SP-SM).

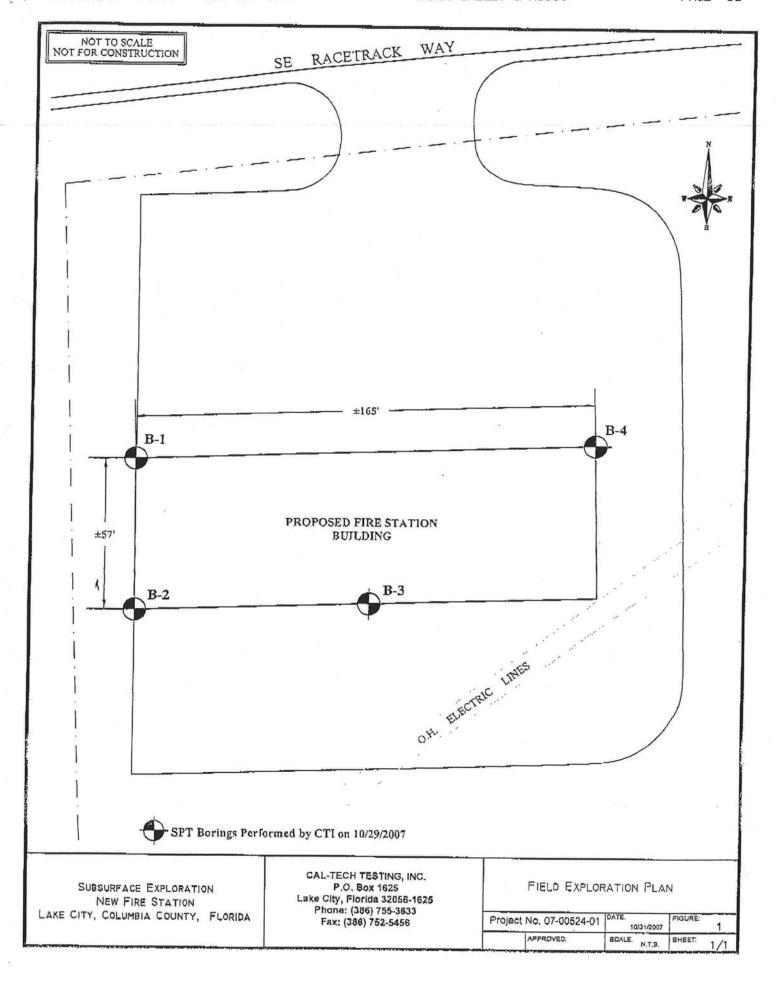
New Fire Station Building Lake City, Columbia County, Florida

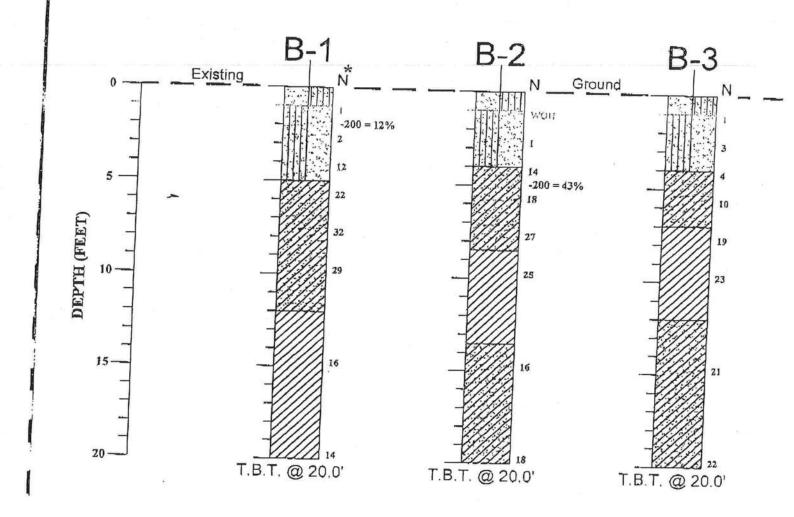
Compaction of exposed soils in deeper excavations may cause pumping and/or yielding of the soils being compacted. The instability is caused by excess pore water pressure build-up in the subgrade soils being compacted. To allow this excess pore water pressure to dissipate, the contactor may temporarily halt the compaction operation or disengage the vibratory action of the compaction equipment. In any event, it is recommended to maintain a distance of at least two feet between the groundwater level and the compaction surface.

5.0 REPORT LIMITATIONS

This report has been prepared for the exclusive use of the Columbia County Board of County Commissioners, Florida, for the specific application to the project discussed herein. Our conclusions and recommendations have been rendered using generally accepted standards of geotechnical engineering practice in the State of Florida. No other warranty is expressed or implied. CTI is not responsible for the interpretations, conclusions, opinions, or recommendations of others based on the data contained herein. We note that the assessment of environmental conditions for the presence of pollutants in the soil, rock, or groundwater at the site was beyond the scope of the exploration. Field observations, monitoring, and quality assurance testing during earthwork and foundation installation are an extension of the geotechnical design. We recommend that the owner retain these services and that CTI be allowed to continue our involvement in the project through these phases of construction.

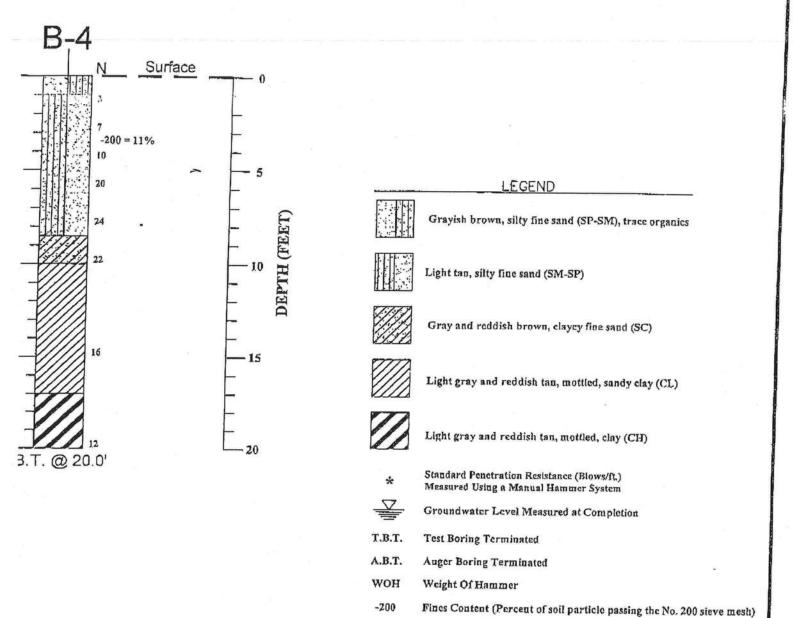
APPENDIX





NOTE: Please refer to text of report for additional information relative to groundwater conditions and potential fluctuations which could occur.

	RE\	VISION	IS				1 - 1	
DATE BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY:	NAMES	DATE	CAL-TE
					CHECKED BY:		-	Lake City,
k					APPROVED BY:			Phone
					Cal-TechProjec	I No.	07-00524-01	Fax:



TING, INC. 1625 32056-1625	SUBSURFACE EXPLORATION NEW FIRE STATION	GENERALIZED SUBSURFACE PROFILE	FIGURE:	2
' 55-3633 2-5 4 56	LAKE CITY, COLUMBIA COUNTY, FLORIDA	The state of the s	SHEET;	1/1

20.01

Termination Depth

COLUMBIA COUNTY BUILDING DEPARTMENT

COMMERCIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2004 WITH 2005 & 2006 Supplements

ALL REQUIREMENTS LISTED 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 FBC FIGURE 1609 STATE OF FLORIDA WIND-BORNE DEBRIS REGION & BASIC WIND SPEED MAP

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75

- 1. ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ----- 100 MPH
- 2. ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE ------------------------ 110 MPH
- 3. NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

GENERAL REQUIREMENTS:

All drawings must be clear, concise and drawn to scale, details that are not used shall be marked void. 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.

