

ELECTRICAL SYMBOL LEGEND		
SYMBOL	DESCRIPTION	MOUNTING
	1 X 4 FLUORESCENT FIXTURE LETTER INDICATES TYPE	SEE FIXTURE SCHEDULE
	TRACK AND TRACK HEADS LETTER INDICATES TYPE	SEE FIXTURE SCHEDULE
	2 X 4 FLUORESCENT FIXTURE LETTER INDICATES TYPE	SEE FIXTURE SCHEDULE
	SHADING FIXTURE WITH EM BATTERY PACK. 'NL' DENOTES FIXTURE UNSWITCHED FOR NIGHT LIGHT	SEE FIXTURE SCHEDULE
	FLUORESCENT STRIP FIXTURE LETTER INDICATES TYPE	SEE FIXTURE SCHEDULE
	FLUORESCENT WALL BRACKET FIXTURE LETTER INDICATES TYPE	SEE FIXTURE SCHEDULE
	PL FLUORESCENT DOWNLIGHT LETTER INDICATES TYPE	SEE FIXTURE SCHEDULE
	EXIT-SHADING FIXTURE FACEPLATE LOCATION. LETTER INDICATES TYPE. PROVIDE ARROWS AS REQUIRED.	SEE FIXTURE SCHEDULE
	SINGLE POLE SWITCH (20A-120/277) '3' DENOTES 3-WAY 'D' DENOTES DIMMER	48" AFF OR AS NOTED
	DUPLEX RECEPTACLE, 125V, 20A 'IG' DENOTES ISOLATED GROUND	18" AFF OR AS NOTED
	DUPLEX RECEPTACLE, 125V, 20A	18" AFF OR AS NOTED
	DUPLEX RECEPTACLE, 125V, 20A	48" AFF OR AS NOTED
	QUADRUPLEX RECEPTACLE, 125V, 20A	18" AFF OR AS NOTED
	POWER/TELEPHONE POLE	SEE DETAIL OR AS NOTED
	OUTLET BOX OR J-BOX FOR POWER AND DATA SUPPLY TO FURNITURE SYSTEMS	18" AFF OR AS NOTED
	COMBINATION VOICE/DATA OUTLET	18" AFF OR AS NOTED
	DATA OUTLET	18" AFF OR AS NOTED
	T.V. OUTLET	18" AFF OR AS NOTED
	CARD READER	COORDINATE WITH SECURITY INSTALLER
	INTERCOM CONSOLE	DESK MOUNTED
	INTERCOM REMOTE STATION	48" AFF WALL MOUNTED
	INTERCOM HORN	58" AFF WALL MOUNTED
	GENERAL CALL BELL	58" AFF WALL MOUNTED
	SURVEILLANCE CAMERA	COORDINATE WITH SECURITY INSTALLER
	PANELBOARD 277/480V	SEE PANEL SCHEDULE
	PANELBOARD 120/208V	SEE PANEL SCHEDULE
	DRY TYPE TRANSFORMER	SIZE AS NOTED
	RACEWAY CONCEALED IN WALL OR ABOVE CEILING	SEE SPECIFICATIONS
	RACEWAY CONCEALED UNDER FLOOR OR BELOW GRADE	SEE SPECIFICATIONS
	HOMERUN TO PANEL. LETTERS INDICATE PANEL, NUMBERS INDICATE CIRCUIT. NOTE: HASH MARKS INDICATES THE NUMBER OF WIRES EXCLUDING THE REQUIRED EQUIPMENT GROUND.	SEE SPECIFICATIONS
	MOTOR, NUMERAL INDICATES HORSEPOWER	AS NOTED
	MOTOR RATED SWITCH WITH OVERLOAD RELAYS AS REQUIRED.	MOUNTED ADJACENT TO EQUIPMENT
	NON-FUSIBLE SAFETY SWITCH-SIZE AS NOTED	SEE SPECIFICATIONS
	FUSIBLE SAFETY SWITCH-SIZE AS NOTED	SEE SPECIFICATIONS
	FIRE ALARM DUCT DETECTOR ('RA' DENOTES RETURN AIR 'SA' DENOTES SUPPLY AIR)	MOUNTED IN HVAC DUCTWORK
	FIRE ALARM OR AIR HANDLER SHUTDOWN RELAY	MOUNTED ADJACENT TO EQUIPMENT
	FIRE ALARM VISUAL SIGNAL	80" AFF OR AS NOTED
	FIRE ALARM MANUAL PULLSTATION	48" AFF OR AS NOTED
	FIRE ALARM AUDIBLE/VISUAL SIGNAL. ADA COMPATIBLE	80" AFF OR AS NOTED
	FIRE ALARM SMOKE DETECTOR	ON CEILING OR AS NOTED
	FIRE ALARM PANEL ('FAOP' DENOTES FIRE ALARM CONTROL PANEL, 'FAA' DENOTES ANNUNCIATOR)	60" AFF OR AS NOTED
	FIRE ALARM TAMPER AND FLOW SWITCH	
	FIRE ALARM HEAT DETECTOR	
	REFER TO LIKE NUMBERED NOTES	