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

- 1. Site requirements:
 - Parking
 - Fire access
 - Vehicle loading
 - Driving/turning radius
 - Fire hydrant water supply post indicator valve (PIV)
 - Set back separation (assumed property lines)
 - Location of specific tanks, water lines and sewer lines
 - All exterior elevations views
 - Total height of structure form established grade
- 2. Occupancy group use and special occupancy requirements.
- Minimum type of permitted construction by code for occupancy use.
- 4. Fire-resistant construction requirements shall be shown, include the following components:
 - Fire-resistant separations
 - Fire-resistant protection for type of construction
 - Protection of openings and penetrations of rated walls
 - Fire blocking and draftstopping and calculated fire resistance
- 5. Fire suppression systems shall be shown include:
 - Early warning smoke evacuation systems Schematic fire sprinklers
 - Standpipes
 - Pre-engineered systems
 - Riser diagram



- 6. Life safety systems shall be shown include the following requirements:
 - Occupant load and egress capacities
 - Early warning
 - Smoke control
 - Stair pressurization
 - Systems schematic
- Occupancy load egress requirements shall be shown include:
 - Occupancy load
 - 2 Gross
 - Net 12
 - Means of egress
 - Exit access
 - Exit 12
 - Exit discharge
 - Stairs construction geometry and protection

 - Emergency lighting and exit signs 0
 - Specific occupancy requirements
 - Construction requirements
 - Horizontal exits exit passageways
- Structural requirements shall be shown include:
 - Soil conditions analysis
 - **Fermite protection**
 - Design loads
 - Wind requirements
 - Building envelope
 - Structural calculations (if required)
 - Foundation
 - Wall systems
 - Floor systems
 - Roof systems 1.1
 - Threshold inspection plan
 - Stair systems
- Materials shall be shown include the following:
 - Wood
 - Steel
 - Aluminum
 - Concrete
 - Plastic
 - Glass
 - 0
 - Masonry
 - Gypsum board and plaster
 - Insulating (mechanical)
 - Roofing
 - Insulation
- 10. Accessibility requirements shall be shown include the following:
 - Site requirements
 - Accessible route
 - Vertical accessibility
 - Toilet and bathing facilities
 - Drinking fountains
 - Equipment
 - Special occupancy requirements

Fair housing requirements

- 11. Interior requirements shall include the following:
 - Interior finishes (flame spread smoke development)
 - Light and ventilation
 - Sanitation
- 12. Special systems:
- Elevators
- Escalators
- 1.ifts
- 13. Swimming pools:

- Barrier requirements
- Spas
- : Wading pools
- 14. Electrical:
- Wiring
- Services
- Feeders and branch circuits
- Overcurrent protection
- Grounding
- Wiring methods and materials
 - **GFCIs**
- Equipment
 - Special occupancies
- Emergency systems
- Communication systems
- Low voltage
- Load calculations
- 15. Plumbing
- Minimum plumbing facilities
- Fixture requirements
- Water supply piping
 - Sanitary drainage
 - Water heaters
 - Vents
- Roof drainage
- Back flow prevention
- Irrigation
- Location of water supply line
- Grease traps
- Environmental requirements
 - Plumbing riser
- 16. Mechanical
 - Energy calculations
 - Exhaust systems:
 - Clothes dryer exhaust
 - Kitchen equipment exhaust
 - Specialty exhaust systems
 - Equipment:
 - Equipment location:
 - Make-up air
 - Roof-mounted equipment
 - Duct systems

- > Ventilation
- o Combustion air
- Chimneys, fireplaces and vents
- Appliances
- Boilers
- Refrigeration
- Bathroom ventilation
- Laboratory

17. Gas

- Gas piping
- 3 Venting
- Combustion air
- Chimneys and vents
- · Appliances
- Type of gas
- : Fireplaces
- c LP tank location
- Riser diagram/shutoffs
- Notice Of Commencement:

A Recorded (in the Columbia County Clerk Office) Notice Of Commencement is required to be filed with the building department Before Any Inspections Will Be Done

- **Disclosure Statement for Owner Builders**
- Private Potable Water:
 - Size of pump motor
 - Size of pressure tank
 - Cycle stop valve if used

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS:

- 1. <u>Building Permit Application</u>: A current Building Permit Application form is to be completed and submitted for all construction projects.
- 2. <u>Parcel Number:</u> The parcel number (Tax ID number) from the Property Appraiser is required.
 - A copy of property deed is also requested. (386) 758-1084
- 3. Environmental Health Permit or Sewer Tap Approval: A copy of the Environmental Health permit, existing septic tank approval or sewer tap is required (386)758-1058
- 4. <u>City Approval:</u> If the project is located within the city limits of the Town of Fort White prior approval is required. The Town of Fort White approval letter is required to be submitted by the owner or contractor to this office when applying for a Building Permit.

5. Flood Information: All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of section 8.8 of the Columbia County Land Development Regulations. Any project that is located within a flood zone where the base flood elevation (100 year flood) has not been established shall meet the requirements of section 8.7 of the Columbia County Land Development Regulations. CERTIFIED FINISHED FLOOR ELEVATIONS WILL BE REQUIRED ON ANY PROJECT WHERE THE BASE FLOOD ELEVATION (100 YEAR FLOOD) HAS BEEN ESTABLISHED.

A development permit will also be required. The development permit cost is \$10.00

- 6.<u>Driveway Connection:</u> If the property does not have an existing access to a public road, then an application for a culvert permit must be made (\$5.00). Culvert installation for commercial, industrial and other uses shall conform to the approved site plan or to the specifications of a registered engineer. Joint use culverts will comply with Florida Department of Transportation specifications. If the project is to be located on a F.D.O.T. maintained road, then an F.D.O.T. access permit is required.
- 7. <u>Suwannee River Water Management District Approval:</u> All commercial projects must have an SRWMD permit issued or an exemption letter, before a building will be issued.

ALL REQUIRED INFORMATION IS TO BE SUBMITTED FOR REVIEW. NOFICATION WILL BE GIVEN WHEN THE APPLICATION AND PLANS ARE APPROVED AND READY TO PERMIT.

PRODUCT APPROVAL SPECIFICATION SHEET

Location: 370 SE RACE TRACK LANE Project Name: FIRE STATION

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

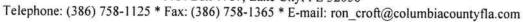
Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
A. EXTERIOR DOORS	Ingel soll-Run	d - EXTERIOR MTC DOOK	04-0203.03
y 1. Swinging	111 11	SWINGING	
2. Sliding			
3. Sectional			
x 4. Roll up	OVERHEAD DOOR	- METAL CURTAIN ROLL UP DOOR	FL-742-R1
5. Automatic			
6. Other			
B. WINDOWS			
Horizontal Slider			
3. Casement			
Double Hung			
→ 5. Fixed	CORAL IND.	ALUMINUM WINDOW WALL SYST	07-0529.01
₹ 6. Awning			
7. Pass-through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11 Dual Action			
12. Other			
C. PANEL WALL			
1. Siding			
* 2. Soffits	1	1.	
3. EIFS			
4. Storefronts			
5. Curtain walls			
y 6. Wall louver			
7. Glass block			
8. Membrane			
9. Greenhouse			
10. Other			
D. ROOFING PRODUCTS			
Asphalt Shingles			
2. Underlayments			
Roofing Fasteners			
4. Non-structural Metal Rf			
Built-Up Roofing			
Modified Bitumen			
7. Single Ply Roofing Sys			
Roofing Tiles			
Roofing Insulation	 		
10. Waterproofing			
11. Wood shingles /shakes			
12. Roofing Slate			
12. Nooning State			

Category/Subcategory (cont.)	Manufacturer	Product Descri	ption	Approval Number(s)
13. Liquid Applied Roof Sys				
14. Cements-Adhesives -				
Coatings				
15. Roof Tile Adhesive				
16. Spray Applied				
Polyurethane Roof				
17. Other				
E. SHUTTERS				
Accordion				
2. Bahama				
Storm Panels				
4. Colonial				
5. Roll-up				
6. Equipment				
7. Others				
F. SKYLIGHTS				
1. Skylight				
2. Other				
G. STRUCTURAL				
COMPONENTS				
1. Wood connector/anchor				
2. Truss plates				
Engineered lumber				
4. Railing				
5. Coolers-freezers				
Concrete Admixtures				
7. Material				
8. Insulation Forms				
9. Plastics				
10. Deck-Roof				
11. Wall				
12. Sheds				
13. Other				
I. NEW EXTERIOR				
ENVELOPE PRODUCTS				
1.				
2.	4			-
The products listed below did me of inspection of these pro- bisite; 1) copy of the produc- nd certified to comply with, 3 understand these products r	oducts, the follow t approval, 2) the b) copy of the ap	wing information e performance cl plicable manufac	must be available to haracteristics which t cturers installation re	the inspector on the the product was tested quirements.
ontractor or Constactor's Authorized	Agent Signature	- F	Print Name	Date
ocation /	- 0			
//		-	Permit # (FOR STAFF L	ISE ONLY)



Columbia County 9-1-1 Addressing / GIS Department

P.O. Box 1787, Lake City, FL 32056



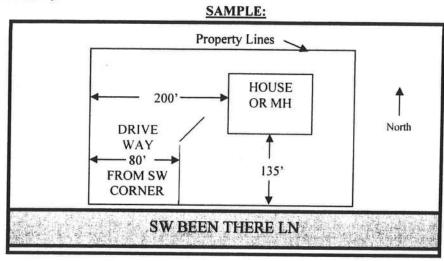


9-1-1 Address Request Form

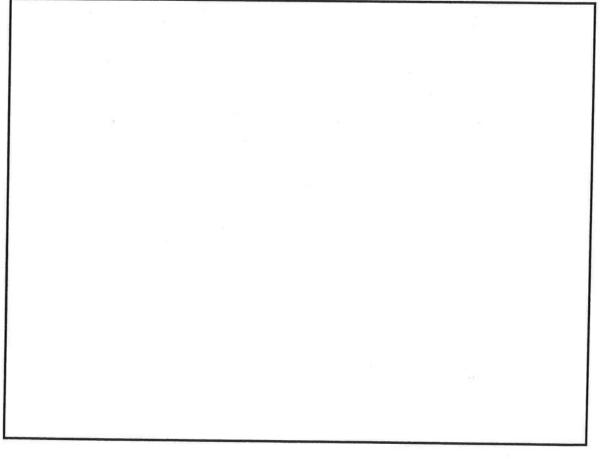
NOTE: ADDRESS ASSIGNMENT MAY REQUIRE UP TO 10 WORKING DAYS. IF THE ADDRESSING DEPARTMENT NEEDS TO CONDUCT ON SITE GPS LOCATION IDENTIFICATION, ADDITIONAL TIME MAY BE REQUIRED.

Date of Request:
Requester Last Name:
First Name:
Contact Telephone Number:
(Cell Phone Number if Provided):
Requested for Self: or Requested for Company: (check one) If Address is Requested by a Company, Provide Name of Requesting Company:
Parcel Identification Number:
Phase or Unit Number (if any): Block Number (if any):
Lot Number:
Attach Site Plan or you may use back of Request Form for Site Plan:
Requirements for Site Plan Are Listed on Back of Request From: (NOTE: Site Plan Does NOT have to be a survey or to scale; FURTHER a Environmental Health Dept. Site Plan showing only a 210 by 210 cutout of a property will NOT suffice for Addressing Requirements.) Addressing / GIS Department Use Only:
Tamicosing / 615 Department Ose Only.
Date Received: Date Assigned:
ID Number:
Page 1 of 2

- 1. A PLAT, PLAN, OR DRAWING SHOWING THE PROPERTY LINES OF THE PARCEL.
- 2. LOCATION OF PLANNED RESIDENT OR BUSINESS STRUCTURE ON THE PROPERTY WITH DISTANCES FROM AT LEAST TWO OF THE PROPERTY LINES TO THE STRUCTURE (SEE SAMPLE BELOW).
- 3. LOCATION OF THE ACCESS POINT (DRIVEWAY, ETC.) ON THE ROADWAY FROM WHICH LOCATION IS TO BE ADDRESSED WITH A DISTANCE FROM A PARALLEL PROPERTY LINE AND OR PROPERTY CORNER (SEE SAMPLE BELOW).
- 4. TRAVEL OF THE DRIVEWAY FROM THE ACCESS POINT TO THE STRUCTURE (SEE SAMPLE BELOW).



SITE PLAN BOX:



MS

200800599621 731 (5)

PROJECT MANUAL
CIVIL ENGINEERING / ARCHITECTURAL / M/E/P
FOR

FIRE STATION
RACE TRACK LANE, LAKE CITY, FL
FOR

COLUMBIA COUNTY
BOARD OF COUNTY COMMISSION





CIVIL ENGINEERS GTC DESIGN GROUP, LLC 176 NW LAKE JEFFREY ROAD LAKE CITY, FLORIDA 32055 SE

STRUCTURAL ENGINEERING CONSULTANTS 8201 Lakemont Dr., Jacksonville, FL 32216 Alnis Banga, P.E. Principal Engineer



25401NW 8th Place, Newberry, FL 32669 Phone: 352.472.5151 Fax: 352.472.5159



ARCHITECT'S PROJECT NO. 0715
BID/PERMIT DOCUMENTS

INCLUDES ADDENDUMS. 1, 2, 3, 4 \$5

DATE: JULY 1, 2008

SET NO.

ADDENDUM NO. 1

TO THE DRAWINGS AND PROJECT MANUAL FOR FIRE STATION RACE TRACK LANE, LAKE CITY, FL COLUMBIA COUNTY BOARD OF COUNTY COMMISSION

ARCHITECT'S PROJECT NO. 0715

CRAIG SALLEY & ASSOCIATES, ARCHITECTS, GAINESVILLE, FLORIDA

This Addendum shall be considered part of the Contract Documents for the above mentioned Project as though it has been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence. Bidders are hereby notified that they shall acknowledge receipt of this Addendum on their Bid Proposal Form.

GENERAL:

A. A Mandatory Pre-Bid Conference was held at the Columbia County Courthouse beginning at 10:00 A.M. on Wednesday, July 23, 2008. Only those General Contractors, or their representatives in attendance, will be allowed to submit a Bid for this project. The following General Contractors were in attendance:

COMPANY	CONTACT	TELEPHONE
Billco	William F. Pagend	386-322-2123
Concept Construction	Jason Parker	386-755-8887
Core Construction	Leslie Lawrence	904-399-1033
Don Reed Construction	Don Reed	386-752-4072
East Coast Construction, LLC	Shawn Snidler Mike Shearer	386-867-0845
Florida Fill & Grading	Clint Boone	386-755-2298
Florida Steel Contracting Corp.	Pat Riley	386-497-1069
GMC Construction	Danette Dorsey	352-380-0318
Gray Construction	Kelly Stone	352-463-3939
Hashman Construction	Mark Hashman	904-739-1122
Inter-Tech Systems	Orlando Cruz	407-876-1658
J. A. Standridge	Tina Rush	352-475-1530
J. K. Lockwood	Matthew Bunce	352-628-2567
J.L. Dupree Construction	Lamar Dupree Curt McDonald	386-754-5678
Joyner Construction	Richard Wagner	352-332-8171

General Contractor's List Continued:

COMPANY	CONTACT	TELEPHONE
Little & Williams	Mark Little	386-755-3139
Mandese White Construction, Inc.	Stephen Bender	352-332-9272
Mil-Con	Matt Haluck	904-317-5601
Music Construction	Allen Music	386-658-1598
Newman Construction	Don Newman	904-783-2260
Nooney Construction	Rick Nooney	904-260-5124
Quality Plus Services	Woody Woodard	386-623-6689
RAM Construction and Development, LLC	Mark Phillips	850-671-7267
ROTCI	Richard O. Tillis	386-496-1360
Simque Construction , LLC	David Simque	386-755-7787
Slack Construction	Ron Webb	352-622-9568
Wade Willis Construction	Wade Willis	386-623-3331
Worth Construction	Jason Worth	386-364-9330
Total Condition	OGOOTI WOTH	000 004 0000

In addition to the General Contractors listed above, interested subcontractors in attendance at the Pre-Bid Conference were present as follows:

COMPANY	CONTACT	TELEPHONE
Associated Construction Services, Inc.	Eric Smith	386-590-0891
Country Comfort Heating & Air	Chris Williams	386-752-5841
Dale's Excavation	Dale Peeler	386-755-1699
Earthworx	Herb Horne	352-339-5844
Florida Rock	Shane Crawford	352-494-1243
Mangrum Plumbing Inc.	Andrew Mangrum	386-623-4237
Metal Erection & Buildings	Randy Sherouse	386-487-0135
Miro Electric	Jim Flanaga	386-792-3888
North Florida Acoustics	Jim Steiner	386-867-0049
PMH Group (Electrical)	Glen Sidwell	863-287-9420
R&E Environmental Services	Thomas Alvarez	866-496-3867
Standard Plumbing & Supplies Co.	Mark Dawson	386-755-1950
Triple "S" Plumbing	David Skinner Tommy Skinner	352-473-0083
Zabatt Inc.	Juan Alfaro	352-484-4151
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- B. For clarification, the generator, transfer switch and ice machine are Owner furnished and Contractor installed.
- 2. <u>ADVERTISEMENT FOR BID:</u> Delete the reference to Owner Furnished carpet and vinyl base. All floor finishes and base shall be furnished and installed by the Contractor.