- NOTE:
- ALL MOUNTING HEIGHTS ARE TO THE TOP OF THE DEVICE UNLESS NOTED OTHERWISE.
  - NOT ALL SYMBOLS APPEAR ON PLANS.

### ELECTRICAL GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, NATIONAL ELECTRIC CODE, CITY OF TAMPA STANDARDS, NFPA CODES, AND ALL LOCAL ORDINANCES LATEST EDITIONS.
- THE WORK, APPARATUS AND MATERIALS, WHICH SHALL BE FURNISHED UNDER THE SPECIFICATIONS AND ACCOMPANYING DRAWINGS, SHALL INCLUDE ALL ITEMS SPECIFIED HEREINAFTER AND SHOWN ON THE DRAWINGS. ALL OTHER MATERIALS NECESSARY FOR THE COMPLETE INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR TO PROVIDE COMPLETE ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
- THE CONTRACTOR SHALL EXTEND THE SERVICE FROM THE POINT OF SERVICE ATTACHMENT FURNISHING ALL PROTECTIVE DEVICES, CONDUCTORS, SUPPORTS, RACEWAYS, ETC. TO PROVIDE COMPLETE INTERIOR ELECTRICAL SYSTEMS TO SERVE MOTOR LOADS, LIGHTING LOADS AND MISCELLANEOUS ELECTRICAL LOADS, AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREINAFTER. THE WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING AT THE COMPLETION OF THE WORK AND MAKING ANY MINOR CONNECTION CHANGES OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT. ALL WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY AND NO SUBSTANDARD WORK WILL BE ACCEPTED.
- CONTRACTOR SHALL PAY FOR ALL FEES FOR INSPECTIONS AND TESTING.
- ALL REQUIRED INSURANCE TO BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OF PROPERTY DAMAGE FOR DURATION OF THE WORK.
- ELECTRICAL INSTALLATION TO MEET ALL STANDARD REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE COMPANIES. ELECTRICAL CONTRACTOR SHALL CONTACT LOCAL POWER AND TELEPHONE COMPANY PRIOR TO BID AND START OF CONSTRUCTION.
- THE CONTRACTOR SHALL MEET AND COORDINATE WITH THE LOCAL POWER COMPANY AT THE SITE PRIOR TO CONSTRUCTION. AT THAT TIME, THE CONTRACTOR SHALL COORDINATE ALL RELATED WORK WITH THE UTILITY COMPANY'S RESPONSIBILITIES TO MEET THE OWNER'S SCHEDULE.
- IN GENERAL, MATERIALS AND APPARATUS SHALL COMPLY WITH ALL APPLICABLE TESTS, RATINGS, SPECIFICATIONS, AND REQUIREMENTS OF THE IEEE AND NEMA AND SHALL BEAR THE APPROVED DEVICE LABEL OF THE UNDERWRITERS' LABORATORIES, INC. OR OTHER TESTING LABORATORY APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION. CONTRACTOR SHALL RECTIFY ANY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM WITHIN SAID PERIOD. THE OWNER WILL GIVE NOTICE OF DEFECTS WITH REASONABLE PROMPTNESS.
- BIDDERS ARE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH EXISTING SITE CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF WORK. THE SUBMISSION OF A BID WILL BE EVIDENCED THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED, OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD AN EXAMINATION BEEN MADE, WILL NOT BE ALLOWED.
- ELECTRICAL CONTRACTOR SHALL BE EXPERIENCED IN PERFORMING AND INSTALLING OF WORK SIMILAR TO THAT REQUIRED FOR THIS PROJECT.
- THE CONTRACTOR SHALL INCLUDE WITHIN THE BID ALL REQUIRED OFF HOUR, OVERTIME, AND NON-BUSINESS HOUR WORK AS REQUIRED TO PERFORM THE WORK.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES FOR ITEMS IN THEIR SCOPE OF WORK WHICH WOULD REQUIRE ELECTRICAL WORK (DISCONNECTION/RECONNECTION ETC.) AND NOT INDICATED ON THE ELECTRICAL PLANS. ALL SUBCONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH OTHER TRADES. LACK OF THIS COORDINATION RESULTING ADDED COST TO THE CONTRACT WILL BE BORNE BY THE SUBCONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND SUBMITTALS FOR ELECTRICAL EQUIPMENT SHOWN ON THE PLANS AND SPECIFICATIONS FOR THE ENGINEERS APPROVAL. THE ENGINEER MAY REQUIRE THE CONTRACTOR TO REDO ANY WORK, WHICH WAS NOT APPROVED OR THE ENGINEER MAY REQUIRE A CREDIT TO THE OWNER. PROVIDE A COPY OF AS-BUILT AFTER THE JOB IS COMPLETED. THIS SET SHALL BE CONTINUOUSLY UPDATED DURING CONSTRUCTION.