3. PROJECT MANUAL, STATEMENT OF CONTRACTOR'S QUALIFICATION FORM: For clarification: Item 17 can be left blank, since Section 00310 - LIST OF SUBCONTRACTORS OR SUPPLIERS, is sufficient and takes the place of this item. Note that Section 00310 must be completely filled out and turned in with the Proposal Form 00300.

4. PROJECT MANUAL, SECTION 00100 - INSTRUCTIONS TO BIDDERS:

- A. Bidders are <u>not</u> required to submit the SWORN STATEMENT and the DRUG FREE WORKPLACE PROGRAM REQUIREMENTS forms with their bid. These forms shall be submitted by the successful bidder at the time the bonds, builder's risk and insurance policies are submitted.
- B. Refer to Paragraph 1.16 <u>Building Permit</u>. The County will waive all permit fees on this project.
- PROJECT MANUAL, SECTION 00900 DIRECT PURCHASE PROCEDURES: Delete this section in its entirety. There will be no direct purchase items in this project.
- PROJECT MANUAL, SECTION 02750 CHAIN LINK FENCING AND GATES: Delete
 this section in its entirety. There will be no chain link fencing or gates in this project.

7. PROJECT MANUAL, SECTION 04340 - REINFORCED UNIT MASONRY SYSTEM:

- A. Refer to Paragraph 1.04 and delete Paragraph A. SECTION 07165 DAMPPROOFING. There is no dampproofing required in this project.
- B. Delete reference to Textured Coating on exterior unit masonry in Section 09900 – PAINTING. The split faced CMU shall be water proofed on the exterior per Section 07175 – WATER REPELLENT COATING, which is added as Attachment "A" to this Addendum.
- 8. PROJECT MANUAL, SECTION 06416 PREFABRICATED MILLWORK: The shelving shown in the Storage Rooms shall be equal to 82/182 wall-mounted shelving system, 16" deep minimum, with heavy-duty, double-track standards and brackets as manufactured by Knape & Vogt Manufacturing Company, 2700 Oak Industrial Dr N.E., Grand Rapids, MI, 49505, (616)459-3311, www.kv.com
- 9. PROJECT MANUAL, SECTION 08300 SPECIAL DOORS: Refer to Paragraph 2.02, EXTERIOR ELECTRICALLY OPERATED ROLL-UP DOOR. Add Item 5. Overhead Door Manufacturer is an approved door manufacturer for this project.
- **10.** PROJECT MANUAL, SECTION 09300 HARD TILE: For clarification: Unglazed ceramic mosaic floor tile and base shall be DalTile Vitrostone 8" x 8".
- 11. PROJECT MANUAL, SECTION 09900 PAINTING: Delete all reference to Textured Coating on exterior unit masonry in this section. The split faced CMU shall be water proofed on the exterior, per Section 07175 WATER REPELLENT COATING, which is added as Attachment "A" to this Addendum.

- 12. PROJECT MANUAL, SECTION 10350 FLAGPOLE AND FLAG: Refer to Paragraph 2.01, Subparagraph A. and add the following manufacturer as approved on this project: PoleTech, Flag Pole Manufacturer, 97 Gnarled Hollow Road, P.O. Box 715, East Setauket, New York, 11733, Toll Free Tel: 800-633-6733; Tel: 631-689-5525; Fax: 631-689-5528; Email: info@poletech.com; Web: www.poletech.com
- 13. PROJECT MANUAL, SECTION 13120 PREFABRICATED METAL BUILDING:
 - A. Add the following Metal Building Manufacturers as approved to bid on this project:
 - Gulf States Manufacturers
 - 2. Dean Steel Buildings, Inc.
 - 3. Western Steel Building Systems
 - Sunward Steel Buildings
 - 5. Star Building Systems
 - 6. Liberty Building Systems
 - B. For clarification, the metal building siding shall be manufacturer's standard metal siding, not standing seam. The siding shall comply with design wind load requirements specified.
- 14. PROJECT MANUAL, SECTION 15061 STEEL PIPE AND FITTINGS: Revise the natural gas piping from yellow polyethylene piping to black steel piping rated for gas service. Prime and paint all gas piping gloss yellow, under Section 09900 PAINTING, Paragraph 2.03, Subparagraph C. 4.
- 15. PROJECT MANUAL, SECTION 15064 PLASTIC PIPE AND FITTINGS: System description: Revise Paragraph A. 2. to be Schedule 40 solid wall PVC piping in lieu of Schedule 80 PVC.
- 16. PROJECT MANUAL, SECTION 15424 DOMESTIC WATER HEATERS ELECTRIC: Change the voltage of the electric water heater WH-1 to 208 volt, 3 phase.
- 17. PROJECT MANUAL, SECTION 15450 PLUMBING FIXTURES: Fixture P-1, Standard Toilet, shall be revised to flush valve type, elongated bowl, equal to American Standard "Modera", Model No. 2234.015. Provide H.C. toilet with ADA compliant trim and flush valves. Flush valves shall be equal to Sloan Royal #111, chrome plated, polished exterior. Revise water supply lines serving toilets to one inch (1") in size.
- 18. PROJECT MANUAL, SECTION 15500 FIRE PROTECTION: Refer to PART 3 EXECUTION INSTALLATION and add Item P. as follows: After the fire sprinkler system has been flushed and sterilized, the system shall be tested and certified by a State Certified Fire Sprinkler Inspector. Provide three copies of the certification as part of the Final Close Out Documents.
- 19. PROJECT MANUAL, SECTION 16720 FIRE DETECTION AND ALARM: Refer to ACCEPTABLE MANUFACTURERS. Delete all acceptable manufacturers except NOTIFIER, No. 7 on the list. The Fire Detection and Alarm System shall be as manufactured by Notifier NFS-320. NO SUBSTITUTIONS will be accepted. Provide all equipment and accessories as outlined in this Section for a complete, Code Compliant System. The fire alarm system shall be State Certified prior to acceptance of the project. Provide three copies of the Certification as part of the Final Close Out Documents. Refer to Attachment "B" and replace this section in its entirety.

- 20. <u>DRAWINGS, SHEET C-2:</u> The City of Lake City will extend the gas line to within five feet of the building at the tie-in point of the building gas service line. The City will provide and connect the regulator and meter. The Contractor shall make the connection from the City gas line, regulator and meter to the building gas service line.
- **21. DRAWINGS, SHEET SA-1 ARCHITECTURAL SITE PLAN:** Sodding and Seeding shall be provided at 10'-0" minimum beyond all new construction, including concrete sidewalks and asphalt paving, and at the new retention area.
- **22. DRAWINGS, SHEET A-9:** Refer to the LEGEND on this sheet and change all references to 4" thick batt insulation to 6" thick batt insulation. See SECTION 07210 BUILDING INSULATION, for the specifications for batt insulation.
- 23. DRAWINGS, SHEET P-1 SUPPLY WATER PIPING PLAN:
 "C.I." (cast iron) piping to Schedule 40 solid wall PVC. Revise water supply lines serving toilets to one inch (1") in size.
- **DRAWINGS, SHEET P-4:** Change all automatic trap primers to passive type trap primers equal to J.R. Smith Model 2698, satin chrome cast bronze P-Trap with ground joint outlet. At all A.D.A. Lavatory locations, insulate trap and trap primer assemblies per A.D.A. Regulations.
- **DRAWINGS, SHEET E-2.2:** Refer to LIGHTING FIXTURES SCHEDULE and add Lithonia as an acceptable manufacturer for fixtures as appropriate for the application. All Lithonia fixtures shall meet or exceed all the requirements of the fixtures specified.
- 26. DRAWINGS, SHEET E-3.1 ELECTRICAL POWER PLAN APPARATUS BAYS: The cooling only thermostat shall be equal to a 1E78-140 cooling only non programmable thermostat. Provide with a welded wire locking cover assembly. The control transformer shall be a White Rogers 90-T96F2, 90 va control transformer with a 120/240 volt primary and a 12/24 volt secondary. Provide 12" x 8" x 6" deep hinged over, gasketed control box with an SQ D Model 9999SC8 manual hand off auto switch.

END OF WRITTEN ADDENDUM

ADDENDUM NO. 1 - FIRE STATION - RACE TRACK LANE - LAKE CITY, FL

ATTACHMENT "A"

SECTION 07175

WATER REPELLENT COATING

PART 1 GENERAL

- 1.01 WORK INCLUDED: This Section covers the Work necessary to furnish and install, complete, the following:
 - Water repellent coating for all exterior CMU split faced and smooth faced surfaces.
- 1.02 RELATED WORK SPECIFIED AND PERFORMED UNDER OTHER SECTIONS
 - A. SECTION 04340 REINFORCED UNIT MASONRY SYSTEM
- 1.03 QUALITY ASSURANCE
 - A. Applicator: Minimum 2 years experience on projects of similar scope.
- 1.04 SUBMITTALS: Submittals during construction shall be made in accordance with SECTION 01300, SUBMITTALS. In addition, the following specific information shall be provided:
 - A. Include details of product description, limitations to coating, cautionary procedures required during application, and chemical properties, including percentage of solids.
 - B. Submit manufacturer's printed application instructions.
 - Applicator's Qualification Affidavit: Submit water repellent coating applicator's affidavit of qualification compliance.

1.05 TRIAL APPLICATION

- A. Apply coating according to manufacturer's directions to approximately 100 square feet of CMU.
- B. Verify that CMU is coated with sufficient material to effectively repel moisture from surface.
- C. Verify that application of coating to CMU will produce no surface stains.

1.06 DELIVERY, STORAGE AND HANDLING

- Deliver, store and handle materials or equipment under provisions of SECTION 01600, MATERIAL AND EQUIPMENT.
- B. Deliver materials in original sealed containers, clearly marked with manufacturer's name, brand name, and type of material. Store materials in area where temperatures are not less than 50 degrees F or over 85 degrees F, unless otherwise authorized by manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. The use of a manufacturer's name and specification number is for the purpose of establishing the standard of quality and general configuration desired. Products of other manufacturers, meeting the requirements specified herein, will be considered in accordance with SECTION 01600, MATERIAL AND EQUIPMENT.
- B. Acceptable Manufacturers:
 - 1. Emusol
 - 2. Hydorzo Clear 16
 - Chemprobe
 - 4. Prime A Pell 200
 - 5. Flood V.I.P. 9100

PART 3 EXECUTION

3.01 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply coating in rainy conditions or within 3 days after surfaces become wet from rainfall or other moisture.
- B. Do not apply coating when low temperature of 40 degrees F or less is predicted within a period of 24 hours after application.

3.02 PROTECTION

- A. Protect plants and vegetation which might be affected by coating fumes.
- B. Protect all adjacent surfaces not to be coated.

3.03 INSPECTION

- A. Examine surfaces to receive coating to assure conditions are satisfactory for application, CMU is clean and ready to receive coating. Do not apply coating to CMU that is stained, needs pointing up or otherwise is not ready to receive coating.
- B. Verify that mortar joints found to be unsound, hollow, or otherwise defective, have been raked out to a depth of 1/2 inch and tuck pointed with mortar.
- C. Verify that cracks which exceed 1/64 inch wide have been filled with pointing mortar.

3.04 SURFACE PREPARATION

- A. Clean CMU surfaces to remove dust, dirt, oil, wax, efflorescence, and other foreign materials, in accordance with coating manufacturer's instructions.
- B. Remove dust and dirt from CMU surfaces by lightly scrubbing with detergent solution and thoroughly rinsing with clean water.
- Allow 3 days' drying time following washing down of CMU surfaces.

3.05 APPLICATION

- A. Apply coating in strict accordance with manufacturer's directions with approved low pressure airless spray equipment with a course nozzle, or as directed by manufacturer.
- B. Apply coating materials in 2-coat application at rates recommended by the manufacturer. Apply sufficient to obtain a surface run-down of 6 to 12 inches.
- C. Start application at top of wall and work down surface, keeping a wet edge at all times.
- Avoid letting coating dry between passes.

ADDENDUM NO. 1 - FIRE STATION - RACE TRACK LANE - LAKE CITY, FL

3.06 ADJUST AND CLEAN

A. Clean spillage and overspray from adjacent surfaces as recommended by coating manufacturer.

3.07 FIELD QUALITY CONTROL

- A. After coating has dried, spray coat surfaces with water. Proper coating means water will bead up and not be absorbed by masonry.
- B. Recoat surfaces that show water absorption at no cost to Owner.

END OF SECTION

ATTACHMENT "B"

SECTION 16720

FIRE DETECTION AND ALARM SYSTEMS

GENERAL

WORK INCLUDED

- A. Includes But Not Limited To:
 - 1. Furnish and install alarm and detection system as described in Contract Documents.
 - 2. Furnish and install raceway, cable and conductors, boxes, and miscellaneous items necessary for complete system.
- B. Related Sections:
 - Section 16100 Basic Materials and Methods.

SYSTEM DESCRIPTION

- A. Automatic fire alarm system consisting of control panel, power supplies, alarm initiating devices, notification appliances, and off-site communicating devices. System shall be non-coded, zoned or addressable, and monitored for integrity of conductors.
- B. Class B (Style B) initiating device circuits and Class A (Style Z) notification appliance circuits including end-of-line devices.
- C. Performance Requirements:
 - 1. Operation of manual station or automatic activation of any smoke detector, heat detector, or sprinkler flow device shall:
 - Cause system notification appliances to operate. Indicate zone in alarm on control panel.
 - b. Initiate off-site alarm notification system.
 - c. Indicate zone or device in alarm on remote annunciator (future requirement).
 - d. Initiate HVAC shutdown.

- 2. Alarm may be silenced by switch in control panel.
 - a. When alarms are silenced, zone indicating red LEDs on control panel and remote annunciator shall remain indicated until operated device is returned to normal and control panel is manually reset.
- 3. Green pilot LED, or other visual annunciation, shall normally be on indicating that system is receiving normal power. In addition, failure of normal power be annunciated.
- 4. Trouble alarm and annunciation, operating together, shall signal trouble condition.
 - a. Following conditions shall signal trouble condition:
 - (1) Failure of normal power.
 - (2) Opens or short circuits on indicating circuits.
 - (3) Disarrangements in system wiring.
 - (4) Control panel circuit board removal.
 - (5) Ground faults.
- 5. Trouble silencing switch shall silence trouble alarm, but visual annunciation shall remain on until system is restored to normal. As ring-back feature, trouble alarm shall resound as reminder to return silencing switch to normal position.
- Supervisory LED, separate from trouble LED, and alarm, operating together, shall signal
 operation of supervisory device, such as control valve tamper, low air pressure, and low
 temperature switches. Alarm silence switch shall operate in same manner as trouble
 alarm.

SUBMITTALS

- A. Shop Drawings:
 - 1, Prepared by authorized factory representative and including:
 - a. Single line diagram of actual system. Typical riser diagrams are not acceptable
 - b. Complete wiring diagrams.
 - 2. Manufacturer's original catalog data and descriptive information on each piece of equipment to be used.
- B. Quality Assurance / Control: Certificate of completion, from Manufacturer's Representative, in accordance with NFPA 72 requirements.
- C. Closeout:
 - Operations And Maintenance Manual Data:
 - a. Provide operating and maintenance instructions for each item of equipment submitted under Product Data. Provide instruction manual from Manufacturer that explains what is to be done in event of various indications.
 - Include copy of approved shop drawings.

QUALITY ASSURANCE

- A. Regulatory Requirements:
 - System shall meet approval of authority having jurisdiction (AHJ). NEC and local ordinances and regulations shall govern unless more stringent requirements are specified.
- Equipment, devices, and cable shall be UL or Factory Mutual listed for use in fire alarm systems.