- PROVIDE IDENTIFICATION FOR ALL LIGHT FIXTURES AND ALL ELECTRICAL COVER PLATES WITH PERMANENT MARKER ON A SELF-ADHERING TAG INDICATING PANEL AND CIRCUIT NUMBER. TYPICAL FOR ALL LIGHTING AND POWER DEVICES.
- ALL WIRING IN CEILING SPACE OR IN AIR HANDLING PLenums NOT IN CONDUIT SHALL BE UL LISTED AS SUITABLE FOR PLENUM USE.
- REFER TO RISER DIAGRAM FOR FEEDER SIZES FOR PANELBOARDS.
- OVER CURRENT PROTECTION, WIRE SIZE, AND NUMBER OF CONNECTION POINTS FOR MECHANICAL HVAC EQUIPMENT IS FORTHEM SPECIFIED. COORDINATE WITH MECHANICAL CONTRACTOR AND MAKE NECESSARY CHANGES PRIOR TO INSTALLATION FOR ACTUAL EQUIPMENT FURNISHED AT NO COST TO OWNER. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT. REFER TO HVAC ELECTRICAL SCHEDULE FOR WIRING INFORMATION.
- PROVIDE ALL FLASH LABELING FOR ALL ELECTRICAL EQUIPMENT (SWITCHBOARD, CONTROL BOARD, DISCONNECT SWITCHES, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTER) PER NFPA 70E.
- ALL JUNCTION BOXES AND COVER PLATES SHALL BE PAINTED AND LABELED.
- RECEPTACLES WITHIN (6) FEET OF PLUMBING FIXTURES SHALL BE PROVIDED WITH 5 AMP GROUND FAULT INTERRUPTERS.
- EDGE OF LIGHT SWITCH WALL PLATE SHALL BE NOT MORE THAN 4" AWAY FROM METAL/WOOD DOOR FRAME. TYPICAL FOR SINGLE OR MULTIPLE WALL SWITCHES.
- CONFIRM MOUNTING HEIGHTS AND COORDINATE LOCATION OF ALL OUTLETS, SWITCHES, AND OTHER DEVICES WITH OWNER PRIOR TO ROUGH-IN.
- PROVIDE SEAL FOR PENETRATION OF FIRE RATED WALLS/CEILINGS BY CONDUIT.
- BACK TO BACK RECEPTACLES IN ALL ONE HOUR FIRE RATED WALLS SHALL BE LOCATED A MINIMUM OF 24" ON CENTER.
- BRANCH CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN NO. 12 AND WHERE BRANCH CIRCUIT CONDUCTOR RUNS FROM SOURCE (PANEL) TO THE LAST DEVICE ON THE CIRCUIT EXCEEDS 75 FT. IN LENGTH, THE CONDUCTORS SHALL BE NO. 10 MINIMUM AND FOR THE ENTIRE LENGTH OF THE CIRCUIT. FOR RUNS OVER 150 FT. IN LENGTH THE CONDUCTOR SHALL BE NO. 8 MINIMUM AND FOR THE ENTIRE LENGTH OF THE CIRCUIT. THE ABOVE APPLIES TO 120 VOLT CIRCUITS ONLY.
- REFER TO ELECTRICAL SPECIFICATIONS PROVIDED IN BOOK FORMAT - SECTION 16.
- UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL INSURE THAT ALL SYSTEMS OPERATE AS DESIGNED AND REQUIRED AND SHALL REVIEW THEIR OPERATION WITH THE OWNER AND PROVIDE TRAINING OF THE MAINTENANCE PERSONNEL.
- THE CONTRACTOR SHALL STRICTLY CONFORM TO THE NEC REQUIREMENTS FOR DE-RATING FOR CONDUCTOR CAPACITY AND CONDUIT FILL.
- MINIMUM CONDUIT SIZE SHALL BE 3/4" C.
- THIS CONTRACTOR SHALL PROVIDE AUTOCAD AS-BUILT DRAWINGS (PLOTTED VELLUMS) AND COPIES OF EACH AUTOCAD FILE ON COMPACT DISC (CD) TO OWNER.
- PROVIDE FIRE ALARM SYSTEM IN ACCORDANCE WITH DRAWINGS AND APPLICABLE CODES. PROVIDE CONDUIT AND WIRING IN ACCORDANCE WITH MANUFACTURER'S APPROVED SHOP DRAWINGS. PROVIDE WRITTEN CERTIFICATION FROM MANUFACTURER'S REPRESENTATIVE THAT THE SYSTEM IS FULLY OPERATIONAL AND HAS BEEN CHECKED OUT THOROUGHLY BY A FACTORY TRAINED REPRESENTATIVE. THE CHECK-OUT PROCEDURES SHALL BE AS RECOMMENDED BY THE MANUFACTURER. FORMAL TRAINING OF THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE PERFORMED AND A LETTER CERTIFYING THAT THIS WAS PERFORMED SHALL BE SUBMITTED WITH THE AS-BUILT DRAWINGS. REFER TO FIRE ALARM NOTES ON ELECTRICAL SYSTEM PLAN.