OWNER'S INSTRUCTIONS

A. Instruct Owner's representative in proper operation and maintenance procedures.

PART 2 PRODUCTS

COMPONENTS

- A. Equipment and accessories furnished under this Specification shall be standard products of single manufacturer, or include written statement by Notifier confirming compatibility of components and inclusion of these components under system warranty. Control panel shall be equal to Notifier Model #NFS-320, NO SUBSTITUTIONS.
- B. Control Panel:
 - 1. Listed under UL Standard 864.
 - 2. Solid-state modular design with flush or semi-flush mounting.
 - Control functions shall be behind locked door with annunciating devices visible through door. Single key shall operate all keyed functions in system. Provide three keys.
 - 4. Each zone shall be electrically supervised in accordance with wiring style specified.
 - 5. Provide integral surge protection.
 - 6. Make provisions for connection to off-site alarm notification system. Provide separate dry contacts for alarm and supervisory/trouble alarms.
 - 7. Power Supply:
 - a. Provide indication of normal power supply.
 - b. Loss of normal power shall activate trouble alarm.
 - c. Meet requirements of and size in accordance with UL Standard 1481 and NFPA 72.
 - d. Include standby batteries, charger, and automatic transfer equipment.
 - 8. Visual Annunciation:
 - a. Separate indication on each zone for alarm, trouble, or supervisory conditions.
 - b. Visual indication shall be by LED lights or other easily identifiable method.
 - c. On zoned system, permanently custom label zones by zone name, not number.
 - c. Fault or trouble condition on any zone shall not affect any other zone.

- 9. Audible Horn Alarm Annunciation:
 - a. Provide separate and distinct alarm signals for alarm and trouble conditions.
 - b. Alarm signal shall also operate strobe lights, if specified.
 - c. Provide alarm silence switches at control panel.
 - d. Trouble alarm shall be horn integral to control panel.
- 10. Supervisory alarm may be same audible alarm as trouble alarm, but with separate visual annunciation.
- 11. Off-Site Alarm Notification System
 - a. Provide two telephone lines from telephone terminal board to fire alarm control panel. Owner will arrange for monitoring connection contract.

C. Alarm Initiating Devices:

- 1. Smoke Detectors (including Duct Smoke Detectors):
 - a. Photoelectric type.
 - b. Listed under UL Standard 268.
 - c. Provide visual indication of alarm on unit when normally pulsed supervisory LED glows continuously.
 - d. Sampling tube for duct detectors shall extend across entire width of duct.
- 2. Heat Detectors:

Non-settable 200 deg F fixed temperature.

Provide visible indication that device has operated.

Listed under UL Standard 521.

- 3. Manual Fire Alarm Boxes:
 - Non-coded and double-action requiring two actions to initiate alarm.
 Breakable glass type is not approved.
 - Box shall mechanically latch when actuated and require key to reset. Key shall match control panel door lock.

D. Notification Appliances:

- 1. Combination Horn / Strobe:
 - a. Wall mounted flush or semi-flush.
 - b. Non-coded audible output of 90 dB minimum at 10 feet.
 - c. Integrally mounted flashing light unit with block letters 'FIRE.' Minimum light intensity of 15/75 candela and flash rate between one and three Hertz.
 - d. Listed under UL Standards 464 and 1971.
- 2. Strobe Only:
 - Wall mounted flush or semi-flush.
 - b. Integrally mounted flashing light unit with block letters 'FIRE.' Minimum light intensity of 15/75 candela and flash rate between one and three Hertz.
 - c. Listed under UL Standard 1971.
 - d. Color: White

E. Accessory Devices:

- Notification Appliance Protective Devices: Provide wire guard covers for appliances installed in Apparatus Bay.
- 2. HVAC shut-down relays.
- 3. Remote indicator light for each duct detector.

MANUFACTURER

- A. Notifier, NO SUBSTITUTIONS. Model #NFS-320.
- B. Contact Information:

Notifier, Northford, CT (800) 454-9779 or (203) 484-7161. www.notifier.com

EXECUTION

INSTALLATION

- A. Install fire alarm and detection systems as indicated, in accordance with Equipment Manufacturer's written instructions, and complying with applicable portions of NEC, NFPA, and NECA's 'Standard of Installation.'
- B. Mounting Heights:
 - 1. Unless otherwise indicated, mount center of outlets or boxes at following heights above finish floor:
 - a. Fire alarm horns speaker/strobes: 90 inches
 - b. Fire alarm pull stations: 54 inches.
 - c. Remote annunciator panel: 60 inches.
 - d. Remote duct detector indicator light 48".
 - Locate fire alarm manual stations 24 inches minimum away from any light switch.
 - 2. Identification:
 - a. Label zone indicators on control unit indicating location and type of initiating device, i.e., CORRIDOR SMOKE, VALVE TAMPER, AIR SYSTEM SMOKE, etc. Labels shall be engraved plastic laminate, or other permanent labeling system as supplied by Control Unit Manufacturer.
 - Post copy of wire identification list inside fire alarm panel door or other area accessible to fire alarm service personnel.
 - c. Print location of circuit disconnecting means inside panel.

C. Conductors:

- Install conductors in conduit.
- Fire alarm system conductors from different zones may be combined in common conduit. Make certain that raceway size and wire quantity, size, and type are suitable for equipment supplied and is within NEC standards. Label pull and junction boxes 'FIRE ALARM.' All fire alarm conduit and junction boxes shall be painted red.
- Install conductors and make connections to water flow switches, valve tamper switches, low air pressure switches, and duct smoke detectors.
- Loop wires through each device on zone for proper supervision.
 Tee-taps not permitted.
- 5. Minimum conductor size shall be 14 AWG unless otherwise specified.
- 6. Do not install ceiling mounted detectors within 36 inches of air discharge grilles.
- 7. Do not install manual fire alarm boxes close to light switches. Coordinate with other trades as required.
- Mount Duct Smoke detectors in return air ducts of each HVAC unit as shown on the drawings.

FIELD QUALITY CONTROL

- A. Manufacturer's Field Service:
 - Provide factory-trained representative to perform complete system testing in presence of Owner's representative and local fire department personnel upon completion of installation.
 - a. Test each initiating and annunciating device for proper operation, except fixed temperature heat detectors.
 - b. Test operation of trouble annunciation on each circuit.
 - c. Perform complete testing of control panel functions.

PROTECTION

- Provide dust protection for installed smoke detectors until finish work is completed and building is ready for occupancy.
- 2. Protect conductors from cuts, abrasion and other damage during construction.

END OF SECTION

TO THE DRAWINGS AND PROJECT MANUAL FOR

FIRE STATION

RACE TRACK LANE, LAKE CITY, FL COLUMBIA COUNTY BOARD OF COUNTY COMMISSION

ARCHITECT'S PROJECT NO. 0715

CRAIG SALLEY & ASSOCIATES, ARCHITECTS, GAINESVILLE, FLORIDA

This Addendum shall be considered part of the Contract Documents for the above mentioned Project as though it has been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence. Bidders are hereby notified that they shall acknowledge receipt of this Addendum on their Bid Proposal Form.

1. PROJECT MANUAL, SECTION 10900 – MISCELLANEOUS SPECIALTIES: Refer to Paragraph 1.01 and add Item G. MARQUEE SIGN. Contractor shall furnish and install a 3' high x 6' wide, aluminum and fiberglass, double post and panel, internally illuminated sign similar to that of Series 4210, as manufactured by Apco, Atlanta, GA, www.apcosigns.com.

Aluminum support posts shall be rectangular, approximately 3"x 8", with support mounting plates. Provide high output, 120 V, fluorescent lamps, horizontally mounted with low temperature start up ballasts.

Signage shall be in Helvetica lettering in color as selected by Owner and shall read as follows:

6'-0"

COLUMBIA COUNTY FIRE STATION NO. 48

LAKE CITY, FLORIDA

Provide 12" x 12" x 48" deep footings with four #5 reinforcing bars under each support post. Bolt support posts mounting plates to concrete supports with 3/8" by L.A.R. for 120 mph wind loading. Provide all electrical connections, disconnect, all as required for a complete Code compliant installation. See Sheet E-1 of the Drawings for location, electrical requirements, etc. Final location of sign to be determined by the Owner.

Page 1 of 3

FILE NO. 0715

3.-0..

- PROJECT MANUAL, SECTION 13120 PREFABRICATED METAL BUILDING: Kirby Building Systems, Rigid Building Systems and Mesco Building Solutions metal building manufacturers and are not approved to bid on this project, as the time for requesting substitutions has expired. No more metal building manufacturers will be approved on this project.
- 3. PROJECT MANUAL, SECTION 15064 PLASTIC PIPE AND FITTINGS: For clarification: All PVC piping on this project shall be Schedule 40 solid wall PVC piping. All PVC pipe shall bear the ASTM number and NSF seal. Foam core PVC is not allowed on this project.
- 4. PROJECT MANUAL, SECTION 15450 PLUMBING FIXTURES: Refer to Fixture P-6 EYEWASH. Change Model No. to 8320. Delete the Thermostatic mixing valve. There is no hot water serving this fixture. The Dust Cover and Foot Treadle accessories remain and are to be furnished.
- 5. PROJECT MANUAL, SECTION 15771 SPLIT SYSTEM AIR CONDITIONING UNITS: Refer to SPLIT-SYSTEM AIR CONDITIONERS, Paragraph B. Outdoor Unit and revise Subparagraph 1 as follows:
 - Outdoor unit shall be designed for use with Refrigerant R22 and contain sufficient charges (R22) for complete system, as indicated on the schedule on the drawings. Brass service valves with refrigerant line fittings and service ports shall be located on exterior of unit.
- 6. PROJECT MANUAL, SECTION 16610 SURGE SUPPRESSION: Refer to Part 2 Products, Acceptable Manufacturers and add the following manufacturer as approved on this project: Siemens Energy and Automation.
- 7. Delete the Oil Interceptor and associated alarm circuit and Alarm Control Panel. There is no oil interceptor required on this project.
- **B.** DRAWINGS, SHEET E-2.1: Change Light Fixtures "G" (400 watt Metal Halide) to Lithonia Fixture No. 454L with four, 54W T5HO lamps. Provide supports as required to suspend fixtures at 15' above finish floor.

Provide and install a total of three Pass and Seymour, Power Packs & Add-A-Relay (one for every four lights in each Apparatus Bay) Catalog No. PWP120.

Provide and install a total of six Pass and Seymour, Occupancy & Vacancy Sensors – Passive Infrared Sensors (two sensors per quad group of fixtures in each Apparatus Bay). Install sensors on opposite sides of bays above the roll-up doors. Provide Uni-strut or other supports for mounting sensors to the structure. Provide all conduit and wire as required for the installation of the Power Packs and Occupancy Sensors.

9. DRAWINGS, SHEET E-4:

- A. Panel "MD" Panel Schedule: Panel "MD" shall be M.L.O.
- B. Wire/Conduit Schedule: Item #4 shall read '4-600KCMIL, 1/0G, IN 4" PVC SCH 40'.
- C. Wire/Conduit Schedule: Item #11 shall read '4-350KCMIL, #2G, IN 4" PVC SCH 40'.
- D. Electrical Riser Diagram: Main Service Disconnect (labeled as 'DISC') shall be fused at 400 Amps.
- E. Electrical Riser Diagram: Delete grounding electrode from Emergency Backup Generator.

GENERAL NOTE: PROVIDE NEMA 3, EXTERIOR, WEATHER TIGHT, TYPE SWITCH GEAR, DISCONNECTS, ETC. AT ALL EXTERIOR LOCATIONS

TO THE DRAWINGS AND PROJECT MANUAL FOR FIRE STATION RACE TRACK LANE, LAKE CITY, FL COLUMBIA COUNTY BOARD OF COUNTY COMMISSION

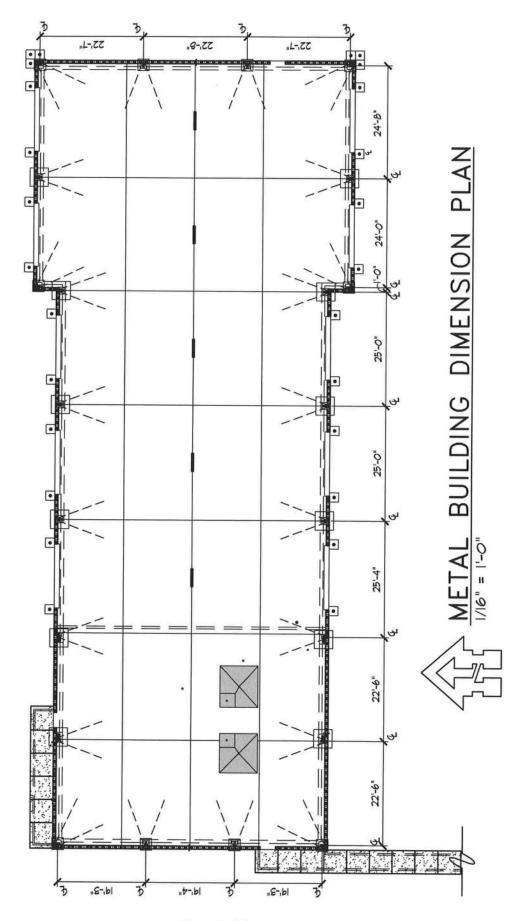
ARCHITECT'S PROJECT NO. 0715

CRAIG SALLEY & ASSOCIATES, ARCHITECTS, GAINESVILLE, FLORIDA

This Addendum shall be considered part of the Contract Documents for the above mentioned Project as though it has been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence. Bidders are hereby notified that they shall acknowledge receipt of this Addendum on their Bid Proposal Form.

- ADDENDUM NO. 1 ITEM NO. 21: For clarification, fertilizing and laying sod shall be as described in Section 02938 of the Project Manual and shall be provided at 10'-0" minimum beyond all new construction, including concrete sidewalks and asphalt paving, and at the new retention area.
- 2. <u>ADDENDUM NO. 2, ITEM NO. 8 "G" LIGHT FIXTURE:</u> Clarification on the requirements for the "G" Fixture specified in Addendum No. 2 is as follows: The catalogue number for the Lithonia fixture specified is IB 454L, I-Beam Series. The distribution shall be WDS-wide distribution, no uplight. The voltage shall be 120 volt. The ballast configuration shall be 2/2 Two, two-lamp ballasts. Lamps shall be F54T5HD/841.
 - Provide all "G" fixtures with the following options: Occupancy Sensor pre-wired; aircraft cable "Y" hangers; zinc-coated wireguard.
- 3. PROJECT MANUAL, SECTION 13120 PREFABRICATED METAL BUILDING: Refer to Paragraph 2.03, Subparagraphs B and C. For clarification, the anchor bolts shall be 18" in total length with 3" bends. The metal building manufacturer shall provide the quantity and diameters (3/4" minimum) of the anchor bolts. Templates shall be provided by the General Contractor based on the layout details of the anchor bolts provided by the metal building manufacturer.
- 4. PROJECT MANUAL, SECTION 15060 PIPE AND FITTINGS: General Note: Use galvanized iron water supply piping from required depth to plumbing fixtures on all exterior applications, including hose bibbs and backflow preventor piping. Coat all G.I. water supply piping below grade or passing through concrete slabs with bitumastic coating.

- 5. ADDENDUM NO. 2 AND PROJECT MANUAL, SECTION 15061 STEEL PIPE AND FITTINGS: The gas piping above grade and above slab shall be black steel pipe rated for gas service, per Addendum No. 2. The gas piping below grade shall be as originally specified in Section 15061 Steel Pipe and Fittings, Part 1 General, System Description, C Natural Gas Below Slab or Grade.
- 6. PROJECT MANUAL, SECTION 16100 BASIC MATERIALS & METHODS: Refer to PART 2 PRODUCTS, CONDUIT and add the following: Use galvanized rigid metal piping risers from required depth to electrical panel or device boxes in all exterior exposed applications. Coat galvanized rigid pipe with bitumastic coating at all below grade locations and anywhere piping penetrates concrete slabs.
- 7. <u>DRAWINGS, SHEET A-1 FOUNDATION PLAN:</u> When the Foundation Plan was plotted, the dimension layer was not turned on. Refer to Attachment "A" for dimensions for the prefabricated metal building frame.