ALL MATERIAL DEVICES, AND EQUIPMENT MUST COMPLY WITH BUY AMERICAN REQUIREMENTS OF AMERICAN RECOVERY & REINVESTMENT ACT.

### ABBREVIATIONS:

AF - ABOVE FINISHED FLOOR	HVAC - HEATING, VENTILATING, A/C
AHU - AIR HANDLING UNIT	JB - JUNCTION BOX
BFG - BELOW FINISHED GRADE	LRA - LOCKED ROTOR AMPERES
C - CONDUIT	MCB - MAIN CIRCUIT BREAKER
CW - COOL WHITE	MLO - MAIN LUGS ONLY
DACP - DOOR ALARM CONTROL PANEL	N - NEUTRAL
DN - DOWN	NL - NIGHT LIGHT
EF - EXHAUST FAN	OB - OUTLET BOX
EG - EQUIPMENT GROUND	PB - PULL BOX, PUSH BUTTON
ENCL - ENCLOSURE	PS - PAY STATION
EW - ELECTRIC WATER COOLER	SP - SUPPLY FAN
EW - ELECTRIC WATER HEATER	SPEC - SPECIFICATIONS
WX - EXPLOSION PROOF	TL - TWISTLOCK
FCU - FAN COIL UNIT	TVB - TELEPHONE TERMINAL BOARD
FHP - FRACTIONAL HORSE POWER	UNO - UNLESS NOTED OTHERWISE
FLA - FULL LOAD AMPERES	TVTB - TELEVISION TERMINAL BOARD
G - GROUND	UNO - UNLESS NOTED OTHERWISE
GFI - GROUND FAULT INTERRUPTER	VERT - VERTICAL
HID - HIGH INTENSITY DISCHARGE	WM - WATT METER
HORIZ - HORIZONTAL	WP - WEATHERPROOF
IG - ISOLATED GROUND	W - WARM WHITE
LW - LIGHT WHITE	WR - WIRE
HP - HORSEPOWER	HEAT PUMP

### NATIONAL ELECTRIC CODE NOTES:

ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF NFPA 70 - 2008 NATIONAL ELECTRIC CODE

### FIRE ALARM GENERAL NOTES:

- FIRE ALARM WORK SHALL BE AWARDED TO ELECTRICAL/FIRE ALARM CONTRACTOR.
- THE FIRE ALARM SYSTEM SHALL COMPLY WITH NFPA-101; NFPA-72 AND NFPA-70.
- ALL FIRE ALARM WORK SHALL BE DONE BY A LICENSED FIRE ALARM CONTRACTOR WITH SEPARATE PLANS.