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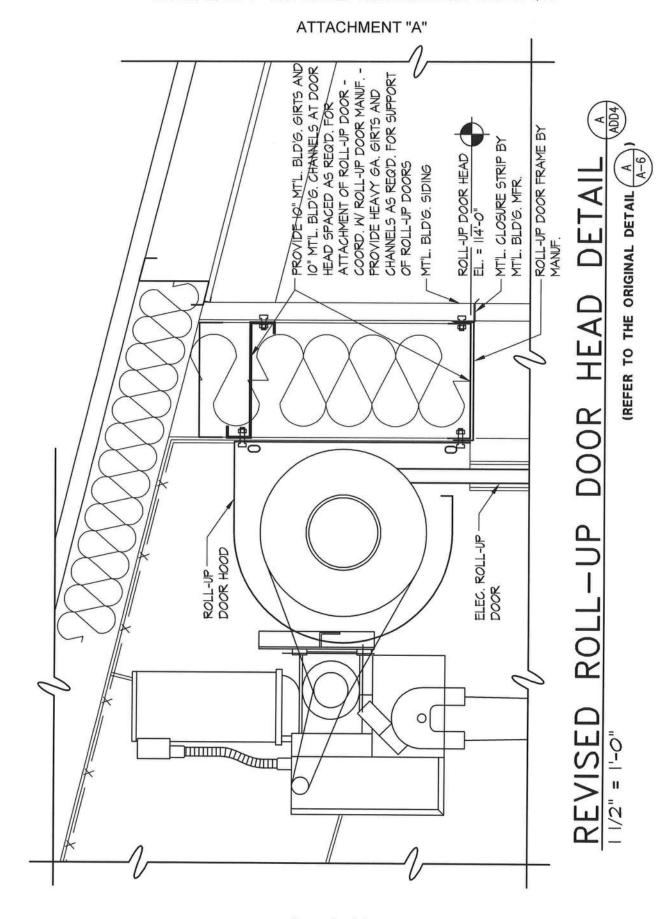
TO THE DRAWINGS AND PROJECT MANUAL FOR FIRE STATION RACE TRACK LANE, LAKE CITY, FL COLUMBIA COUNTY BOARD OF COUNTY COMMISSION

ARCHITECT'S PROJECT NO. 0715

CRAIG SALLEY & ASSOCIATES, ARCHITECTS, GAINESVILLE, FLORIDA

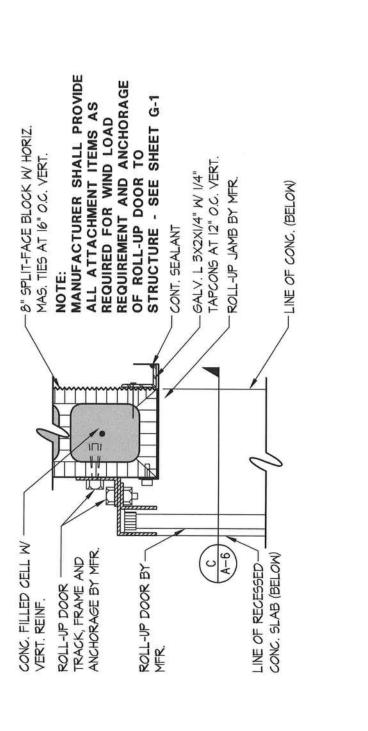
This Addendum shall be considered part of the Contract Documents for the above mentioned Project as though it has been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence. Bidders are hereby notified that they shall acknowledge receipt of this Addendum on their Bid Proposal Form.

- 1. <u>ADDENDUM NO. 2:</u> Refer to Item No. 2. After further review, Rigid Building Systems and Mesco Building Solutions submitted pre-bid substitution requests in a timely manner and therefore are approved metal building manufacturers for this project.
- 2. PROJECT MANUAL, SECTION 08710 FINISH HARDWARE: Refer to Hardware Set 04 and delete it. Doors 114A, 115A and 116A shall be moved to Hardware Set 05. In addition, a kickplate, 8400 10" x 1" LDW, shall be added to Hardware Set 05.
- 3. PROJECT MANUAL, SECTION 13120 PREFABRICATED METAL BUILDING: A collateral load of 5 psf shall be provided to the metal building frame design. The 5 psf is for items to be suspended from the frame, including the sprinkler piping, suspended ceiling grid and tile, ductwork and lighting.
- 4. <u>DRAWINGS, SHEET A-6 BUILDING SECTIONS:</u> Refer to Roll-Up Door Head Detail A/A-6 and Roll-Up Door Jamb Detail B/A-6 and replace them with Attachments "A" and "B" which revise these details and increase the size of all the metal building girts to 10" deep, as required for the 140 M.P.H. wind loading. Make all adjustments throughout the Documents required to accommodate this change.
- **DRAWINGS, SHEET A-7 WALL SECTIONS:** Refer to Attachment Detail B/A-7 and replace it with Attachment "C" that increases the depth of the metal building frame girts (wall thickness) to 10" deep, as required for the 140 M.P.H. wind loading. Make all adjustments throughout the Documents required to accommodate this change.



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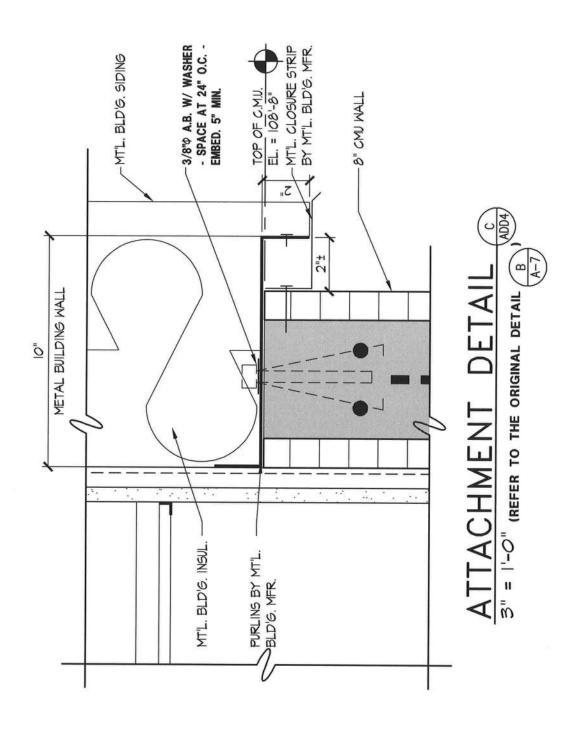
ATTACHMENT "B"



REVISED ROLL-UP DOOR JAMB DETA ---

(REFER TO THE ORIGINAL DETAIL

ATTACHMENT "C"



TO THE DRAWINGS AND PROJECT MANUAL FOR FIRE STATION RACE TRACK LANE, LAKE CITY, FL COLUMBIA COUNTY BOARD OF COUNTY COMMISSION

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- PROJECT MANUAL, SECTION 02200 EARTHWORK: Refer to Paragraph 3.09 DISPOSAL OF EXCESS EXCAVATING MATERIALS and revise as follows:
 - A. Waste all excess excavated material not required for backfill or filling on site, to agree with Note 10 on Sheet C-1.
- 2. <u>PROJECT MANUAL, SECTION 15064 PLASTIC PIPE AND FITTINGS, DRAWINGS, SHEET C-2 SITE PLAN AND DRAWINGS, SHEET FP-1 FIRE PROTECTION/SPRINKLER SYSTEM:</u>
 - A. Clarification on Certification/Licensing required for installing the Fire Protection Water Supply Line: The backflow device is called out on Civil Drawings C-2 and Detail B. The fire protection water supply line from the City installed tap, through the backflow preventer and to the building shall be installed by a State Certified and Licensed Fire Protection Contractor. A Utility Contractor License is not sufficient.
 - B. Clarification: Refer to Section 15064 for the specification for below grade PVC fire protection pipe specification.

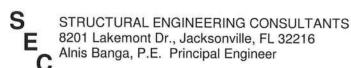
PROJECT MANUAL CIVIL ENGINEERING / ARCHITECTURAL / M/E/P FOR

FIRE STATION RACE TRACK LANE, LAKE CITY, FL FOR

COLUMBIA COUNTY BOARD OF COUNTY COMMISSION









ARCHITECT'S PROJECT NO. 0715 BID/PERMIT DOCUMENTS

DATE: JULY 1, 2008 SET NO._____