### ELECTRICAL SUBMITTAL NOTES:

SUBMIT ALL ELECTRICAL AND FIRE ALARM SYSTEMS SUBMITTALS AT ONE (1) TIME IN ONE (1) INTEGRAL GROUP. PIECE-BY-PIECE SUBMISSION OF INDIVIDUAL ITEMS WILL NOT BE ACCEPTABLE. ENGINEER MAY CHECK CONTENTS OF EACH SUBMITTAL SET UPON INITIAL DELIVERY; IF NOT COMPLETE AS SET FORTH HEREIN, SUBMITTAL SETS MAY BE RETURNED TO CONTRACTOR WITHOUT REVIEW AND APPROVAL AND WILL NOT BE ACCEPTED UNTIL MADE COMPLETE. SHOP DRAWINGS WILL BE REVIEWED MAXIMUM TWICE AS PART OF THIS CONTRACT. ADDITIONAL SHOP DRAWING REVIEWS SHALL BE INVOICED AT \$85.00 PER HOUR, BILLABLE TO THE SUB-CONTRACTOR.

### LIGHTNING PROTECTION GENERAL NOTES:

PROVIDE COMPLETE MASTER LABEL UL LISTED, LPI CERTIFIED LIGHTNING PROTECTION SYSTEM IN FULL COMPLIANCE WITH THE LATEST EDITION OF NFPA 780. SUBMIT COMPLETE SHOP DRAWINGS TO SHOWING ROOF LAYOUT, DOWN LOCATIONS, GROUND ROD LOCATIONS, ETC. AND ALL CONNECTION DETAILS TO OWNER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PERFORM ALL REQUIRED RESISTANCE AND CONTINUITY TESTING AFTER INSTALLATION IS COMPLETE.

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CITY OF TAMPA  
CONTRACT ADMINISTRATION  
DEPARTMENT  
PLANNING AND DESIGN DIVISION  
105 E. JACKSON STREET 4 NORTH  
TAMPA, FLORIDA 33602  
p: 813. 274. 8456 - f: 813. 274. 8080  
url: www.tampagov.net

James E. Jackson, Jr. AIA, NOMA  
City Architect  
Edward D. Rice, AIA  
Project Architect  
Kevin L. Henka, AIA  
Project Architect  
Thomas A. Hester, Sr., AIA, NOMA  
Project Architect  
David R. Pagitt  
Supervisor, Architectural Drafting  
Kinsey C. Tillman  
Drafting Technician  
Jerry P. Sanders  
Drafting Technician  
Byron K. Thomas, LEED AP  
Drafting Technician

MEP CONSULTANT  
GRINER ENGINEERING, INC.  
1628 1st. AVENUE NORTH  
ST. PETERSBURG, FL 33713

STRUCTURAL CONSULTANT  
BILLER REINHART  
STRUCTURAL GROUP, INC.  
4014 GUNN HWY. SUITE 240  
TAMPA, FL 33713

CIVIL CONSULTANT  
B M CIVIL LLC  
12315 WYCLIFF PLACE  
TAMPA, FL 33626

LANDSCAPE CONSULTANT  
DAVID CONNER & ASSOCIATES  
1505 W. SWANN AVENUE SUITE 255  
TAMPA, FL 33606

FIRE STATION 23  
20770 TROUT CREEK DR.  
TAMPA, FL 33647

DPW FILE NUMBER

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DRAWN BY

REVISIONS

SEAL

Jose A Rosario, P.E. FL. 74457

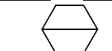
SCALE: N.T.S.

ELECTRICAL COVER SHEET

SHEET NUMBER

E0.1

X OF X



GRINER ENGINEERING, INC.  
1628 First Avenue North  
St. Petersburg, Florida 33713  
Phone: (727)-822-2335  
Fax: (727)-821-3361  
Certificate of Authorization #3173

Date	06-15-2017
Drawn	HH
Designed	HH
EOR	JAR
Job no.	17049